

5/2 пневмораспределитель с прямым электромагнитным управлением

VK3120

M5, G1/8

- Компактная конструкция
- Высокое быстродействие

Технические характеристики

Среда	Очищенный сжатый воздух с содержанием масла или без него.	
Рабочий диапазон давления (МПа)	0 – 0.7	
Рабочая температура (°C)	макс. 50	
Время срабатывания (мс)	<10	
Макс. частота срабатывания (Гц)	10	
Вспомогательное ручное управление	Не блокируется	
Монтажное положение	Произвольное	
Электрический подвод	DIM-разъём	
Напряжение*	24 V DC, 220 V AC	
Допуск по напряжению	±10%	
Потребляемая мощность	Вт, DC	4
	ВА, AC	При срабатывании: 9.5; при удержании: 7
Степень защиты	IP65	
Класс изоляции	В	
Искрогашение	См. ответную часть разъема, стр. 173	
Индикатор рабочего состояния	См. ответную часть разъема, стр. 173	



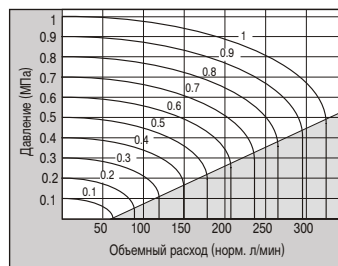
* Другие напряжения по запросу

Номер для заказа*

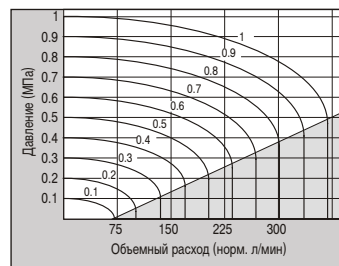
Конструктивное исполнение	Номер для заказа		Принцип действия	Условное обозначение	Присоед. резьба	Расход (л/мин)	Вес (г)
	24 V DC	220 V AC					
Монтаж самостоятельно или на многосекционной плите	VK3120-5DO-M5	VK3120-4DO-M5	5/2 с пружинным возвратом в исходное положение		M5	147	90
	EVK3120-5DO-01F	EVK3120-4DO-01F					

Характеристики расхода

M5

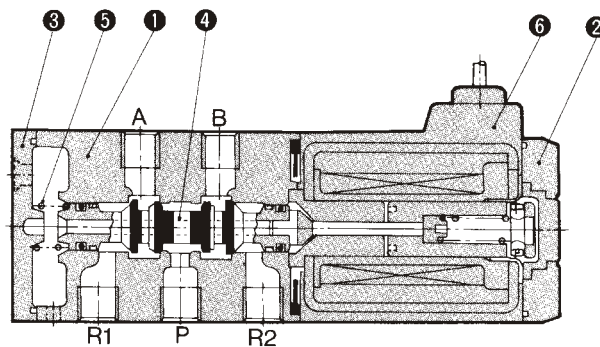


G1/8



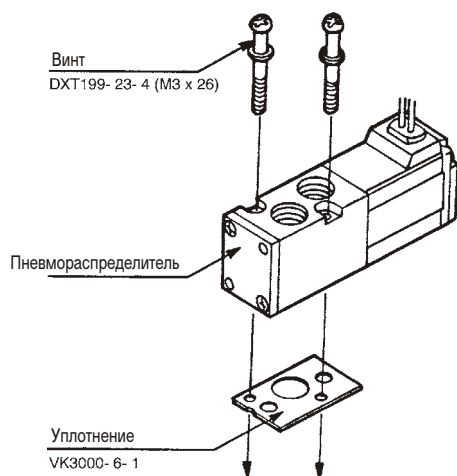
Спецификация

Поз.	Обозначение	Материал
1	Корпус пневмораспределителя	Алюминий
2	Крышка	—
3	Концевая пластина	—
4	Золотник	—
5	Пружина	Сталь нержавеющая
6	Катушка	—

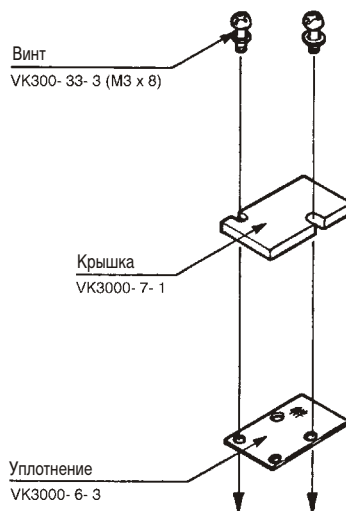


Монтаж

Пневмораспределителя на присоединительной плите для общего монтажа

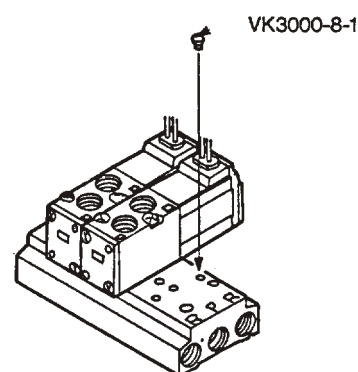


Крышка на присоединительной плите для заглушения свободного места под пневмораспределитель



Заглушка

Обеспечивается возможность монтажа 3/2 пневмораспределителя VK332 на плите под пневмораспределителем VK3120.



Запасные части

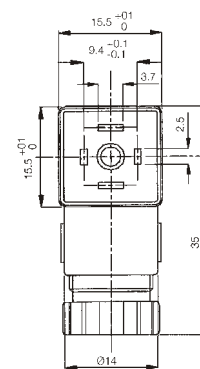
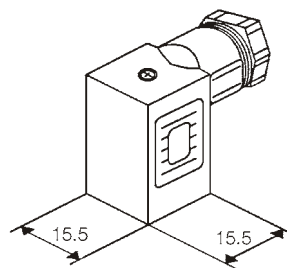
Обозначение	Номер для заказа
Комплект, состоящий из уплотнения между пневмораспределителем и присоединительной плитой и крепежных винтов пневмораспределителя	VK3000-6-1A

Принадлежности

Обозначение	Номер для заказа
Крышка с уплотнением и винтами	VK3000-7-1A
Заглушка для монтажа пневмораспределителя VK332	VK3000-8-1

Номер для заказа ответных частей разъема (заказываются отдельно)

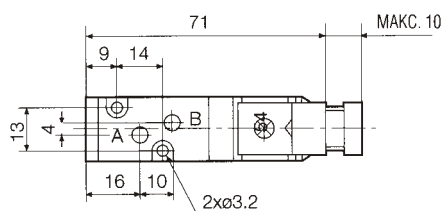
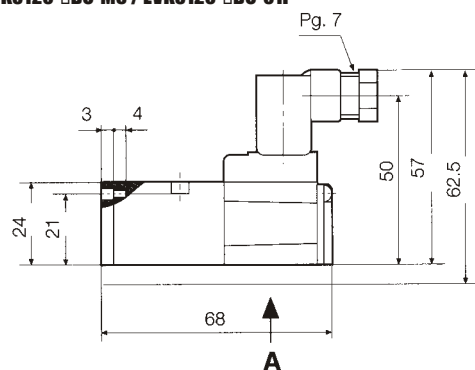
Номер для заказа		Описание
24 V DC	220 V AC	
K31		Без индикатора рабочего состояния и искрогашения
K33	K32	С индикатором рабочего состояния и искрогашением



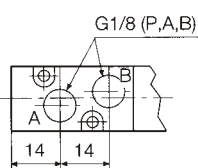
5/2 пневмораспределитель с прямым электромагнитным управлением VK3120

Размеры

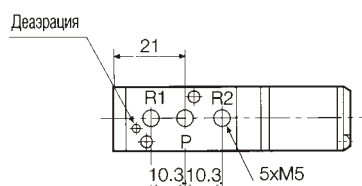
VK3120-□D0-M5 / EVK3120-□D0-01F



Вариант исполнения
пневмораспределителя с G1/8



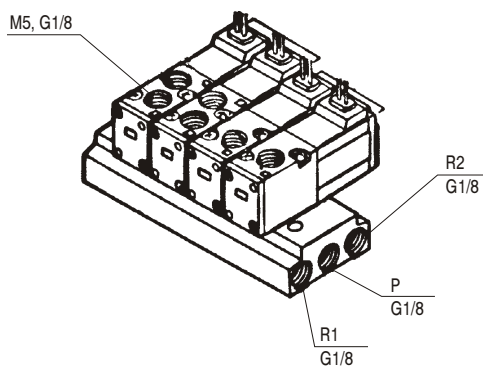
Вид А



Тип	Подводы				
	A	B	P	R1	R2
M5	M5	M5	M5	M5	M5
G1/8	G1/8	G1/8	G1/8	M5	M5

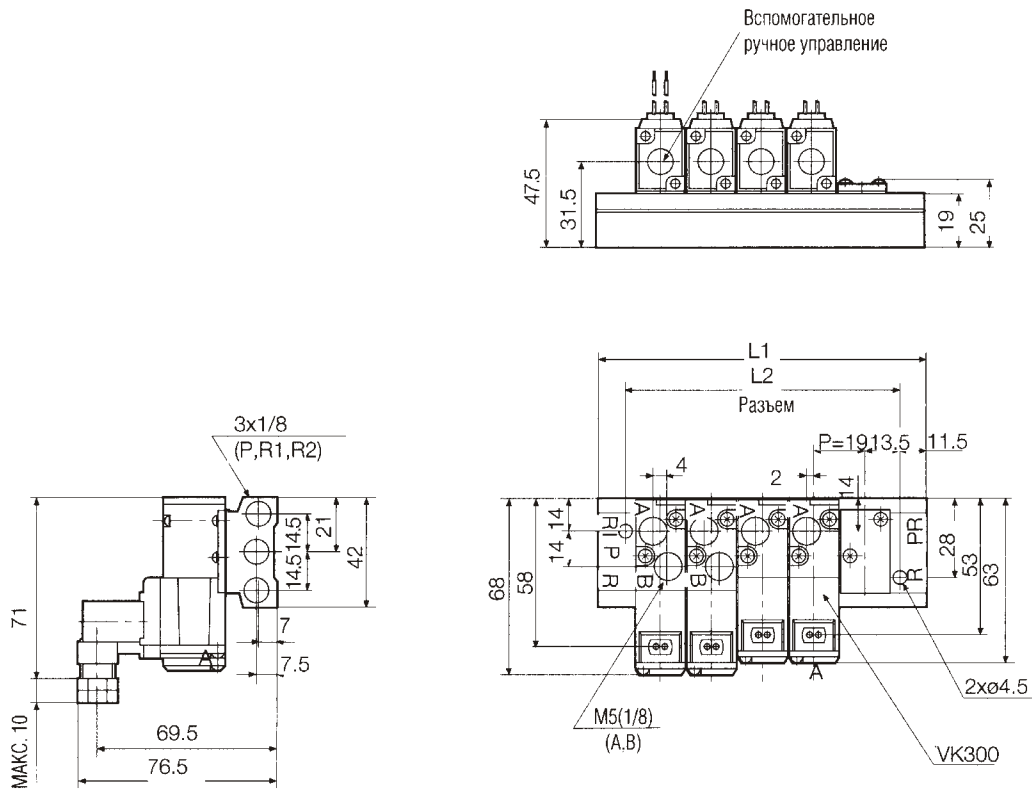
Данные по заказу многосекционной присоединительной плиты

Количество секций	Номер для заказа
3	EVV5K3-20-03-00F
4	EVV5K3-20-04-00F
5	EVV5K3-20-05-00F
6	EVV5K3-20-06-00F
7	EVV5K3-20-07-00F
8	EVV5K3-20-08-00F
9	EVV5K3-20-09-00F
10	EVV5K3-20-10-00F
11	EVV5K3-20-11-00F
12	EVV5K3-20-12-00F
13	EVV5K3-20-13-00F
14	EVV5K3-20-14-00F
15	EVV5K3-20-15-00F
16	EVV5K3-20-16-00F
17	EVV5K3-20-17-00F
18	EVV5K3-20-18-00F
19	EVV5K3-20-19-00F
20	EVV5K3-20-20-00F



Винты и уплотнительные элементы для монтажа на присоединительных плитах поставляются вместе с присоединительными плитами.

Многосекционная плита / размеры



Кол-во секций	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
L1	73	92	111	130	149	168	187	206	225	244	263	282	301	320	339	358	377	396	
L2	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388	
L3	51	70	89	108	127	146	165	184	203	222	241	260	279	298	317	336	355	374	

Компания SMC сохраняет за собой право на внесение технических и размерных изменений

5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

M5 ~ G1/2; $\varnothing 4 \sim \varnothing 12$

- Компактная конструкция
- Низкая потребляемая мощность 0.1 Вт (энергосберегающее исполнение)
- Высокая скорость срабатывания – менее 10 мс (для 5/2 с двусторонним управлением)
- Высокая пропускная способность
- Ресурс – не менее 50 млн. циклов

Технические характеристики

Серия		SY3000	SY5000	SY7000	SY9000
Среда		Очищенный сжатый воздух с содержанием масла или без него			
Тип управления		Электропневматическое управление			
Рабочий диапазон давлений (МПа)	5/2 с одностор. управлением	0.15 ~ 0.7			
	5/2 с двустор. управлением	0.1 ~ 0.7			
	5/3	0.2 ~ 0.7			
Диапазон рабочих температур (°C)		-10 ~ 50			
Время срабатывания (мс)	5/2 одностор. упр.	<12	<18	<33	<35
	5/2 двустор. Упр.	<10	<18	<28	<35
	5/3	<16	<32	<50	<62
Частота срабатывания (Гц)	5/2 с одно/двустор. управлением	10	5		
	5/3	3	3		
Вспомогательное ручное управление		Не блокируется			
Монтажное положение		Произвольное			
Электрический разъем		2-х клеммный	2-х клеммный; DIN-разъем		
Напряжение		24 V DC 220 V AC			
Допуск по напряжению		+10% от номинального значения			
Потребляемая мощность (Вт)	DC	0.4; 0.45 (для DIN-разъёма с индикатором); 0.1 (энергосберегающее исполнение)			
	AC	2.6			
Степень защиты		IP40	IP40 (IP65 – DIN-разъем)		
Класс изоляции		B			
Искрогашение		Стандартное исполнение			
Индикатор рабочего состояния		Стандартное исполнение (для DIN-разъёма – по запросу, стр. 180)			



SY3000



SY5000



SY7000



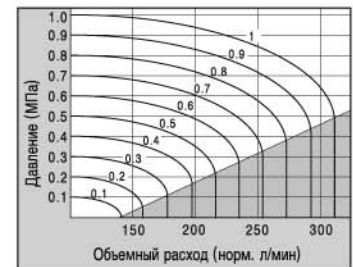
SY9000

Номер для заказа / Характеристики расхода

Номер для заказа SY3000

Конструктивное исполнение	Номер для заказа*	Принцип действия	Условное обозначение	Присоед. размер**	Расход (л/мин)	Вес (г)
Самостоят. монтаж или монтаж на плите пневмораспределителей	SY3120-5LOU-C4-Q	5/2 с односторонним управлением		C4	187	61
	SY3120-5LOU-C6-Q			C6	196	57
	SY3120-5LOU-M5-Q			M5		51
	SY3220-5LOU-C4-Q	5/2 с двусторонним управлением		C4	187	79
	SY3220-5LOU-C6-Q			C6	196	75
	SY3220-5LOU-M5-Q			M5		70
	SY3320-5LOU-C4-Q	5/3 в среднем положении закрыт		C4	187	82
	SY3320-5LOU-C6-Q			C6	196	78
	SY3320-5LOU-M5-Q			M5		72
	SY3420-5LOU-C4-Q	5/3 в среднем положении открыт		C4	187	82
	SY3420-5LOU-C6-Q			C6	206	78
	SY3420-5LOU-M5-Q			M5		72
SY3520-5LOU-C4-Q	5/3 в среднем положении под давлением		C4	196	72	
SY3520-5LOU-C6-Q			C6	215	78	
SY3520-5LOU-M5-Q			M5		72	

SY3000



Ответные части разъемов заказываются отдельно (см. стр. XXX)

* С напряжением питания 220 V AC поставляются по запросу.

** "C" – быстроразъемное соединение, например "C4" – $\varnothing 4$ мм.

Номер для заказа / Характеристики расхода

Номер для заказа SY5000

Конструктивное исполнение:

Монтаж в качестве индивидуального пневмораспределителя или на плате пневмораспределителей

Номер для заказа			Принцип действия	Условное обозначение	Присоед. размер * цил. А, В	Расход (норм. л/мин)	Вес (г) разъем с кабелем/ DIN-разъем
24 V DC	220 V AC						
Разъем с кабелем	DIN-разъем	DIN-разъем					
SY5120-5LOU-C6F-Q	SY5120-5YO-C6F-Q	SY5120-4YO-C6F-Q	5/2 с односторонним управлением		C6	491	89/112
SY5120-5LOU-C8F-Q	SY5120-5YO-C8F-Q	SY5120-4YO-C8F-Q			C8	500	80/103
SY5120-5LOU-01F-Q	SY5120-5YO-01F-Q	SY5120-4YO-01F-Q			G1/8		70/93
SY5220-5LOU-C6F-Q	SY5220-5YO-C6F-Q	SY5220-4YO-C6F-Q	5/2 с двусторонним управлением		C6	491	99/145
SY5220-5LOU-C8F-Q	SY5220-5YO-C8F-Q	SY5220-4YO-C8F-Q			C8	500	99/145
SY5220-5LOU-01F-Q	SY5220-5YO-01F-Q	SY5220-4YO-01F-Q			G1/8		89/135
SY5320-5LOU-C6F-Q	SY5320-5YO-C6F-Q	SY5320-4YO-C6F-Q	5/3 в среднем положении закрыт		C6	393	112/158
SY5320-5LOU-C8F-Q	SY5320-5YO-C8F-Q	SY5320-4YO-C8F-Q			C8	402	104/150
SY5320-5LOU-01F-Q	SY5320-5YO-01F-Q	SY5320-4YO-01F-Q			G1/8		94/140
SY5420-5LOU-C6F-Q	SY5420-5YO-C6F-Q	SY5420-4YO-C6F-Q	5/3 в среднем положении открыт		C6	402	112/158
SY5420-5LOU-C8F-Q	SY5420-5YO-C8F-Q	SY5420-4YO-C8F-Q			C8		104/150
SY5420-5LOU-01F-Q	SY5420-5YO-01F-Q	SY5420-4YO-01F-Q			G1/8		94/140
SY5520-5LOU-C6F-Q	SY5520-5YO-C6F-Q	SY5520-4YO-C6F-Q	5/3 в среднем положении под давлением		C6	392	112/158
SY5520-5LOU-C8F-Q	SY5520-5YO-C8F-Q	SY5520-4YO-C8F-Q			C8	579	104/150
SY5520-5LOU-01F-Q	SY5520-5YO-01F-Q	SY5520-4YO-01F-Q			G1/8		94/140

* "С" – быстроразъемное соединение, например "С6" – ø6 мм.

Ответные части разъемов заказываются отдельно (см. стр. 180)

Номер для заказа SY7000

Конструктивное исполнение:

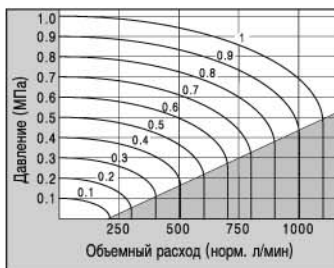
Монтаж в качестве индивидуального пневмораспределителя или на плате пневмораспределителей

Номер для заказа			Принцип действия	Условное обозначение	Присоед. размер * А, В	Расход (норм. л/мин)	Вес (г) разъем с кабелем/ DIN-разъем
24 V DC	220 V AC						
Разъем с кабелем	DIN-разъем	DIN-разъем					
SY7120-5LOU-C8F-Q	SY7120-5YO-C8F-Q	SY7120-4YO-C8F-Q	5/2 с односторонним управлением		C8	756	108/131
SY7120-5LOU-C10F-Q	SY7120-5YO-C10F-Q	SY7120-4YO-C10F-Q			C10	864	103/126
SY7120-5LOU-02F-Q	SY7120-5YO-02F-Q	SY7120-4YO-02F-Q			G1/4	883	102/125
SY7220-5LOU-C8F-Q	SY7220-5YO-C8F-Q	SY7220-4YO-C8F-Q	5/2 с двусторонним управлением		C8	756	128/174
SY7220-5LOU-C10F-Q	SY7220-5YO-C10F-Q	SY7220-4YO-C10F-Q			C10	864	123/169
SY7220-5LOU-02F-Q	SY7220-5YO-02F-Q	SY7220-4YO-02F-Q			G1/4	883	121/167
SY7320-5LOU-C8F-Q	SY7320-5YO-C8F-Q	SY7320-4YO-C8F-Q	5/3 в среднем положении закрыт		C8	628	136/182
SY7320-5LOU-C10F-Q	SY7320-5YO-C10F-Q	SY7320-4YO-C10F-Q			C10	668	131/177
SY7320-5LOU-02F-Q	SY7320-5YO-02F-Q	SY7320-4YO-02F-Q			G1/4	657	129/175
SY7420-5LOU-C8F-Q	SY7420-5YO-C8F-Q	SY7420-4YO-C8F-Q	5/3 в среднем положении открыт		C8	609	136/182
SY7420-5LOU-C10F-Q	SY7420-5YO-C10F-Q	SY7420-4YO-C10F-Q			C10	648	131/177
SY7420-5LOU-02F-Q	SY7420-5YO-02F-Q	SY7420-4YO-02F-Q			G1/4		129/175
SY7520-5LOU-C8F-Q	SY7520-5YO-C8F-Q	SY7520-4YO-C8F-Q	5/3 в среднем положении под давлением		C8	569	136/182
SY7520-5LOU-C10F-Q	SY7520-5YO-C10F-Q	SY7520-4YO-C10F-Q			C10	618	131/177
SY7520-5LOU-02F-Q	SY7520-5YO-02F-Q	SY7520-4YO-02F-Q			G1/4		129/175

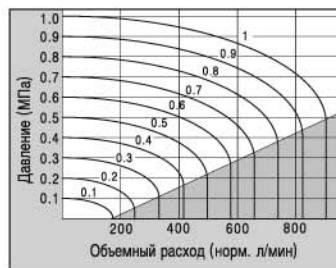
* "С" – быстроразъемное соединение, например "С8" – ø8 мм.

Ответные части разъемов заказываются отдельно (см. стр. 180)

SY5120/SY5220



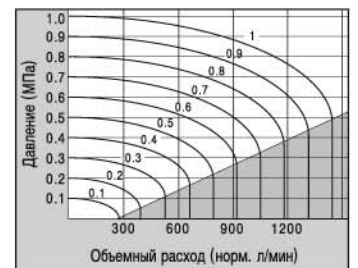
SY5320/SY5420



SY7120/SY7220



SY7320/SY7420



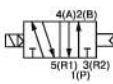

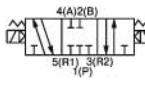

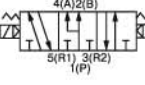
5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Номер для заказа

Номер для заказа SY9000

Конструктивное исполнение:

Монтаж в качестве индивидуального пневмораспределителя или на плите пневмораспределителей

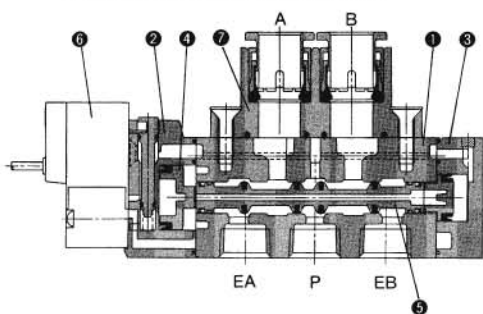
Номер для заказа			Принцип действия	Условное обозначение	Присоед. размер * цил. А, В	Расход (норм. л/мин)	Вес (г) разъем с кабелем/ DIN-разъем SY9120-
24 V DC	220 V AC	DIN-разъем					
Разъем с кабелем	DIN-разъем	DIN-разъем					
5LOU-C8F-Q	SY9120-5YO-C8F-Q	SY9120-4YO-C8F-Q	5/2 с односторонним управлением		C8	1669	296/317
SY9120-5LOU-C10F-Q	SY9120-5YO-C10F-Q	SY9120-4YO-C10F-Q			C10	1865	282/303
SY9120-5LOU-C12F-Q	SY9120-5YO-C12F-Q	SY9120-4YO-C12F-Q			C12	2159	268/289
SY9120-5LOU-02F-Q	SY9120-5YO-02F-Q	SY9120-4YO-02F-Q			G1/4	1963	244/265
SY9120-5LOU-03F-Q	SY9120-5YO-03F-Q	SY9120-4YO-03F-Q			G3/8		239/260
SY9220-5LOU-C8F-Q	SY9220-5YO-C8F-Q	SY9220-4YO-C8F-Q	5/2 с двусторонним управлением		C8	1669	318/360
SY9220-5LOU-C10F-Q	SY9220-5YO-C10F-Q	SY9220-4YO-C10F-Q			C10	1865	304/346
SY9220-5LOU-C12F-Q	SY9220-5YO-C12F-Q	SY9220-4YO-C12F-Q			C12	2159	290/332
SY9220-5LOU-02F-Q	SY9220-5YO-02F-Q	SY9220-4YO-02F-Q			G1/4	1963	266/308
SY9220-5LOU-03F-Q	SY9220-5YO-03F-Q	SY9220-4YO-03F-Q			G3/8		261/303
SY9320-5LOU-C8F-Q	SY9320-5YO-C8F-Q	SY9320-4YO-C8F-Q	5/3 в среднем положении закрыт		C8	1374	342/384
SY9320-5LOU-C10F-Q	SY9320-5YO-C10F-Q	SY9320-4YO-C10F-Q			C10	1472	328/370
SY9320-5LOU-C12F-Q	SY9320-5YO-C12F-Q	SY9320-4YO-C12F-Q			C12	1669	314/356
SY9320-5LOU-02F-Q	SY9320-5YO-02F-Q	SY9320-4YO-02F-Q			G1/4	1570	290/332
SY9320-5LOU-03F-Q	SY9320-5YO-03F-Q	SY9320-4YO-03F-Q			G3/8		285/327
SY9420-5LOU-C8F-Q	SY9420-5YO-C8F-Q	SY9420-4YO-C8F-Q	5/3 в среднем положении открыт		C8	1865	342/384
SY9420-5LOU-C10F-Q	SY9420-5YO-C10F-Q	SY9420-4YO-C10F-Q			C10	1963	328/370
SY9420-5LOU-C12F-Q	SY9420-5YO-C12F-Q	SY9420-4YO-C12F-Q			C12	2552	314/356
SY9420-5LOU-02F-Q	SY9420-5YO-02F-Q	SY9420-4YO-02F-Q			G1/4	2159	290/332
SY9420-5LOU-03F-Q	SY9420-5YO-03F-Q	SY9420-4YO-03F-Q			G3/8		285/327
SY9520-5LOU-C8F-Q	SY9520-5YO-C8F-Q	SY9520-4YO-C8F-Q	5/3 в среднем положении под давлением		C8	520	342/384
SY9520-5LOU-C10F-Q	SY9520-5YO-C10F-Q	SY9520-4YO-C10F-Q			C10	1472	328/370
SY9520-5LOU-C12F-Q	SY9520-5YO-C12F-Q	SY9520-4YO-C12F-Q			C12		314/356
SY9520-5LOU-02F-Q	SY9520-5YO-02F-Q	SY9520-4YO-02F-Q			G1/4	1374	290/332
SY9520-5LOU-03F-Q	SY9520-5YO-03F-Q	SY9520-4YO-03F-Q			G3/8	1472	285/327

* "С" – быстроразъемное соединение, например "С8" – ø8 мм.

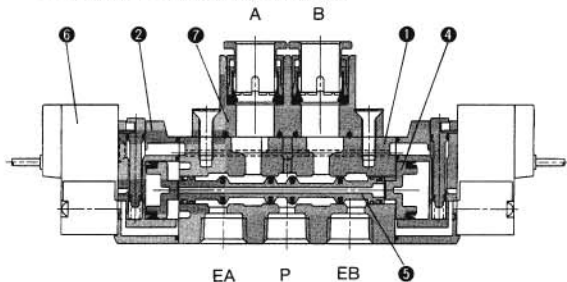
Ответные части разъемов заказываются отдельно (см. стр. 180)

Конструкция

5/2 с односторонним управлением



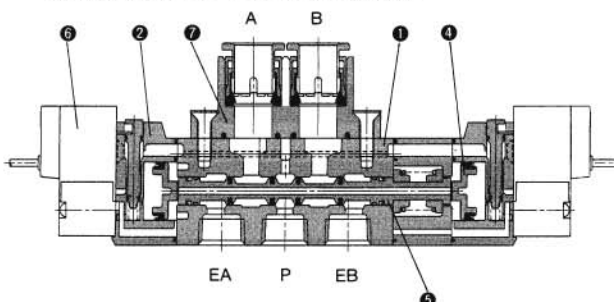
5/2 с двусторонним управлением



Спецификация

Поз.	Обозначение	Материал
1	Корпус пневмораспределителя	Алюминий
2	Промежуточная деталь	Полиацеталь
3	Концевая пластина	Алюминий
4	Поршень управления	Полиацеталь
5	Золотник	—
6	Катушка	—
7	Комплект фитинга	—

5/3 в среднем положении открыт/закрыт



Запасные части (заказываются отдельно)

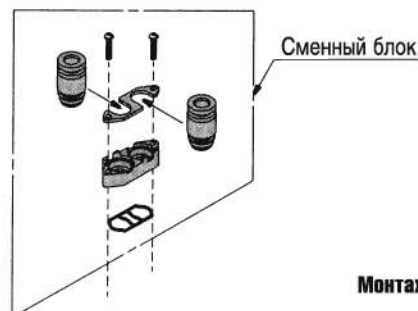
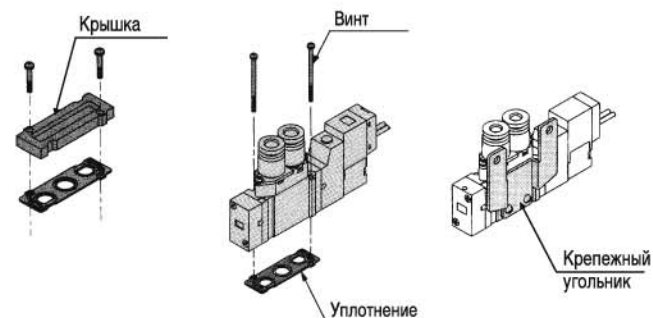
Обозначение	Тип	Номер для заказа
Комплект, состоящий из крышки, уплотнения и винтов	SY3000	SY3000-26-19A-Q
	SY5000	SY5000-26-20A-Q
	SY7000	SY7000-26-22A-Q
	SY9000	SY9000-26-1A-Q
Уплотнение	SY3000	SY3000-11-24
	SY5000	SY5000-11-15
	SY7000	SY7000-11-11
	SY9000	SY9000-11-2
Крепежный винт	SY3000	SY3000-23-4
	SY5000	M3x26
	SY7000	M4x31
	SY9000	SY9000-18-2
Крепежный угольник и винты *	SY3000	SX3000-16-1A
	SY5000	SX5000-16-1A
	SY7000	SX7000-16-1A

* крепежный угольник для SY9000 не поставляется

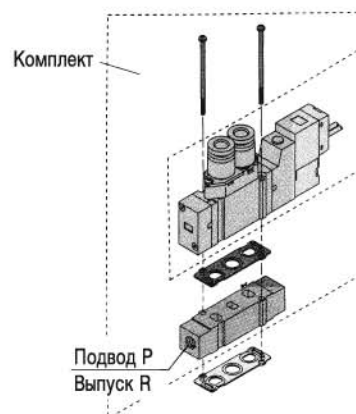
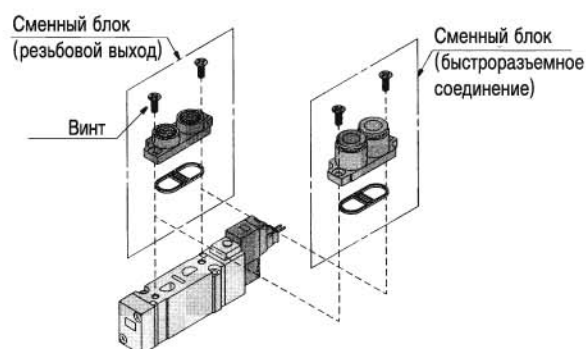
Обозначение	Тип	Присоед.	Номер для заказа
Сменный блок фитингов для выходных отверстий	SY3000	M5	SY3000-6A-M5
		C4	SY3000-6A-C4
		C6	SY3000-6A-C6
	SY5000	C6	SY5000-6A-C6
		C8	SY5000-6A-C8
		1/8	SY5000-6A-01F
	SY7000	C8	SY7000-6A-C8
		C10	SY7000-6A-C10
		1/4	SY7000-6A-02F
	SY9000	C8	SY9000-6A-C8
		C10	SY9000-6A-C10
		C12	SY9000-6A-C12
		1/4	SY9000-6A-02F
		3/8	SY9000-6A-03F

Принадлежности (заказываются отдельно)

Обозначение	Тип	Присоединительная резьба	Номер для заказа
Индивидуальный выпуск воздуха с уплотнением и винтами	SY3000	M5, двусторонний	SY3000-39-1A-Q
	SY5000	1/8, двусторонний	SY5000-39-1FA-Q
	SY7000	1/4, двусторонний	SY7000-39-1FA-Q
	SY9000	1/4, двусторонний	SY9000-39-1FA-Q
Индивидуальный подвод воздуха с уплотнением и винтами	SY3000	M5, односторонний	SY3000-38-1A-Q
	SY5000	1/8, односторонний	SY5000-38-1FA-Q
	SY7000	1/4, односторонний	SY7000-38-1FA-Q
	SY9000	1/4, односторонний	SY9000-38-1FA-Q



Монтаж на пневмораспределителе

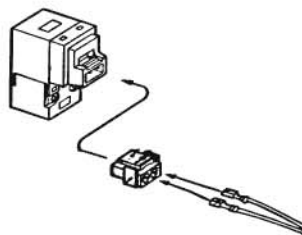


5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Ответные части разъемов (заказываются отдельно)

Ответные части разъемов

Обозначение	Тип	Длина кабеля	Номер для заказа	
			24 V DC	220 V AC
Кабель без оболочки и предохранительного колпачка	SY3000,	1000	SY100-30-4A-10	SY100-30-3A-10
	SY5000,	2000	SY100-30-4A-20	SY100-30-3A-20
	SY7000,	3000	SY100-30-4A-30	SY100-30-3A-20
Кабель с оболочкой и предохранительным колпачком	SY9000	1000	SY100-68-A-10	-
		2000	SY100-68-A-20	-
		3000	SY100-68-A-30	-



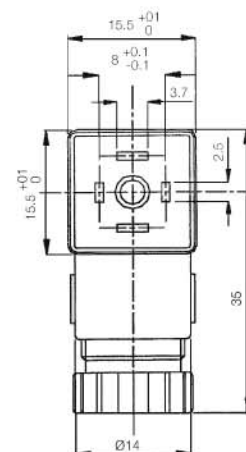
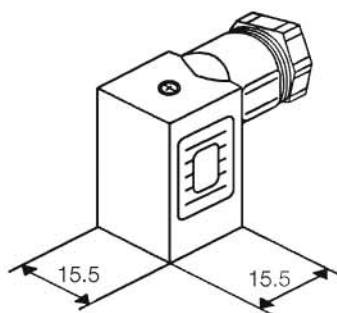
DIN-разъем

Описание	Тип	Номер для заказа	
		24 V DC	220 V AC
Без индикатора рабочего состояния, без искрогашения	SY5000, SY7000,	K41	
С индикатором рабочего состояния, с искрогашением	SY9000	K43	K44



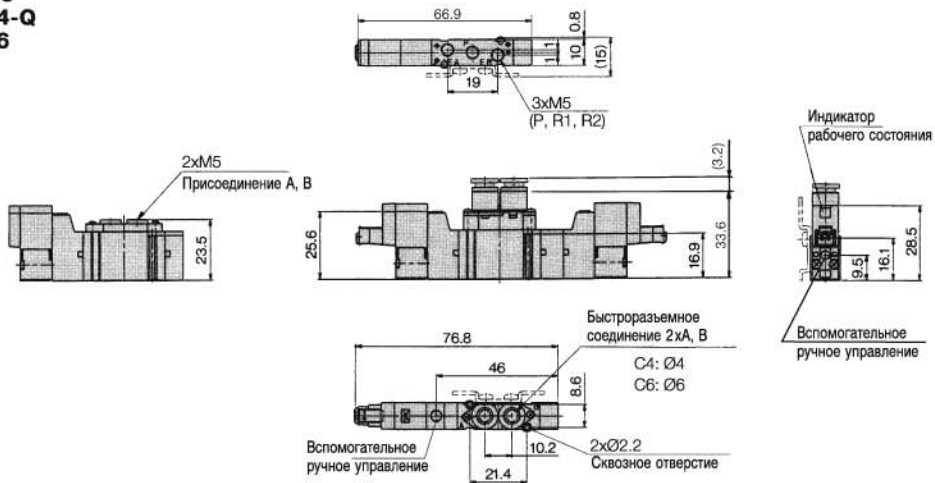
Запасной элемент включения

Тип	Напряжение	Номер для заказа	
		Разъем с кабелем	DIN-разъем
SY3000	24 V DC	SY114-5LOU-Q	-
SY5000			SY115-5Y0-Q
SY7000			
SY9000			
SY5000	220 V AC	-	SY115-4Y0-Q
SY7000			
SY9000			

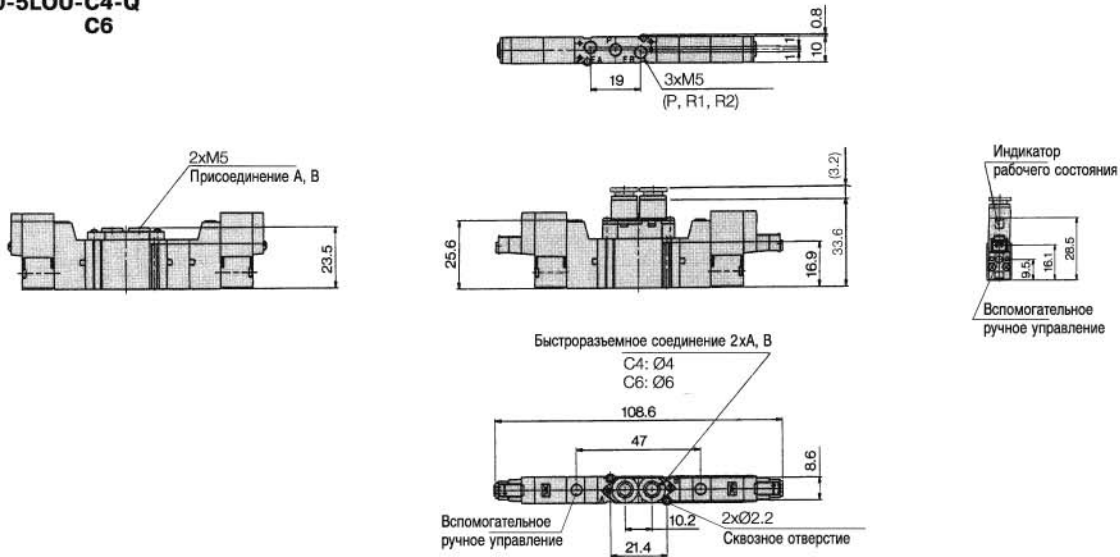


Размеры SY3000

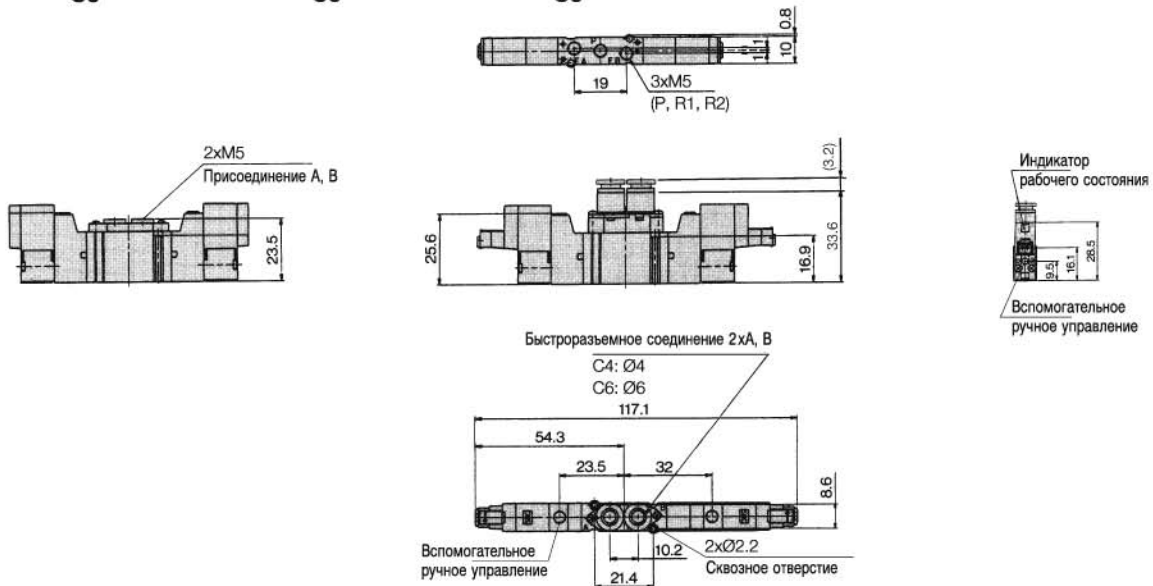
M5
SY3120-5LOU-C4-Q
C6



M5
SY3220-5LOU-C4-Q
C6

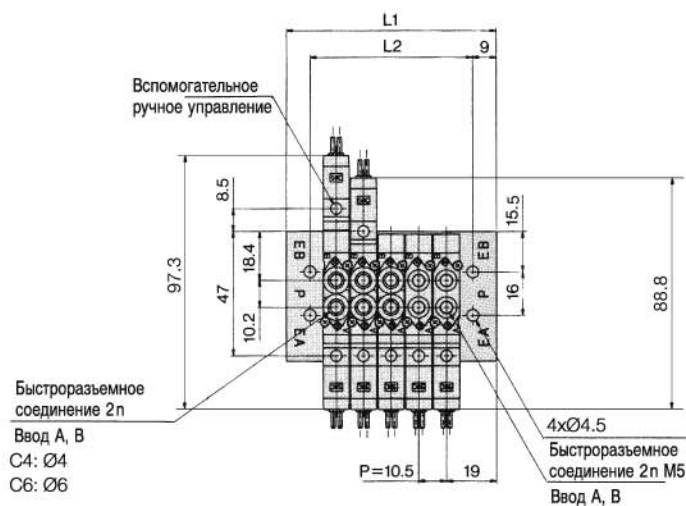
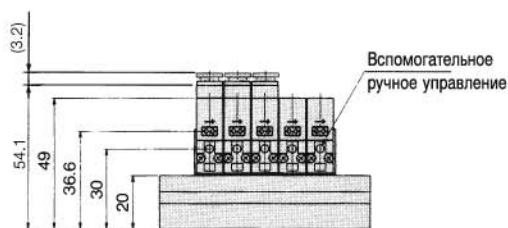
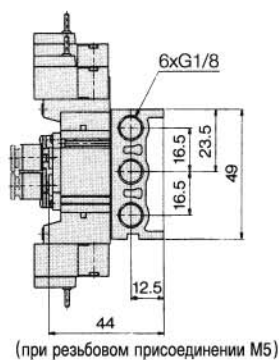
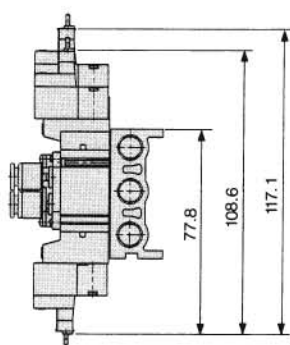


M5
SY3320-5LOU-C4-Q / SY3420-5LOU-C4-Q / SY3520-5LOU-C4-Q
C6



5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Размеры многосекционной плиты пневмораспределителей SY3000



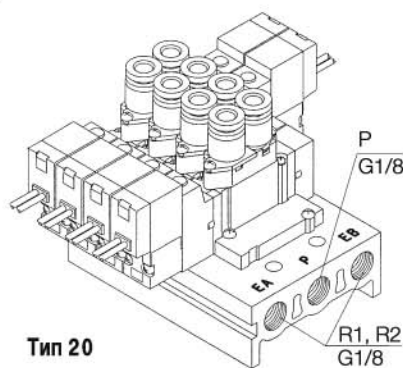
Количество секций	2	3	4	5	6	7	8	10	12
L1	48.5	59	69.5	80	90.5	101	111.5	132.5	153.5
L2	30.5	41	51.5	62	72.5	83	93.5	114.5	135.5
Вес (г)*	61	74	87	100	113	126	139	165	191

* Вес указан без учета пневмораспределителей

Номер для заказа многосекционной плиты пневмораспределителей

Количество секций	Номер для заказа
2	SS5Y3-20-02-00F-Q
3	SS5Y3-20-03-00F-Q
4	SS5Y3-20-04-00F-Q
5	SS5Y3-20-05-00F-Q
6	SS5Y3-20-06-00F-Q
7	SS5Y3-20-07-00F-Q
8	SS5Y3-20-08-00F-Q
9	SS5Y3-20-09-00F-Q
10	SS5Y3-20-10-00F-Q
11	SS5Y3-20-11-00F-Q
12	SS5Y3-20-12-00F-Q

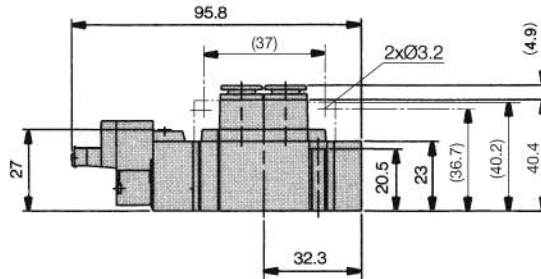
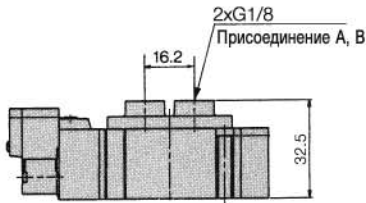
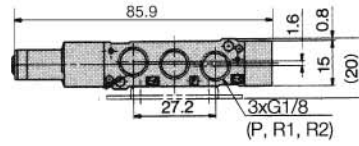
Большее количество секций по запросу (до 20 секций)



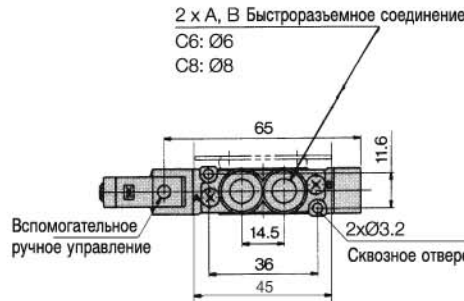
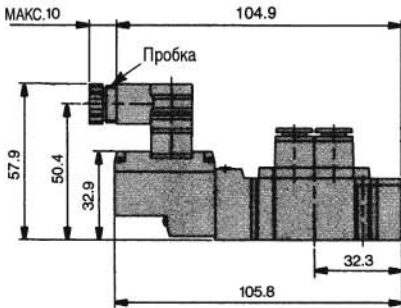
Тип 20

Размеры SY5000

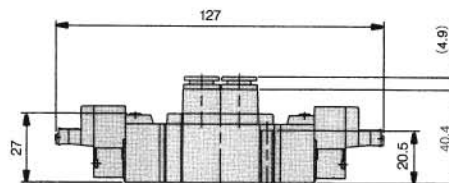
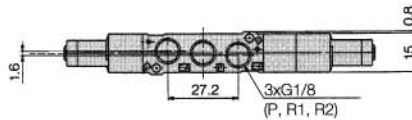
C6
SY5120-5LOU-C8-Q
01F



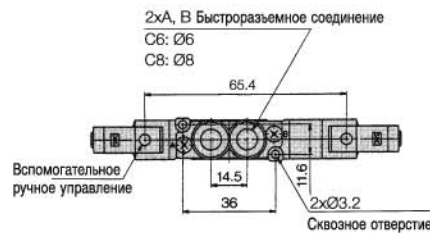
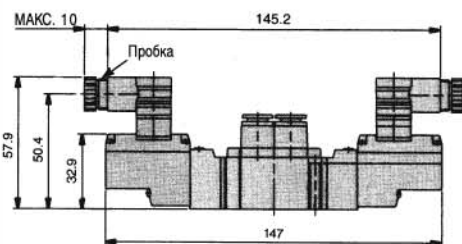
C6
SY5120-5YO-C8-Q
01F



C6
SY5220-5LOU-C8-Q
01F



C6
SY5220-5YO-C8-Q
01F



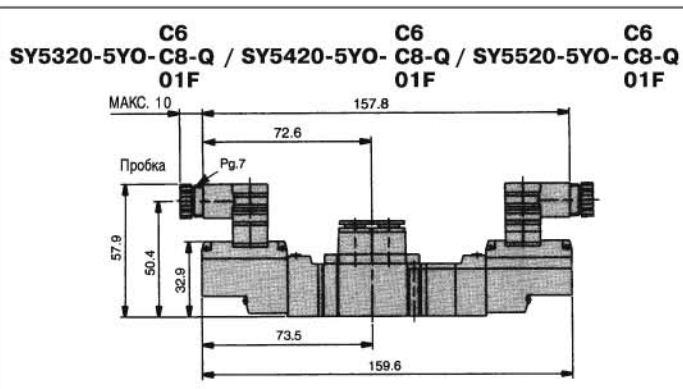
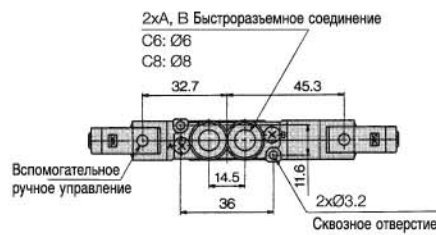
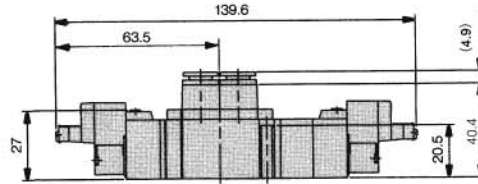
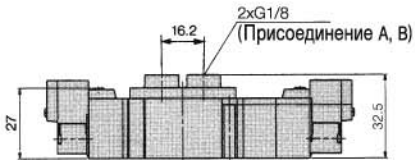
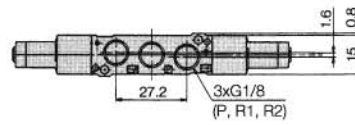
5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Размеры SY5000

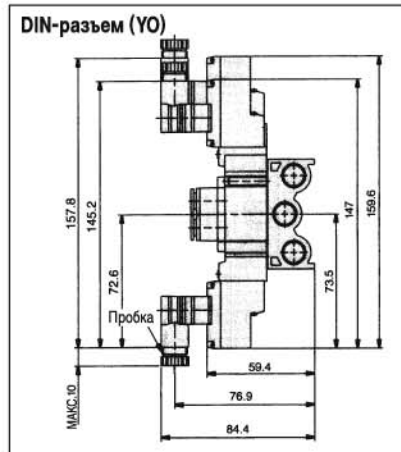
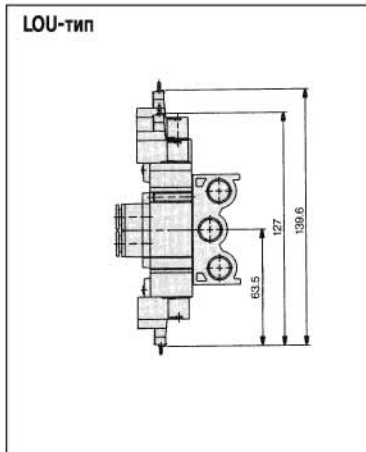
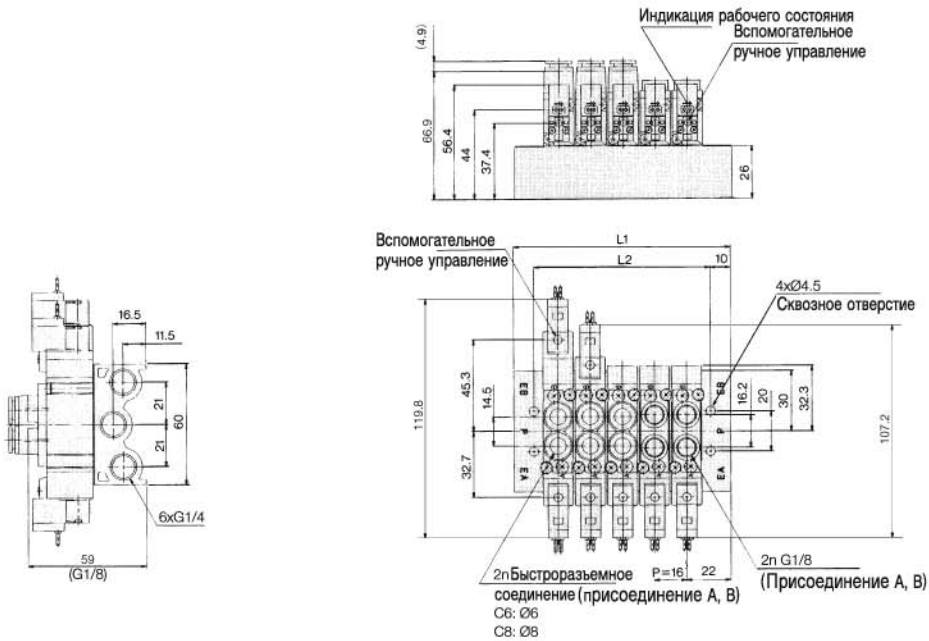
C6
SY5320-5LOU-C8-Q / SY5420-5LOU-C8-Q / SY5520-5LOU-C8-Q
01F

C6
SY5320-5LOU-C8-Q / SY5420-5LOU-C8-Q / SY5520-5LOU-C8-Q
01F

C6
SY5320-5LOU-C8-Q / SY5420-5LOU-C8-Q / SY5520-5LOU-C8-Q
01F



Размеры многосекционной плиты пневмораспределителей SY5000



Количество секций	2	3	4	5	6	7	8	10	12
L1	60	76	92	108	124	140	156	188	220
L2	40	56	72	88	104	120	136	168	200
Вес (г)*	136	172	208	244	280	316	352	424	496

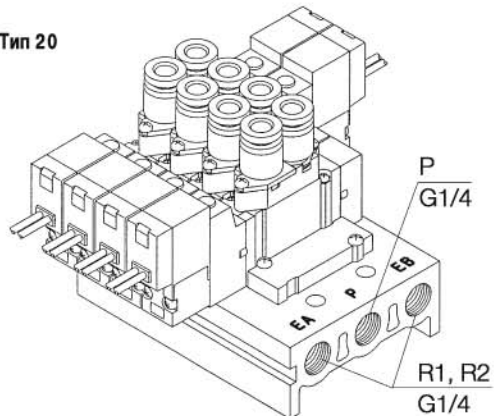
*Вес указан без учета пневмораспределителей

Номер для заказа многосекционной присоединительной плиты

Количество секций	Номер для заказа
2	SS5Y5-20-02-00F-Q
3	SS5Y5-20-03-00F-Q
4	SS5Y5-20-04-00F-Q
5	SS5Y5-20-05-00F-Q
6	SS5Y5-20-06-00F-Q
7	SS5Y5-20-07-00F-Q
8	SS5Y5-20-08-00F-Q
9	SS5Y5-20-09-00F-Q
10	SS5Y5-20-10-00F-Q
11	SS5Y5-20-11-00F-Q
12	SS5Y5-20-12-00F-Q

Большее количество секций по запросу (до 20 секций)

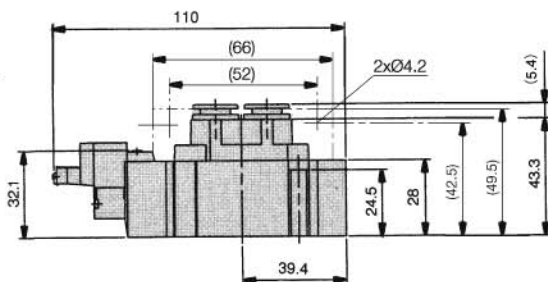
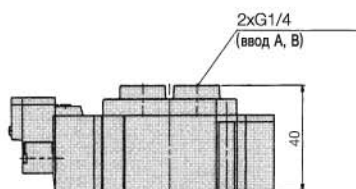
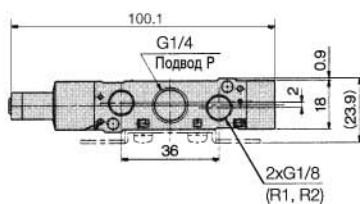
Тип 20



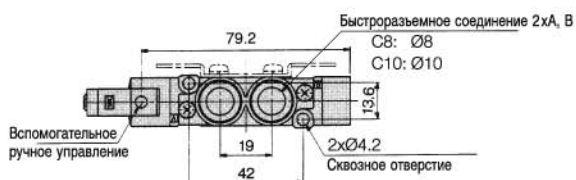
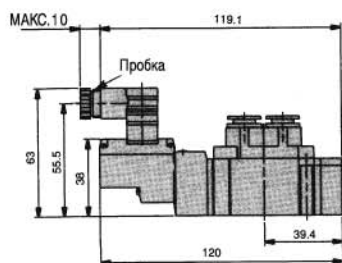
5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Размеры SY7000

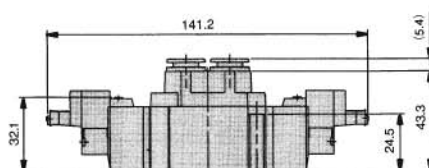
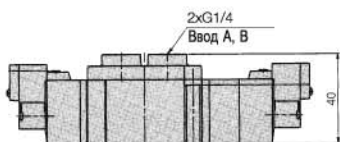
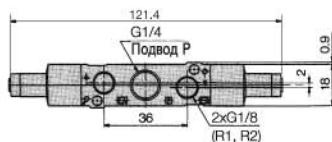
C8
SY7120-5LOU-C10-Q
02F



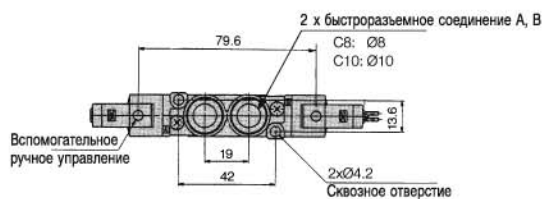
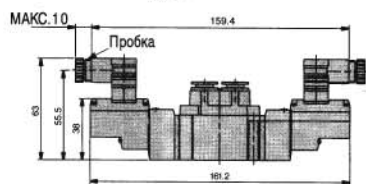
C8
SY7120-5YO-C10-Q
02F



C8
SY7220-5LOU-C10-Q
02F

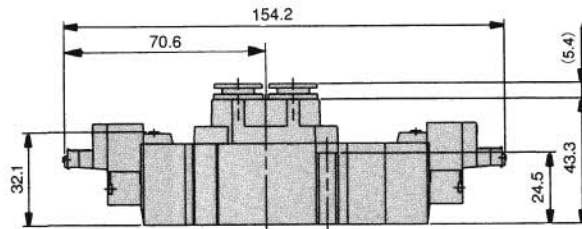
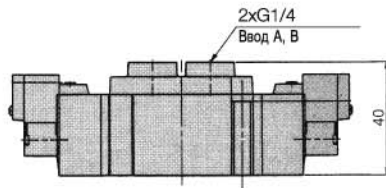
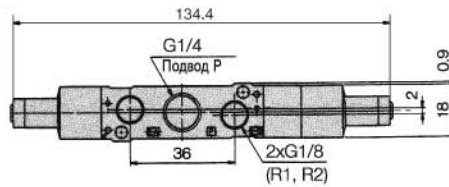


C8
SY7220-5YO-C10-Q
02F

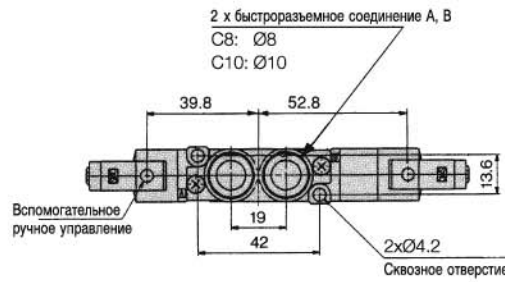
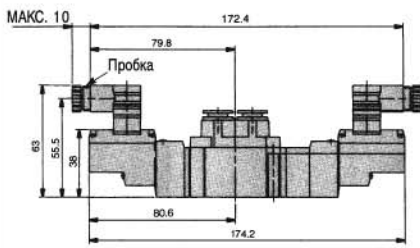


Размеры SY7000

C8 SY7320-5LOU-C10-Q / SY7420-5LOU-C10-Q 02F C8 SY7320-5YO-C10-Q / SY7420-5YO-C10-Q 02F

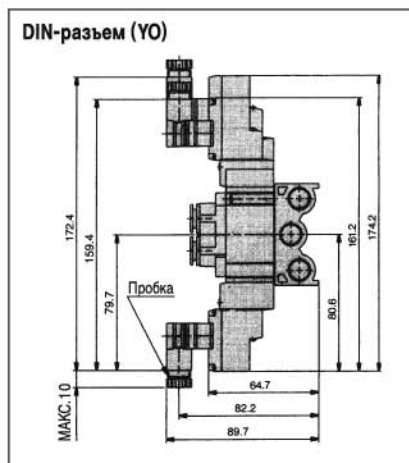
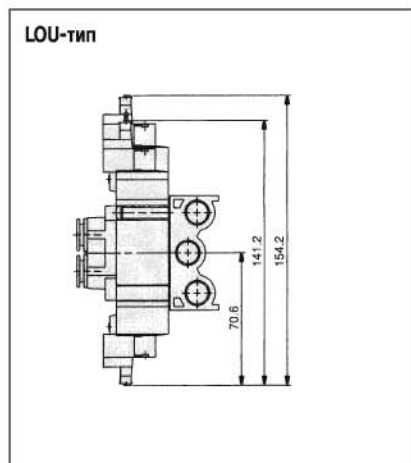
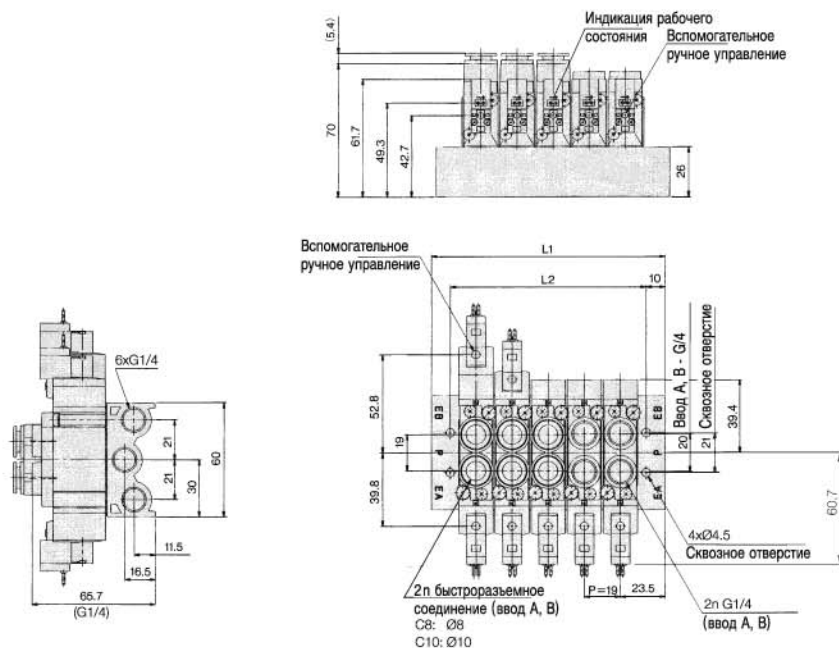


C8 SY7320-5YO-C10-Q / SY7420-5YO-C10-Q 02F C8 SY7320-5LOU-C10-Q / SY7420-5LOU-C10-Q 02F



5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Размеры многосекционной плиты пневмораспределителей SY7000



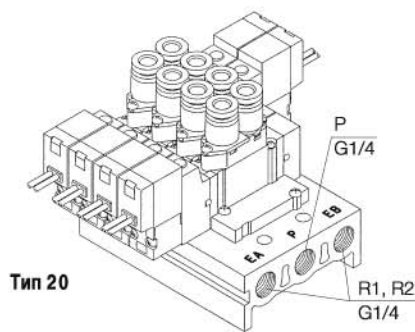
Количество секций	2	3	4	5	6	7	8	10	12
L1	66	85	104	123	142	161	180	218	256
L2	46	65	84	103	122	141	160	198	236
Вес (г)*	150	193	236	279	322	365	408	494	580

* Вес указан без учета пневмораспределителей

Номер для заказа многосекционной присоединительной плиты

Количество секций	Номер для заказа
2	SS5Y7-20-02-00F-Q
3	SS5Y7-20-03-00F-Q
4	SS5Y7-20-04-00F-Q
5	SS5Y7-20-05-00F-Q
6	SS5Y7-20-06-00F-Q
7	SS5Y7-20-07-00F-Q
8	SS5Y7-20-08-00F-Q
9	SS5Y7-20-09-00F-Q
10	SS5Y7-20-10-00F-Q
11	SS5Y7-20-11-00F-Q
12	SS5Y7-20-12-00F-Q

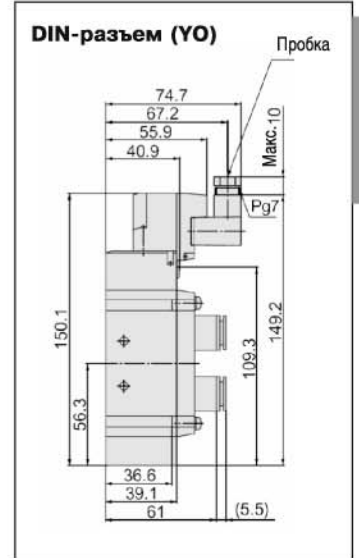
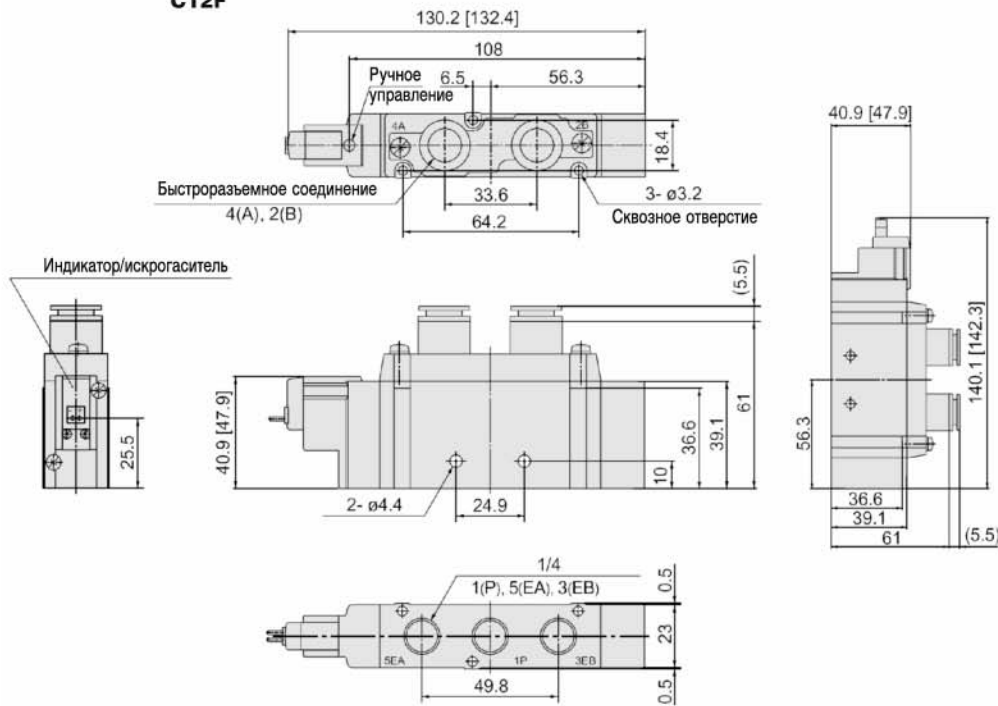
Большее количество секций по запросу (до 20 секций)



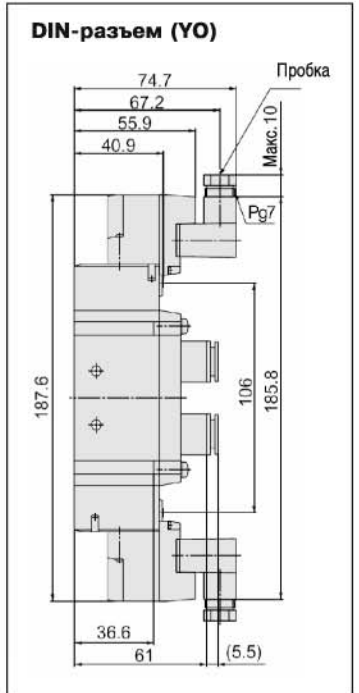
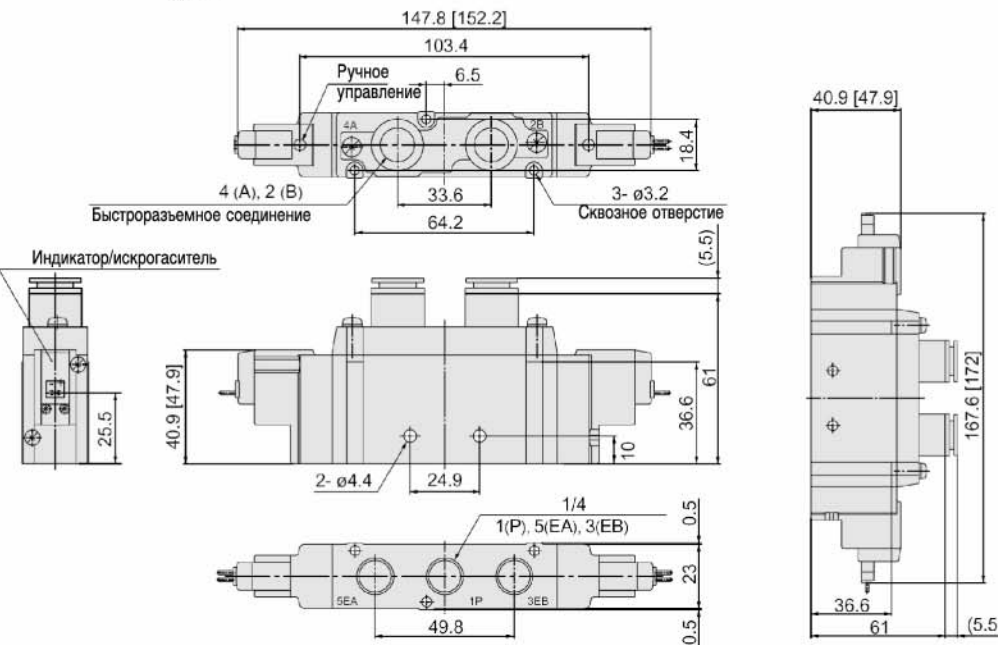
Тип 20

Размеры SY9000

C8F
SY9120-5LOU-C10F-Q
C12F



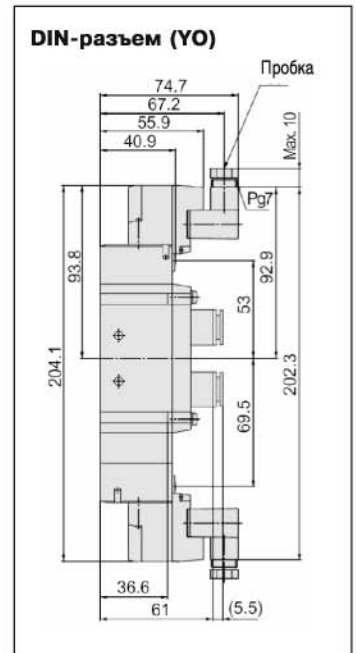
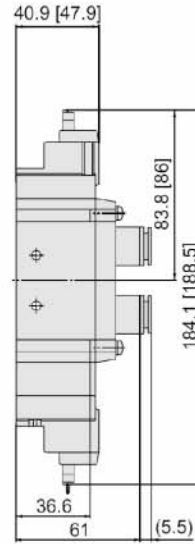
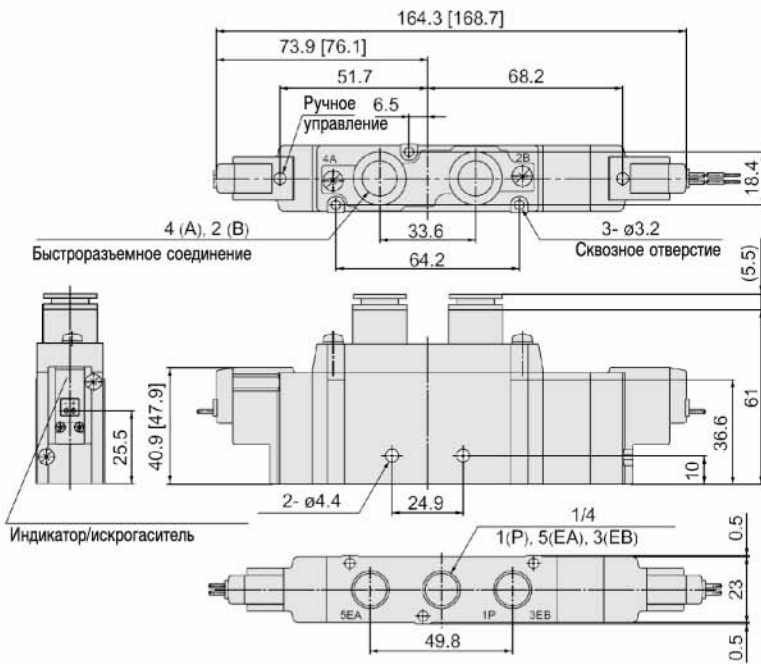
C8F
SY9220-5LOU-C10F-Q
C12F



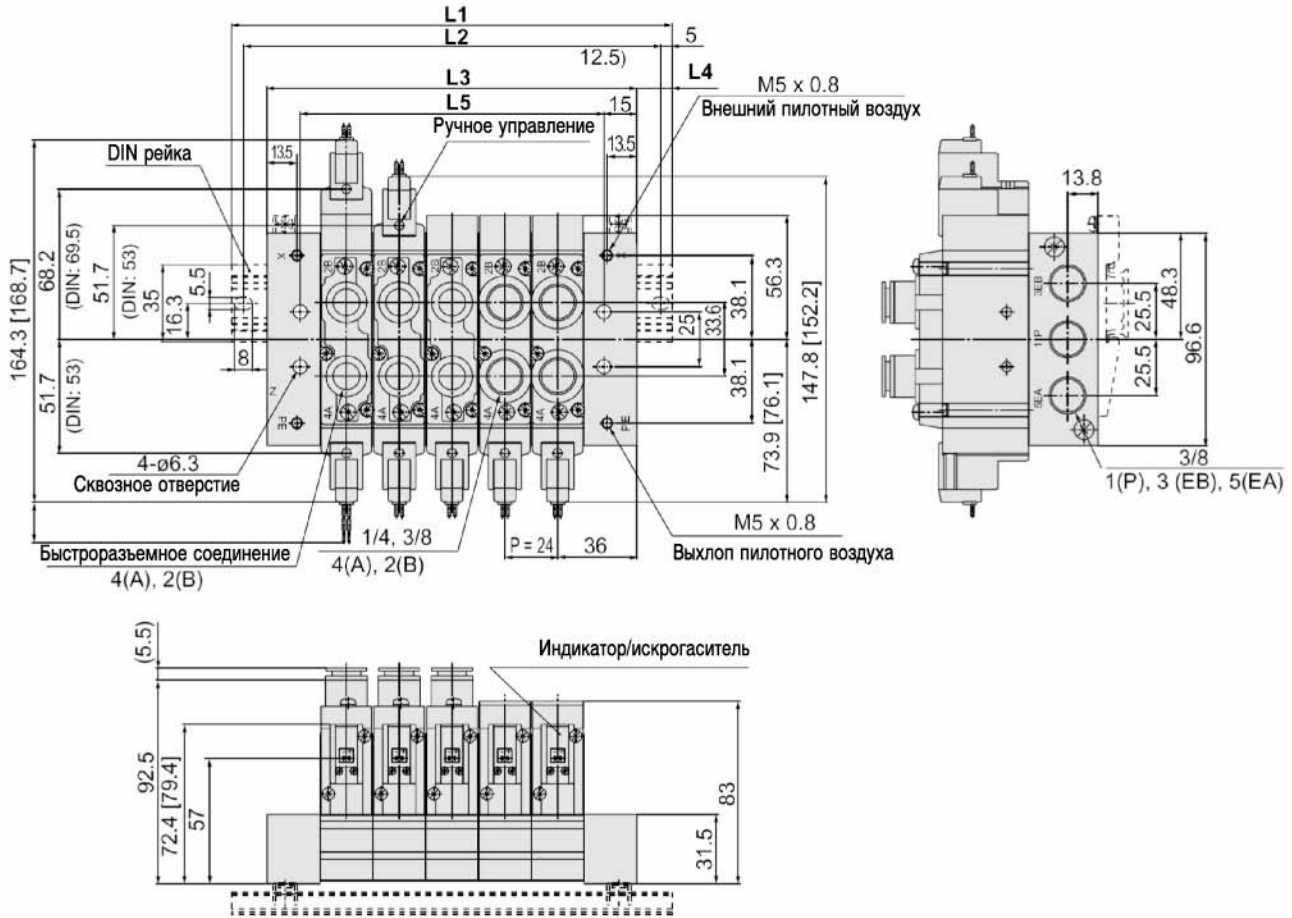
5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Размеры SY9000

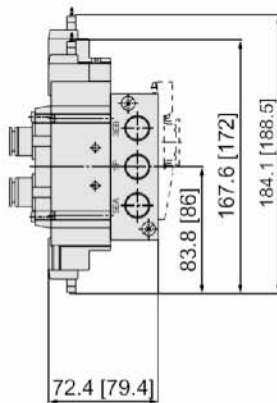
C8F SY9320-5LOU-C10F-Q / SY9420-5LOU-C10-Q / SY9520-5LOU-C10-Q
C12F SY9420-5LOU-C12F-Q / SY9520-5LOU-C12F-Q



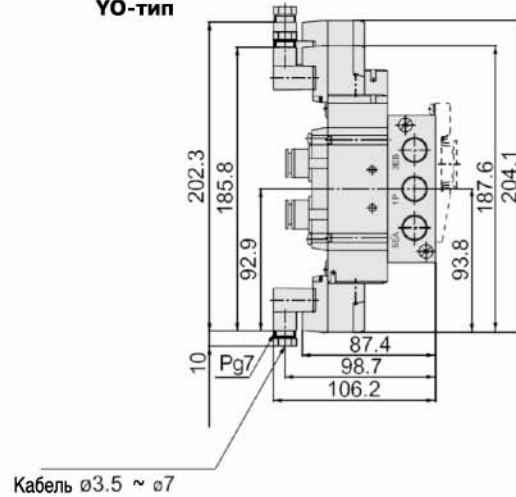
Размеры многосекционной плиты пневмораспределителей SY9000



LOU-тип



YO-тип



Компания SMC сохраняет за собой право на внесение технических и размерных изменений

Кол. секций	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	123	148	173	198	223	248	273	298	323	335.5	360.5	385.5	410.5	435.5	460.5	485.5	510.5	535.5	560.5
L2	112.5	137.5	162.5	187.5	212.5	237.5	262.5	287.5	312.5	325	350	375	400	425	450	475	500	525	550
L3	96	120	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528
L4	13.5	14	14.5	15	15.5	16	16.5	17	17.5	12	12.5	13	13.5	14	14.5	15	15.5	16	16.5
L5	66	90	114	138	162	186	210	234	258	282	306	330	354	378	402	426	450	474	498

5/2, 5/3 пневмораспределитель с электропневматическим управлением SY3000/5000/7000/9000

Номер для заказа многосекционной плиты пневмораспределителей SY9000

Номер для заказа
многосекционной соединительной плиты

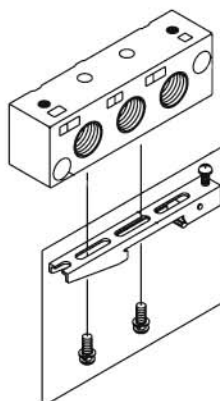
Количество секций	Номер для заказа
2	SS5Y9-23-02-00F-Q
3	SS5Y9-23-03-00F-Q
4	SS5Y9-23-04-00F-Q
5	SS5Y9-23-05-00F-Q
6	SS5Y9-23-06-00F-Q
7	SS5Y9-23-07-00F-Q
8	SS5Y9-23-08-00F-Q
9	SS5Y9-23-09-00F-Q
10	SS5Y9-23-10-00F-Q
11	SS5Y9-23-11-00F-Q
12	SS5Y9-23-12-00F-Q
13	SS5Y9-23-13-00F-Q
14	SS5Y9-23-14-00F-Q
15	SS5Y9-23-15-00F-Q
16	SS5Y9-23-16-00F-Q
17	SS5Y9-23-17-00F-Q
18	SS5Y9-23-18-00F-Q
19	SS5Y9-23-19-00F-Q
20	SS5Y9-23-20-00F-Q

Принадлежности

Обозначение	Номер для заказа
Комплект для монтажа на DIN-шине	SY9000-29-1A



Тип 23



SVC 5/2, 5/3 пневмораспределитель с электропневматическим управлением
Кассетный тип
SY3060/5060/7060

Экономичны в использовании

- потребляемая мощность 0.4 Вт (0.1 Вт - энергосберегающее исполнение)
- Возможно управление от контроллера, не требуется использование промежуточных реле

Уникальная технология монтажа

- возможность оперативного изменения конфигурации блока без дополнительных затрат

Быстродействие

- время срабатывания 10 мс при потребляемой мощности 0.4 Вт (Sy3060, с двусторонним управлением)

Компактность блока пневмораспределителей

Ресурс - более 50 млн. циклов

Современный дизайн

Концевая плита с креплением на DIN-шине

Секция подвода/отвода

Выходы А и В для подключения пневмоцилиндров

Элемент включения

Электрический подвод

Вспомогательное ручное управление

Переходная деталь

Секция подвода/отвода

Концевая плита с креплением на DIN-шине

Компания SMC сохраняет за собой право на внесение технических и размерных изменений

5/2, 5/3 пневмораспределители с электропневматическим управлением

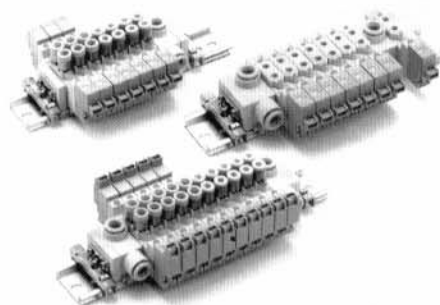
Кассетный тип

SY3060/5060/7060

M5 ~ G1/4; $\varnothing 4 \sim \varnothing 10$

Технические характеристики

Типоразмер		SY3060	SY5060	SY7060
Среда		Очищенный сжатый воздух с содержанием масла или без него		
Тип управления		Электропневматическое управление		
Рабочий диапазон давлений (МПа)	5/2 с одностор. управлением	0.15 – 0.7		
	5/2 с двустор. управлением	0.1 – 0.7		
	5/3	0.2 – 0.7		
Диапазон рабочих температур (°C)		Макс. 50		
Время срабатывания (мс)		<12	<19	<33
Частота срабатывания (Гц)	5/2 с одно/двустор. управлением	10	5	5
	5/3	3	3	3
Вспомогательное ручное управление		Не блокируется		
Монтажное положение		Произвольное		
Электрический подвод		2-х клеммный разъем	2-х клеммный разъем; DIN-разъем	
Напряжение (В)	DC	24		
	AC	220		
Допуск по напряжению		-15% до +5%		
Потребляемая мощность (Вт)	DC	0.55		
	AC	<2.3		
Степень защиты		IP40	IP40 (IP65 – DIN-разъем)	
Класс изоляции		E		
Искрогашение		Стандартное исполнение		
Индикатор рабочего состояния		Стандартное исполнение*		



* Для DIN-разъема – по запросу (см. Ответные части разъема, стр. 180)

** Другие напряжения – по запросу.

Номер для заказа

SY 60 — — — Q

Типоразмер

3	3060
5	5060
7	7060

Действие пневмораспределителей

1	5/2 с односторонним управлением	
2	5/2 с двусторонним управлением	
3	5/3, в среднем положении закрыт	
4	5/3, в среднем положении открыт	
5	5/3, в среднем положении под давлением	

Выходы для присоединения цилиндров

Индекс	Описание	Расход (норм.л/мин)	Типоразмер
M5	Резьба M5	196	SY3060
C4	Быстроразъемное соединение $\varnothing 4$	187	
C6	Быстроразъемное соединение $\varnothing 6$	196	
01F	Резьба G 1/8	500	SY5060
C6	Быстроразъемное соединение $\varnothing 6$	491	
C8	Быстроразъемное соединение $\varnothing 8$	500	
02F	Резьба G 1/4	981	SY7060
C8	Быстроразъемное соединение $\varnothing 8$	961	
C10	Быстроразъемное соединение $\varnothing 10$	981	

Электрическое подсоединение (ответную часть заказывают отдельно, см. стр. XXX)

Индекс	Напряжение	Описание	Состояние	Серия
LOU*	24 V DC	Разъем без ответной части	С индикатором рабочего состояния, искрогасителем	SY3000 SY5000 SY7000
YO*	24 V DC / 220 V AC	DIN-разъем (без ответной части) (имеется только для SY5060/SY7060)	Без индикатора рабочего состояния/искрогасителя (может встраиваться в ответную часть разъема)	SY5000 SY7000

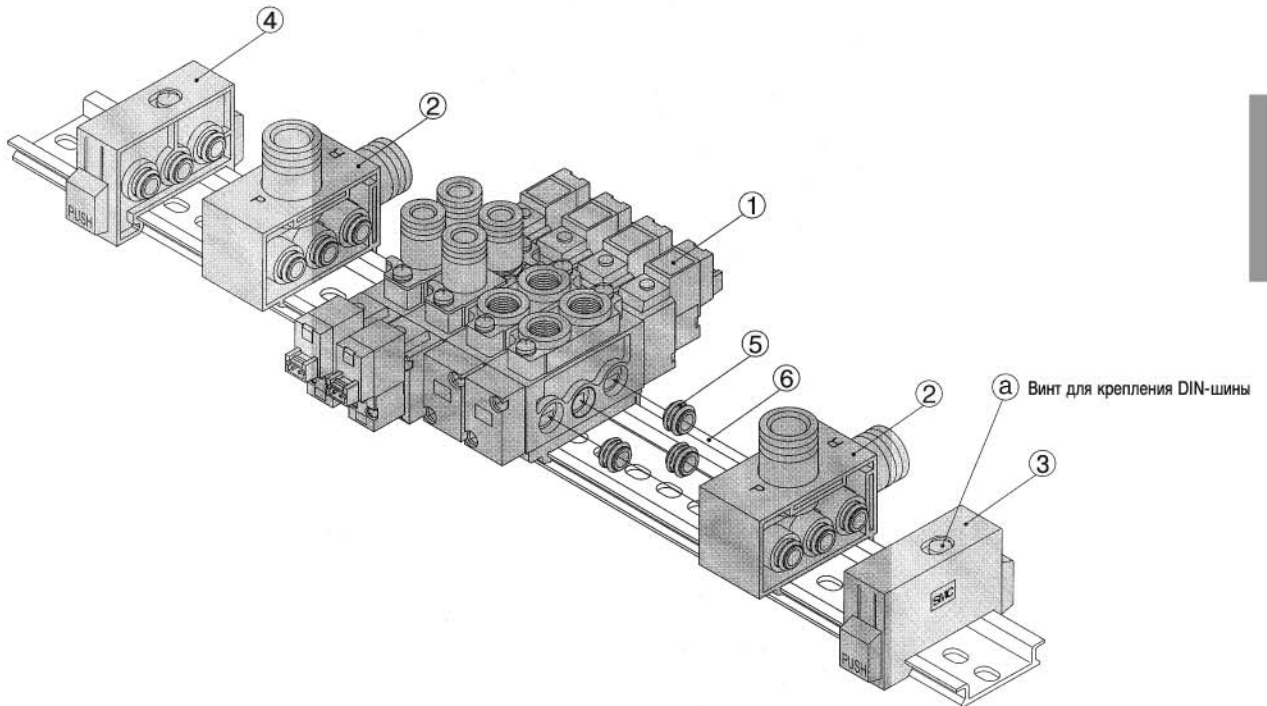
* Ответные части разъемов см. стр. 180

Напряжение на катушке

5	24 V DC
4*	220 V AC

* только для SY5060, SY7060, только в модификации с DIN-разъемом.

Спецификация



Поз.	Описание	Номер для заказа		
		Тип пневмораспределителя		
1	Пневмораспределитель (см. стр. 194)	SY3000	SY5000	SY7000
2	Секция подвода-отвода воздуха	SY3000-55-1A-Q	SY5000-55-1A-Q	SY7000-75-1A-Q
3	Концевая плита правая	SY3000-56-1A-Q	SY5000-56-1A-Q	SY7000-56-1A-Q
4	Концевая плита левая	SY3000-56-1B-Q	SY5000-56-1B-Q	
5*	Переходная деталь	SY3000-52-1A	SY5000-52-3A	SY7000-70-1A
6	DIN-рейка	заказывается отдельно		

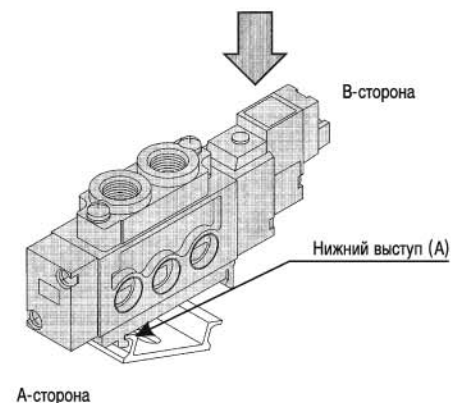
Примечание

Тип распределителя		
SY3000	SY5000	SY7000
Порт P, R	Порт P, R	Порт P, R
секции подвода-отвода воздуха: быстроразъемное соединение $\varnothing 8$	секции подвода-отвода воздуха: быстроразъемное соединение $\varnothing 10$	секции подвода-отвода воздуха: быстроразъемное соединение $\varnothing 12$

В поставку каждого пневмораспределителя, а также секции подвода-отвода воздуха входят три переходных детали.

* Переходную деталь необходимо заказывать в количестве 3 штук.

- Нижний выступ пневмораспределителя (A) надеть на рейку.
- Нажать пневмораспределитель в направлении стрелки (B) вниз до фиксации пневмораспределителя на DIN-рейке. Произвести выверку положения пневмораспределителя на DIN-рейке.
- Отдельные пневмораспределители (1) соединяют, прижимая их друг к другу до тех пор, пока переходные детали не войдут до упора в положенные отверстия. Путем дальнейшего соединения пневмораспределителей число их доводят до желаемого количества.
- Присоединить секцию подвода-отвода (2), прижав ее к пневмораспределителям слева или, соответственно, справа. Переходные детали должны войти до упора в положенные отверстия.
- Концевые плиты справа (3) и слева (4) насадить на DIN-рейку и присоединить к пневмораспределителям, прижимая их друг к другу до тех пор, пока переходные детали не войдут до упора в положенные отверстия. Фиксирующие винты (a) затянуть с усилием 1 Нм.
- Перед подключением сжатого воздуха следует следить за тем, чтобы между пневмораспределителями не было зазоров.



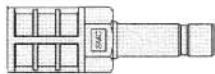
5/2, 5/3 пневмораспределитель с электропневматическим управлением

Кассетный тип

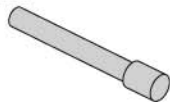
SY3060/5060/7060

Принадлежности

Пневмоглушитель



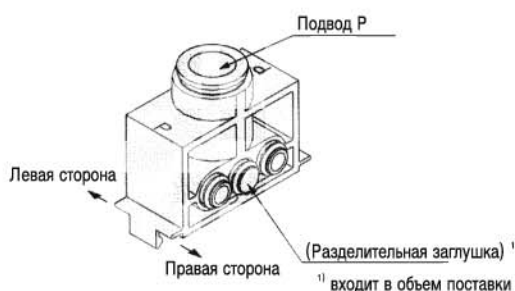
Пробка



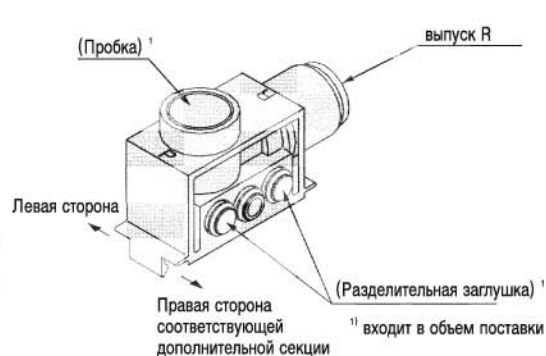
Разделительная заглушка



Доп. секция подвода воздуха



Доп. секция отвода воздуха



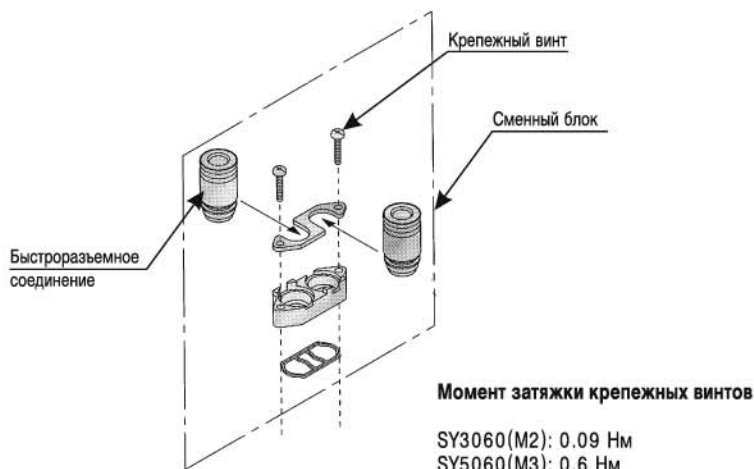
Тип	Номер для заказа					
	Пневмоглушитель	Пробка*		Доп. секция подвода воздуха	Доп. секция отвода воздуха	Разделительная заглушка**
SY3060	AN203-KM8	ø4	KQ2P-04	SY3000-54-1C	SY3000-55-1B	SY3000-52-2A
		ø6	KQ2P-06			
SY5060	AN200-KM10	ø4	KQ2P-04	SY5000-54-1C	SY5000-55-1B	SY5000-52-4A
		ø6	KQ2P-06			
		ø8	KQ2P-08			
SY7060	AN300-KM12	ø8	KQ2P-08	SY7000-54-1C	SY7000-55-1B	SY7000-52-2A
		ø10	KQ2P-10			

* С помощью пробки можно преобразовать распределители из 5/2 в 3/2.

** Универсальная для каналов подвода и отвода (деаэрации) воздуха.

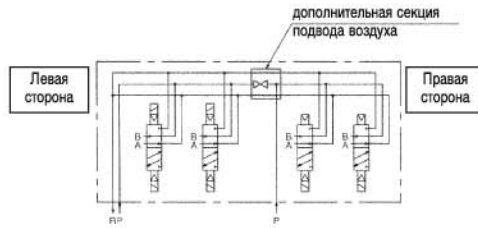
Номер для заказа сменного блока фитингов см. стр. 179

Номер для заказа ответных частей разъема см. стр. 180

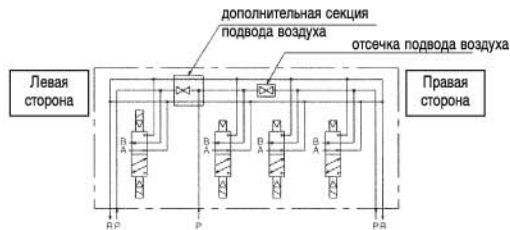


Принадлежности

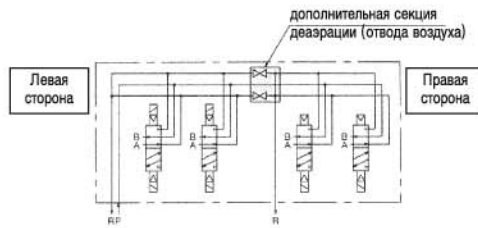
Пример использования, если на одной плите пневмораспределителей действуют два разных давления



Пример использования, если только один пневмораспределитель работает на другом давлении



Пример использования, если требуется выпустить воздух в двух разных местах



Пример использования, если дополнительно требуется выпустить воздух только из одного пневмораспределителя



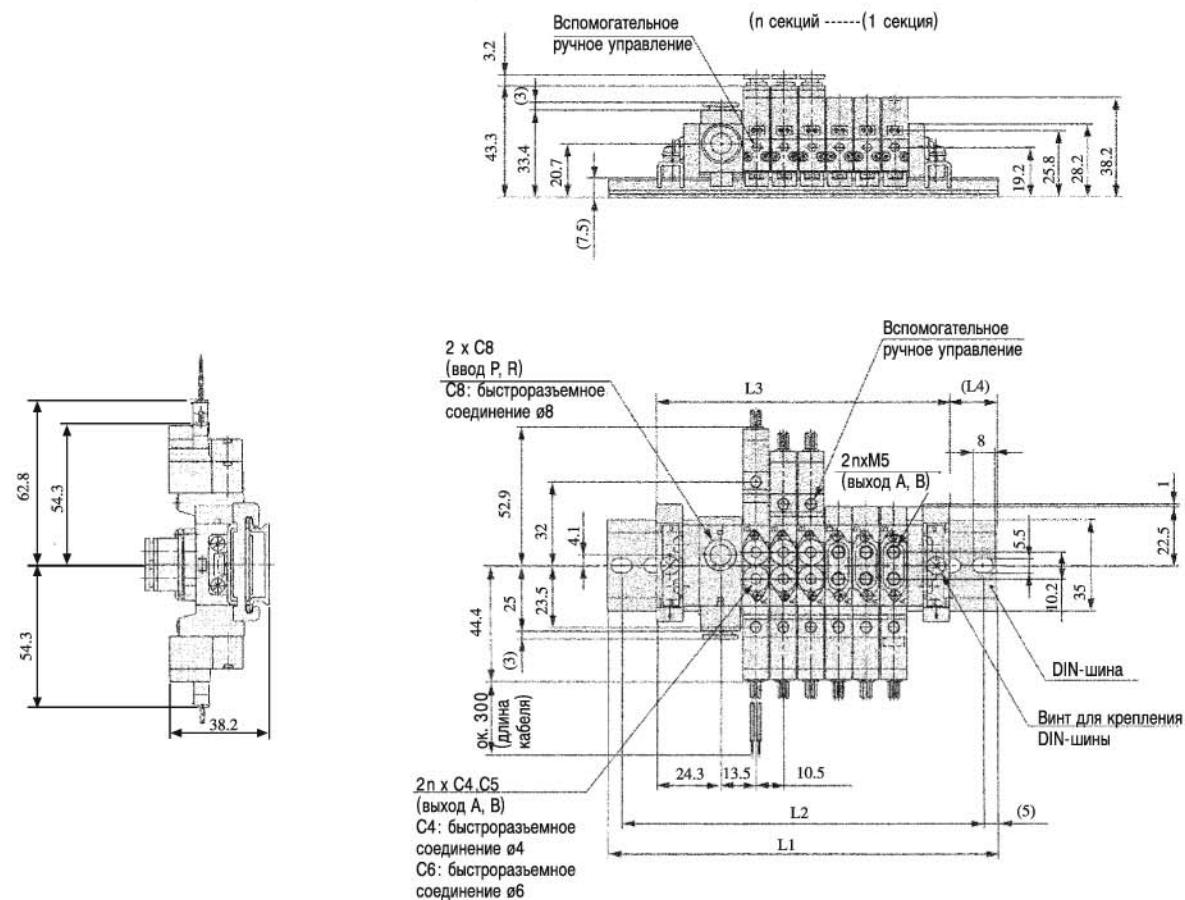
5/2, 5/3 пневмораспределитель с электропневматическим управлением

Кассетный тип

SY3060/5060/7060

Размеры

Тип SY3060 с одной секцией подвода-отвода воздуха



Размеры (мм)

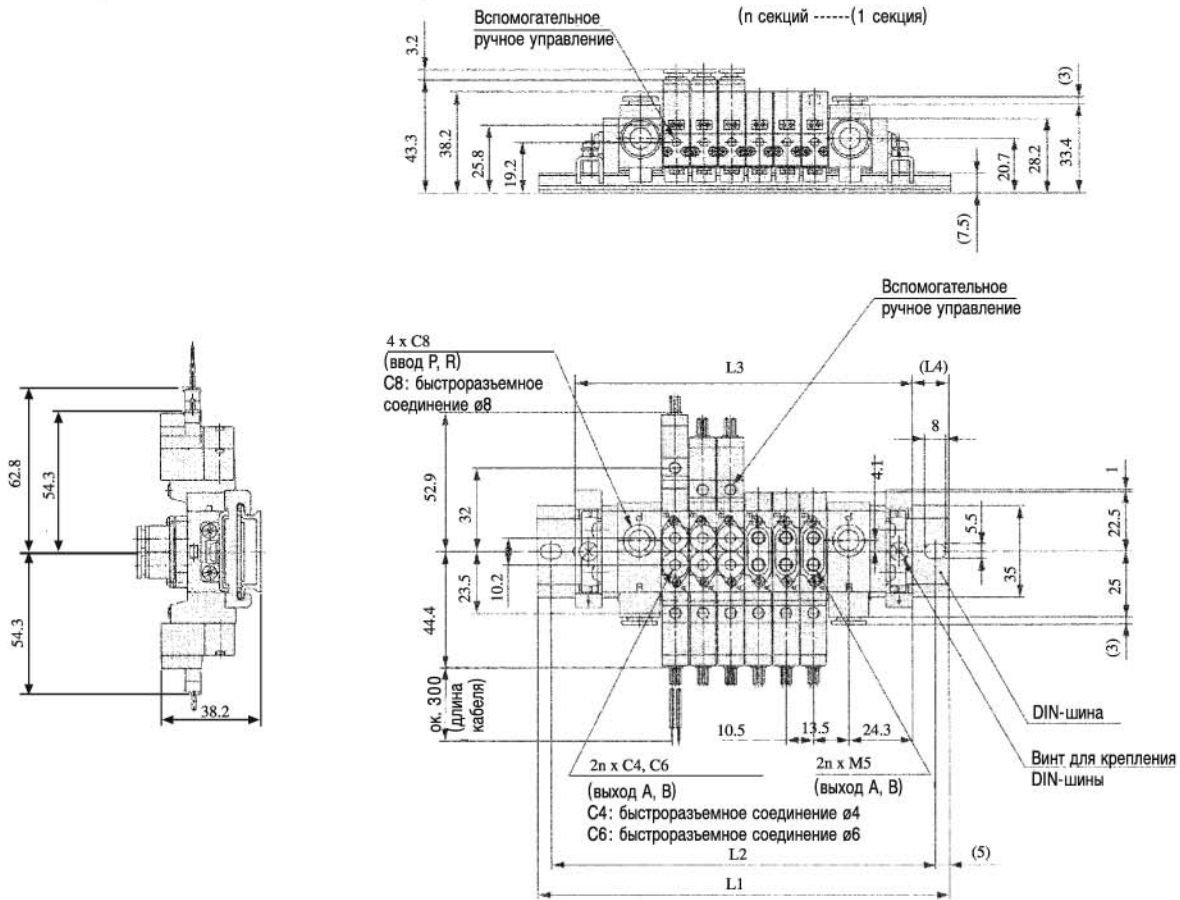
п: количество секций

L \ п	2	3	4	5	6	7	8	9	10
L1*	98	110.5	123	135.5	135.5	148	160.5	173	185.5
L2	87.5	100	112.5	125	125	137.5	150	162.5	175
L3	69.5	80	90.5	101	111.5	122	132.5	143	153.5
L4	14	15	16	17	12	13	14	15	16

* Размер L1 показывает необходимую длину DIN-рейки

Размеры

Тип SY3060 с двумя секциями подвода-отвода воздуха



Размеры (мм)

п: количество секций

L \ п	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1*	110.5	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	310.5
L2	100	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	300
L3	86	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5	233	243.5	254	264.5	275
L4	12	13	14	15	16	17	12	13	14	15	16	17	11.5	12.5	13.5	14.5	15.5	16.5	17.5

* Размер L1 показывает необходимую длину DIN-рейки

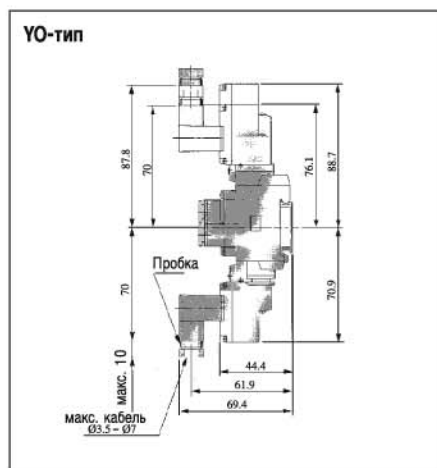
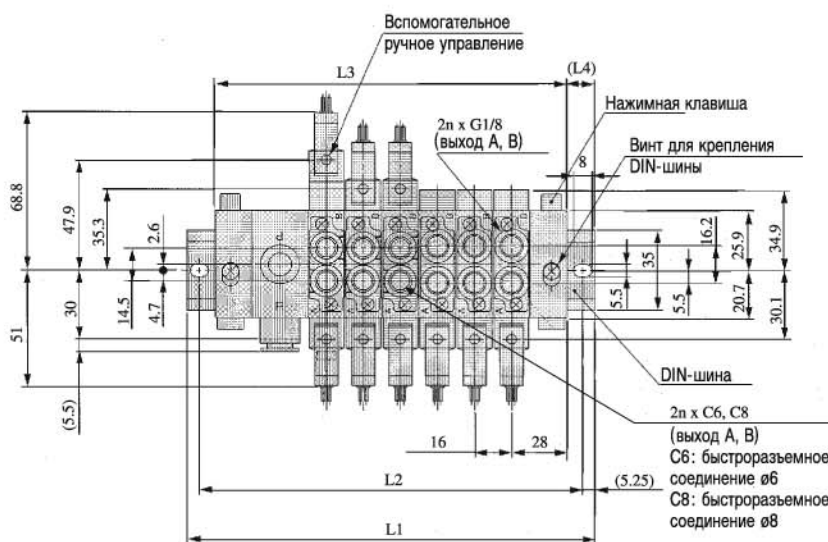
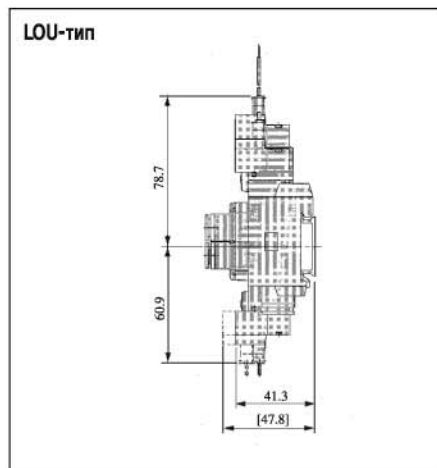
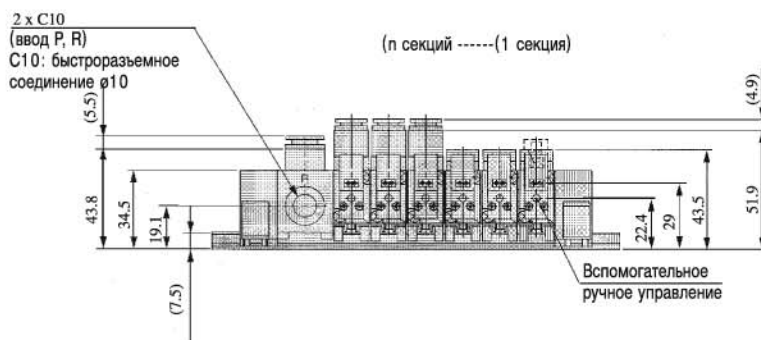
5/2, 5/3 пневмораспределитель с электропневматическим управлением

Кассетный тип

SY3060/5060/7060

Размеры

Тип SY5060 с одной секцией подвода-отвода воздуха



Размеры (мм)

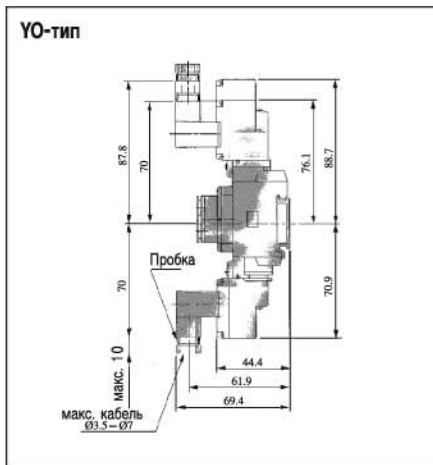
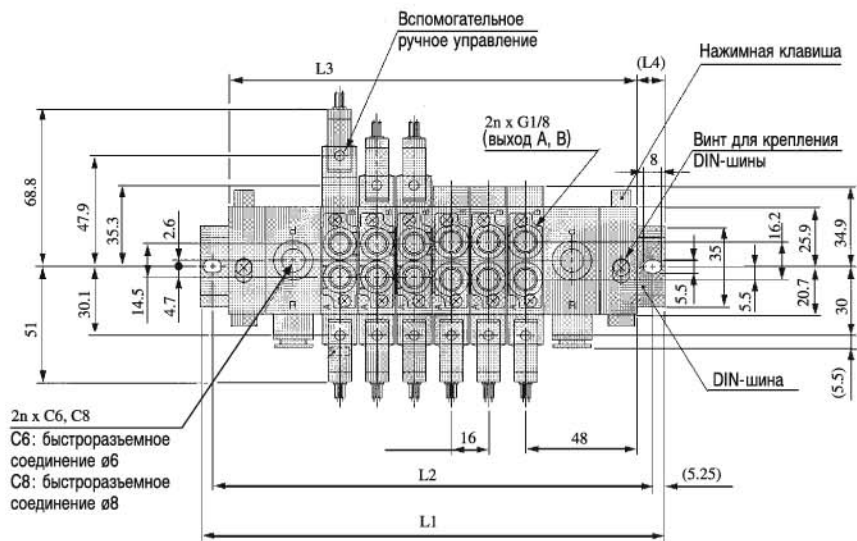
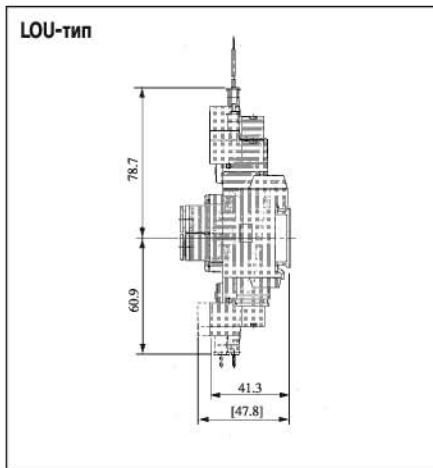
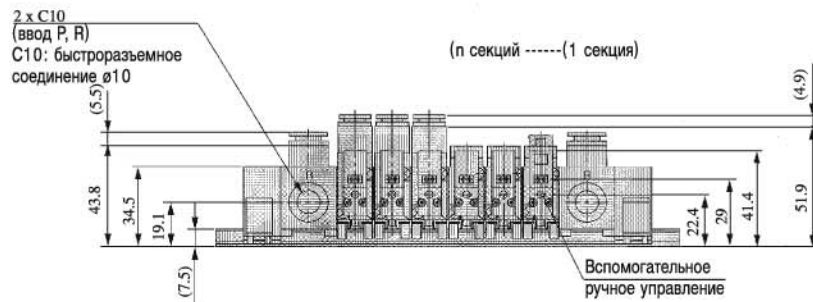
n: количество секций

L \ n	2	3	4	5	6	7	8	9	10
L1*	123	135.5	148	160.5	185.5	198	210.5	235.5	248
L2	112.5	125	137.5	150	175	187.5	200	225	237.5
L3	88	104	120	136	152	168	184	200	216
L4	17.5	15.5	14	12	16.5	15	13	17.5	16

* Размер L1 показывает необходимую длину DIN-рейки

Размеры

Тип SY5060 с двумя секциями подвода-отвода воздуха



Размеры (мм)

n: количество секций

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1*	135.5	160.5	173	185.5	210.5	223	235.5	248	273	285.5	298	323	335.5	348	360.5	385	398	410.5	435.5
L2	125	150	162.5	175	200	212.5	225	237.5	262.5	275	287.5	312.5	325	337.5	350	375	387.5	400	425
L3	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400
L4	11.5	16	14.5	12.5	17.5	15.5	13.5	12	16.5	14.5	13	17.5	15.5	14	12	16.5	15	13	17.5

* Размер L1 показывает необходимую длину DIN-рейки

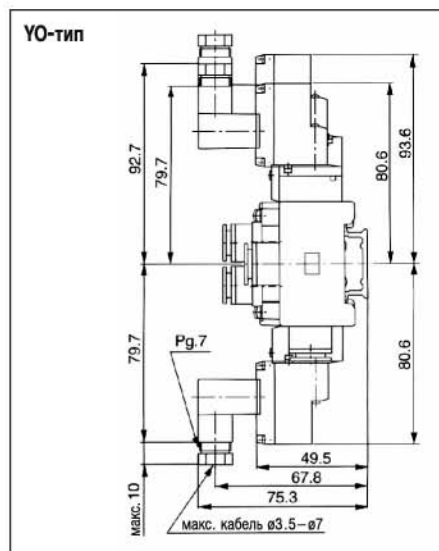
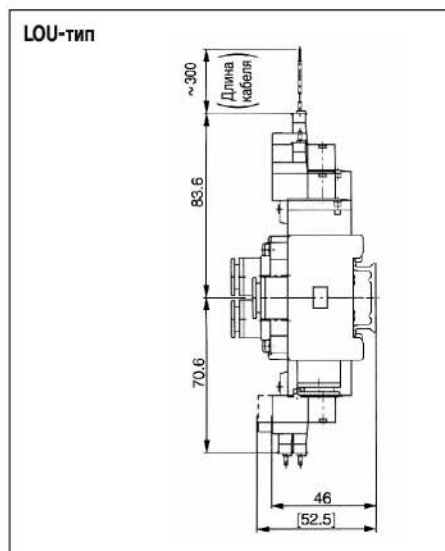
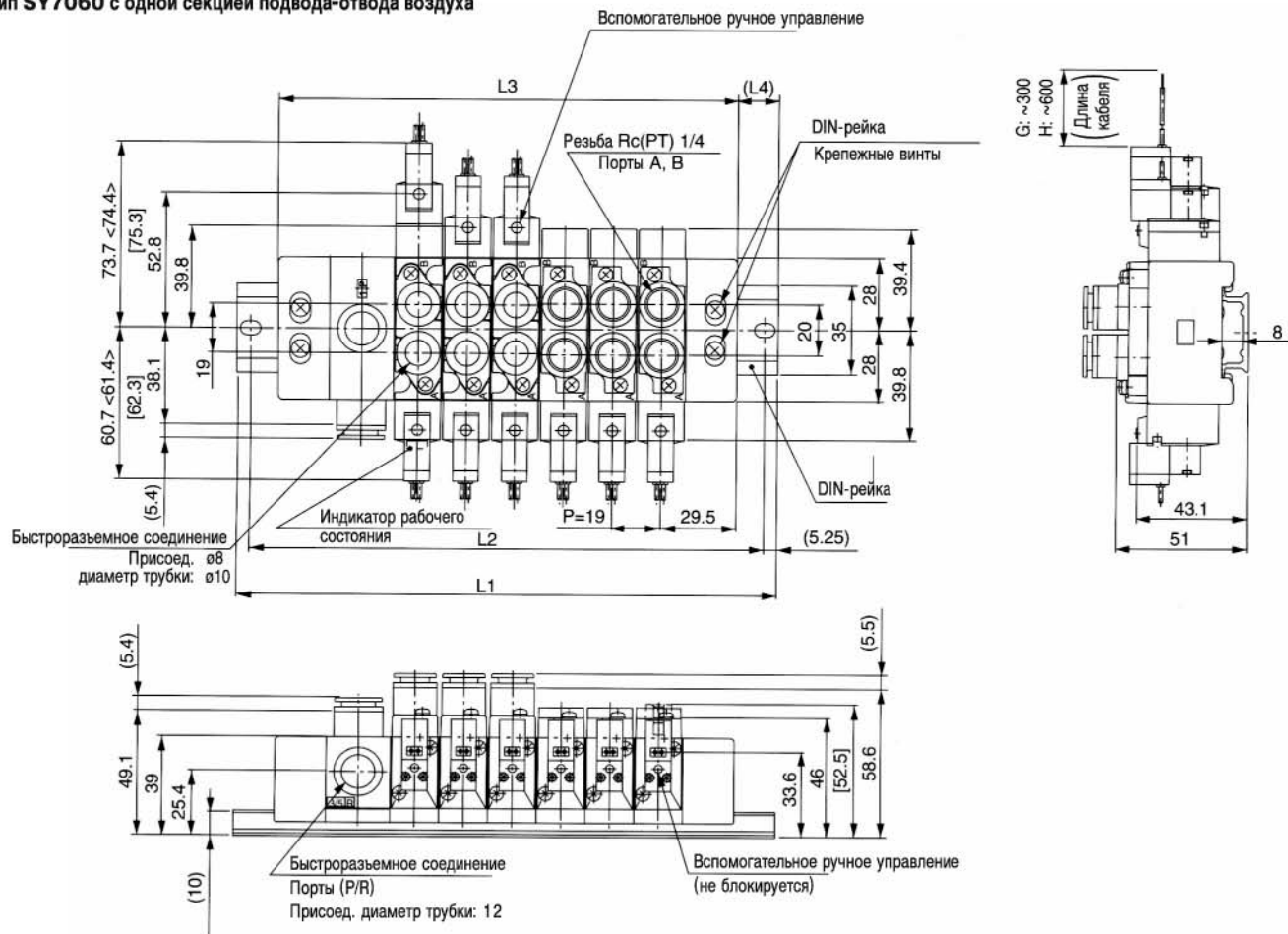
5/2, 5/3 пневмораспределитель с электропневматическим управлением

Кассетный тип

SY3060/5060/7060

Размеры

Тип SY7060 с одной секцией подвода-отвода воздуха



Размеры (мм)

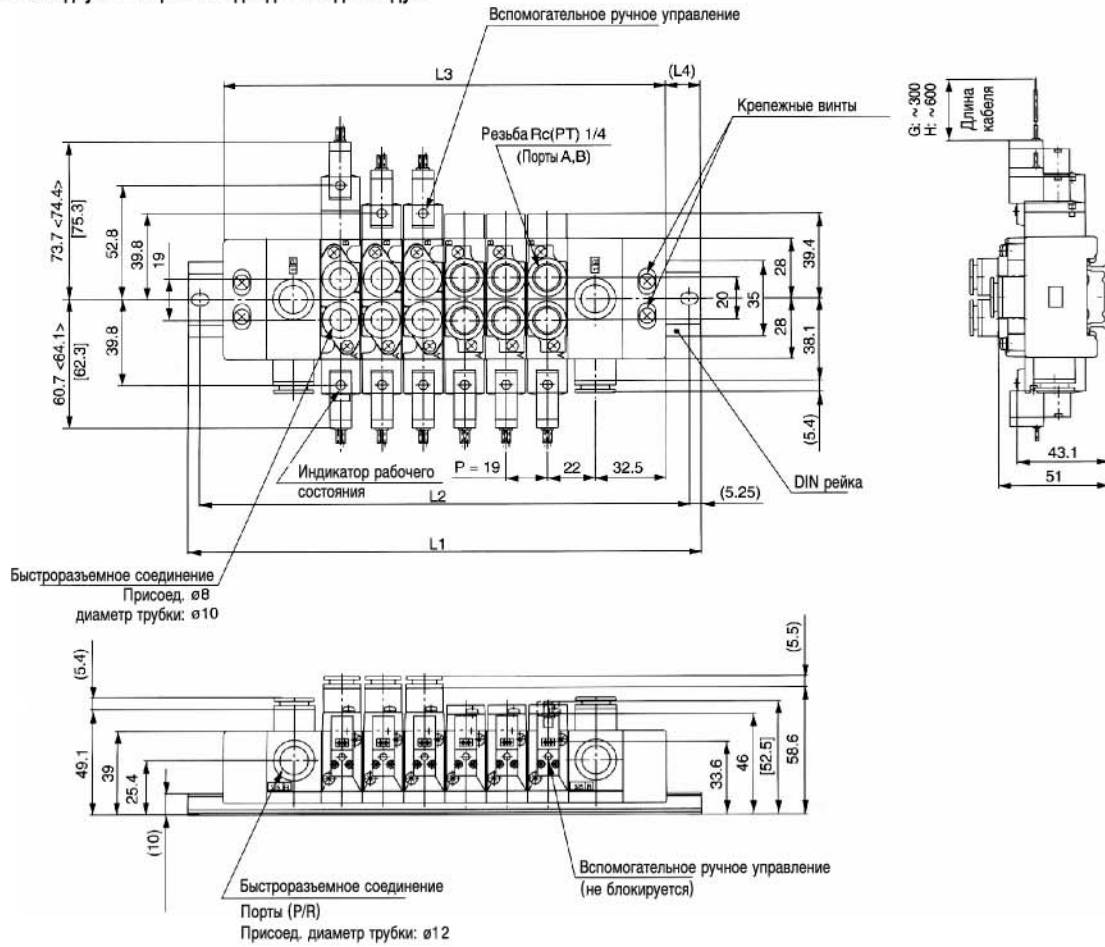
n: количество секций

L \ n	2	3	4	5	6	7	8	9	10
L1*	135.5	148	173	185.5	210.5	223	248	260.5	285.5
L2	125	137.5	162.5	175	200	212.5	237.5	250	275
L3	103	122	141	160	179	198	217	236	255
L4	16	13	16	12.5	15.5	12.5	15.5	12	15

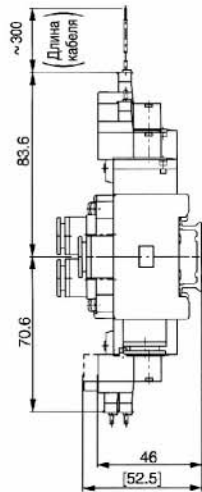
* Размер L1 показывает необходимую длину DIN-рейки

Размеры

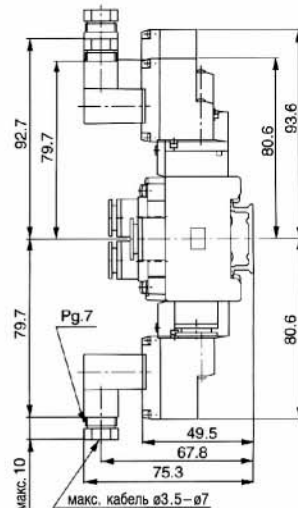
Тип SY7060 с двумя секциями подвода-отвода воздуха



LOU-тип



Y0-тип



Размеры (мм)

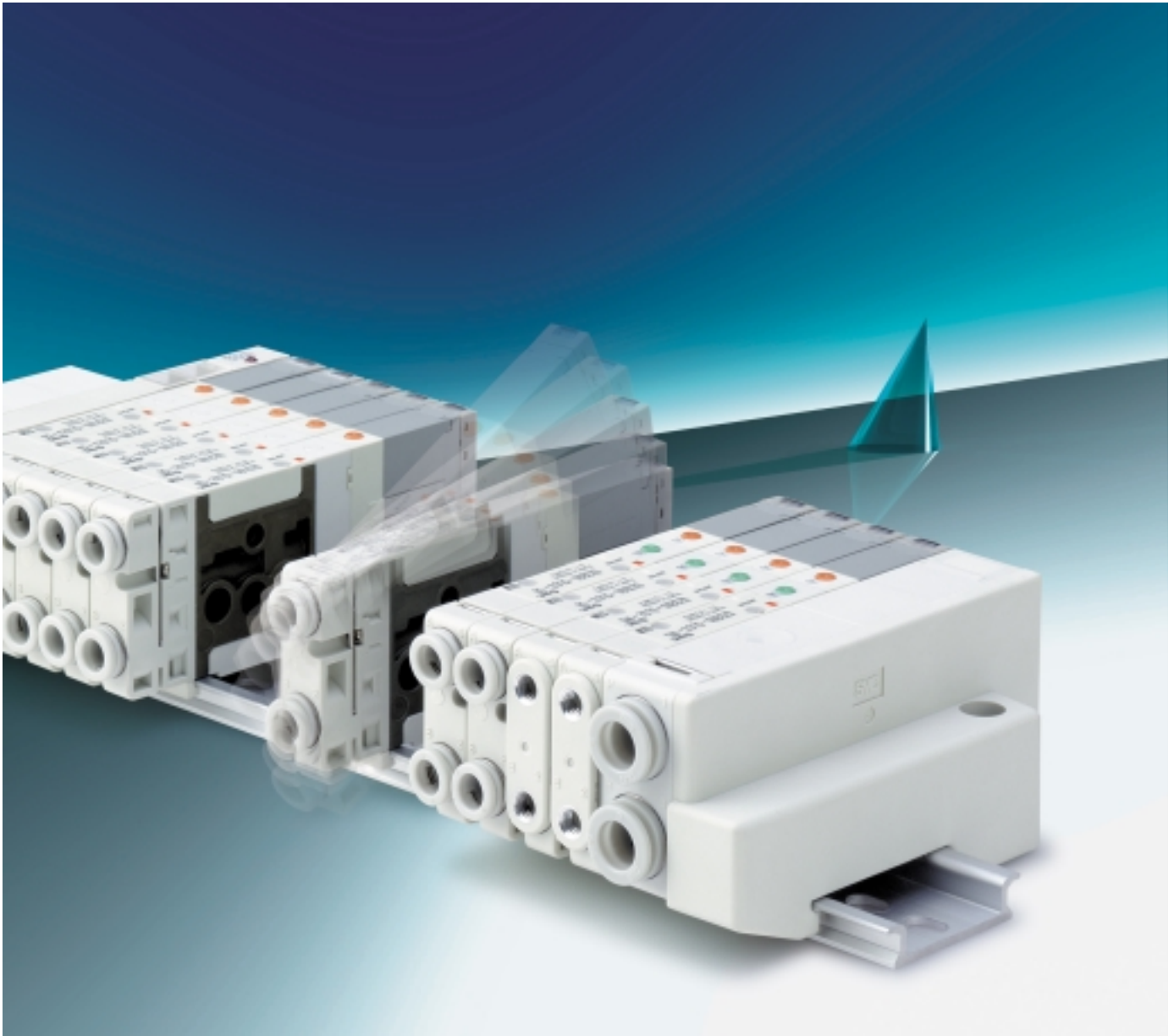
п: количество секций

L \ п	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1*	160.5	173	198	210.5	235.5	248	273	285.5	310.5	323	348	360.5	385	410.5	423	448	460.5	485.5	498
L2	150	162.5	187.5	200	225	237.5	262.5	275	300	312.5	337.5	350	375	400	412.5	437.5	450	475	487.5
L3	128	147	166	185	204	223	242	261	280	299	318	337	356	375	394	413	432	451	470
L4	16	13	16	12.5	15.5	12.5	15.5	12	15	12	15	11.5	14.5	17.5	14.5	17.5	14	17	14

* Размер L1 показывает необходимую длину DIN-рейки



5 Port Solenoid Valve/Body Ported
Cassette Type Manifold
Series SZ3000



2 new options: 4 position dual 3 port valve, and valve with built-in check valve to prevent back pressure problems.

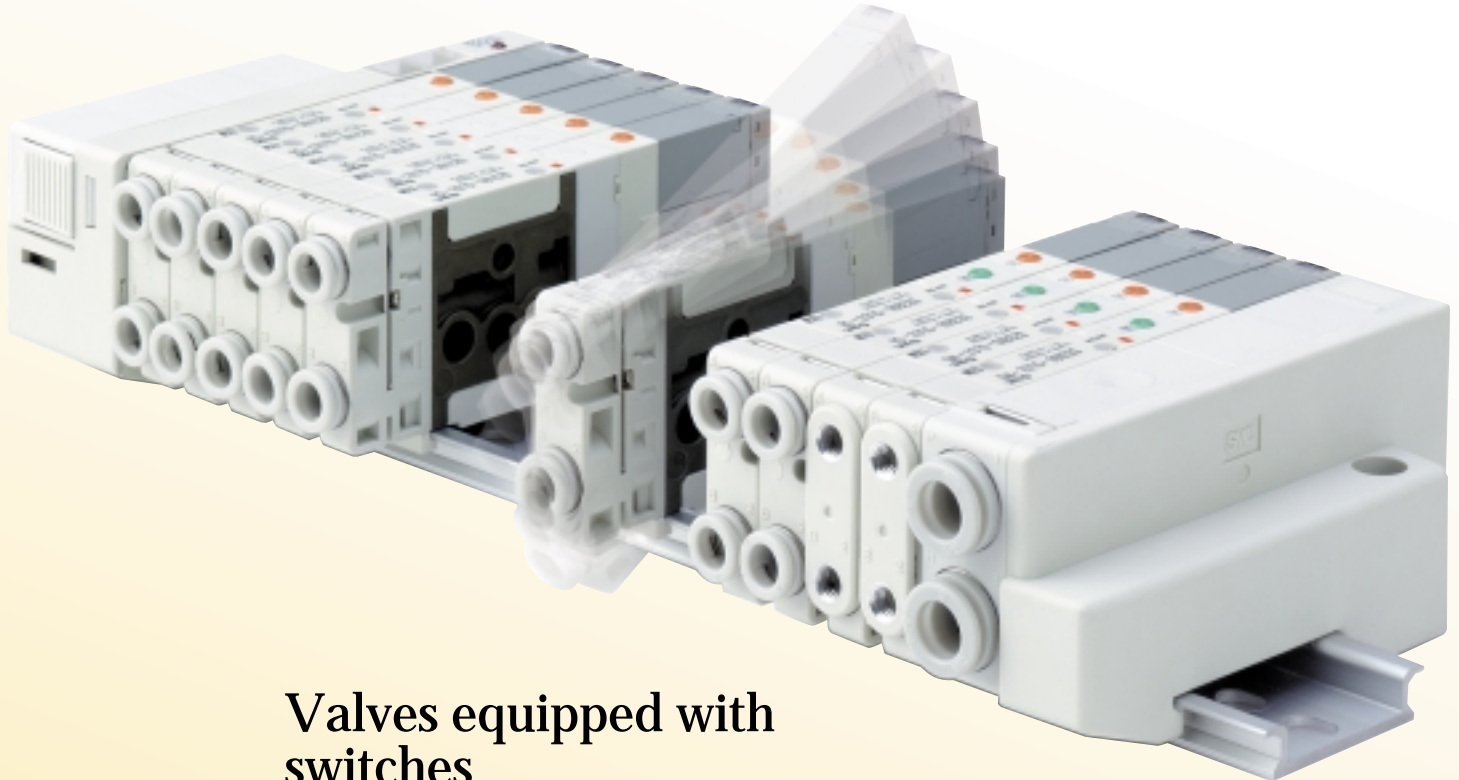
The plug-in cassette system makes valve replacement easy.

A plug-in manifold has been created with a height of 43.5mm (including DIN rail).

Valve replacement can be performed easily.

Moreover, since spare terminals for wiring (receptacle housings) are contained inside the manifold, terminal changes (additions) can be performed quickly and easily.

(The number of additional stations is limited by the manifold specifications. Refer to page 14 for details.)



Valves equipped with switches

Adjustment and maintenance of equipment can be performed with greater safety, since the power to each valve can be shut off individually with built-in switches.



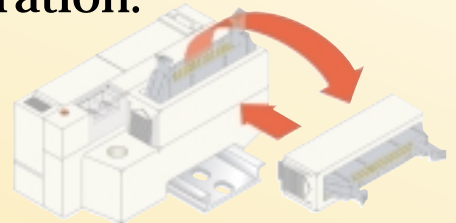
High speed response of 10ms (SZ3000 single, 0.5MPa, 24VDC, without surge voltage suppressor)

Low power consumption and a fast response time of 10ms are obtained with a unique pilot valve construction.

Low power consumption: 0.6W (current value: 25mA at 24VDC)

Low power consumption enables direct operation by a PLC. Cost savings are realized through the use of a smaller power supply and the elimination of relay cards.

The connector entry direction can be changed from top to side with a simple operation.



High reliability and long life of 50 million cycles or more

High reliability and long life have been achieved with guide ring construction which prevents eccentricity of the main valve, and a return piston with increased return force.

(Single and double solenoid types)

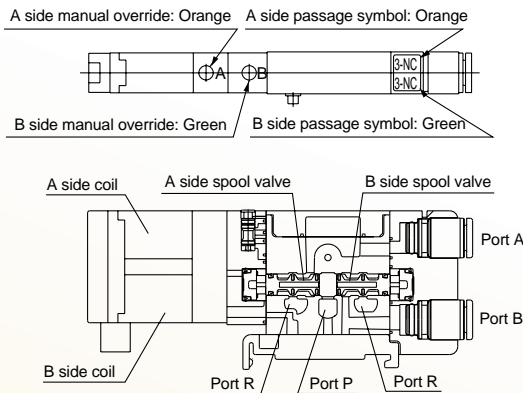
5 Port Solenoid Valve/Body Ported Cassette Type Manifold Series **SZ3000**



New

4 position dual 3 port valve

- Two 3 port valves are contained in one valve body.
- The A and B ports can be individually controlled.
- [N.C./N.C.], [N.O./N.O.] and [N.C./N.O.] combinations are available.
- Mixed mounting with 5 port valves is also possible.
- Labels matched to the colors of the manual overrides are affixed to indicate the "A" and "B" side functions.

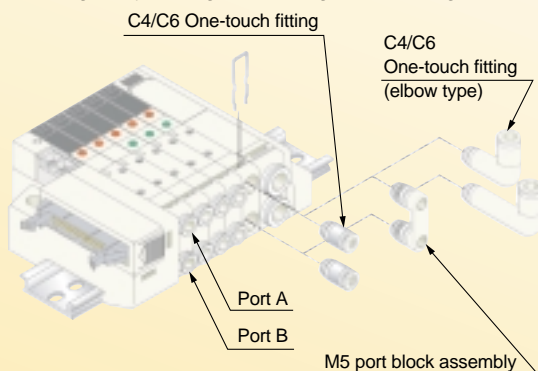


Model	A side	B side	JIS symbol
SZ3A60	N.C. valve	N.C. valve	
SZ3B60	N.O. valve	N.O. valve	
SZ3C60	N.C. valve	N.O. valve	

* External pilot specifications are not available for 4 position dual 3 port valves.

Easy attaching/detaching of tubes

The interval between ports A and B is a wide 20.5mm, allowing easy changes of fittings and tubing.



New

Valve with back pressure check valve

- Prevents malfunction caused by exhaust from other valves.
- Effective for driving single acting cylinders and air operated valves, or when using exhaust center valves.
- Prevents back pressure individually on "A" and "B" sides of a 4 position dual 3 port valve.

One-touch fittings can be changed

Series	Replaceable port sizes		
SZ3000	C4	C6	M5

* Elbow fittings are for C4 and C6 only.

New design and bright color tones

The top of the manifold has been flattened and the rounding of corners has been enlarged for easier handling. In addition, bright white color tones have been adopted to compliment modern operating environments.

Size and weight reduced by eliminating the manifold base

Series	SZ3000
Height	△31% reduction
Weight	△12% reduction

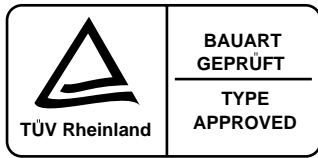
(Compared with SX3000-45 with DIN rail manifold and 5 stations)

Common exhaust

This feature provides for a cleaner operating environment by exhausting the pilot air through the main valve body rather than directly to the atmosphere.

Outstanding seal performance

The new rubber seals offer improved durability and performance. Valve failures due to line contaminants have been greatly reduced. (Ozone resistant seals available by special order.)



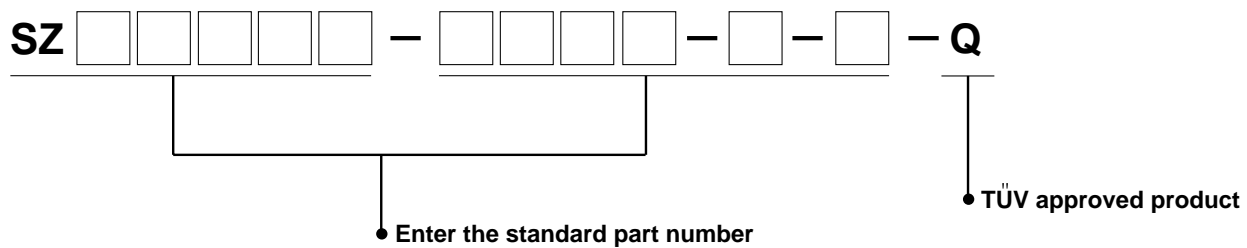
TÜV Approved Product

(Conforms to standards necessary to satisfy EC directives.)

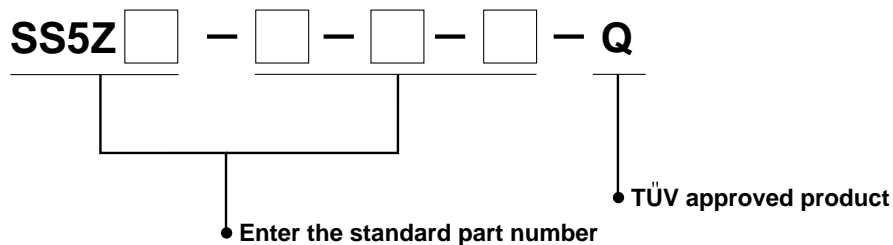
The SZ series has received approval for conformity to standards related to EMC Directives and DIN VDE 0580, from TÜV Rheinland, an EC Notified Body (EC authorization No. 0197). Moreover, since the rated voltage for this series is 50VDC or less, it is not subject to low voltage directives.

When ordering TÜV approved products, add "- Q" at the end of the standard part number.

Example of how to order a valve



Example of how to order a manifold



Note) Contact SMC for details, as there are limitations on product models, voltage specifications and electrical entry, etc.

5 Port Solenoid Valve

Series SZ3000

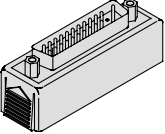
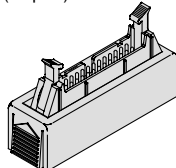
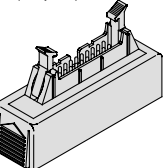
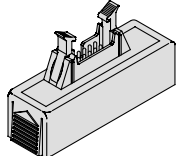
Plug-in Type

How to Order

• Plug-in manifold with power supply terminals

SS5Z3 - 60 **F** **D** **1** - **05** **U** **□** **□** - **P** - **□**

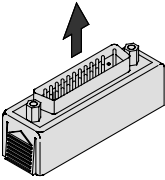
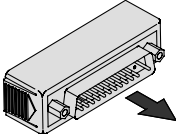
• Connector type

F: D-Sub connector (25 pins) 	P: Flat cable (26 pins) 
PG: Flat cable (20 pins) 	PH: Flat cable (10 pins) 

• Connector mounting position

Symbol	Mounting position
D	D side

• Connector entry direction

1: Perpendicular connector 	2: Lateral connector 
--	--

• Supply/Exhaust block mounting position

U	U Side (2 to 10 stations)
D	D Side (2 to 10 stations)
B	Both sides (2 to 20 stations)
*M	Special specifications

* In the case of special specifications, indicate separately on a manifold specification sheet.
 Note) A total of up to 3 supply/exhaust blocks can be mounted. Contact SMC if 4 or more will be mounted.

• Pilot specifications

Nil	Internal pilot specifications
R	External pilot specifications

• Options

When a DIN rail is required that is longer than the standard types, specify the number of stations.

• Power supply terminal specifications

Symbol	Specifications
P	24VDC, positive common
P12	12VDC, positive common
N	24VDC, negative common
N12	12VDC, negative common

• Supply/Exhaust block fitting specifications

Nil	Straight
L	Elbow fittings (upward)
B	Elbow fittings (downward)

• Valve stations

F: D-sub connector

Symbol	Stations	Note
02	2 stations	Double wiring specification <small>Note 1)</small>
⋮	⋮	
10	10 stations	Specified layout <small>Note 2)</small> (up to 21 solenoids possible)
02	2 stations	
⋮	⋮	
20	20 stations	

P: Flat cable connector (26 pins)

Symbol	Stations	Note
02	2 stations	Double wiring specification
⋮	⋮	
11	11 stations	Specified layout (up to 22 solenoids possible)
02	2 stations	
⋮	⋮	
20	20 stations	

PG: Flat cable connector (20 pins)

Symbol	Stations	Note
02	2 stations	Double wiring specification
⋮	⋮	
08	8 stations	Specified layout (up to 16 solenoids possible)
02	2 stations	
⋮	⋮	
16	16 stations	

PH: Flat cable connector (10 pins)

Symbol	Stations	Note
02	2 stations	Double wiring specification
⋮	⋮	
04	4 stations	Specified layout (up to 8 solenoids possible)
02	2 stations	
⋮	⋮	
08	8 stations	

Note 1) Double wiring specifications: Single, double and 3 position/4 position solenoid valves can be used at all of the manifold stations.

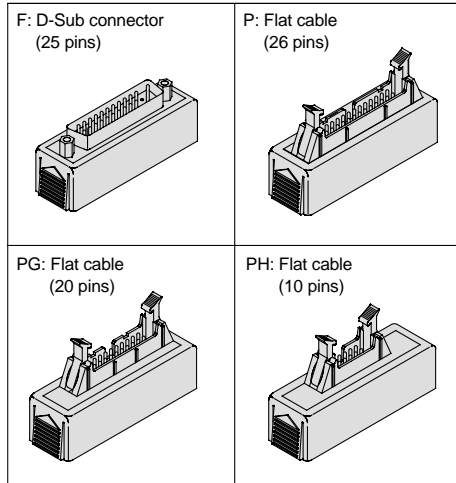
Note 2) Specified layout: Indicate the wiring specifications on a manifold specification sheet. (Please note that in locations where single solenoid wiring is indicated, it will be impossible to use double or 3 position/4 position valves.)

How to Order

• Plug-in manifold [without power supply terminals]

SS5Z3-60 **F** **D** **1** - **05** **U** -

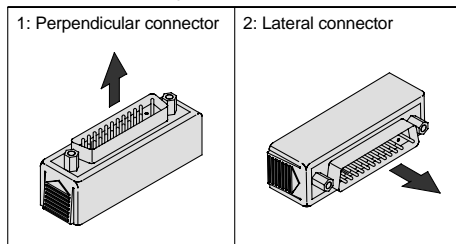
• Connector type



• Connector mounting position

Symbol	Mounting position
D	D side

• Connector entry direction



• Supply/Exhaust block mounting position

U	U Side (2 to 10 stations)
D	D Side (2 to 10 stations)
B	Both sides (2 to 20 stations)
*M	Special specifications

* In the case of special specifications, indicate separately on a manifold specification sheet.

Note) A total of up to 3 supply/exhaust blocks can be mounted. Contact SMC if 4 or more will be mounted.

• Valve stations

F: D-sub connector

Symbol	Stations	Note
02	2 stations	Double wiring specification <small>Note 1)</small>
⋮	⋮	
12	12 stations	Specified wiring <small>Note 2)</small> (up to 24 solenoids possible)
13	13 stations	
⋮	⋮	
20	20 stations	

P: Flat cable connector (26 pins)

Symbol	Stations	Note
02	2 stations	Double wiring specification
⋮	⋮	
12	12 stations	Specified wiring (up to 25 solenoids possible)
13	13 stations	
⋮	⋮	
20	20 stations	

PG: Flat cable connector (20 pins)

Symbol	Stations	Note
02	2 stations	Double wiring specification
⋮	⋮	
09	9 stations	Specified wiring (up to 19 solenoids possible)
10	10 stations	
⋮	⋮	
19	19 stations	

PH: Flat cable connector (10 pins)

Symbol	Stations	Note
02	2 stations	Double wiring specification
⋮	⋮	
04	4 stations	Specified wiring (up to 9 solenoids possible)
05	5 stations	
⋮	⋮	
09	9 stations	

Note 1) Double wiring specifications: Single, double and 3 position/4 position solenoid valves can be used at all of the manifold stations.

Note 2) Specified layout: Indicate the wiring specifications on a manifold specification sheet. (Please note that in locations where single solenoid wiring is indicated, it will be impossible to use double or 3 position/4 position valves.)

• Options

When a DIN rail is required that is longer than the standard types, specify the number of stations.

• Supply/Exhaust block fitting specifications

Nil	Straight
L	Elbow fittings (upward)
B	Elbow fittings (downward)

• Pilot specifications

Nil	Internal pilot specifications
R	External pilot specifications

How to Order

• **How to order solenoid valves** For plug-in (common for both with and without power supply terminals)

SZ3 **1** **60** **□** **□** **-** **5** **□** **LOZ** **□** **□** **-** **C6**

• **Type of actuation**

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center
A	4 position dual 3 port valve: N.C./N.C.
B	4 position dual 3 port valve: N.O./N.O.
C	4 position dual 3 port valve: N.C./N.O.

• **Rated voltage**

5	24VDC
6	12VDC

- When using on a manifold with power supply terminals, be sure to match with the manifold's voltage specifications.

• **Back pressure check valve**

Nil	None
K	Built-in

- The built-in back pressure check valve type has an effective area approximately 20% smaller.
- The 3 position closed center and 3 position pressure center are not available with back pressure check valve.

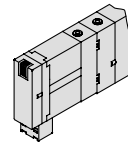
• **Pilot specifications**

Nil	Internal pilot
R	External pilot

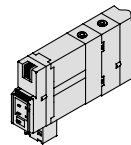
- The 4 position dual 3 port valve is not available with external pilot specifications.

• **Switch specifications**

Nil: Without switch



J: With switch



* Refer to page 48 regarding switch operation.

• **Common specifications**

Nil	Pos. common
N	Neg. common

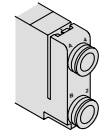
- When using on a manifold with power supply terminals, be sure to match with the manifold's common specifications.

• **Manual override**

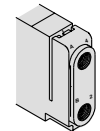
Nil: Non-locking push type 	D: Slotted locking type Screw driver operated
--------------------------------	--

• **A, B port size**

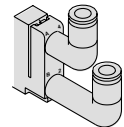
C4: ø4 One-touch fitting
C6: ø6 One-touch fitting



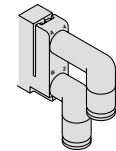
M5: M5 x 0.5



Elbow fitting assembly (upward)
L4: ø4 elbow fitting assembly
L6: ø6 elbow fitting assembly



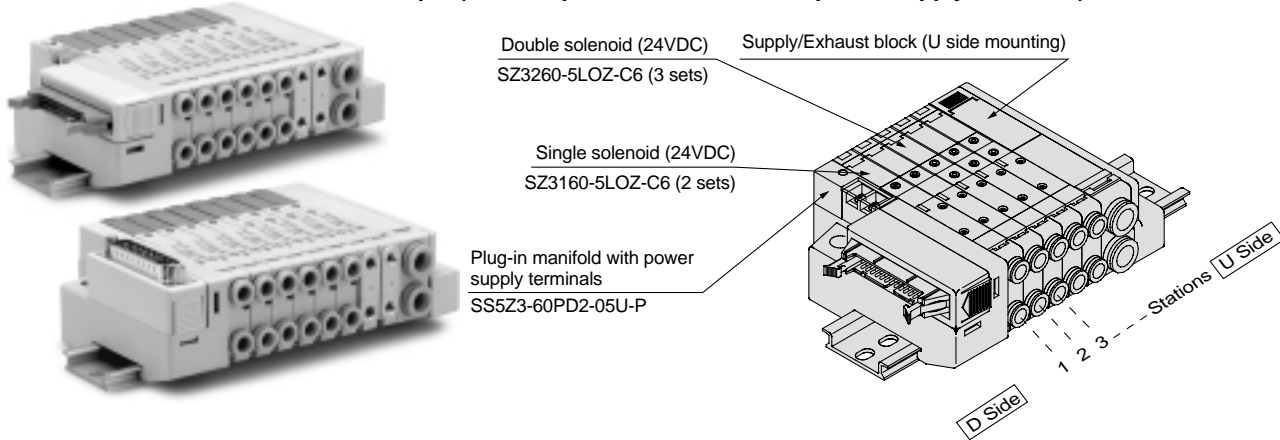
Elbow fitting assembly (downward)
B4: ø4 elbow fitting assembly
B6: ø6 elbow fitting assembly



Series SZ3000

How to Order Manifold Assemblies (Example)

Example (SZ3000, positive common with power supply terminals)



SS5Z3-60PD2-05U-P....1 set (manifold part number)
 *SZ3160-5LOZ-C6 2 sets (single solenoid part number)
 *SZ3260-5LOZ-C6 3 sets (double solenoid part number)

The * symbol indicates built-in. Put the * symbol at the beginning of the part numbers for solenoid valves, etc., which are to be attached.

- Valve stations are numbered **from station 1 on the D side.**
- Indicate the valves to be attached below the manifold part number, in order starting from station 1 as shown in the drawing. When a layout becomes complicated, please indicate on a manifold specification sheet. (Manifold specification sheet on page 37.)

Manifold Specifications

Model	D-sub connector 60F	Flat cable type 60P□		
		60P	60PG	60PH
Manifold type	Plug-in type			
P (SUP), R (EXH) system	Common SUP, EXH			
Valve stations (with power terminal)	2 to 20 stations		2 to 16 stations	2 to 8 stations
A, B port piping specifications	Location	Valve		
	Direction	Lateral, Upward, Downward		
Port size	P, R ports	C8		
	A/B ports	C4, C6, M5		
Valve effective area mm² (Cv factor) <small>Note 2)</small>	C4	P→A/B	3.4 (0.19) [3.0 (0.17)]	
		A/B→R	3.2 (0.18) [3.2 (0.18)]	
	C6	P→A/B	3.7 (0.21) [3.2 (0.18)]	
		A/B→R	3.9 (0.22) [3.8 (0.21)]	
	M5	P→A/B	3.4 (0.19) [3.2 (0.18)]	
		A/B→R	3.2 (0.18) [3.2 (0.18)]	
Applicable connector	D-sub connector Complies with MIL-C-24308 JIS-X-5101	Flat cable connector Socket: 26 pin MIL type with strain relief Complies with MIL-C-83503	Flat cable connector Socket: 20 pin MIL type with strain relief Complies with MIL-C-83503	Flat cable connector Socket: 10 pin MIL type with strain relief Complies with MIL-C-83503
Internal wiring	+COM, -COM			
Weight W (g) <small>Note 3)</small> (n1: Stations n2: Number of supply/exhaust blocks m: Weight of DIN rail	$W = 3.2n_1 + 53n_2 + m + 126.5$			

Note 1) In cases such as those where many valves are operated simultaneously, use type B (double side supply/exhaust), applying pressure to the P ports on both sides and exhausting from the R ports on both sides.

Note 2) • The value is for manifold base mounting (5 stations). 2 position type with individual operation.

- Values inside [] are for 4 position dual 3 port valves. Furthermore, when the "A" and "B" sides of a 4 position dual 3 port valve are operated simultaneously, the value for the Cv factor will be approximately 35% less than shown in the table above.
- The Cv factor for a valve with back pressure check valve will be approximately 20% less than shown in the table above.

Note 3) The weight W is the value for the D-sub connector manifold with power supply terminals only. To obtain the weight with solenoid valves attached, add the solenoid valve weights given on page 5 for the appropriate number of stations. Refer to page 7 for the weight of DIN rails.

Cassette Type Manifold **Series SZ3000**

Solenoid Valve Specifications

Series		SZ3000	
Fluid		Air	
Internal pilot operating pressure range MPa	2 position single	0.15 to 0.7	
	2 position double	0.1 to 0.7	
	3 position	0.2 to 0.7	
	4 position dual 3 port valve	0.15 to 0.7	
External pilot operating pressure range MPa	Operating pressure range		-100kPa to 0.7
	Pilot pressure range	2 position single	0.25 to 0.7
		2 position double	0.25 to 0.7
		3 position	0.25 to 0.7
Ambient and fluid temperature °C		Maximum 50	
Max. operating frequency Hz	2 position single, double	10	
	4 position dual 3 port valve		
	3 position	3	
Manual override		Non-locking push type, Screw driver operated slotted locking type	
Pilot system		Main valve/Pilot valve common exhaust type	
Lubrication		Not required	
Mounting position		Unrestricted	
Impact/Vibration resistance m/s ² <small>Note)</small>		150/30 (8.3 to 2000Hz)	
Enclosure		Dust proof	

Note) Impact resistance: No malfunction when tested with a drop tester in the axial direction and at a right angle to the main valve and armature one time each in both an energized and deenergized condition. (initial value)

Vibration resistance: No malfunction when tested with one sweep of 8.3 to 2000Hz in the axial direction and at a right angle to the main valve and armature one time each in both an energized and deenergized condition. (initial value)

Solenoid Specifications

Electrical entry	L type (for plug-in), M type plug connector (M)
Rated coil voltage V <small>Note)</small>	24, 12, 6, 5, 3DC
Allowable voltage fluctuation	±10% of rated voltage
Power consumption W	0.6 (with light: 0.65)
Surge voltage suppressor	Diode
Indicator light	LED

Note) Only 24VDC and 12VDC are available for plug-in use.

Response Time

Note) Based on JISB8375-1981 dynamic performance test (with coil temperature of 20°C and at rated voltage).

Type of actuation	Response time ms (at 0.5MPa)	
	Without surge voltage suppressor	With surge voltage suppressor S, Z type
2 position single	12 or less	15 or less
2 position double	10 or less	13 or less
3 position	15 or less	20 or less
4 position dual 3 port valve	30 or less	35 or less

Weight Table

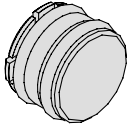
Valve model	Type of actuation		Port size	Weight g
			A, B	
SZ3□60□-C4	2 position	Single	C4 (ø4 One-touch fitting)	78
		Double		84
	3 position	Closed center		88
		Exhaust center		
		Pressure center		
	4 position	Dual 3 port valve		84
SZ3□60□-C6	2 position	Single	C6 (ø6 One-touch fitting)	74
		Double		81
	3 position	Closed center		85
		Exhaust center		
		Pressure center		
	4 position	Dual 3 port valve		81
SZ3□60□-M5	2 position	Single	M5 x 0.8	69
		Double		75
	3 position	Closed center		79
		Exhaust center		
		Pressure center		
	4 position	Dual 3 port valve		75

Series SZ3000

Manifold Options

■ SUP blocking disk

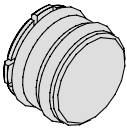
By installing a SUP blocking disk in the pressure supply passage of a manifold valve, it is possible to supply two or more different high and low pressures to one manifold. (Use in combination with a pilot port blocking disk.)



Series	Part no.
SZ3000	SZ3000-114-4A

■ EXH blocking disk

By installing an EXH blocking disk in the exhaust passage of a manifold valve, it is possible to divide the valve's exhaust so that it does not affect another valve. (Two blocking disk are needed to divide both exhausts.)



Series	Part no.
SZ3000	SZ3000-114-4A

■ Pilot port blocking disk

By installing a pilot port blocking disk in the pilot passage of a manifold valve, it can function as an internal pilot/external pilot mixed manifold.



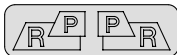
Series	Part no.
SZ3000	SZ3000-114-2A

■ Indicator stickers for blocking disks

These stickers are to be put on valves in which SUP and EXH blocking disks have been installed so that confirmation is possible from the outside. (3pcs. of each are included.)

SZ3000-155-1A

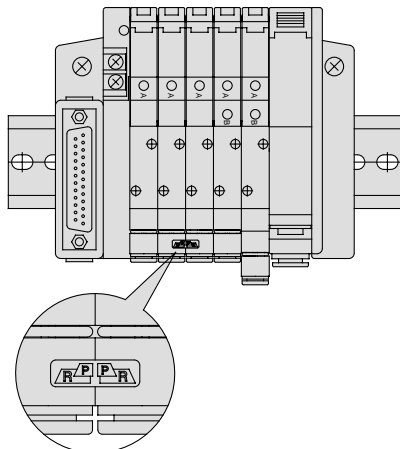
Sticker for SUP/EXH blocking disk Sticker for EXH blocking disk



Sticker for SUP blocking disk Sticker for pilot passage blocking disk

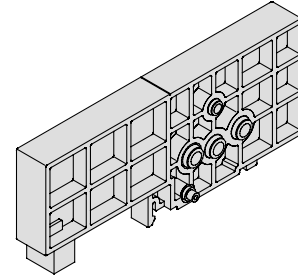


* If blocking disks are ordered on manifold specification sheets, etc., at the same time that manifolds are ordered, stickers will be attached to the valves with blocking disks installed before shipment.



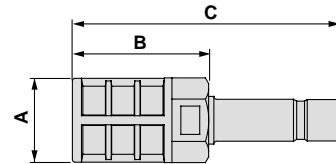
■ Blanking block assembly SZ3000-55-1A

These are mounted when later addition of valves is planned, etc.



■ Silencer with One-touch fitting

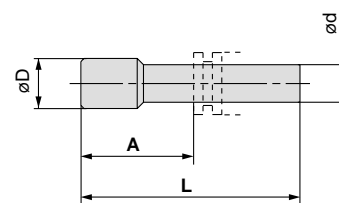
This silencer can be mounted on the manifold's port R (exhaust) with a single touch.



Series	Model	Effective sectional area	A	B	C
for SZ3000 (ø8)	AN203-KM8	14mm ²	ø16	26	51

■ Plugs (white)

These are inserted in cylinder ports or SUP/EXH ports which are not being used. They can be ordered in multiples of 10 pieces.



Dimensions

Applicable fitting size ød	Model	A	L	D
4	KQ2P-04	16	32	6
6	KQ2P-06	18	35	8
8	KQ2P-08	20.5	39	10

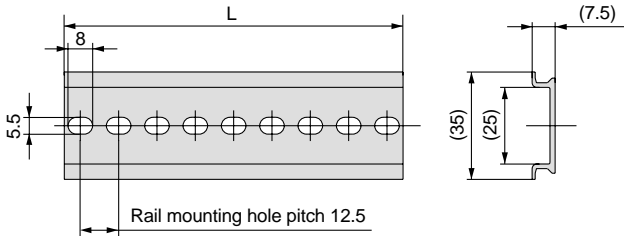
Manifold Options

■ DIN rail dimensions/Weight table

VZ1000-11-1-□

• Refer to the L dimension tables

* Enter a number from the DIN rail dimension table below in the □.



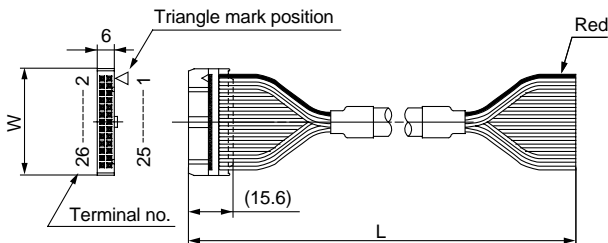
No.	0	1	2	3	4	5	6	7	8	9
L dimension	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5
Weight (g)	17.6	19.9	22.1	24.4	26.6	28.9	31.1	33.4	35.6	37.9

No.	10	11	12	13	14	15	16	17	18	19
L dimension	223	235.5	248	260.5	273	285.5	298	310.5	323	335.5
Weight (g)	40.1	42.4	44.6	46.9	49.1	51.4	53.6	55.9	58.1	60.4

No.	20	21	22	23	24	25	26	27	28	29
L dimension	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5
Weight (g)	62.6	64.9	67.1	69.4	71.6	73.9	76.1	78.4	80.6	82.9

■ Flat cable type/Cable assembly

AXT100-FC□- $\frac{1}{3}$



Flat cable assembly

Cable length (L)	10 pins	20 pins	26 pins
1.5m	AXT100-FC10-1	AXT100-FC20-1	AXT100-FC26-1
3m	AXT100-FC10-2	AXT100-FC20-2	AXT100-FC26-2
5m	AXT100-FC10-3	AXT100-FC20-3	AXT100-FC26-3
Connector width (W)	17.2	30	37.5

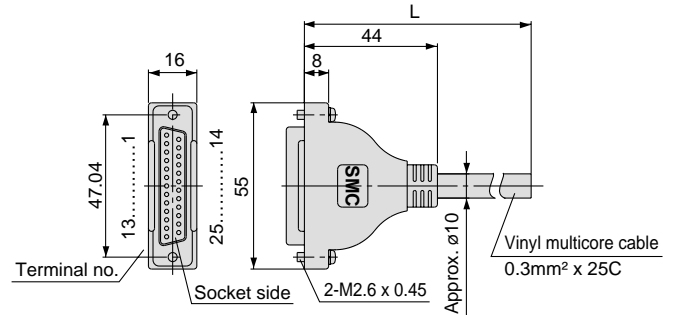
* If it is desired to use a commercially available connector, use one conforming to MIL-C-83503 with strain relief.

Sample of connector manufacturers

- HIROSE ELECTRIC COMPANY
- SUMITOMO/3-M LIMITED
- FUJITSU LTD.
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.

■ D-sub connector (25 pins)/Cable assembly

AXT100-DS25- $\frac{015}{030}{050}$



D-sub connector cable assembly wire colors by terminal number

Terminal no.	Lead wire color	Dot marking
1	Black	None
2	Brown	None
3	Red	None
4	Orange	None
5	Yellow	None
6	Pink	None
7	Blue	None
8	Purple	White
9	Gray	Black
10	White	Black
11	White	Red
12	Yellow	Red
13	Orange	Red
14	Yellow	Black
15	Pink	Black
16	Blue	White
17	Purple	None
18	Gray	None
19	Orange	Black
20	Red	White
21	Brown	White
22	Pink	Red
23	Gray	Red
24	Black	White
25	White	None

D-sub connector cable assembly

Cable length (L)	Assembly no.	Note
1.5m	AXT100-DS25-015	Cable 25 cores x24AWG
3m	AXT100-DS25-030	
5m	AXT100-DS25-050	

* If it is desired to use a commercially available cable, use a 25 pin female type connector conforming to MIL-C24308.

Sample of connector manufacturers

- HIROSE ELECTRIC COMPANY
- FUJITSU LTD.
- Japan Aviation Electronics Industry, Ltd.
- J.S.T. Mfg. Co., Ltd.

Electrical characteristics

Item	Characteristic
Conductor resistance Ω/km , 20°C	65 or less
Withstand voltage VAC for 1min.	1000
Insulation resistance $M\Omega/\text{km}$, 20°C	5 or less

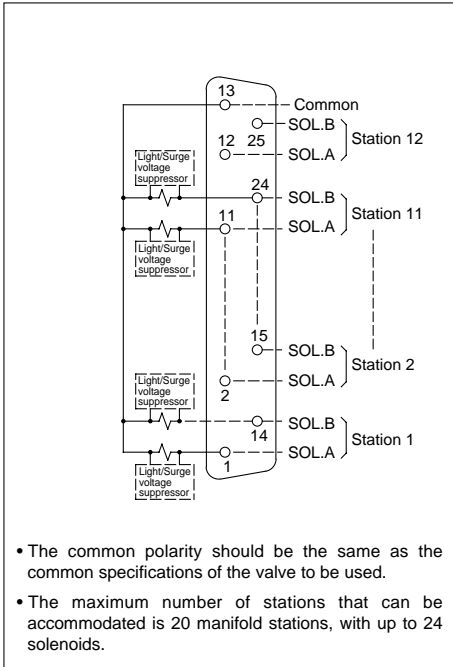
Note) The minimum inside bending radius for the D-sub connector cable is 20mm.

Series SZ3000

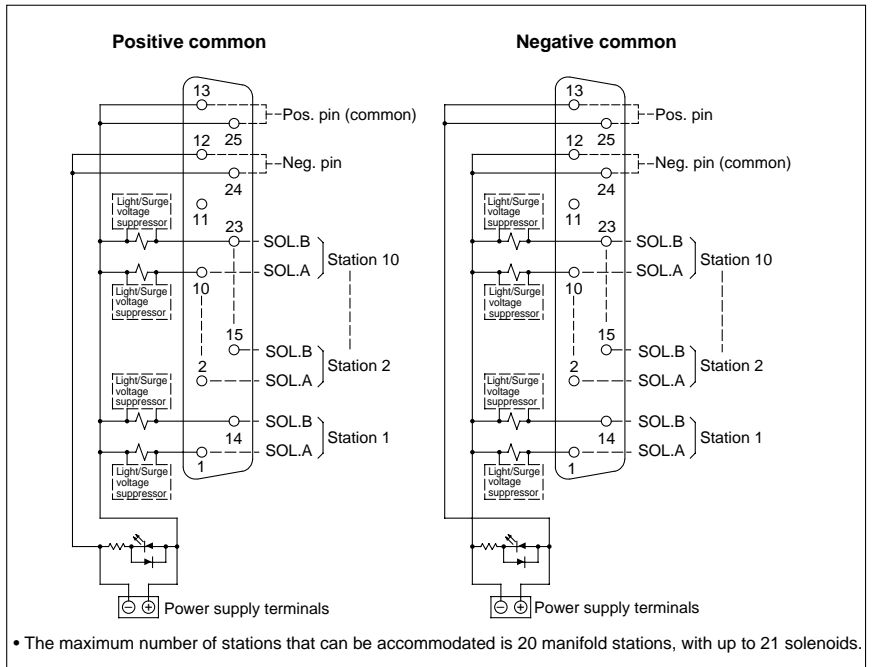
Manifold Electrical Wiring

60F D-sub connector type (25 pins)

• Without power supply terminals



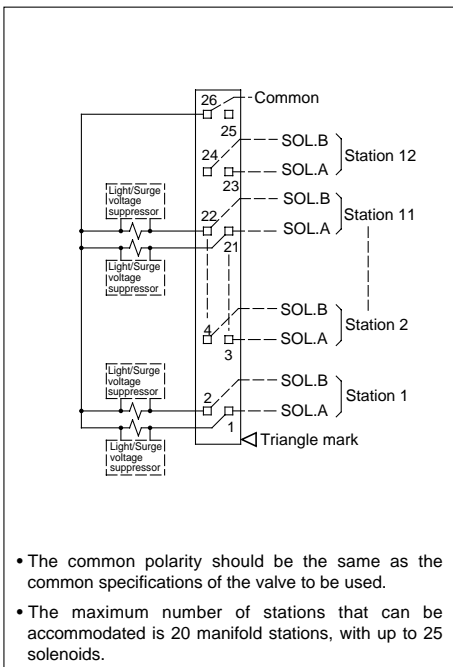
• With power supply terminals



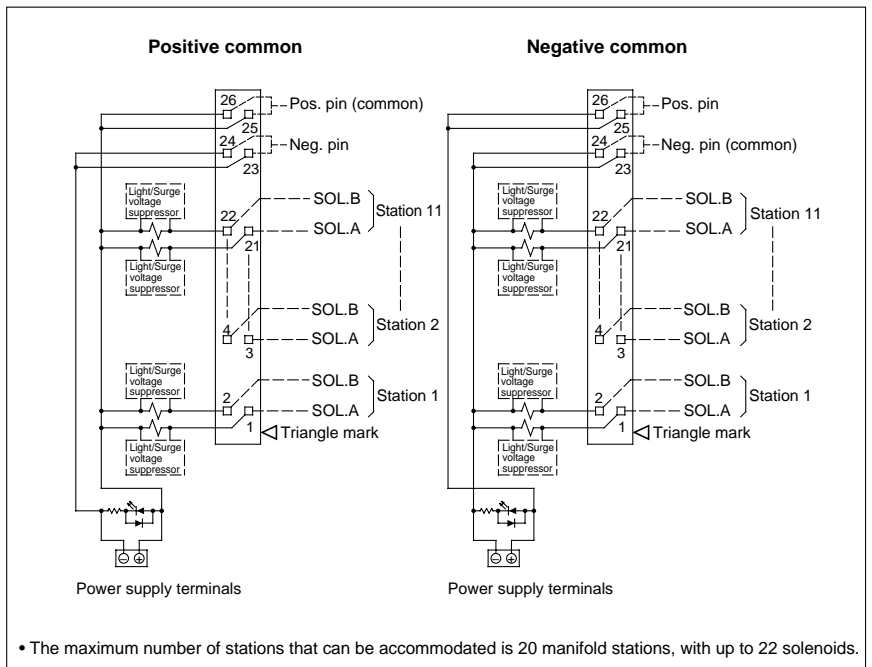
- The circuits above are for the double wiring specification with up to 10 or 12 stations. Connect to SOL.A in the case of a single solenoid. Moreover, when wiring instructions are given on a manifold specification sheet, the "A" signal for single and the "A, B" signals for double should be wired in order 1, 14, 2, 15.....etc., without skipping or leaving any connectors remaining.
- Stations are counted starting with station 1 on the D side.

60P Flat cable type (26 pins)

• Without power supply terminals



• With power supply terminals

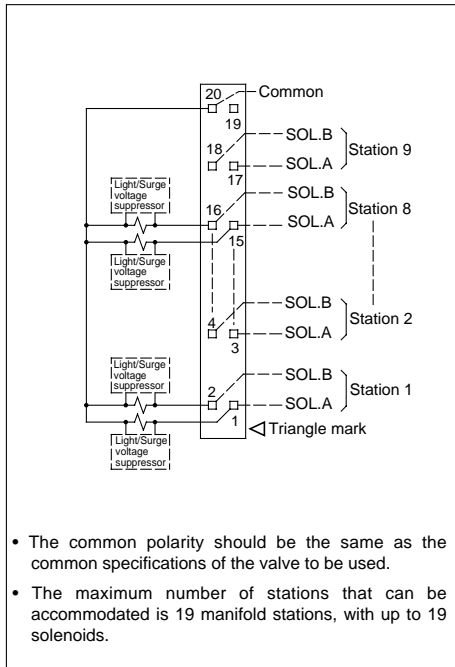


- The circuits above are for the double wiring specification with up to 11 or 12 stations. Connect to SOL.A in the case of a single solenoid. Moreover, when wiring instructions are given on a manifold specification sheet, the "A" signal for single and the "A, B" signals for double should be wired in order 1, 2, 3, 4.....etc., without skipping or leaving any connectors remaining.
- Stations are counted starting with station 1 on the D side.
- Since terminal numbers are not indicated on the flat cable, use the triangle mark as a reference when wiring.

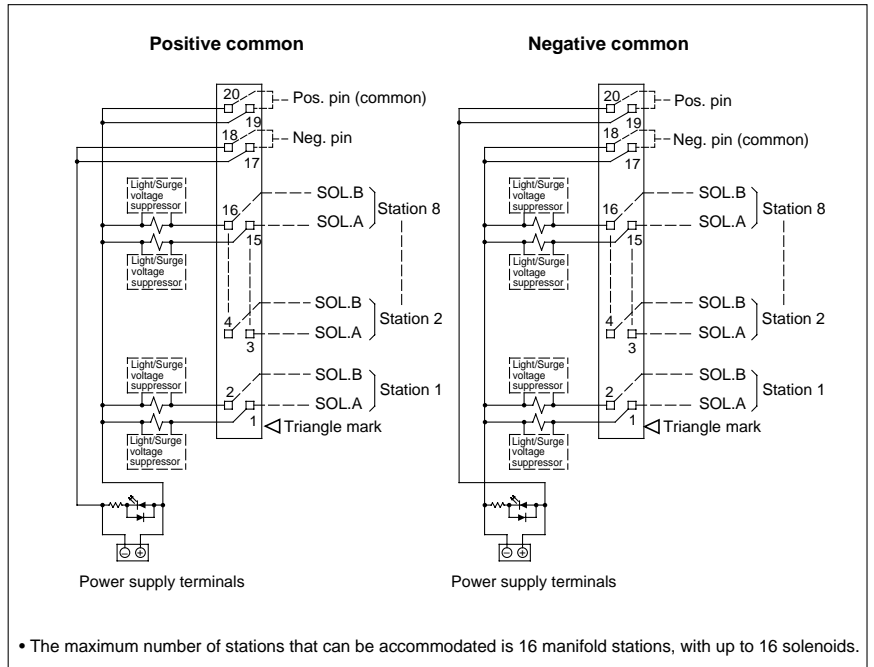
Manifold Electrical Wiring

60PG Flat cable type (20 pins)

• Without power supply terminals



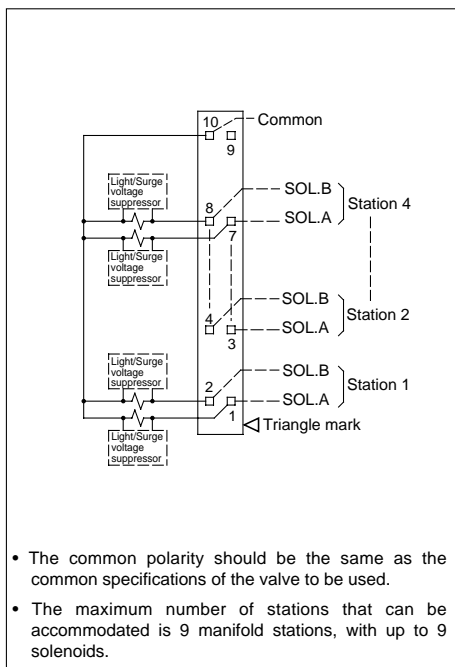
• With power supply terminals



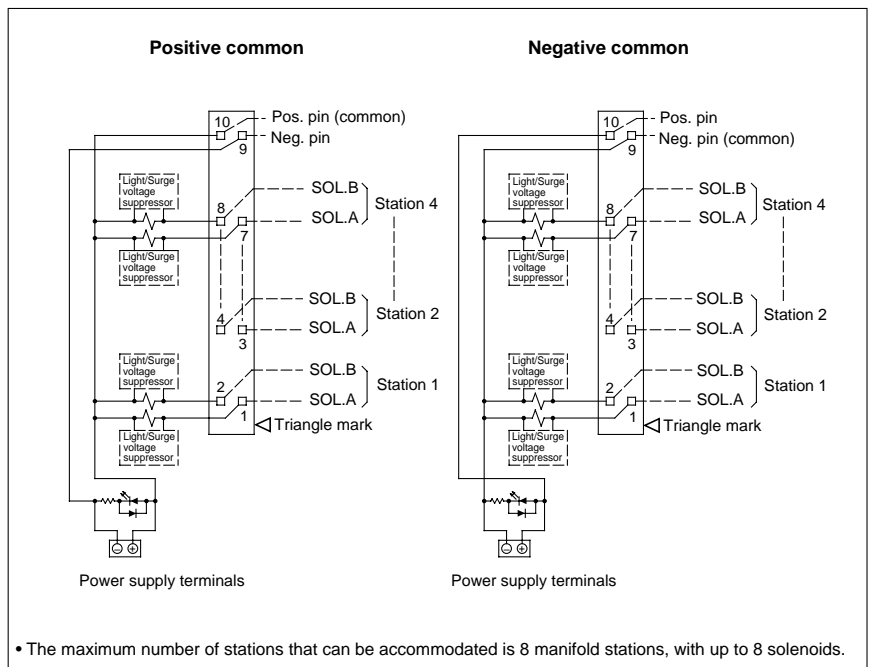
- The circuits above are for the double wiring specification with up to 8 or 9 stations. Connect to SOL.A in the case of a single solenoid. Moreover, when wiring instructions are given on a manifold specification sheet, the "A" signal for single and the "A, B" signals for double should be wired in order 1, 2, 3, 4.....etc., without skipping or leaving any connectors remaining.
- Stations are counted starting with station 1 on the D side.
- Since terminal numbers are not indicated on the flat cable, use the triangle mark as a reference when wiring.

60PH Flat cable type (10 pins)

• Without power supply terminals



• With power supply terminals



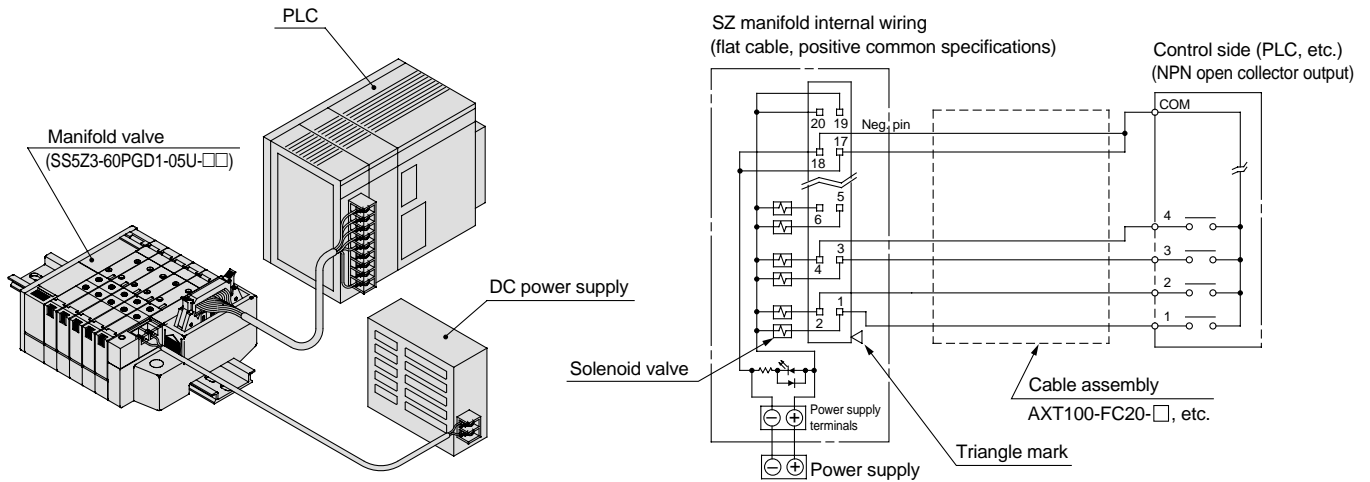
- The circuits above are for the double wiring specification with up to 4 stations. Connect to SOL.A in the case of a single solenoid. Moreover, when wiring instructions are given on a manifold specification sheet, the "A" signal for single and the "A, B" signals for double should be wired in order 1, 2, 3, 4.....etc., without skipping or leaving any connectors remaining.
- Stations are counted starting with station 1 on the D side.
- Since terminal numbers are not indicated on the flat cable, use the triangle mark as a reference when wiring.

Series SZ3000

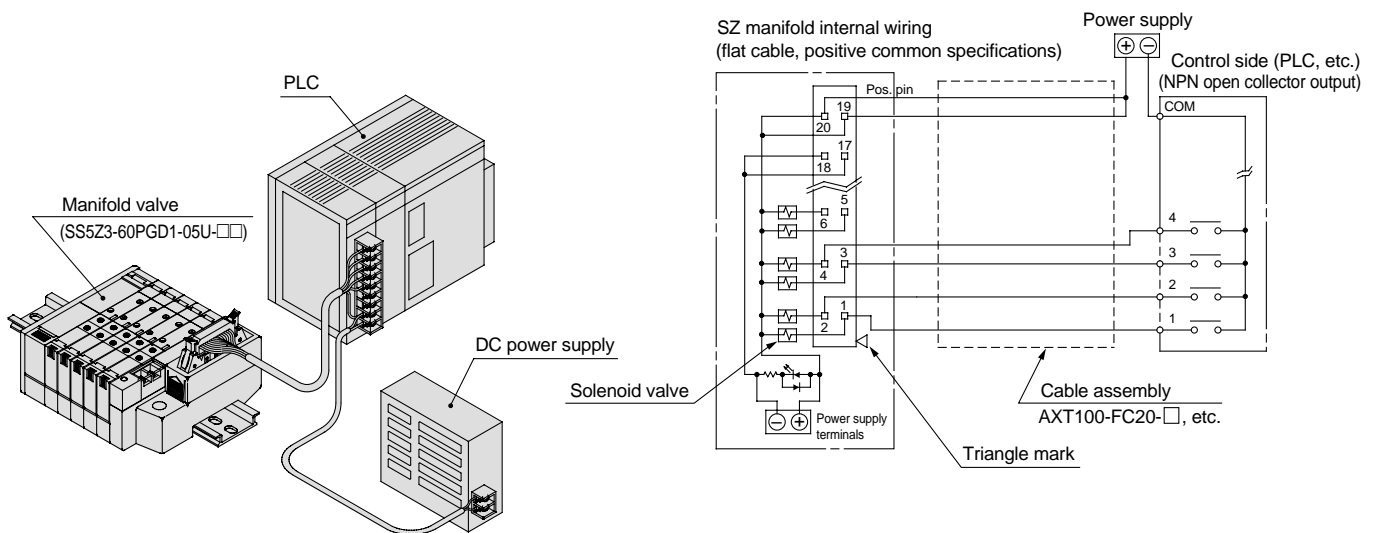
Wiring of Plug-in Type Manifold with Power Supply Terminals (Examples)

- Since the power supply to drive valves with power supply terminals can be supplied from either the control side or the manifold side, these wiring examples should be used for reference when wiring is performed.

1. Wiring example when using manifold power supply terminals



2. Wiring example when not using manifold power supply terminals (power is supplied to the control side or along the wiring, etc.)



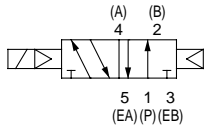
⚠ Caution

- When connecting to a PLC (Programmable Logic Controller), etc., wiring such as the signal lines and COM position will differ with each manufacturer. Connections should be made after thoroughly reviewing the electrical circuits of both units in their catalogs or other materials. If connections are made incorrectly, failure may occur not only in the manifolds and valves but also in the PLC (control side) and power supply.

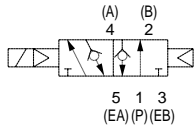
Construction

JIS symbol

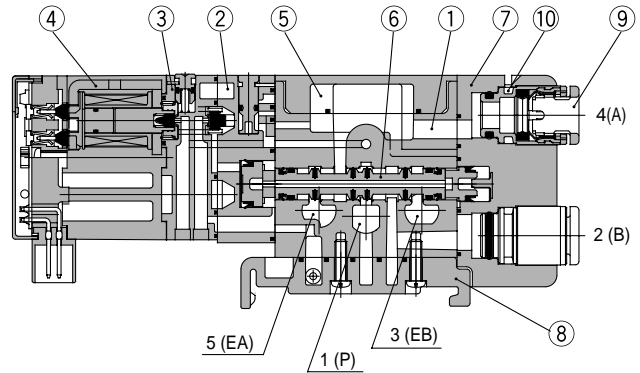
2 position single



2 position single with back pressure check valve

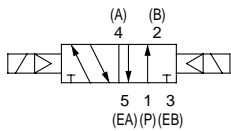


2 position single

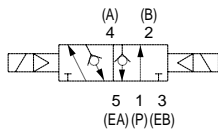


JIS symbol

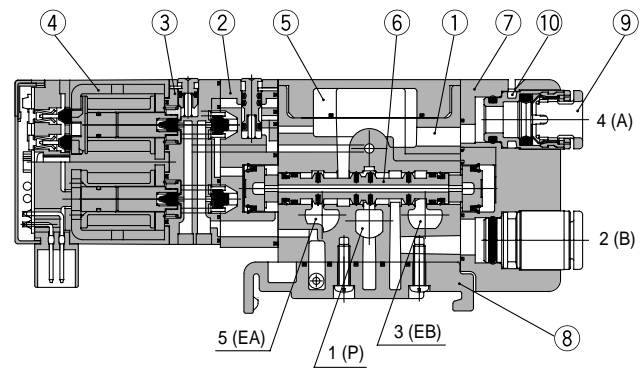
2 position double



2 position double with back pressure check valve

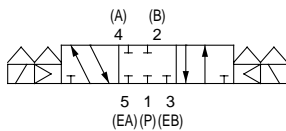


2 position double

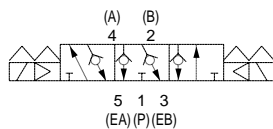


JIS symbol

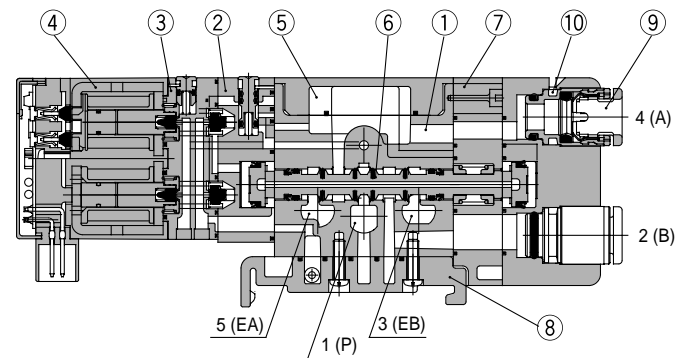
3 position closed center



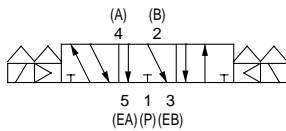
3 position exhaust center with back pressure check valve



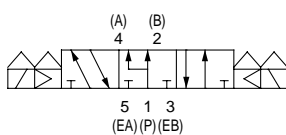
3 position closed center/exhaust center/pressure center



3 position exhaust center



3 position pressure center



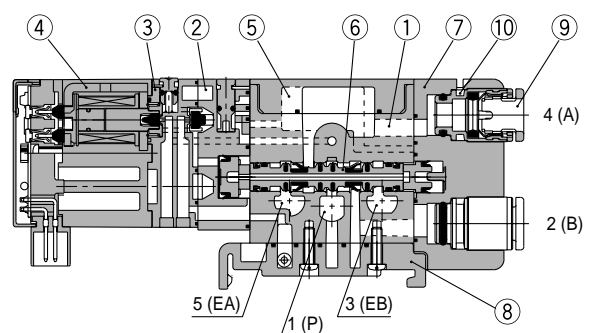
Parts list

No.	Description	Material	Note
1	Body	Zinc die cast	-
2	Adapter plate	PBT	White
3	Pilot body	PA	White
4	Molded coil	-	Gray
5	Body cover	PA	White
6	Spool valve assembly	Aluminum/NBR	-
7	Port block	PA	White
8	Bottom cover assembly	-	White

Replacement parts

No	Description	Part no.
9	One-touch fitting	Refer to One-touch fitting part number information on page 51.
10	Clip	SX3000-115-2

2 position single with back pressure check valve

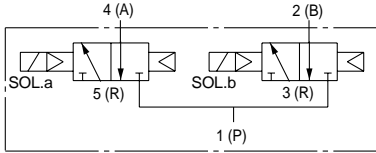


Series SZ3000

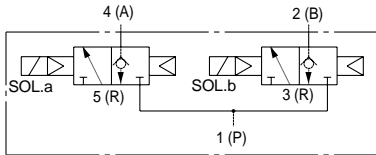
JIS symbol

4 position dual 3 port valve

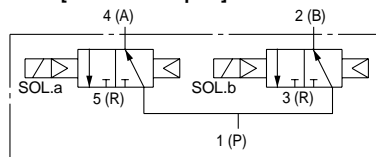
SZ3A60 [N.C. valve x 2pcs.]



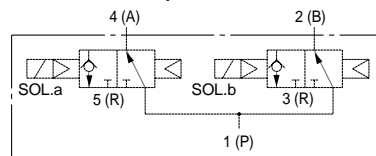
SZ3A60K/With back pressure check valve



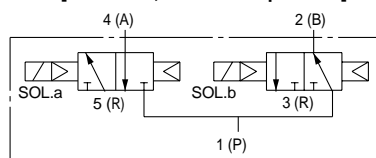
SZ3B60 [N.C. valve x 2pcs.]



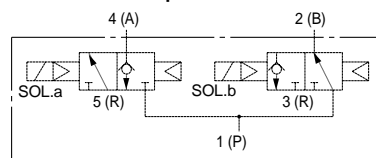
SZ3B60K/With back pressure check valve



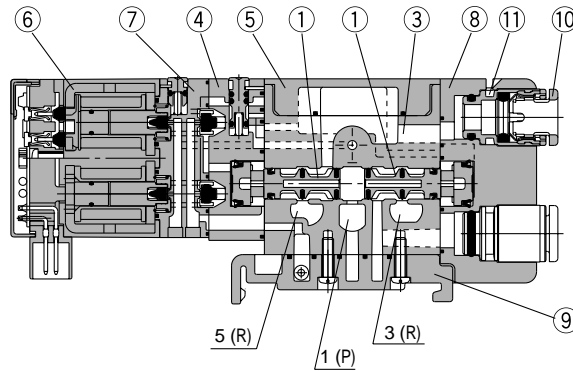
SZ3C60 [N.C. valve, N.O. valve 1pc. each]



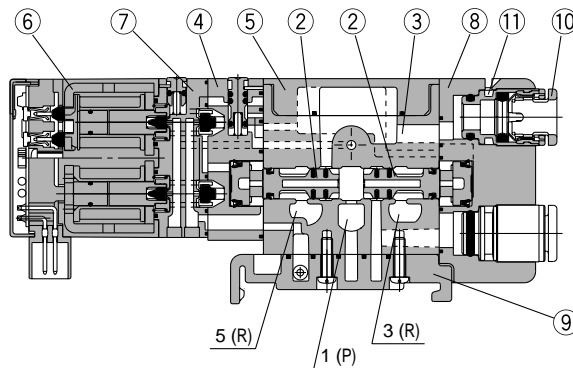
SZ3C60K/With back pressure check valve



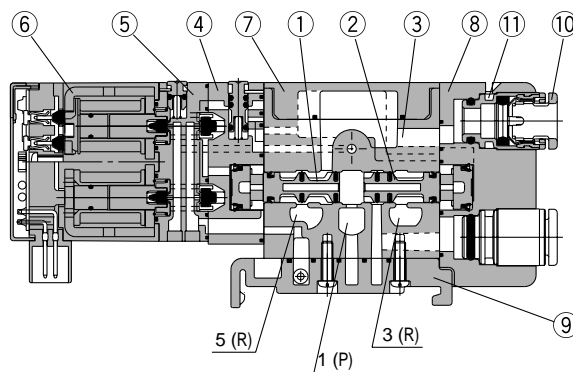
SZ3A60 [N.C. valve x 2pcs.]



SZ3B60 [N.O. valve x 2pcs.]



SZ3C60 [N.C valve, N.O. valve 1pc. each]



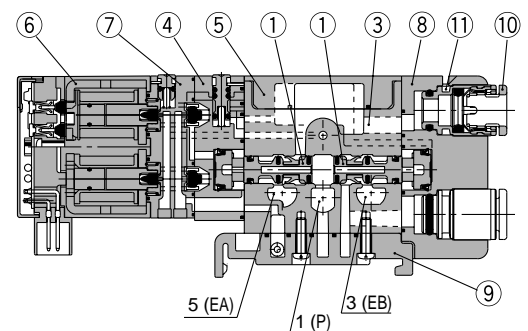
Parts list

No.	Description	Material	Note
1	Spool valve assembly	PA/NBR	For N.C. (normally closed)
2	Spool valve assembly	PA/NBR	For N.O. (normally open)
3	Body	Zinc die cast	—
4	Adapter plate	PBT	White
5	Pilot body	PA	White
6	Molded coil	—	Gray
7	Body cover	PA	White
8	Port block	PA	White
9	Bottom cover assembly	—	White

Replacement parts

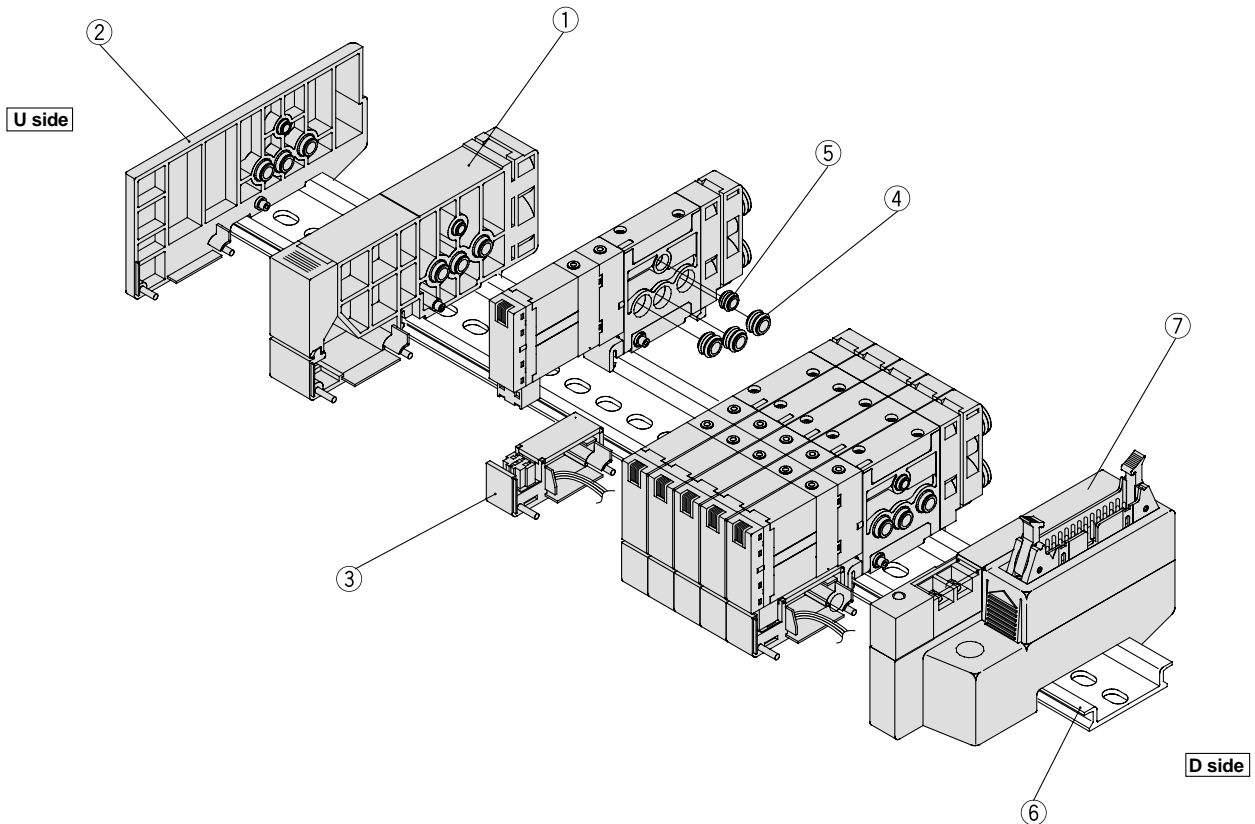
No.	Description	Part no.
10	One-touch fitting	Refer to One-touch fitting part number information on page 51.
11	Clip	SX3000-115-2

SZ3A60K/With back pressure check valve



Manifold Exploded View

60P manifold (plug-in, flat cable type)



Parts list

No.	Description	Part no.	Note
1	Supply/Exhaust block assembly	SZ3000-50-1A-^{C6}_{C8}	C6: with ø6 One-touch fitting, C8: with ø8 One-touch fitting
2	End block assembly	SZ3000-53-1A	
3	Housing holder	SX3000-113-1	
4	Bushing assembly	SZ3000-114-3A	
5	Bushing assembly	SZ3000-114-1A	
6	DIN rail	VZ1000-11-1-□	Refer to page 7
7	Connector block assembly	SZ3000-40-□□	Refer to the connector block assembly part no. table below.

Connector block assembly part numbers

Connector specifications	Mounting position	Part no.		Note
		Without power supply terminals	With power supply terminals	
For D-sub connector	D side	SZ3000-40-1A-□□D₂¹	SZ3000-40-2A-□□D₂^{1-P}_N	* 1: Perpendicular connector * 2: Lateral connector P: Positive common N: Negative common
For flat cable 26 pins	D side	SZ3000-40-3A-□□D₂¹	SZ3000-40-4A-□□D₂^{1-P}_N	
For flat cable 20 pins	D side	SZ3000-40-5A-□□D₂¹	SZ3000-40-6A-□□D₂^{1-P}_N	(Note) The assembly part numbers with power supply terminals are 24VDC specifications. If 12VDC specifications are required, enter "12" at the end of the assembly part number.
For flat cable 10 pins	D side	SZ3000-40-7A-□□D₂¹	SZ3000-40-8A-□□D₂^{1-P}_N	

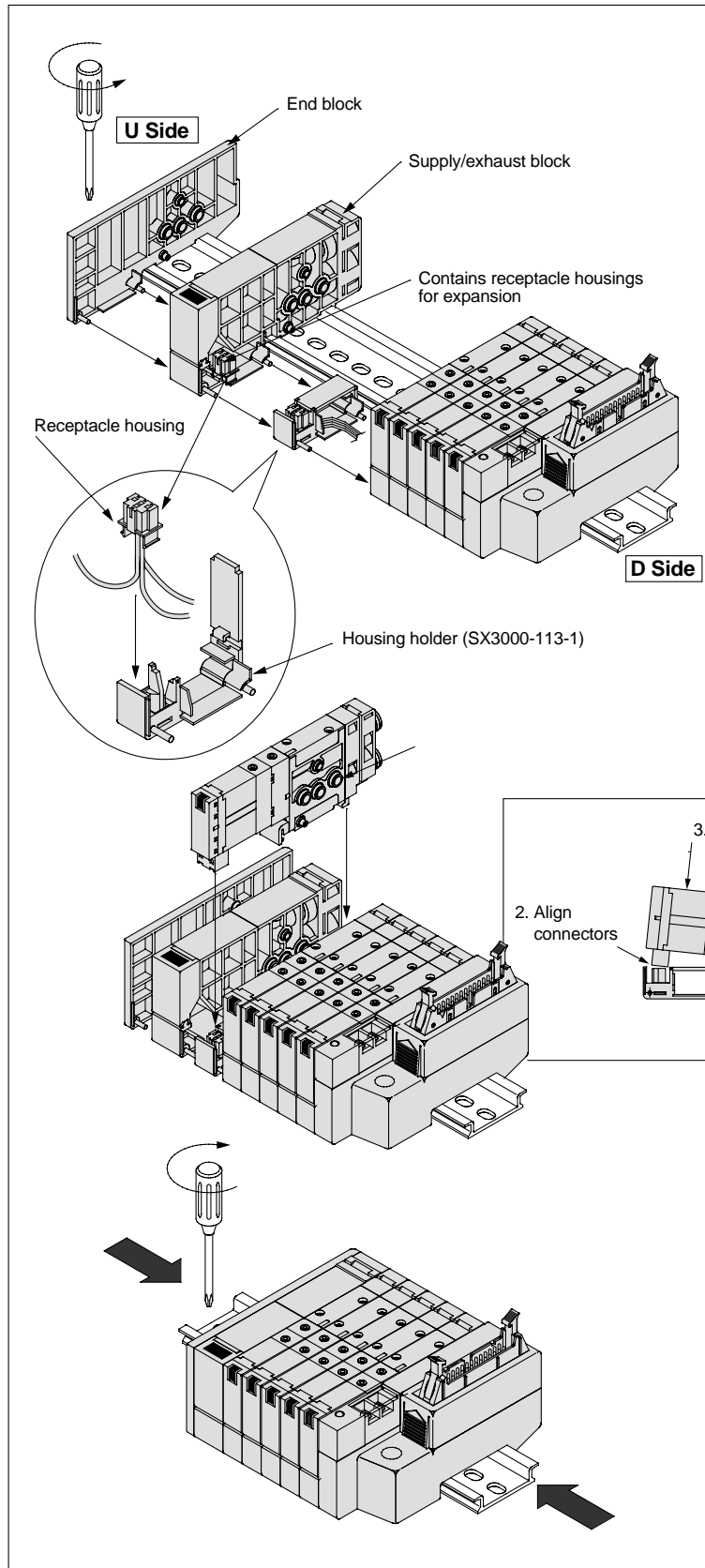
Note 1) A connector block assembly can be shipped as an assembly only in the case of double wiring. Since the possible number of stations differs depending on the connector type, refer to the valve station section on catalog page 2 and enter the number of stations in the □□ section of the assembly part number. Contact SMC if a connector block assembly is required having a wiring specification other than double wiring.

Series SZ3000

Plug-in Manifold Station Expansion

⚠ Caution In addition to solenoid valves, housing holders (SX3000-113-1) are necessary for expansion of manifold stations.

- Double wiring specification manifolds which do not have the maximum number of stations, contain spare receptacle housings for expansion in the housing holder of the last station, or inside the supply/exhaust block assembly (for a maximum of 2 stations). When expanding stations, perform the disassembly and assembly of the manifold while referring to the expansion method shown below.



1. Loosen the DIN rail holding screw of the end block on the U side.

2. Separate the end block and supply/exhaust block.

3. Take out the receptacle housing for expansion which is inside the supply/exhaust block, attach it to the newly added housing holder, and attach to the manifold. (Numbers are displayed on the side of the receptacle housings, and they should be used in order from the lowest number.)

4. Mount the valve on the DIN rail.

5. While pressing the manifold together from both sides, retighten the side U end block's DIN rail holding screw.

⚠ Caution (tightening torque: 1.4Nm)

⚠ Caution

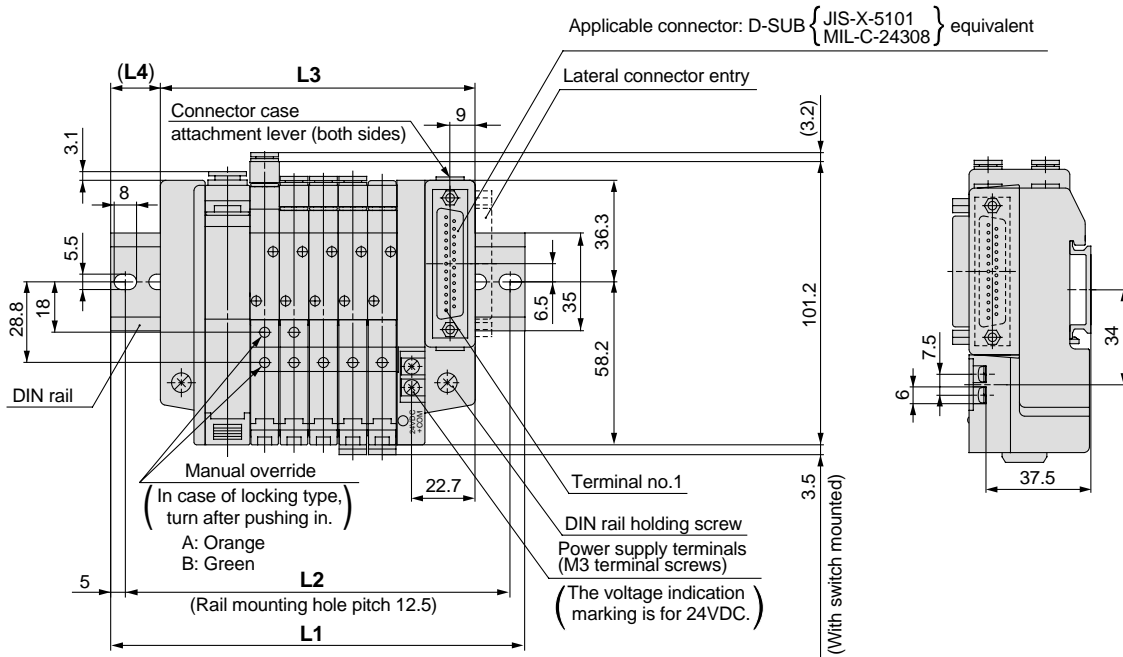
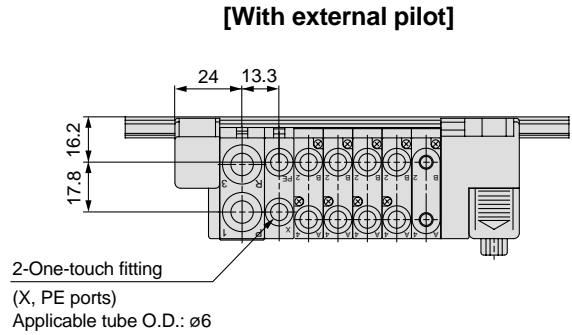
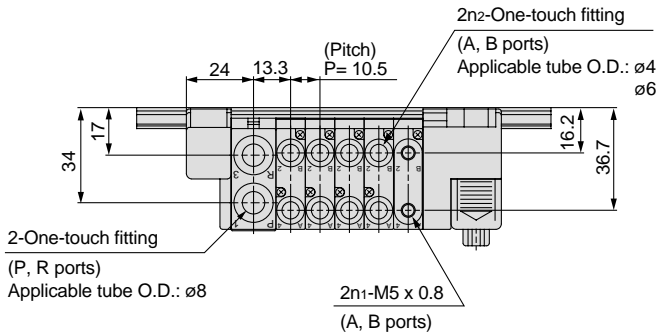
1. Be sure to shut off the power and air supplies before disassembling. Since air may remain inside actuators, piping and manifolds, confirm that the air is completely exhausted before beginning work.
2. When disassembly and assembly are performed, air leakage may result if connections between blocks and tightening of the end block's holding screw, is inadequate. Before supplying air, confirm that there are no gaps, etc. between blocks, and that manifold blocks are securely fastened to the DIN rail. Then, supply air and confirm that there is no air leakage before operating.
3. Note that for manifolds specified with other than double wiring, spare receptacle housings for expansion are not included unless indicated at the time of order.

Cassette Type Manifold **Series SZ3000**

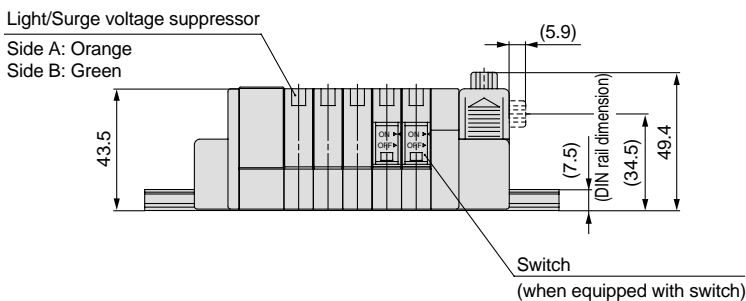
Dimensions/SZ3000: Plug-in

SS5Z3-60FD $\frac{1}{2}$ - Stations U-□

Scale: 37%



(Station n) (Station 1)



Note) Refer to page 19 for manifold dimensions with elbow fitting.

Internal pilot manifold L: Dimensions

n: Stations (n₁ + n₂)

L \ n	2	3	4	5	6	7	8	9	10
L1	110.5	123	135.5	148	148	160.5	173	185.5	198
L2	100	112.5	125	137.5	137.5	150	162.5	175	187.5
L3	81	91.5	102	112.5	123	133.5	144	154.5	165
L4	15	16	17	18	12.5	13.5	14.5	15.5	16.5

External pilot manifold L: Dimensions

n: Stations (n₁ + n₂)

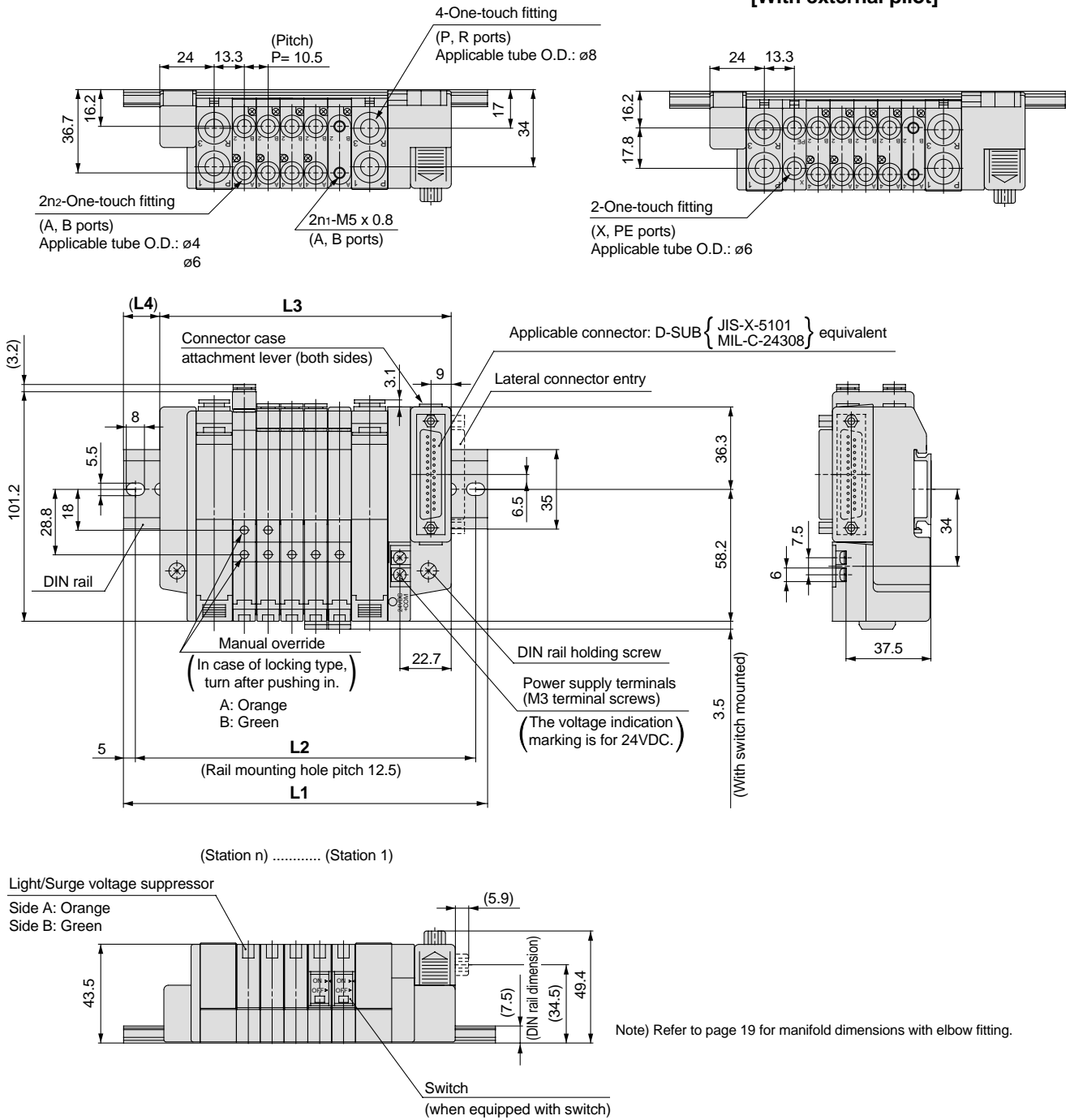
L \ n	2	3	4	5	6	7	8	9	10
L1	123	135.5	148	148	160.5	173	185.5	198	210.5
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	200
L3	91.5	102	112.5	123	133.5	144	154.5	165	175.5
L4	16	17	18	12.5	13.5	14.5	15.5	16.5	17.5

Series SZ3000

Dimensions/SZ3000: Plug-in

SS5Z3-60FD $\frac{1}{2}$ - Stations B-□

Scale: 37%



Internal pilot manifold L: Dimensions

n: Stations (n1 + n2)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	248	248	260.5	273	285.5	298	310.5	310.5
L2	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	237.5	237.5	250	262.5	275	287.5	300	300
L3	97	107.5	118	128.5	139	149.5	160	170.5	181	191.5	202	212.5	223	233.5	244	254.5	265	275.5	286
L4	13	14	15	16	17	12	13	14	15	16	17	18	12.5	13.5	14.5	15.5	16.5	17.5	12.5

External pilot manifold L: Dimensions

n: Stations (n1 + n2)

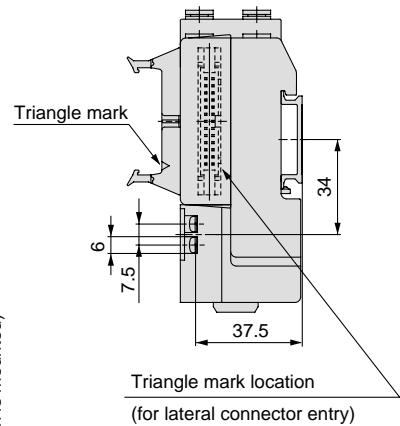
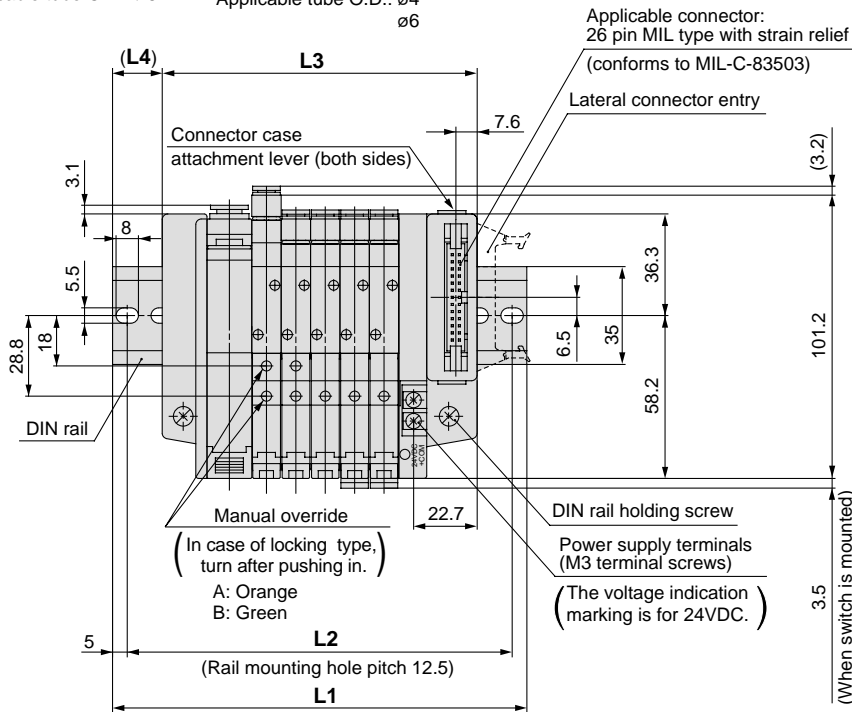
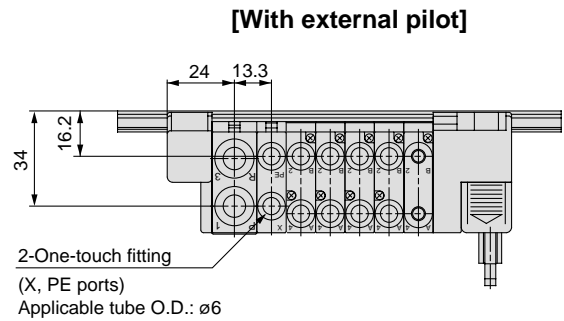
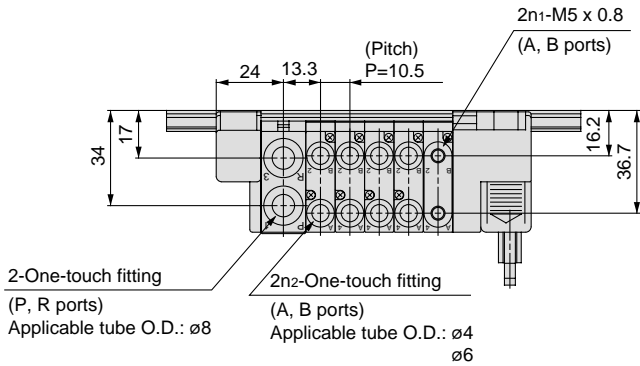
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	248	248	260.5	273	285.5	298	310.5	310.5	323
L2	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	237.5	237.5	250	262.5	275	287.5	300	300	312.5
L3	107.5	118	128.5	139	149.5	160	170.5	181	191.5	202	212.5	223	233.5	244	254.5	265	275.5	286	296.5
L4	14	15	16	17	12	13	14	15	16	17	18	12.5	13.5	14.5	15.5	16.5	17.5	12.5	13.5

Cassette Type Manifold **Series SZ3000**

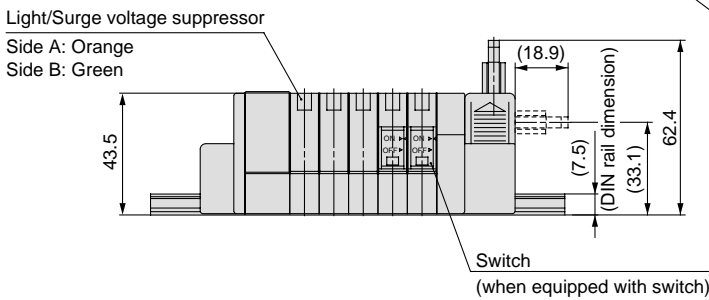
Dimensions/SZ3000: Plug-in

SS5Z3-60PD $\frac{1}{2}$ - Stations U-□ (26 pins)

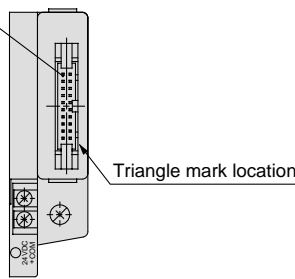
Scale: 37%



(Station n) (Station 1)

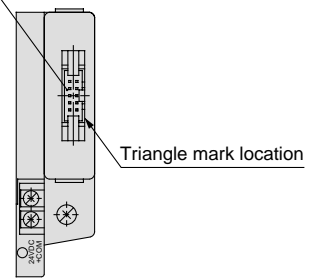


Applicable connector: 20 pin MIL type with strain relief (conforms to MIL-C-83503)



60PG (20 pins)

Applicable connector: 10 pin MIL type with strain relief (conforms to MIL-C-83503)



60PH (10 pins)

Note 1) Types 60PG and 60PH differ only in their connectors, and the L1 through L4 dimensions are the same as type 60P.

Note 2) Refer to page 19 for manifold dimensions with elbow fitting.

Internal pilot manifold		L: Dimensions									n: Stations (n ₁ + n ₂)	
L \ n	2	3	4	5	6	7	8	9	10			
L1	110.5	123	135.5	148	148	160.5	173	185.5	198			
L2	100	112.5	125	137.5	137.5	150	162.5	175	187.5			
L3	81	91.5	102	112.5	123	133.5	144	154.5	165			
L4	15	16	17	18	12.5	13.5	14.5	15.5	16.5			

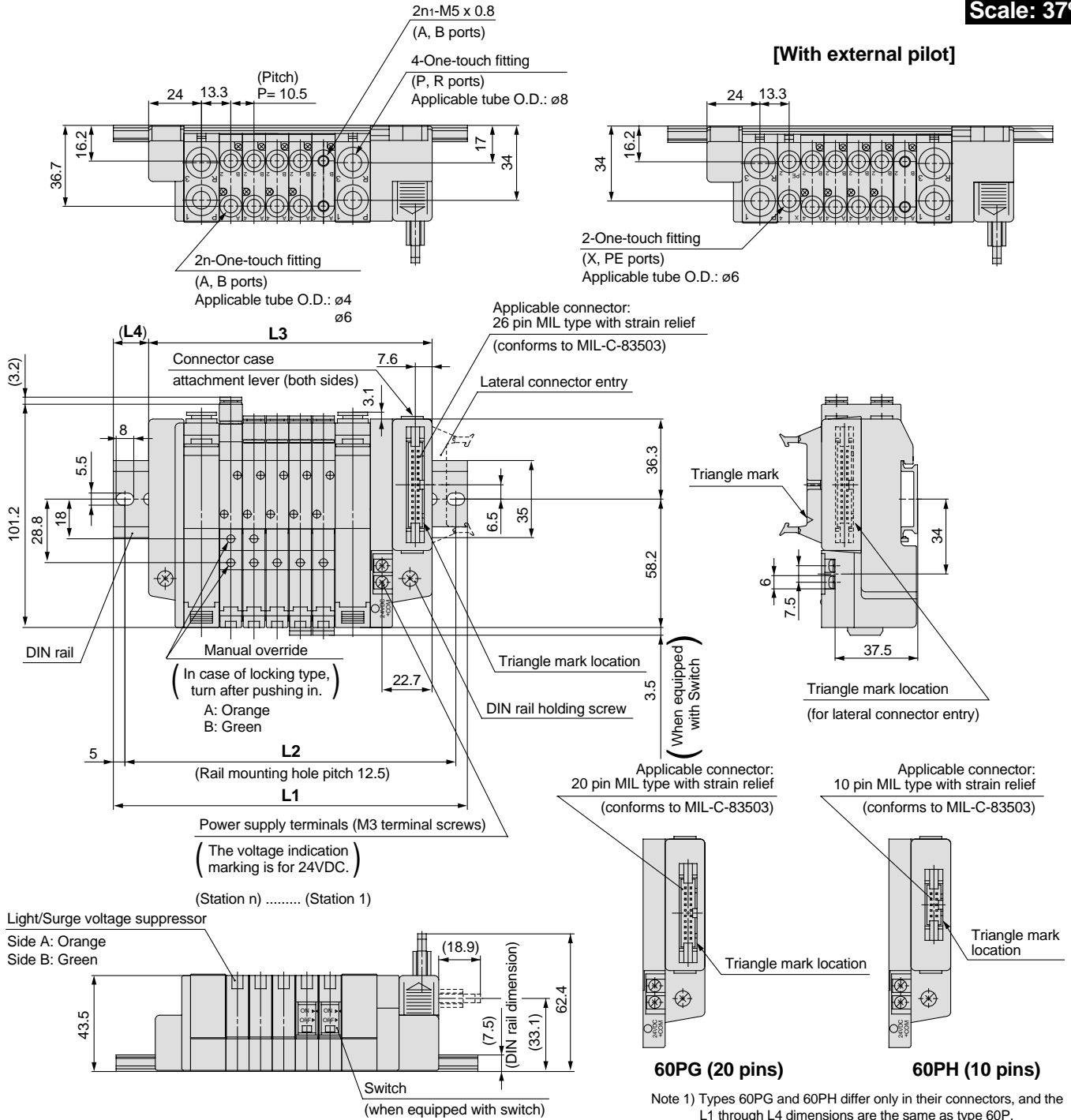
External pilot manifold		L: Dimensions									n: Stations (n ₁ + n ₂)	
L \ n	2	3	4	5	6	7	8	9	10			
L1	123	135.5	148	148	160.5	173	185.5	198	210.5			
L2	112.5	125	137.5	137.5	150	162.5	175	187.5	200			
L3	91.5	102	112.5	123	133.5	144	154.5	165	175.5			
L4	16	17	18	12.5	13.5	14.5	15.5	16.5	17.5			

Series SZ3000

Dimensions/SZ3000: Plug-in

SS5Z3-60PD $\frac{1}{2}$ - Stations B-□ (26 pins)

Scale: 37%



Internal pilot manifold L: Dimensions

n: Stations (n1 + n2)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	248	248	260.5	273	285.5	298	310.5	310.5
L2	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	237.5	237.5	250	262.5	275	287.5	300	300
L3	97	107.5	118	128.5	139	149.5	160	170.5	181	191.5	202	212.5	223	233.5	244	254.5	265	275.5	286
L4	13	14	15	16	17	12	13	14	15	16	17	18	12.5	13.5	14.5	15.5	16.5	17.5	12.3

External pilot manifold L: Dimensions

n: Stations (n1 + n2)

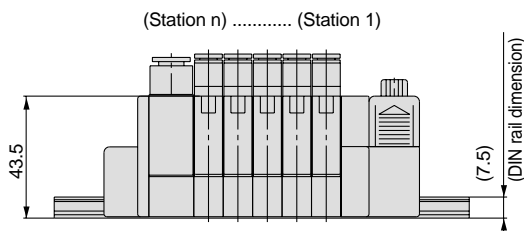
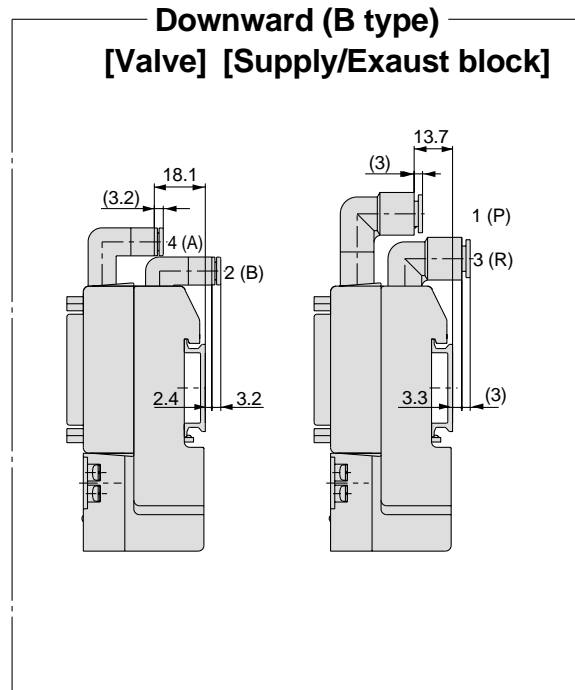
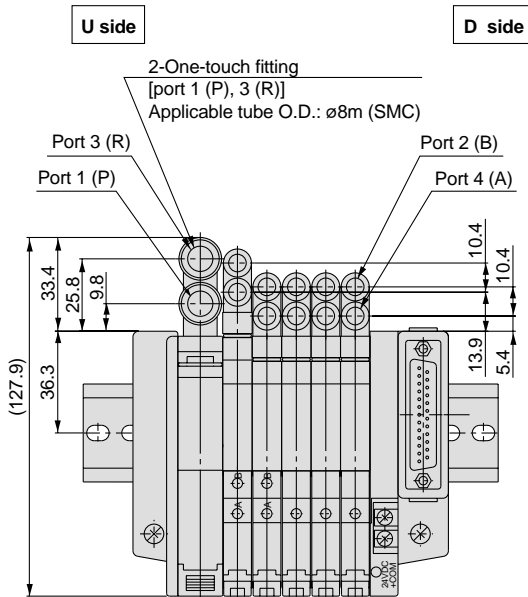
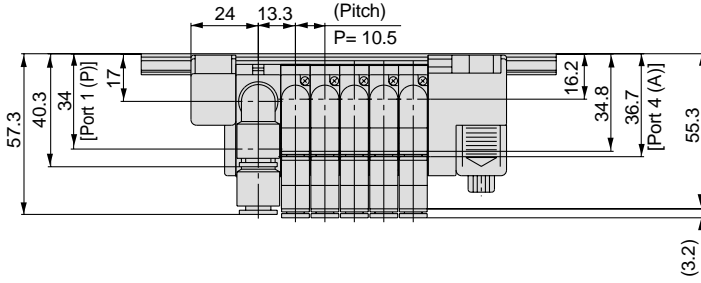
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	248	248	260.5	273	285.5	298	310.5	310.5	323
L2	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	237.5	237.5	250	262.5	275	287.5	300	300	312.5
L3	107.5	118	128.5	139	149.5	160	170.5	181	191.5	202	212.5	223	233.5	244	254.5	265	275.5	286	296.5
L4	14	15	16	17	12	13	14	15	16	17	18	12.5	13.5	14.5	15.5	16.5	17.5	12.5	13.5

Dimensions with Elbow Fitting/SZ3000: Plug-in, D-Sub Connector

SS5Z3-60F1D - Station D_B L - □

Scale: 37%

(The fitting dimension of the flat cable and non-plug-in types is the same.)



5 Port Solenoid Valve

Series SZ3000

Non-Plug-in Type

How to Order

• Non-plug-in manifold

SS5Z3 – 60 – 05 U

Manifold stations

02	2 stations
⋮	⋮
20	20 stations

Supply/Exhaust block mounting position

D	D side (2 to 10 stations)
U	U side (2 to 10 stations)
B	Both sides (2 to 20 stations)
M*	Special specifications

* In the case of special specifications, indicate separately on a manifold specification sheet.

Note) A total of up to 3 supply/exhaust blocks can be mounted. Contact SMC if 4 or more will be mounted.

Options
When a DIN rail is required that is longer than the standard types, specify the number of stations.

Supply/Exhaust block fitting specifications

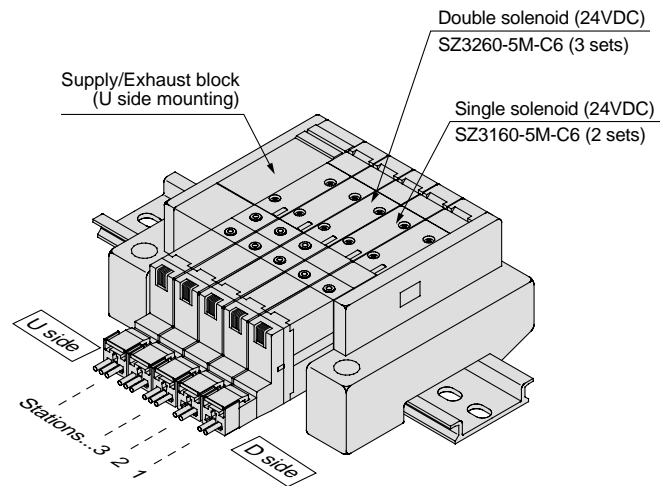
Nil	Straight
L	Elbow type (upward)
B	Elbow type (downward)

Pilot specifications

Nil	Internal pilot specifications
R	External pilot specifications

How to Order Manifold Assemblies (Example)

Example (SZ3000, non-plug-in)



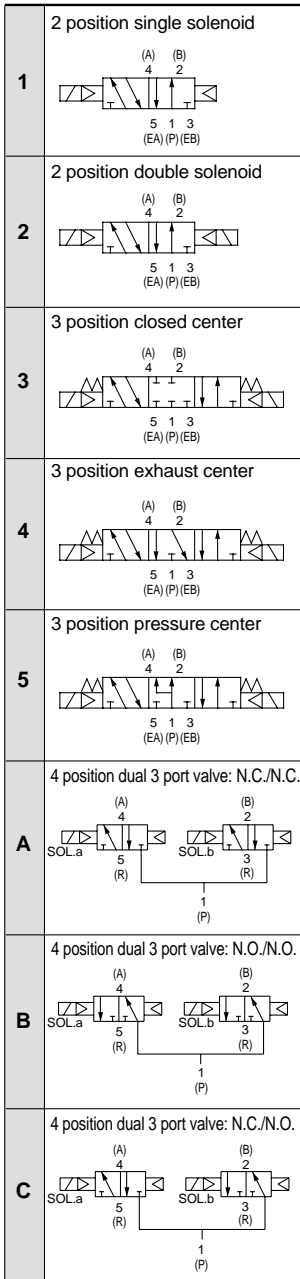
SS5Z3-60-05U	1 set	(manifold part number)
*SZ3160-5M-C6	2 sets	(single solenoid part number)
*SZ3260-5M-C6	3 sets	(double solenoid part number)

- The * symbol indicates built-in. Put the * symbol at the beginning of the part numbers for solenoid valves, etc. which are to be attached.
- The layout of valves starts with station 1 on the D side.
 - Indicate the valves to be attached below the product part number, in order starting from station 1 as shown in the drawing. When a layout becomes complicated, please indicate on a manifold specification sheet. (Manifold specification sheet on page 39.)

How to Order

SZ3 **1** **60** **□** **□** **-** **5** **□** **M** **□** **□** **-** **C6**

Type of actuation



Pilot specifications

Nil	Internal pilot
R	External pilot

- The 4 position dual 3 port valve is not available with external pilot specifications.

Back pressure check valve

Nil	None
K	Built-in

Rated voltage

5	24VDC
6	12VDC
V	6VDC
S	5VDC
R	3VDC

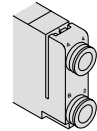
Common specifications

Nil	Pos. common
N	Neg. common

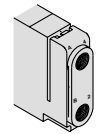
- The symbol is "Nil" when not equipped with light/surge voltage suppressor.

A, B port size

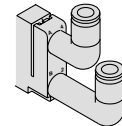
C4: ø4 One-touch fitting
C6: ø6 One-touch fitting



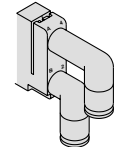
M5: M5 x 0.5



Elbow fitting assembly (upward)
L4: ø4 elbow fitting assembly
L6: ø6 elbow fitting assembly

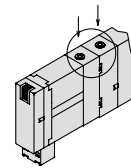


Elbow fitting assembly (downward)
B4: ø4 elbow fitting assembly
B6: ø6 elbow fitting assembly

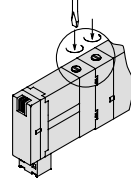


Manual override

Nil: Non-locking push type



D: Slotted locking type
Screw driver operated

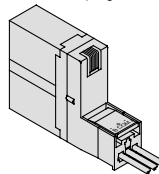


Light/Surge voltage suppressor

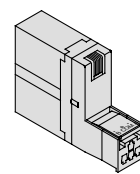
Nil	Without light/Surge voltage suppressor
S	With surge voltage suppressor
Z	With light/Surge voltage suppressor

Electrical entry

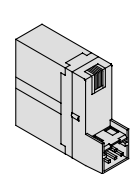
M: With lead wire (length 300mm)



MN: Without lead wire



MO: Without connector





Manifold Specifications

Model		SS5Z3-60	
Manifold type		Non-plug-in type	
P (SUP), R (EXH) system		Common SUP, EXH	
Valve stations		2 to 20 stations	
A, B port piping specifications		Location	Valve
		Direction	Lateral, Upward, Downward
Port size	P, EA, EB ports	C8	
	A/B ports	C4, C6, M5	
Valve effective area mm² (Cv factor) <small>Note 2)</small>	C4	P→A/B	3.4 (0.19) [3.0 (0.17)]
		A/B→R	3.2 (0.18) [3.2 (0.18)]
	C6	P→A/B	3.7 (0.21) [3.2 (0.18)]
		A/B→R	3.9 (0.22) [3.8 (0.21)]
	M5	P→A/B	3.4 (0.19) [3.2 (0.18)]
		A/B→R	3.2 (0.18) [3.2 (0.18)]
Weight W (g) <small>Note 3)</small> (n: Number of supply/exhaust blocks) (m: Weight of DIN rail)		$W = 34n + m + 89$	

Note 1) In cases such as those where many valves are operated simultaneously, use type B (double side supply/exhaust), applying pressure to the P ports on both sides and exhausting from the R ports on both sides.

Note 2) •The value is for manifold base mounting (5 stations). 2 position type with individual operation.

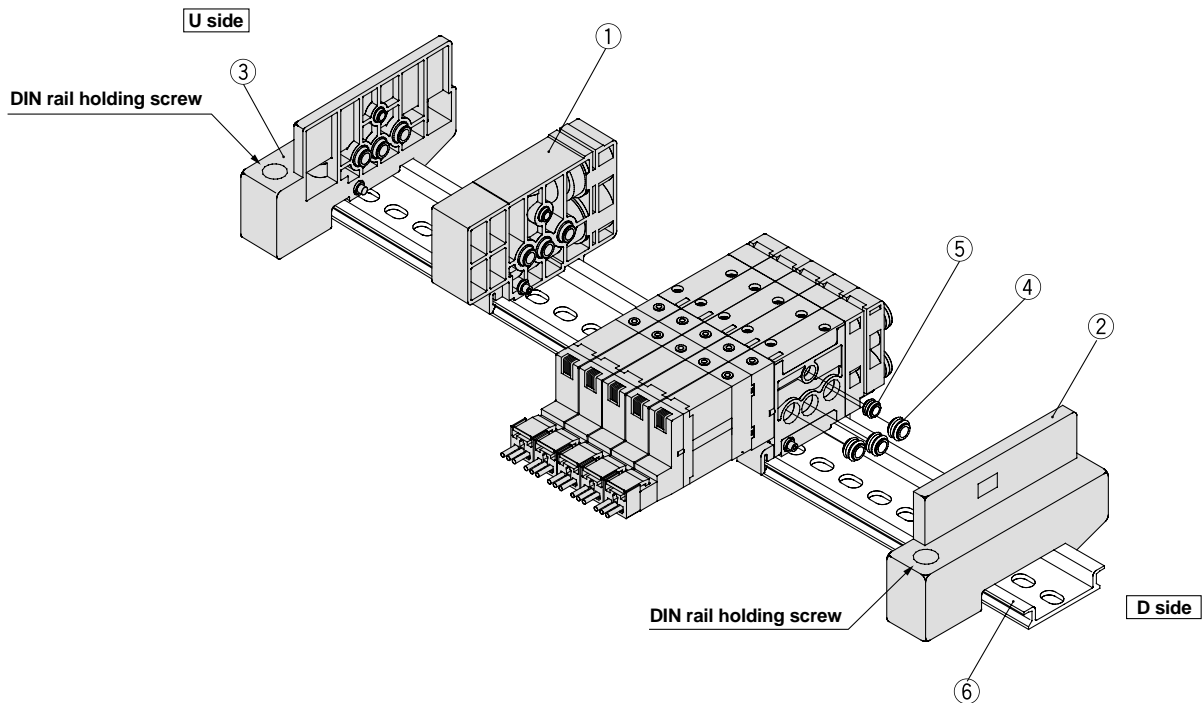
- Values inside [] are for 4 position dual 3 port valves. Furthermore, when the "A" and "B" sides of a 4 position dual 3 port valve are operated simultaneously, the value for the Cv factor will be approximately 35% less than shown in the table above.

- The Cv factor for a valve with back pressure check valve will be approximately 20% less than shown in the table above.

Note 3) The weight W is the value for the manifold only. To obtain the weight with solenoid valves attached, add the solenoid valve weights given on page 5 for the appropriate number of stations. Refer to page 7 for the weight of DIN rails.

Manifold Exploded View

Type 60 (non-plug-in) manifold



No.	Description	Part no.	Note
1	Supply/Exhaust block assembly	SZ3000-50-2A- C6 C8	C6: With ø6 One-touch fitting C8: With ø8 One-touch fitting
2	End block assembly	SZ3000-53-3A	For D side
3	End block assembly	SZ3000-53-4A	For U side
4	Bushing assembly	SZ3000-114-3A	
5	Bushing assembly	SZ3000-114-1A	
6	DIN rail	VZ1000-11-1-□	Refer to page 7.

Manifold station expansion Station expansion is possible at any position.

1. Loosen one DIN rail holding screw on either the U side or D side.
2. Separate the blocks at the location where station expansion is desired.
3. Mount the valve on the DIN rail.
4. While pressing the manifold together from both sides, retighten the DIN rail holding screw of the end block assembly which was loosened.

⚠ Caution (tightening torque: 1.4N·m)

⚠ Caution

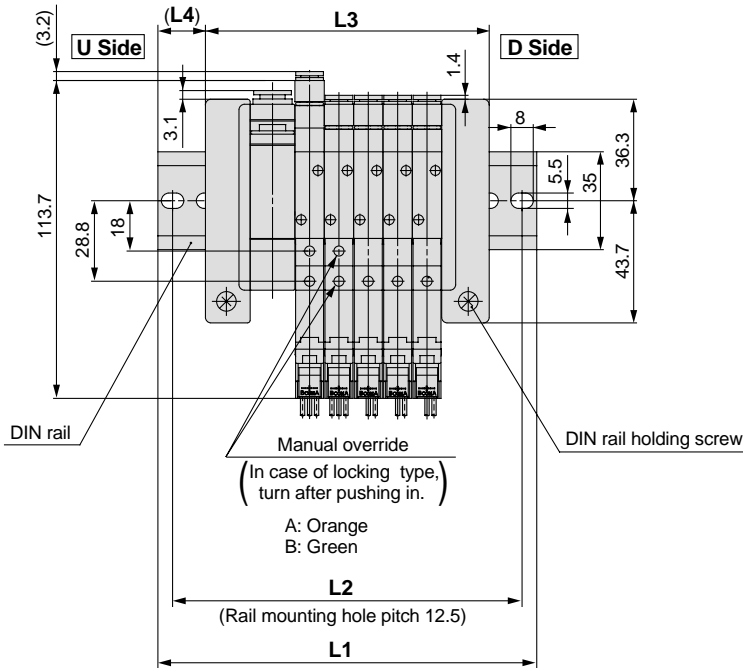
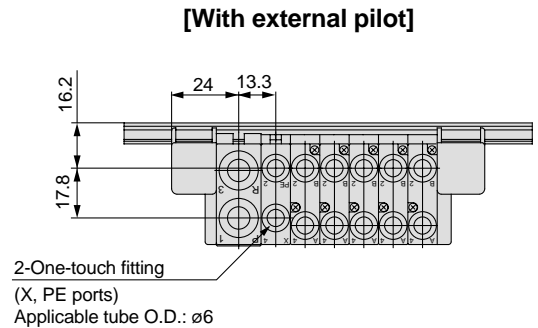
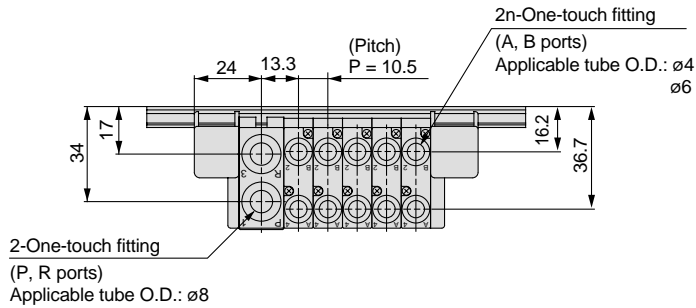
1. Be sure to shut off the power and air supplies before disassembling. Since air may remain inside actuators, piping and manifolds, confirm that the air is completely exhausted before beginning work.
2. When disassembly and assembly are performed, air leakage may result if connections between blocks and tightening of the end block's holding screw are inadequate. Before supplying air, confirm that there are no gaps between blocks, and that manifold blocks are securely fastened to the DIN rail. Then, supply air and confirm that there is no air leakage before operating.

Series SZ3000

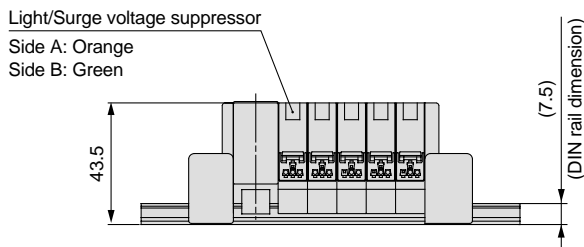
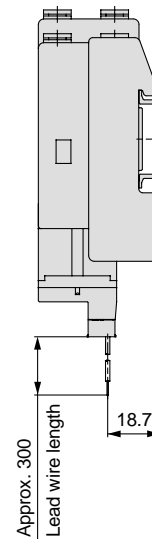
Dimensions/SZ3000: Non-plug-in

SS5Z3-60 - Stations U

Scale: 37%



(Station n) (Station 1)



Note) Refer to page 19 for manifold dimensions with elbow fitting.

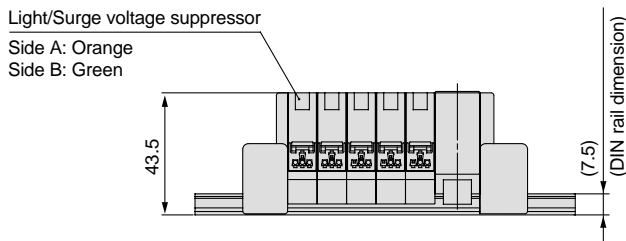
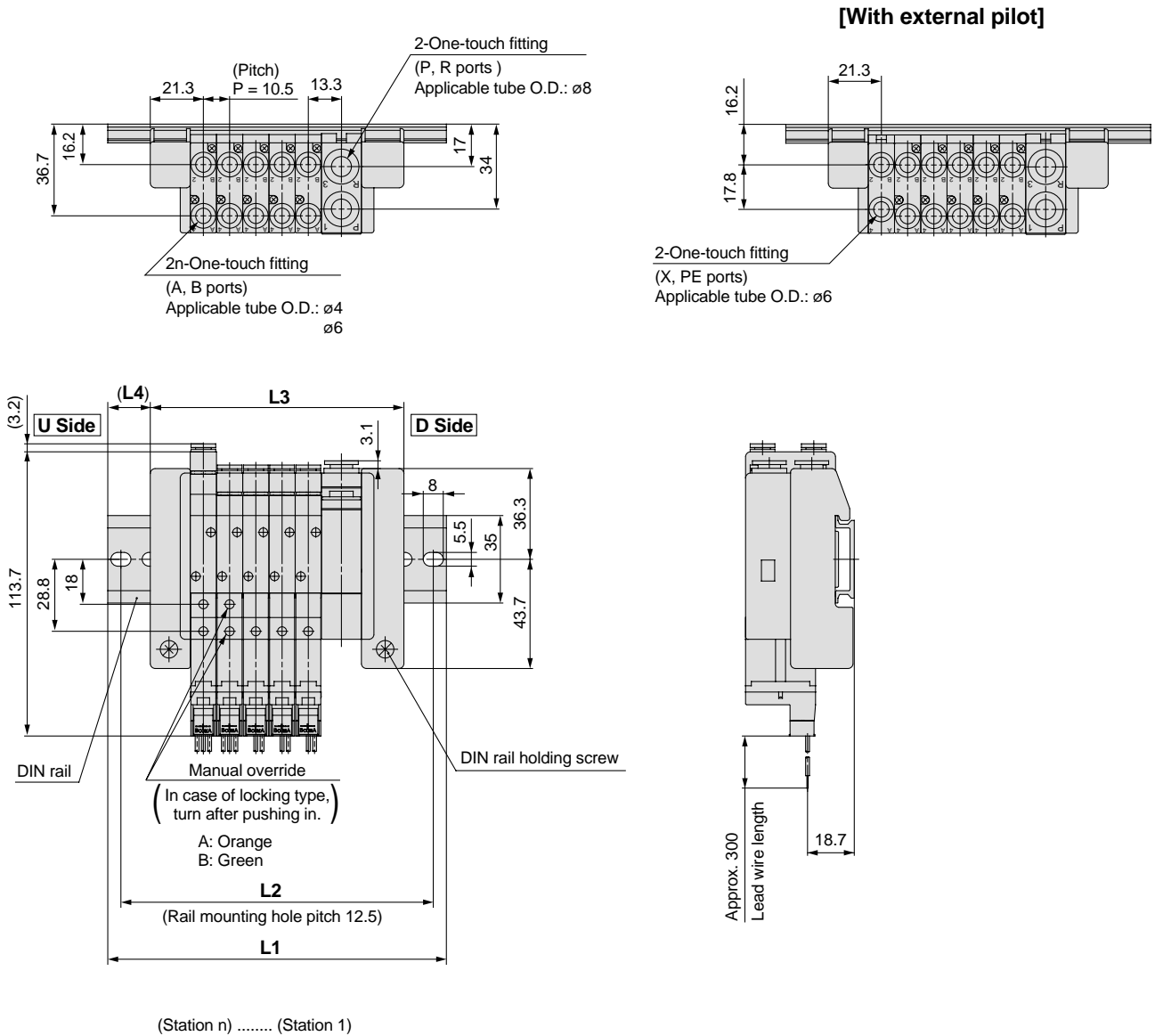
Internal pilot manifold		L: Dimensions								n: Stations
L	n	2	3	4	5	6	7	8	9	10
L1	98	110.5	123	135.5	135.5	148	160.5	173	185.5	
L2	87.5	100	112.5	125	125	137.5	150	162.5	175	
L3	70	80.5	91	101.5	112	122.5	133	143.5	154	
L4	14	15	16	17	12	13	14	15	16	

External pilot manifold		L: Dimensions								n: Stations
L	n	2	3	4	5	6	7	8	9	10
L1	110.5	123	135.5	135.5	148	160.5	173	185.5	198	
L2	100	112.5	125	125	137.5	150	162.5	175	187.5	
L3	80.5	91	101.5	112	122.5	133	143.5	154	164.5	
L4	15	16	17	12	13	14	15	16	17	

Dimensions/SZ3000: Non-plug-in

SS5Z3-60 - Stations **D**

Scale: 37%



Note) Refer to page 19 for manifold dimensions with elbow fitting.

Internal pilot manifold L: Dimensions n: Stations

L \ n	2	3	4	5	6	7	8	9	10
L1	98	110.5	123	135.5	135.5	148	160.5	173	185.5
L2	87.5	100	112.5	125	125	137.5	150	162.5	175
L3	70	80.5	91	101.5	112	122.5	133	143.5	154
L4	14	15	16	17	12	13	14	15	16

External pilot manifold L: Dimensions n: Stations

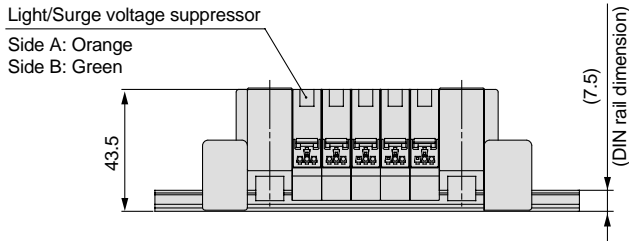
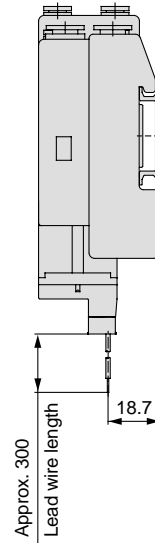
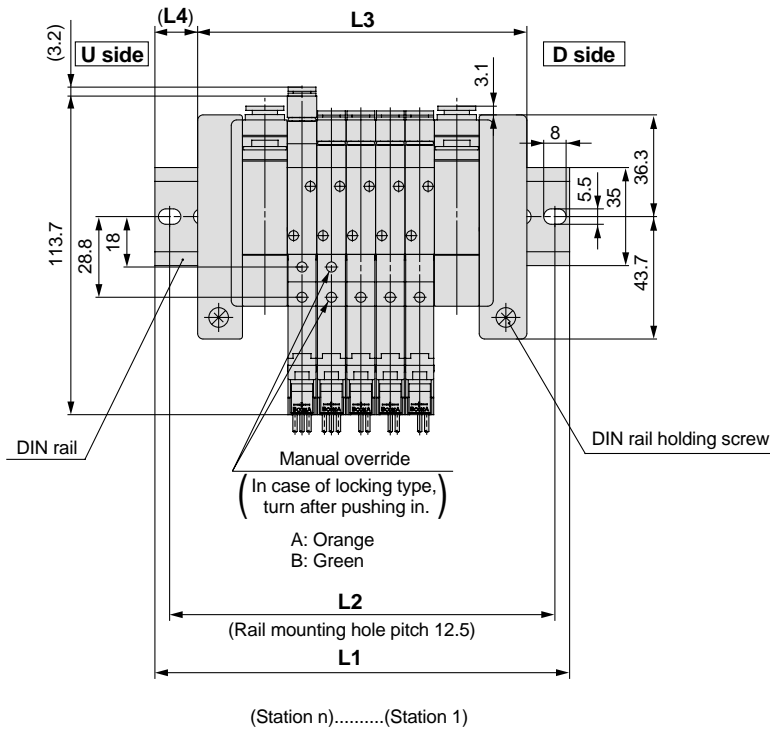
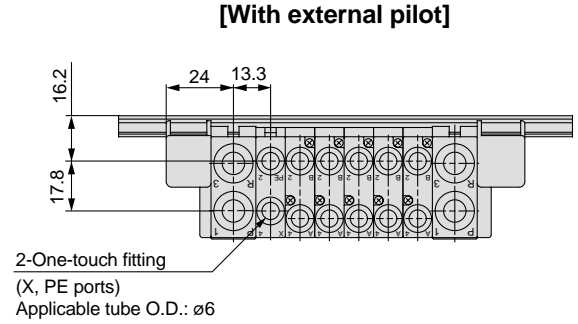
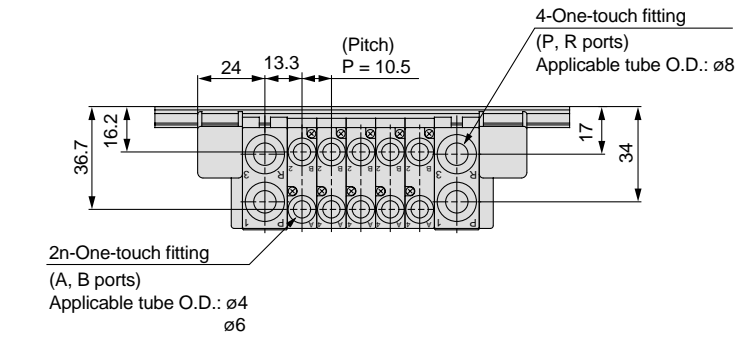
L \ n	2	3	4	5	6	7	8	9	10
L1	110.5	123	135.5	135.5	148	160.5	173	185.5	198
L2	100	112.5	125	125	137.5	150	162.5	175	187.5
L3	80.5	91	101.5	112	122.5	133	143.5	154	164.5
L4	15	16	17	12	13	14	15	16	17

Series SZ3000

Dimensions/SZ3000: Non-plug-in

SS5Z3-60 - Stations B

Scale: 37%



Note) Refer to page 19 for manifold dimensions with elbow fitting.

Internal pilot manifold L: Dimensions

		n: Stations																		
L \ n	n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1		110.5	123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	310.5
L2		100	112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	300
L3		86	96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5	233	243.5	254	264.5	275
L4		12	13	14	15	16	17	12	13	14	15	16	17	12	13	14	15	16	17	18

External pilot manifold L: Dimensions

		n: Stations																		
L \ n	n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1		123	135.5	148	160.5	173	173	185.5	198	210.5	223	235.5	235.5	248	260.5	273	285.5	298	310.5	310.5
L2		112.5	125	137.5	150	162.5	162.5	175	187.5	200	212.5	225	225	237.5	250	262.5	275	287.5	300	300
L3		96.5	107	117.5	128	138.5	149	159.5	170	180.5	191	201.5	212	222.5	233	243.5	254	264.5	275	285.5
L4		13.5	14.5	15.5	16.5	17.5	12	13	14	15	16	17	12	13	14	15	16	17	18	12.5

60S□

5 Port Solenoid Valve

Series SZ3000

Serial Transmission Type

How to Order

SS5Z3-60S **Q** **D** - **05** **U** □ □ - □

Compatible equipment

Q	DeviceNet compatible: OMRON Corp. CompoBus/D compatible
R1	OMRON Corporation: CompoBus/S (16 points) compatible
R2	OMRON Corporation: CompoBus/S (8 points) compatible
V	Mitsubishi Electric Corp.: CC-Link compatible
F	NKE Corporation Simple wiring standard system compatible
H	NKE Corporation Simple wiring H system compatible
J1	Sanks Corporation S-LINK system (16 point output) compatible
J2	Sanks Corporation S-LINK system (8 point output) compatible
O	Without SI unit

SI unit mounting position

D D side

• This should be indicated even without SI unit.

Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring specifications
⋮	⋮	
08	8 stations	
02	2 stations	Specified layout (up to 16 solenoids possible)
⋮	⋮	
16	16 stations	

Note 1) Double wiring specifications:

Single, double and 3 position solenoid valves can be used at all of the manifold stations.

Note 2) Specified layout:

Indicate the wiring specifications on a manifold specification sheet. (Note that in locations where single solenoid wiring is indicated, it will be impossible to use double, 3 position or 4 position valves.)

Note 3) R2 and J2 are available with up to 8 solenoids.

Options

When a DIN rail is required that is longer than the standard types, specify the number of stations.

Supply/Exhaust block fitting specifications

Nil	Straight
L	Elbow type (upward)
B	Elbow type (downward)

Pilot specifications

Nil	Internal pilot specifications
R	External pilot specifications

Supply/Exhaust block mounting position

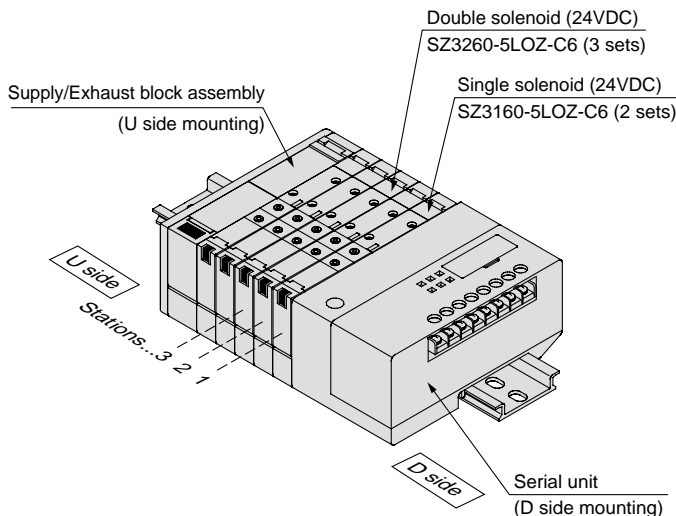
U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 16 stations)
M*	Special specifications

* In the case of special specifications, indicate separately on a manifold specification sheet.

Note) A total of up to 3 supply/exhaust blocks can be mounted. Contact SMC if 4 or more will be mounted.

How to Order Manifold Assemblies (Example)

Example (OMRON Corporation compatible serial unit)



SS5Z3-60SRID-05U-C6 1 set (manifold part number)
 * SZ3160-5LOZ-C6..... 2 sets (single solenoid part number)
 * SZ3260-5LOZ-C6..... 3 sets (double solenoid part number)

The * symbol indicates built-in. Put the * symbol at the beginning of the part numbers for solenoid valves, etc., which are to be installed.

- The valve layout starts with station 1 on the D side.
- Indicate the valves to be installed below the product part number, in order starting from station 1 as shown in the drawing. When a layout becomes complicated, please indicate on a manifold specification sheet. (Manifold specification sheet on page 41.)

How to Order

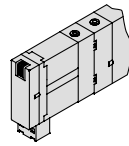
SZ3 **1** **60** **– 5LOZ** **– C6**

Type of actuation

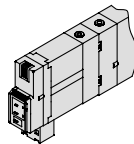
1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center
A	4 position dual 3 port valve: N.C./N.C.
B	4 position dual 3 port valve: N.O./N.O.
C	4 position dual 3 port valve: N.C./N.O.

Switch specifications

Nil: Without switch



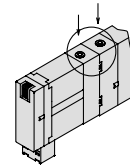
J: With switch



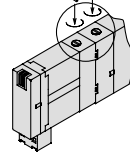
* Refer to page 48 for switch operation.

Manual override

Nil: Non-locking push type



D: Slotted locking type
Screw driver operated



Back pressure check valve

Nil	None
K	Built-in

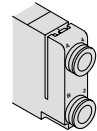
Pilot specifications

Nil	Internal pilot
R	External pilot

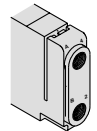
• Dual 3 port valves are not available with external pilot specifications.

A, B port size

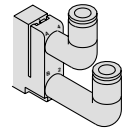
C4: $\varnothing 4$ One-touch fitting
C6: $\varnothing 6$ One-touch fitting



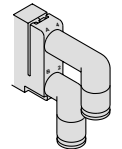
M5: M5 x 0.5



Elbow fitting assembly (upward)
L4: $\varnothing 4$ elbow fitting assembly
L6: $\varnothing 6$ elbow fitting assembly



Elbow fitting assembly (downward)
B4: $\varnothing 4$ elbow fitting assembly
B6: $\varnothing 6$ elbow fitting assembly



Series SZ3000

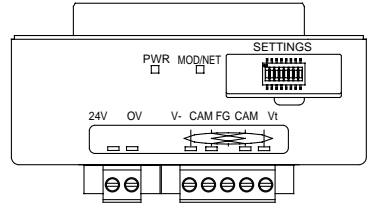
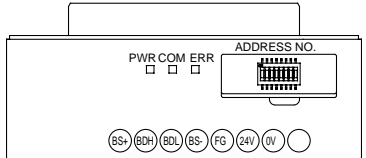
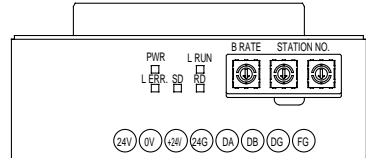
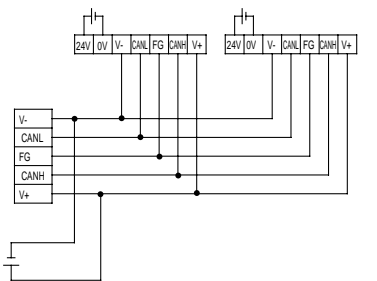
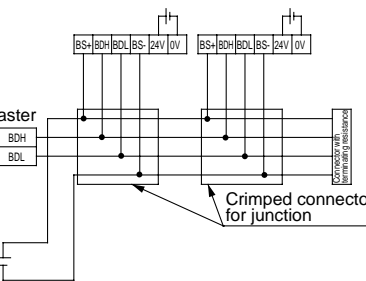
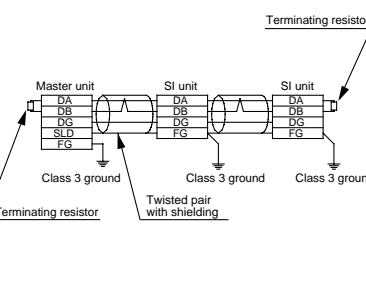
Specifications

Specifications

External power supply	24VDC±10%	
Current consumption (within unit)	0.1A	F, H, J1, J2 Q, R1, R2, V

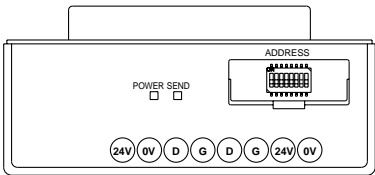
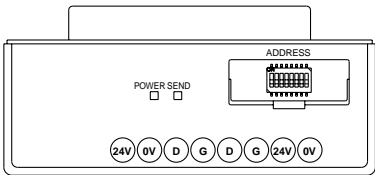
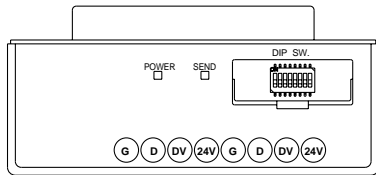
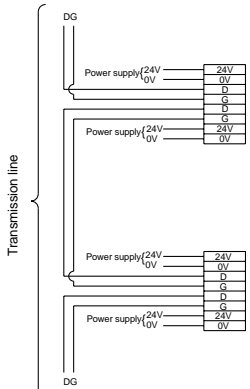
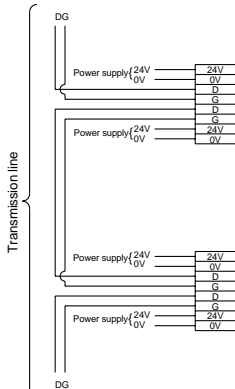
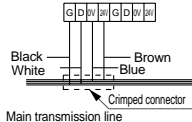
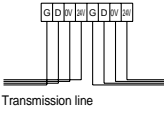
SI unit part numbers

Symbol	Specifications	Part no.
Q	DeviceNet compatible: OMRON Corp. CompoBus/D compatible	EX140-SDN1
R1	OMRON Corporation: CompoBus/S (16 points) compatible	EX140-SCS1
R2	OMRON Corporation: CompoBus/S (8 points) compatible	EX140-SCS2
V	Mitsubishi Electric Corporation: CC-Link compatible	EX140-SMJ1

	Type SQ DeviceNet compatible	Type SR1/SR2 OMRON Corporation CompoBus/S compatible	Type SV Mitsubishi Electric Corporation CC-Link compatible																													
Terminal block/LED description	 <table border="1" data-bbox="236 985 614 1243"> <thead> <tr> <th>LED</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>PWR</td> <td>Green light turns on when line power is input</td> </tr> <tr> <td rowspan="4">MOD/NET</td> <td>Light off: When unit is off-line or power is turned off</td> </tr> <tr> <td>Continuous green light: When unit is on-line and also in operation</td> </tr> <tr> <td>Blinking red light: When a recoverable transmission error is occurring</td> </tr> <tr> <td>Continuous red light: When a nonrecoverable transmission error occurs or on-line status cannot be achieved</td> </tr> </tbody> </table>	LED	Content	PWR	Green light turns on when line power is input	MOD/NET	Light off: When unit is off-line or power is turned off	Continuous green light: When unit is on-line and also in operation	Blinking red light: When a recoverable transmission error is occurring	Continuous red light: When a nonrecoverable transmission error occurs or on-line status cannot be achieved	 <table border="1" data-bbox="670 985 1037 1153"> <thead> <tr> <th>LED</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>PWR</td> <td>Turns on during supply of communication power, turns off when there is no input</td> </tr> <tr> <td>COMM</td> <td>Turns on during normal communication, turns off during communication error or standby</td> </tr> <tr> <td>ERR</td> <td>Turns on when communication error occurs, turns off during normal communication or standby</td> </tr> </tbody> </table>	LED	Content	PWR	Turns on during supply of communication power, turns off when there is no input	COMM	Turns on during normal communication, turns off during communication error or standby	ERR	Turns on when communication error occurs, turns off during normal communication or standby	 <table border="1" data-bbox="1093 985 1460 1209"> <thead> <tr> <th>LED</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>PWR</td> <td>Turns on during supply of communication power, turns off when there is no input</td> </tr> <tr> <td>L RUN</td> <td>Turns on with receipt of normal data</td> </tr> <tr> <td>SD</td> <td>Turns on with data transmission</td> </tr> <tr> <td>RD</td> <td>Turns on with received data</td> </tr> <tr> <td>L ERR</td> <td>Turns on with transmission/setting error, blinks when code or transmission speed setting changes during operation</td> </tr> </tbody> </table>	LED	Content	PWR	Turns on during supply of communication power, turns off when there is no input	L RUN	Turns on with receipt of normal data	SD	Turns on with data transmission	RD	Turns on with received data	L ERR	Turns on with transmission/setting error, blinks when code or transmission speed setting changes during operation
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RD	Turns on with received data																															
L ERR	Turns on with transmission/setting error, blinks when code or transmission speed setting changes during operation																															
Note	<ul style="list-style-type: none"> • DeviceNet • OMRON Corporation CompoBus/D system • Master unit: Type C200HW-DRM21 • 16 output points 	<ul style="list-style-type: none"> • CompoBus/S system Master unit: Type C200HW-SRM21 Master unit: Type CQM1-SRM21 • 16 output points (type SR1) 8 output points (type SR2) 	<ul style="list-style-type: none"> • CC-Link system Master unit: AJ61BT11 Master unit: A1SJ61BT11 Master unit: AJ61QBT11 Master unit: A1SJ61Q8T11 • 16 output points 																													
Cable wiring																																

SI unit part numbers

Symbol	Specifications	Part no.
F	NKE Corporation: Simple wiring standard system compatible	EX140-SUW1
H	NKE Corporation: Simple wiring H system compatible	EX140-SUH1
J1	Sanks Corporation: S-LINK system (16 point output) compatible	EX140-SSL1
J2	Sanks Corporation: S-LINK system (8 point output) compatible	EX140-SSL2

	Type SF NKE Corporation Simple wiring standard system compatible	Type SH NKE Corporation Simple wiring H system compatible	Type SJ1/SJ2 Sanks Corporation S-LINK system compatible																		
Terminal block/LED description	 <table border="1" style="margin-top: 10px;"> <thead> <tr> <th>LED</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>POWER</td> <td>Light turns on when power is input (Turns on when normal, flickers when voltage drops)</td> </tr> <tr> <td>SEND</td> <td>Transmission indicator Normal: Blinks, Abnormal: Turns off or on</td> </tr> </tbody> </table>	LED	Content	POWER	Light turns on when power is input (Turns on when normal, flickers when voltage drops)	SEND	Transmission indicator Normal: Blinks, Abnormal: Turns off or on	 <table border="1" style="margin-top: 10px;"> <thead> <tr> <th>LED</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>POWER</td> <td>Light turns on when power is input Turns on when normal, flickers when voltage drops)</td> </tr> <tr> <td>SEND</td> <td>Transmission indicator Normal: Blinks, Abnormal: Turns off or on</td> </tr> </tbody> </table>	LED	Content	POWER	Light turns on when power is input Turns on when normal, flickers when voltage drops)	SEND	Transmission indicator Normal: Blinks, Abnormal: Turns off or on	 <table border="1" style="margin-top: 10px;"> <thead> <tr> <th>LED</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>POWER</td> <td>Light turns on when power is input</td> </tr> <tr> <td>SEND</td> <td>Transmission indicator Normal: Blinks, Abnormal: Blinks slowly</td> </tr> </tbody> </table>	LED	Content	POWER	Light turns on when power is input	SEND	Transmission indicator Normal: Blinks, Abnormal: Blinks slowly
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Note	<ul style="list-style-type: none"> • Simple wiring standard system Send unit: SD-120 • 16 output points 	<ul style="list-style-type: none"> • Simple wiring H system Send unit: SD-H2 • 16 output points 	<ul style="list-style-type: none"> • S-LINK system S-LINK controller: SL-CU1 • 16 output points (type SJ1) 8 output points (type SJ2) 																		
Cable wiring			<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>a) T type multidrop wiring (S-LINK system)</p>  </div> <div style="text-align: center;"> <p>b) Crossover wiring (sensor link system)</p>  </div> </div> <p>Special S-LINK flat cable SL-RCM□00 is used in the above example.</p>																		

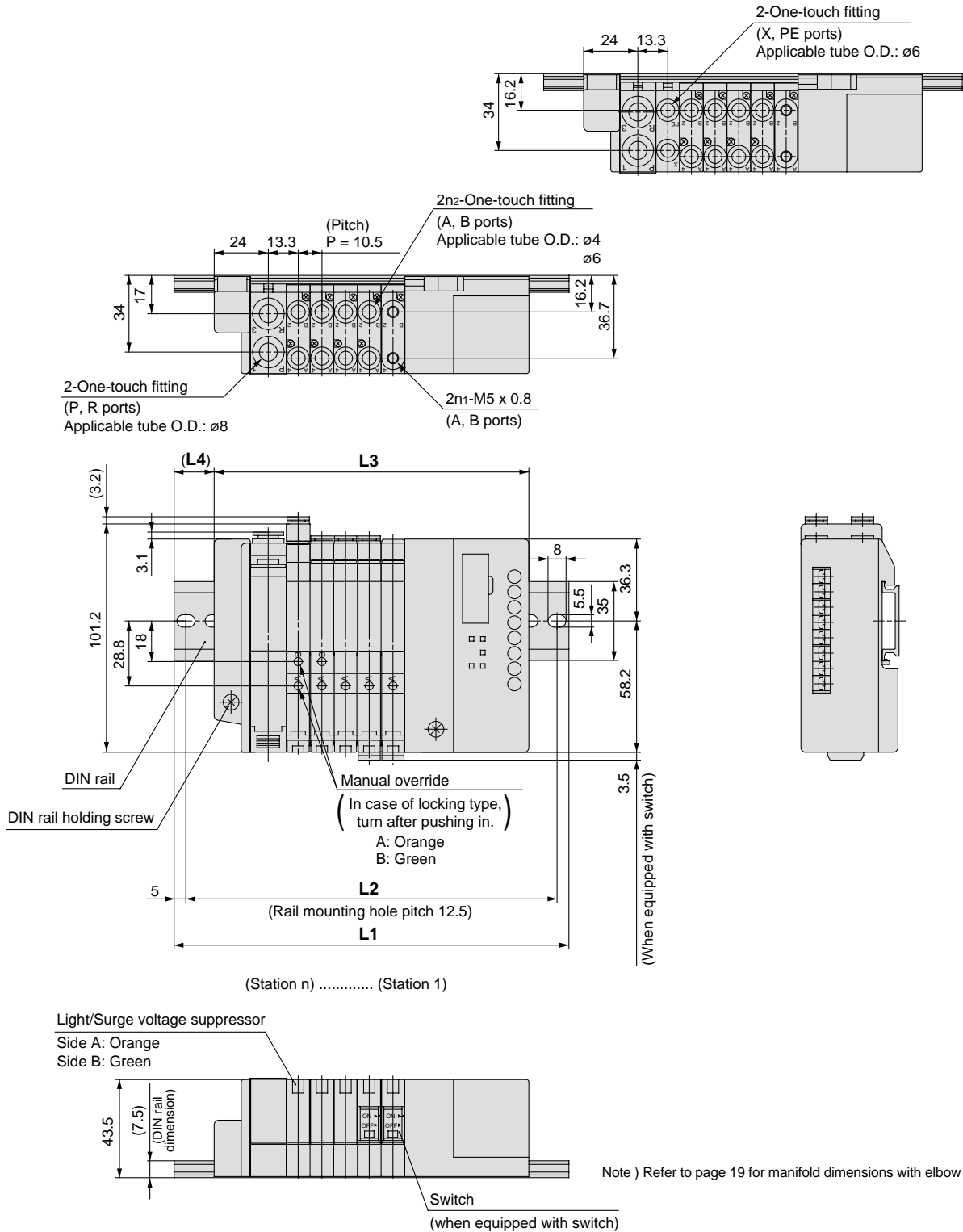
Series SZ3000

Dimensions/SZ3000: Serial Transmission Type

SS5Z3-60S □ D- Stations U

Scale: 37%

[With external pilot]



Internal pilot manifold L: Dimensions n : Stations (n₁ + n₂)

L \ n	2	3	4	5	6	7	8	9	10
L1	135.5	148	160.5	173	185.5	185.5	198	210.5	223
L2	125	137.5	150	162.5	175	175	187.5	200	212.5
L3	108	118.5	129	139.5	150	160.5	171	181.5	192
L4	14	15	16	17	18	12.5	13.5	14.5	15.5

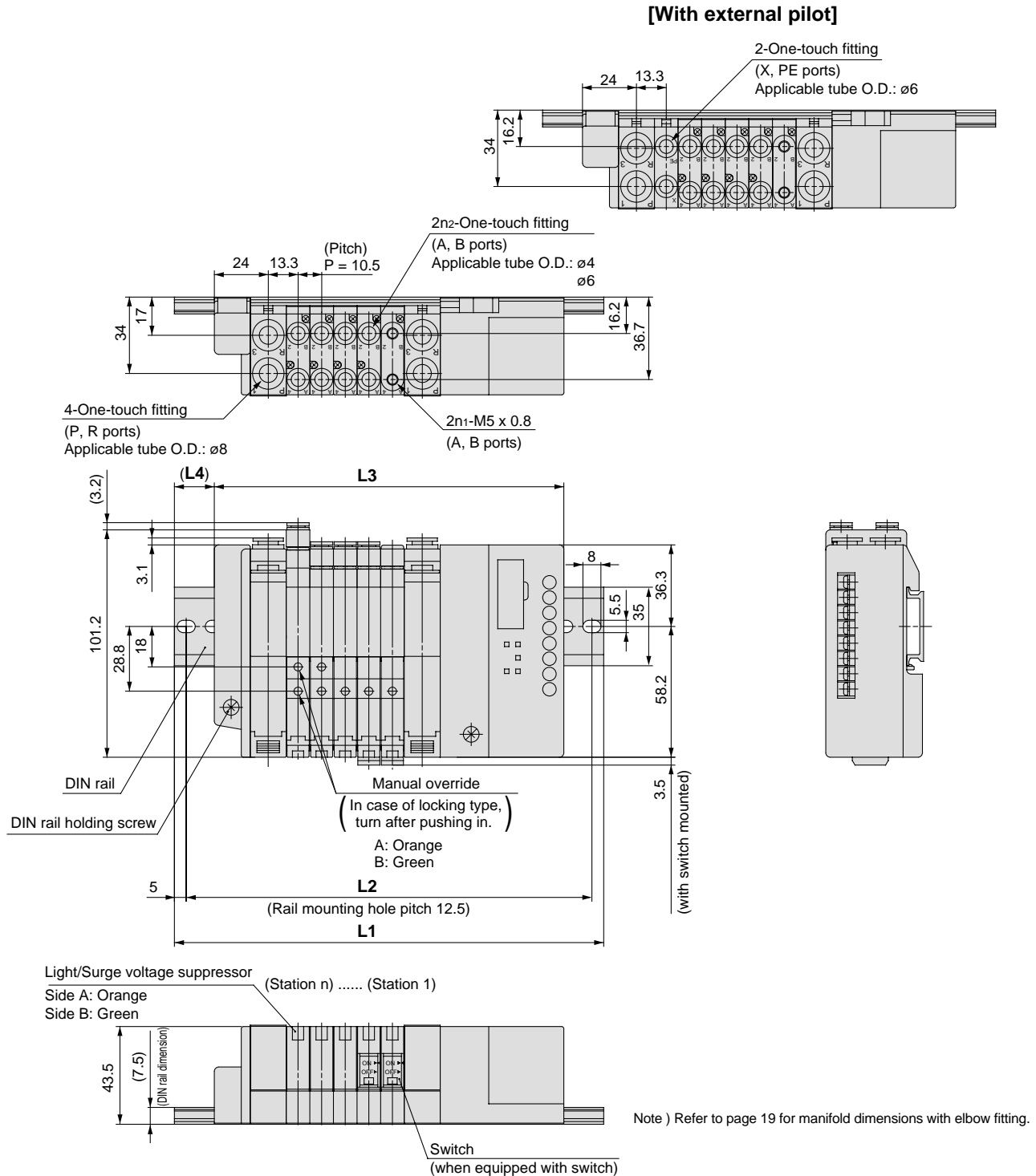
External pilot manifold L: Dimensions n : Stations (n₁ + n₂)

L \ n	2	3	4	5	6	7	8	9	10
L1	148	160.5	173	185.5	185.5	198	210.5	223	235.5
L2	137.5	150	162.5	175	175	187.5	200	212.5	225
L3	118.5	129	139.5	150	160.5	171	181.5	192	202.5
L4	15	16	17	18	12.5	13.5	14.5	15.5	16.5

Dimensions/SZ3000: Serial Transmission Type

SS5Z3-60S □ D- Stations B

Scale: 37%



Internal pilot manifold L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9
L1	148	160.5	173	185.5	198	210.5	210.5	223
L2	137.5	150	162.5	175	187.5	200	200	212.5
L3	124	134.5	145	155.5	166	176.5	187	197.5
L4	12	13	14	15	16	17	12	13

L \ n	10	11	12	13	14	15	16
L1	235.5	248	260.5	273	285.5	285.5	298
L2	225	237.5	250	262.5	275	275	287.5
L3	208	218.5	229	239.5	250	260.5	271
L4	14	15	16	17	18	12.5	13.5

External pilot manifold L: Dimensions

n: Stations

L \ n	2	3	4	5	6	7	8	9
L1	160.5	173	185.5	198	210.5	210.5	223	235.5
L2	150	162.5	175	187.5	200	200	212.5	225
L3	134.5	145	155.5	166	176.5	187	197.5	208
L4	13	14	15	16	17	12	13	14

L \ n	10	11	12	13	14	15	16
L1	248	260.5	273	285.5	285.5	298	310.5
L2	237.5	250	262.5	275	275	287.5	300
L3	218.5	229	239.5	250	260.5	271	281.5
L4	15	16	17	18	12.5	13.5	14.5

Cautions on the use of manifold valve specification sheets

Caution When using manifold valve specification sheets for ordering, be sure to read the cautions below.

1 Entering the manifold model

Boxes with solid lines must be filled in.

Example:
SS5Z3-60PGD1-05M-P
(Supply/Exhaust block mounting position special specifications)

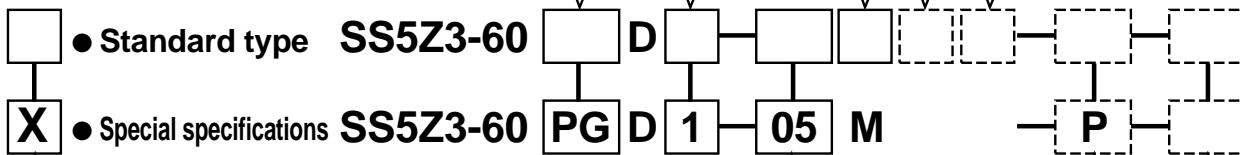
• **Enter the supply/exhaust block assembly mounting position.**
* This specifies positions of P and R ports. They can be located on the U side, D side or both sides. However, 11 or more stations require positions on both sides.
* If a manifold with supply/exhaust blocks on one side (U/D side) is required for 11 stations or more, indicate this as a special specification. Also note that in cases where many valves operate simultaneously, supply and exhaust may become inadequate for proper valve performance.

• **Enter the connector entry direction.**
* This determines the direction when shipped. The direction can also be changed later.
* Does not need to be entered for the non-plug-in type.

• **Enter for external pilot specifications.**
* Does not need to be entered for internal pilot specifications.

• **Enter the connector type.**
* D-sub connector and flat cable connector are available for the plug-in type.
* Does not need to be entered for the non-plug-in type.

• **Enter if elbow type fitting is required for the supply/exhaust block assembly or external pilot block assembly.**
* Elbow types are available facing upward or downward.
* Does not need to be entered for straight type.



• **Enter an "X" for the manifold type to be used. When the following types of supply/exhaust block or external pilot block assembly specifications are required, order as special specifications.**

- * When mounting positions other than the standard U/D/B are required.
- * When port sizes other than the standard types are required.
- * When both straight and elbow type fittings are required.

Port size

	Standard type	Special specification port sizes
Supply/exhaust block assembly	C8, L8, B8	C8, L8, B8, C6, L6, B6
External pilot block assembly	C6, L6, B6	C6, L6, B6, C4, L4, B4

Note) Indicate with "O" or C6, L4, etc., in the station table.

• **Enter the number of valve stations.**
* In case of the plug-in type, depending on the type of connector and the presence of a power terminal, there is a limit to the number of stations (solenoids) that are possible. Refer to catalog page 7, and make selections so that the maximum number of stations is not exceeded.
* The maximum number of stations for the non-plug-in type is 20 stations.

Options
* Enter when a DIN rail longer than standard is required.
* Can be specified up to a maximum of 20 stations.
* Does not need to be entered in case of standard length.
* When a longer DIN rail is indicated, the U side is extended.

Enter when a power supply terminals are required.
* Positive and negative commons are available for both 24 and 12VDC.
* Does not need to be entered in cases without power supply terminals.

2 Entering the valve model

Boxes with solid lines must be filled in.



• **Type of actuation**
* Indicate in the station table.

• **Pilot system**
* Indicate in the station table.
* When an external pilot valve is to be used, enter an "X" in section (b) of the station table.
* External pilot specifications are not available for 4 position dual 3 port valves.
* Does not need to be entered for internal pilot specifications.

• **With back pressure check valve**
* Indicate in the station table.
* When a valve with back pressure check valve is to be used, enter an "x" symbol in section (c) of the station table.
* Back pressure check valve is not available with 3 position closed center and 3 position pressure center.
* Does not need to be entered for a valve without back pressure check valve.

• **Enter the rated voltage.**
* When using a plug-in manifold with power supply terminals, be sure to conform with the manifold voltage specifications.

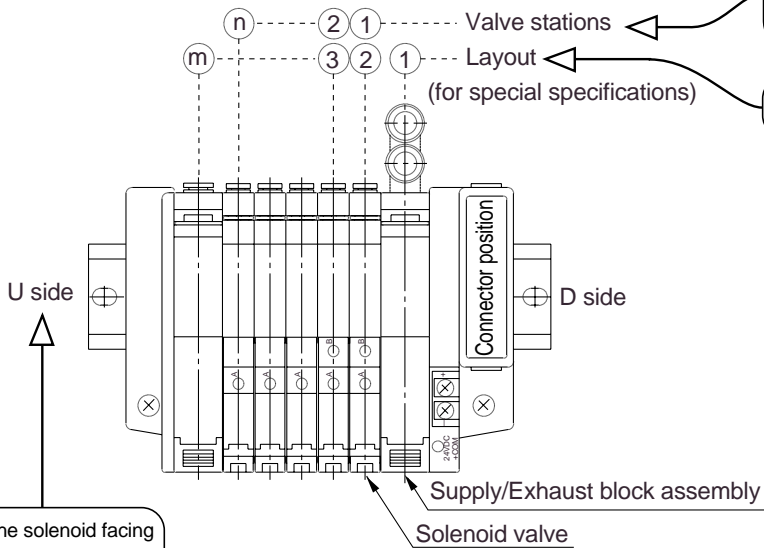
• **Enter the A, B port size.**
* In case of mixed port sizes, enter "M" in this section and C4, L6, etc., respectively in section (a) of the station table.

• **Enter the manual override type.**
* Does not need to be entered for non-locking push type.

• **Enter the switch specifications.**
* Enter when equipped with switches.
* Not applicable to non-plug-in type.
* Does not need to be entered when switches are not required.

• **Enter the common specifications.**
* When using a plug-in manifold with power supply terminals, be sure to conform with the COM specifications.
* Does not need to be entered for a positive common.

3 Station table entries



In the case of a standard type manifold, solenoid valves (and blanking block assemblies) are counted from station No. 1 on the D side, regardless of the position of supply/exhaust assemblies.

In case of special specifications, station No. 1 is always on the D side.

With the solenoid facing downward, **D side is on the right and U side is on the left.**

- In case of a manifold with external pilot specifications, enter an "X" in valve locations where an external pilot is required. Mixed internal and external specifications are also possible in this section.
- External pilot specifications are not available for 4 position dual 3 port valves.

- Enter an "X" in locations where a valve with back pressure check function is required.

- Enter in case of special specification manifolds. Indicate locations with an "X", and port size changes with symbols C6, L4, etc.
- Limit each block assembly to no more than 3 pieces. Consult with SMC if mounting of 4 pieces or more is required.

- Used to separate different pressures or exhausts.
- Enter a pilot port blocking disk when internal pilots and external pilots are mixed on the same manifold, or when using a SUP. blocking disk to allow different pressures in an internal pilot manifold.
- This can also be entered for a standard type manifold.

- Enter an "X" only to indicate wiring. Two extra stations can be specified for additions. However, this cannot exceed the maximum number of solenoids.
- Unless otherwise specified here, all stations will have double wiring specifications for the plug-in type. Use this when mixing double and single wiring, or for all single wiring. However, note that **only single solenoid valves can be used in locations where single wiring is indicated.**
- This can also be entered for a standard type manifold.

- Enter an "X" in the sections for valves to be used. In case of mixed port sizes, indicate by entering C4, L6, etc.

In the case of special specifications, this is layout instead of valve stations.

Enter quantity to be used.

Station table entry example

Valve stations or layout		8	7	6	5	4	3	2	1	Quantity
2 position	Single solenoid			C4	C6	C6				3
	Double solenoid						C6	C4		2
3 position	Closed center									
	Exhaust center									
	Pressure center									
4 position dual 3 port valve	SZ3A60 (N.C./N.C.)									
	SZ3B60 (N.O./N.O.)									
	SZ3C60 (N.C./N.O.)									
Blanking block assembly										
(b)	Valve external pilot specifications (enter only in case of external pilot)									
(c)	With back pressure check valve (enter only in case of back pressure check valve)									
(d)	Enter for special specs. Supply/Exhaust block assembly								L8	2
	External pilot block assembly									
(e)	SUP blocking disk									
	EXH blocking disk									
	Pilot port blocking disk									
(f)	Wiring specifications									
	Single wiring									
	Double wiring									

In this case, the U side supply/exhaust block will be a straight type C8.

With upward facing elbow for the D side supply/exhaust block

SZ3000: Cassette Type

Plug-in manifold

Manifold Valve Specification Sheet

Caution Be sure to read "Cautions on the use of manifold valve specification sheets" on pages 34 and 35 before making entries.

Make entries in order from (1) to (3).

1 How to Order Manifolds

Enter the symbols for the required specifications in the blanks below.

Enter an "X" for the manifold type to be used.

• Standard type SS5Z3-60

• Special specifications SS5Z3-60

Connector type

Symbol	Connector type
F	D-sub connector, 25 pins
P	Flat cable connector, 26 pins
PG	Flat cable connector, 20 pins
PH	Flat cable connector, 10 pins

Connector mounting direction

Symbol	Mounting position
1	Perpendicular
2	Lateral

Valve stations

Symbol	Stations
02	2 stations
:	:
20	20 stations

Special specifications

Indicate position of supply/exhaust block and external pilot block in the station table below.

Power supply terminals

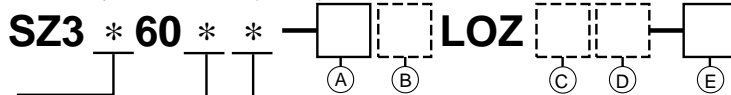
Symbol	Specifications
Nil	None
P	24VDC Pos. common
P12	12VDC
N	24VDC Neg. common
N12	12VDC

Options

When a DIN rail is required that is longer than the standard types, specify the number of stations. (Max. 20 stations)

2 How to Order Valves

Enter the symbols for the required specifications in the blanks below.



Valve actuation type

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center
A	4 position dual 3 port valve (N.C./N.C.)
B	4 position dual 3 port valve (N.O./N.O.)
C	4 position dual 3 port valve (N.C./N.O.)

Pilot system

Nil	Internal pilot
R	External pilot

When an external pilot valve is to be used, enter an "X" in section (b) of the station table below. However, external pilot specifications are not available for 4 position dual 3 port valves.

Back pressure check valve

Nil	None
K	Built-in

When a valve with back pressure check valve is used, enter an "X" in section (c) of the station table below.

Indicate in the station table below.

3 Station Table

Indicate the layout of valves, etc., by entering "X's".

• When the port sizes for each block assembly are mixed or special specifications, indicate with port size symbols C4, C6, etc.

Valve stations or layout		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity	
a	2 position	Single solenoid																					
		Double solenoid																					
	3 position	Closed center																					
		Exhaust center																					
		Pressure center																					
4 position dual 3 port valve	SZ3A60 (N.C./N.C.)																						
	SZ3B60 (N.O./N.O.)																						
	SZ3C60 (N.C./N.O.)																						
b	Blanking block assembly																						
	External pilot specifications (enter only in case of external pilot)																						
c	With back pressure check valve (enter only in case of back pressure check valve)																						
	d	Supply/Exhaust block assembly																					
External pilot block assembly																							
e	SUP blocking disk																						
	EXH blocking disk																						
	Pilot port blocking disk ^{Note 2)}																						
f	Wiring specifications	Single wiring																					
		Double wiring																					

- [Note] • SUP blocking disk: SZ3000-114-4A • EXH blocking disk: SZ3000-114-4A (2pcs./location) • Blanking block assembly: SZ3000-55-1A • Pilot port blocking disk: SZ3000-114-2A • Supply/Exhaust block assembly (ø8): SZ3000-50-1A-C8 • Supply/Exhaust block assembly (ø6): SZ3000-50-1A-C6 • External pilot block assembly (ø6): SZ3000-54-1A-C6 • External pilot block assembly (ø4): SZ3000-54-1A-C4 • Supply/Exhaust block assembly (elbow upward): SZ3000-50-1A-L6/L8 • Supply/Exhaust block assembly (elbow downward): SZ3000-50-1A-B6/B8 • External pilot block assembly (elbow upward): SZ3000-54-1A-L4/L6 • External pilot block assembly (elbow downward): SZ3000-54-1A-B4/B6

Note) The symbols at the end of supply/exhaust block and external pilot block assembly part numbers indicate the port sizes.

Section below for SMC use only

Enter the ordered part numbers.

Part no.	Quantity

Part no.	Quantity

Order no.	
Clerk (code no.)	
Branch code	

Note) In case of special specifications, enter the part number and quantity for supply/exhaust block and external pilot block assemblies together with the manifold type.

SZ3000: Cassette Type

Non-plug-in manifold

Manifold Valve Specification Sheet

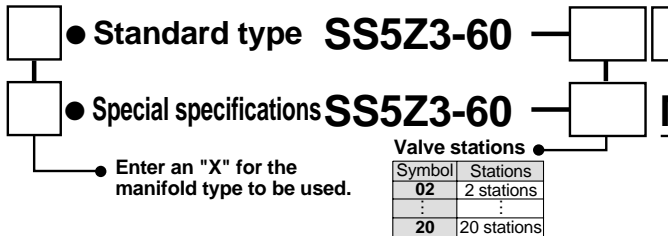
Caution Be sure to read "Cautions on the use of manifold valve specification sheets" on pages 34 and 35 before making entries.

Make entries in order from (1) to (3).

Company name			
Contact			
Specification sheet no.			
Order no.			
Equipment name			
Quantity	set (s)	Date required	

1 How to Order Manifolds

Enter the symbols for the required specifications in the blanks below.



Supply/Exhaust block assembly mounting position

Symbol	Mounting position	Applicable stations
U	U side	2 to 10 stations
D	D side	2 to 10 stations
B	Both sides	2 to 20 stations

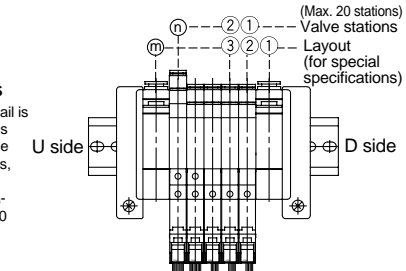
Pilot system

Symbol	Specifications
Nil	Standard/Internal pilot specifications
R	External pilot specifications

* In case of R, external pilot block will be added.

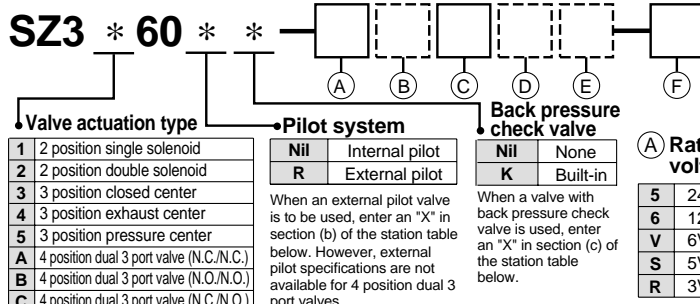
Supply/Exhaust block assembly fitting specifications

Symbol	Specifications
Nil	Straight
L	Elbow One-touch fitting (upward)
B	Elbow One-touch fitting (downward)



2 How to Order Valves

Enter the symbols for the required specifications in the blanks below.



(B) COM specifications

Nil	Pos. common
N	Neg. common

(C) Electrical entry

M	M type plug	With lead wires
MN	connector <td>Without lead wires</td>	Without lead wires
MO		Without connector

(D) Light/Surge voltage suppressor

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor

(E) Manual override

Nil	Non-locking push type
D	Slotted locking type, screw driver operated

(F) A, B port size

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M5	M5 x 0.8
L4	ø4 elbow One-touch fitting (upward)
L6	ø6 elbow One-touch fitting (upward)
B4	ø4 elbow One-touch fitting (downward)
B6	ø6 elbow One-touch fitting (downward)
M	Mixed

3 Station Table

Indicate the layout of valves, etc., by entering "X's".

• When the port sizes for each block assembly are mixed or special specifications, indicate with port size symbols C4, C6, etc.

Valve stations or layout		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity
(a)	2 position																					
	Single solenoid																					
	Double solenoid																					
	Closed center																					
(a)	3 position																					
	Exhaust center																					
	Pressure center																					
(a)	4 position dual																					
	SZ3A60 (N.C./N.C.)																					
	SZ3B60 (N.O./N.O.)																					
(a)	3 port valve																					
	SZ3C60 (N.C./N.O.)																					
(b)	External pilot specifications (enter only in case of external pilot)																					
(c)	With back pressure check valve (enter only in case of back pressure check valve)																					
Note 1) (d)	Enter for special specs.																					
	Supply/Exhaust block assembly																					
(e)	EXH blocking disk																					
	SUP blocking disk																					
	Pilot port blocking disk (Note 2)																					

- [Note] • SUP blocking disk: SZ3000-114-4A • EXH blocking disk: SZ3000-114-4A (2pcs./location) • Pilot port blocking disk: SZ3000-114-2A
- Supply/Exhaust block assembly (ø8): SZ3000-50-2A-C8 • Supply/Exhaust block assembly (ø6): SZ3000-50-2A-C6 • External pilot block assembly (ø6): SZ3000-54-2A-C6 • External pilot block assembly (ø4): SZ3000-54-2A-C4
- Supply/Exhaust block assembly (elbow upward): SZ3000-50-2A-L6/L8 • Supply/Exhaust block assembly (elbow downward): SZ3000-50-2A-B6/B8 • External pilot block assembly (elbow upward): SZ3000-54-2A-L4/L6 • External pilot block assembly (elbow downward): SZ3000-54-2A-B4/B6

Note) The symbols at the end of supply/exhaust block and external pilot block assembly part numbers indicate the port sizes.

Section below for SMC use only

Enter the ordered part numbers.

Part no.	Quantity

Part no.	Quantity

Order no.	
Clerk (code no.)	
Branch code	

Note) In case of special specifications, enter the part number and quantity for supply/exhaust block and external pilot block assemblies together with the manifold type.

SZ3000: Cassette Type

Serial wiring manifold

Manifold Valve Specification Sheet

Caution Be sure to read "Cautions on the use of manifold valve specification sheets" on pages 34 and 35 before making entries.

Make entries in order from (1) to (3).

1 How to Order Manifolds

Enter the symbols for the required specifications in the blanks below.

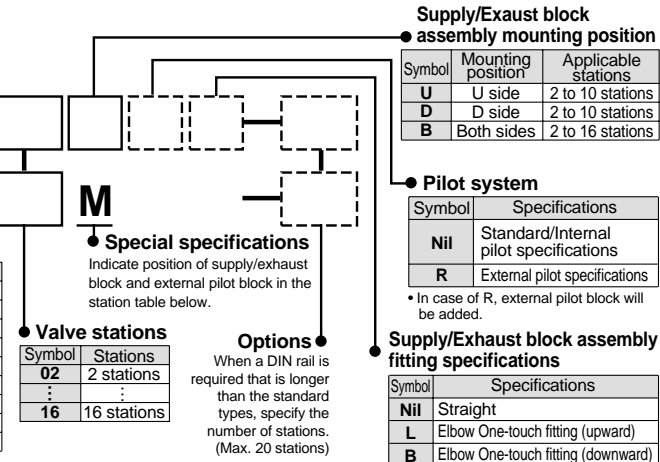
Standard type **SS5Z3-60S** D

Special specifications **SS5Z3-60S** D M

Enter an "X" for the manifold type to be used.

Symbol	Specifications
Q	DeviceNet compatible, OMRON Corp. CompoBus/D compatible
R1	OMRON Corporation: CompoBus/S (16 points) compatible
R2	OMRON Corporation: CompoBus/S (8 points) compatible
V	Mitsubishi Electric Corporation: CC-Link compatible
F	NKE Corp.: Simple wiring standard system compatible
H	NKE Corp.: Simple wiring H system compatible
J1	Sanks Corp.: S-LINK system (16 point output) compatible
J2	Sanks Corp.: S-LINK system (8 point output) compatible
O	Without SI unit

Company name		
Contact		
Specification sheet no.		
Order no.		
Equipment name		
Quantity	set (s)	Date required



2 How to Order Valves

Enter the symbols for the required specifications in the blanks below.

SZ3 * 60 * * - 5LOZ

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center
A	4 position dual 3 port valve (N.C./N.C.)
B	4 position dual 3 port valve (N.O./N.O.)
C	4 position dual 3 port valve (N.C./N.O.)

Nil	Internal pilot
R	External pilot

Nil	None
K	Built-in

When an external pilot valve is to be used, enter an "X" in section (b) of the station table below. However, external pilot specifications are not available for 4 position dual 3 port valves.

When a valve with back pressure check valve is used, enter an "X" in section (c) of the station table below.

A Switch specifications

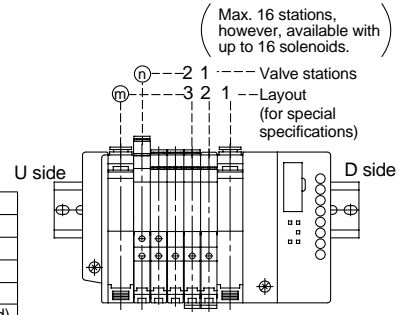
Nil	Without switch
J	With switch

B Manual override

Nil	Non-locking push type
D	Slotted locking type
	Screw driver operated

C A, B port size

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M5	M5 x 0.8
L4	ø4 elbow One-touch fitting (upward)
L6	ø6 elbow One-touch fitting (upward)
B4	ø4 elbow One-touch fitting (downward)
B6	ø6 elbow One-touch fitting (downward)
M	Mixed



3 Station Table

Indicate the layout of valves, etc., by entering "X's".

• The port sizes for each block assembly are mixed or special specifications, indicate with port size symbols of C4, C6, etc.

Valve stations or layout		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity	
a	2 position	Single solenoid																					
		Double solenoid																					
	3 position	Closed center																					
		Exhaust center																					
		Pressure center																					
4 position dual	SZ3A60 (N.C./N.C.)																						
	SZ3B60 (N.O./N.O.)																						
	SZ3C60 (N.C./N.O.)																						
3 port valve	Blanking block assembly																						
	External pilot specifications (enter only in case of external pilot)																						
b	With back pressure check valve (enter only in case of back pressure check valve)																						
	Enter for special specs.																						
c	Supply/Exhaust block assembly																						
	External pilot block assembly																						
e	SUP blocking disk																						
	EXH blocking disk																						
	Pilot port blocking disk <small>Note 2)</small>																						
f	Wiring specifications	Single wiring																					
		Double wiring																					

[Note] • SUP blocking disk: SZ3000-114-4A • EXH blocking disk: SZ3000-114-4A (2pcs/location) • Blanking block assembly: SZ3000-55-1A • Pilot port blocking disk: SZ3000-114-2A • Supply/Exhaust block assembly (ø8): SZ3000-50-1A-C8 • Supply/Exhaust block assembly (ø6): SZ3000-50-1A-C6 • External pilot block assembly (ø6): SZ3000-54-1A-C6 • External pilot block assembly (ø4): SZ3000-54-1A-C4 • Supply/Exhaust block assembly (elbow upward): SZ3000-50-1A-L6/L8 • Supply/Exhaust block assembly (elbow downward): SZ3000-50-1A-B6/B8 • External pilot block assembly (elbow upward): SZ3000-54-1A-L4/L6 • External pilot block assembly (elbow downward): SZ3000-54-1A-B4/B6

Note) The symbols at the end of supply/exhaust block and external pilot block assembly part numbers indicate the port sizes.

Enter the ordered part numbers.

Section below for SMC use only

Part no.	Quantity

Part no.	Quantity


Order no.	
Clerk (code no.)	
Branch code	


Note) In case of special specifications, enter the part number and quantity for supply/exhaust block and external pilot block assemblies together with the manifold type.




Series SZ3000 Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by a label of "**Caution**", "**Warning**" or "**Danger**". To ensure safety, be sure to observe ISO 4414 Note 1), JIS B 8370 Note 2) and other safety practices.

 **Caution** : Operator error could result in injury or equipment damage.

 **Warning** : Operator error could result in serious injury or loss of life.

 **Danger** : In extreme conditions, there is a possible result of serious injury or loss of life.

Note 1) ISO 4414: Pneumatic fluid power – Recommendations for the application of equipment to transmission and control systems

Note 2) JIS B 8370: General Rules for Pneumatic Equipment

Warning

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements.

2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators.

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed after confirmation of safe locked-out control positions.
2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.
3. Before machinery/equipment is restarted, take measures to prevent shooting-out of cylinder piston rod, etc. (Bleed air into the system gradually to create back pressure.)

4. Contact SMC if the product is to be used in any of the following conditions:

1. Conditions and environments beyond the given specifications, or if product is used outdoors.
2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, press applications, or safety equipment.
3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.



SZ3000

5 Port Solenoid Valve Precautions 1

Be sure to read before handling.

Precautions on Design

Warning

1. Actuator drive

When an actuator, such as a cylinder, is to be driven using a valve, take appropriate measures to prevent potential danger caused by actuator operation.

2. Intermediate stopping

When a 3 position closed center valve is used to stop a cylinder at an intermediate position, accurate stopping of the piston in a predetermined position is difficult due to the compressibility of air. Furthermore, since valves and cylinders are not guaranteed for zero air leakage, it may not be possible to hold a stopped position for an extended length of time. Contact SMC if it is necessary to hold a stopped position for an extended time.

3. Effect of back pressure when using a manifold

Use caution when valves are used on a common exhaust manifold, as actuator malfunction due to back pressure may occur. Special caution is necessary when using a 3 position exhaust center valve, or when driving an air operated valve or single acting cylinder, etc., because malfunction may occur due to the exhaust from other actuators. When adverse effects from exhaust are possible, select a valve with back pressure check valve, or adopt measures such as the use of a supply/exhaust block assembly and exhaust blocking disk to separate the exhaust.

4. Holding of pressure (including vacuum)

Since valves are subject to air leakage, they cannot be used for applications such as holding pressure (including vacuum) in a pressure vessel.

5. Cannot be used as an emergency shutoff valve, etc.

The valves presented in this catalog are not designed for safety applications such as an emergency shutoff valve. If the valves are used in this type of system, other reliable safety assurance measures should also be adopted.

6. Maintenance space

The installation should allow sufficient space for maintenance activities.

7. Release of residual pressure

Provide a residual pressure release function for maintenance purposes. Special consideration should be given to the release of residual pressure between the valve and cylinder in the case of a 3 position closed center type valve.

8. Vacuum applications

When a valve is used for vacuum switching, etc., take measures against the suction of external dust or other contaminants from vacuum pads and exhaust ports, etc. Moreover, an external pilot type valve should be used in this case. Contact SMC in case of an internal pilot type.

9. Use of the double solenoid type

When using a double solenoid type for the first time, an actuator may operate in an unexpected direction due to the switching position of the valve. Implement measures to avoid danger from actuator operation.

10. Ventilation

When a valve is used inside a sealed unit such as a control panel, provide ventilation holes so that pressure inside the control panel does not increase from exhaust air, and so there is no

Selection

Warning

1. Confirm the specifications.

The products presented in this catalog are designed only for use in compressed air systems (including vacuum). Do not operate at pressures or temperatures, etc., beyond the range of specifications, as this can cause damage or malfunction. (Refer to specifications.) Contact SMC when using a fluid other than compressed air (including vacuum).

2. Extended periods of continuous energization

When a valve is energized continuously for an extended period of time or the energized time is longer than the deenergized time, use DC specifications or an energy saving type. Consult SMC regarding other products which are available for AC specifications.

Caution

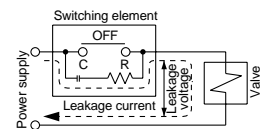
1. Momentary energization

If a double solenoid valve will be operated with momentary energization, it should be energized for at least 0.1 second.

However, since a cylinder may malfunction depending on the secondary load conditions, it should be energized until the cylinder reaches the stroke end position.

2. Leakage voltage

Particularly when using a C-R element (surge voltage suppressor) to protect a switching element, leakage voltage will increase due to the leakage current flowing through the C-R element.



Therefore, select a circuit or element so that the amount of previous residual leakage voltage conforms to the values shown below. Furthermore, when a reset fault occurs due to the leakage voltage, install a bleeder resistor. Consult SMC for details on the bleeder resistor.

With DC coil: 3% or less of rated voltage
With AC coil: 8% or less of rated voltage

3. Low temperature operation

Unless otherwise indicated in the specifications for each valve, operation is possible to -10°C , but appropriate measures should be taken to avoid solidification or freezing of drainage and moisture, etc.

4. Operation for air blowing

When using solenoid valves for air blowing, use an external pilot type.

Note that the pressure drop caused by air blowing can have an effect on internal pilot type valves when internal pilots and external pilots are used on the same manifold. Furthermore, supply compressed air to the pilot port within the pressure range prescribed in the specifications, and when using a double solenoid type for air blowing, make sure that it is always energized when air is being blown.

5. Mounting position

The mounting position is unrestricted.



Series SZ3000

5 Port Solenoid Valve Precautions 2

Be sure to read before handling.

Mounting

⚠ Warning

1. If air leakage increases or equipment does not operate properly, stop operation.

After mounting and maintenance, etc., connect the compressed air and power supplies, and perform appropriate function and leakage inspections to confirm that the unit is mounted properly.

2. Instruction manual

Mount and operate the product after reading the manual carefully and understanding its contents. Also keep the manual where it can be referred to as necessary.

3. Painting and coating

Warnings or specifications printed or pasted on the product should not be erased, removed or covered up.

Consult SMC if paint is to be applied to resin parts, as this may have an adverse effect due to the paint solvent.

Piping

⚠ Caution

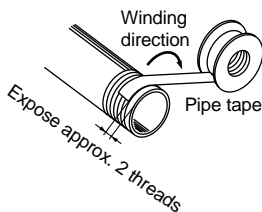
1. Preparation before piping

Before piping is connected, it should be thoroughly blown out with air (flushing) or washed to remove chips, cutting oil and other debris from inside the pipe.

2. Wrapping of pipe tape

When connecting pipes and fittings, etc., be sure that chips from the pipe threads and sealing material do not get inside the valve.

Further, when pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the threads.



3. When using closed center valves

When using a closed center type valve, check carefully to be sure there are no air leaks from the piping between the valves and cylinders.

4. Connection of fittings

When connecting fittings to valves, tighten as indicated below.

M5 type

1. When using SMC fittings, follow the guidelines below.

M5: After tightening by hand, tighten an additional 1/6 turn with a tightening tool. However, if miniature fittings are used, tighten an additional 1/4 turn with a tightening tool after tightening by hand. For fittings with gaskets in 2 locations, such as universal elbow or universal tee, tighten an additional 1/2 turn.

Note) If fittings are over-tightened, air leakage may result due to breaking of fitting threads or deformation of the gaskets. However, if fittings are not tightened sufficiently, loosening of the threads and air leakage may occur.

2. When fittings other than SMC fittings are used, follow the instructions of the respective fitting manufacturer.

Piping

⚠ Caution

5. Connection of piping to products

When connecting piping to a product, refer to its instruction manual to avoid mistakes regarding the supply port, etc.

Wiring

⚠ Caution

1. Polarity

When connecting power to a DC specification solenoid valve equipped with (light/) surge voltage suppressor, confirm whether or not there is polarity.

If there is polarity, take note of the following points.

- Without built-in diode to protect polarity:

If a mistake is made regarding polarity, the diode in the valve, the control device switching element or power supply equipment, etc., may burn out.

- With diode to protect polarity:

If a mistake is made regarding polarity, it will not be possible to switch the valve.

2. Applied voltage

When electric power is connected to the solenoid valve, be careful to apply the proper voltage. Improper voltage may cause malfunction or burn out the coil.

3. Confirmation of the connections

After completing the wiring, confirm that the connections are correct.

4. Handling of pilot valves

Do not allow a force greater than 20N to be applied to the pilot valve unit due to deflection of lead wires or external forces, etc., as this may cause damage.

Lubrication

⚠ Caution

1. Lubrication

1) The valve has been lubricated for life at the factory, and does not require any further lubrication.

2) In the event that it is lubricated, use class 1 turbine oil (without additives), ISO VG32.

However, once lubrication is applied it must be continued, as the original lubricant may be eliminated leading to malfunction.

Contact SMC regarding class 2 turbine oil (with additives), ISO VG32.



Series SZ3000

5 Port Solenoid Valve Precautions 3

Be sure to read before handling.

Air Supply

⚠ Warning

1. Use clean air.

Do not use compressed air which contains chemicals, synthetic oils containing organic solvents, salts or corrosive gases, etc., as this can cause damage or malfunction.

⚠ Caution

1. Install air filters.

Install air filters close to valves at their upstream side. A filtration degree of 5µm or less should be selected.

2. Install an air dryer, after cooler or Drain Catch, etc.

Air that includes excessive drainage may cause malfunction of valves and other pneumatic equipment. To prevent this, install an air dryer, after cooler or Drain Catch, etc.

3. If excessive carbon powder is generated, eliminate it by installing mist separators at the upstream side of valves.

If excessive carbon powder is generated by the compressor, it may adhere to the inside of valves and cause malfunction.

Refer to SMC's "Compressed Air Cleaning Systems" catalog for further details on compressed air quality.

Operating Environment

⚠ Warning

1. Do not use valves in atmospheres of corrosive gases, chemicals, salt water, water or steam, or where there is direct contact with same.
2. Do not use in an explosive atmosphere.
3. Do not use in locations subject to vibration or impact. Confirm the specifications in the main section of this catalog.
4. Use a protective cover, etc., to shield valves from direct sunlight.
5. Shield valves from radiated heat generated by nearby heat sources.
6. Employ suitable protective measures in locations where there is contact with water droplets, oil or welding spatter, etc.
7. When solenoid valves are mounted in a control panel or are energized for extended periods of time, employ measures to radiate excess heat, so that temperatures remain within the valve specification range.

Maintenance

⚠ Warning

1. Perform maintenance procedures as shown in the instruction manual.

If handled improperly, malfunction or damage of machinery or equipment may occur.

2. Equipment removal and supply/exhaust of compressed air

When equipment is removed, first confirm that measures are in place to prevent dropping of work pieces and run-away of equipment, etc. Then cut the supply pressure and power, and exhaust all compressed air from the system using its residual pressure release function.

Furthermore, in the case of 3 position closed center type valves, compressed air will remain between valves and cylinders, and must be exhausted similarly.

When the equipment is to be started again after remounting or replacement, first confirm that measures are in place to prevent lurching of actuators, etc., and then confirm that the equipment is operating normally.

3. Low frequency operation

Switch valves at least once every 30 days to prevent malfunction. (Use caution regarding the air supply.)

4. Manual override operation

When the manual override is operated, connected equipment will be actuated. Confirm safety before operating.

⚠ Caution

1. Drainage removal

Remove drainage from air filters regularly. (Refer to specifications.)

How to Find the Flow Rate (at air temperature of 20°C)

Subsonic flow when $P_1 + 0.1013 < 1.89 (P_2 + 0.1013)$

$$Q = 226S \sqrt{\Delta P (P_2 + 0.1013)}$$

Sonic flow when $P_1 + 0.1013 \geq 1.89 (P_2 + 0.1013)$

$$Q = 113S (P_1 + 0.1013)$$

Q: Air flow rate [l/min (ANR)]

S: Effective area (mm²)

ΔP: Differential pressure (P₁-P₂) [MPa]

P₁: Upstream pressure [MPa]

P₂: Downstream pressure [MPa]

* Correction for different air temperatures

Multiply the flow rate calculated with the above formula by a coefficient from the table below.

Air temperature (°C)	-20	-10	0	10	30	40	50	60
Correction coefficient	1.08	1.06	1.04	1.02	0.98	0.97	0.95	0.94



SZ3000: Specific Product Precautions 1

Be sure to read before handling.

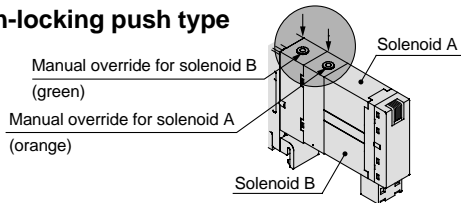
Refer to pages 44 through 47 for safety instructions and common precautions.

Warning

Manual operation

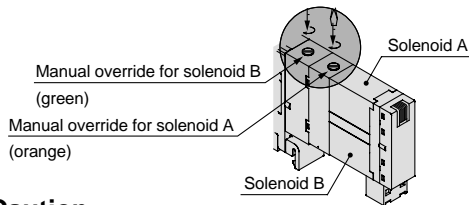
Handle carefully, as connected equipment will be actuated through manual operation.

Non-locking push type



Slotted locking type (screw driver operated)

After pushing down, turn in the direction of the arrow. If it is not turned, it can be operated the same way as the non-locking type.



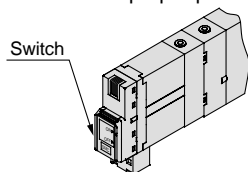
Caution

When locking the manual override on the screw driver operated slotted locking type, be sure to push it down before turning. Turning without first pushing it down can cause damage to the manual override and air leakage, etc.

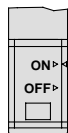
Warning

Valves with switches

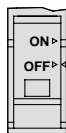
When turning OFF with the switch, be sure to move the switch to the locked position. Connected equipment may be actuated if current flow occurs with the switch at an improper position.



ON position



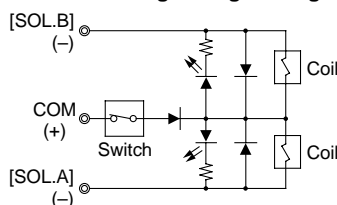
OFF position



Normal operating condition. Switching of valve is based on an electric signal from the connector.

The valve coil is kept in a deenergized state even when there is an electric signal from the connector.

Electric circuit diagram (with positive common and light/surge voltage suppressor)



Caution

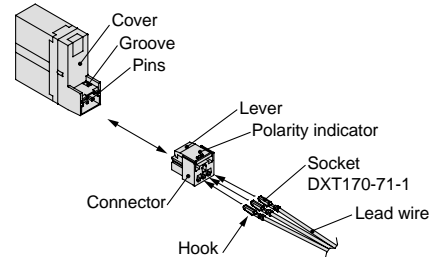
How to use plug connectors

When attaching and detaching a connector, first shut off the electric power and the air supply.

Also, crimp the lead wires and sockets securely.

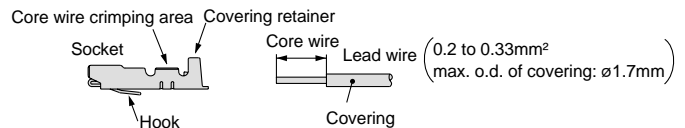
1. Attaching and detaching connectors

- To attach a connector, hold the lever and connector unit between your fingers and insert straight onto the pins of the solenoid valve so that the lever's pawl is pushed into the groove and locks.
- To detach a connector, remove the pawl from the groove by pushing the lever downward with your thumb, and pull the connector straight out.



2. Crimping of lead wires and sockets

Strip 3.2 to 3.7mm at the end of the lead wires, insert the ends of the core wires evenly into the sockets, and then crimp with a crimping tool. When this is done, take care that the coverings of the lead wires do not enter the core wire crimping area. (crimping tool: model no. DXT170-75-1)



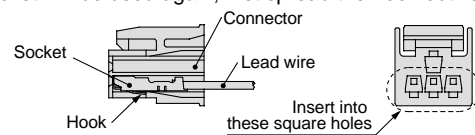
3. Attaching and detaching lead wires with sockets

Attaching

Insert the sockets into the square holes of the connector (with \oplus , \ominus indication), and continue to push the sockets all the way in until they lock by hooking into the seats in the connector. (When they are pushed in, their hooks open and they are locked automatically.) Then confirm that they are locked by pulling lightly on the lead wires.

Detaching

To detach a socket from a connector, pull out the lead wire while pressing the socket's hook with a stick having a thin tip (about 1mm). If the socket will be used again, first spread the hook outward.



Plug connector lead wire lengths

Plug connector lead wires have a standard length of 300mm, however, the following lengths are also available.

M type connector assembly part numbers

Positive common specifications

For single solenoid: **SX100-40-4S-**

For double solenoid: **SX100-40-4D-**

For 3 position type

Negative common specifications

For single solenoid: **SX100-41-4S-**

For double solenoid: **SX100-41-4D-**

For 3 position type

Lead wire length

Nil	300mm
6	600mm
10	1000mm
15	1500mm
20	2000mm
25	2500mm
30	3000mm
50	5000mm

Ordering

Include the connector assembly part number together with the part number for the plug connector's solenoid valve without connector.

<Example>

Lead wire length 2000mm
SZ3160-5MO-M5
SX100-40-4S-20



SZ3000: Specific Product Precautions 2

Be sure to read before handling.

Refer to pages 44 through 47 for safety instructions and common precautions.

Caution

Common connector assembly for manifold

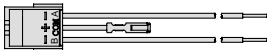
By using a common connector assembly for the solenoid valves on a manifold, the common wiring for each solenoid valve is reduced to one line, making it possible to achieve labor savings on wiring work.

Common connector assembly part numbers

**Pos. common specifications
For single solenoid
SX100-42-4S**



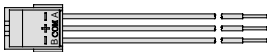
**For double solenoid,
3 position type
SX100-42-4D**



**With common lead wire
for single solenoid
SX100-40-4S**



**With common lead wire
for double solenoid,
3 position type
SX100-40-4D**

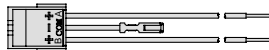


(lead wire length 300mm)

**Neg. common specifications
For single solenoid
SX100-43-4S**



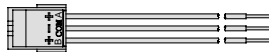
**For double solenoid,
3 position type
SX100-43-4D**



**With common lead wire
for single solenoid
SX100-41-4S**



**With common lead wire
for double solenoid,
3 position type
SX100-41-4D**



(lead wire length 300mm)

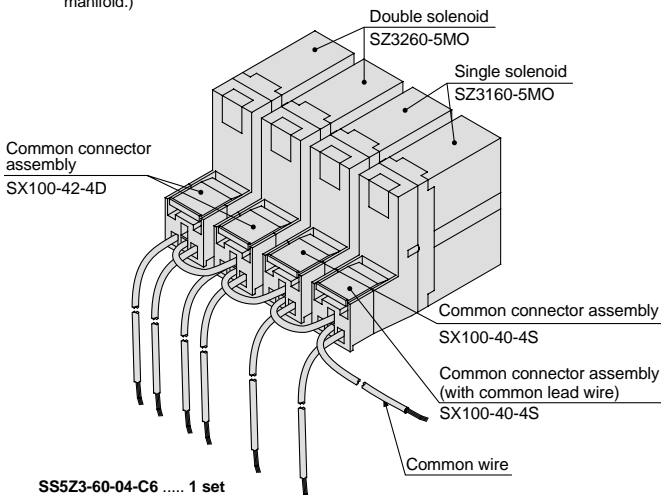
How to order

Include the common connector assembly part number together with the manifold and solenoid valve part numbers. If the arrangement becomes complicated, then indicate on the manifold specification sheets (pages 37 to 41).

Note 1) Take note that applications with unused connectors or with blanking plates between stations are not possible.

Note 2) For the solenoid valve, specify "without connector" for the plug connector type. The grommet type cannot be used.

Note 3) In places where signals will be sent to the common wiring, use a connector assembly with a common lead wire. (This is limited to the first station or the last station of a manifold.)



SS5Z3-60-04-C6 1 set

*SZ3160-5MO 2 sets

*SZ3260-5MO 2 sets

*SX100-40-4S 1 set (with common lead wire for single solenoid)

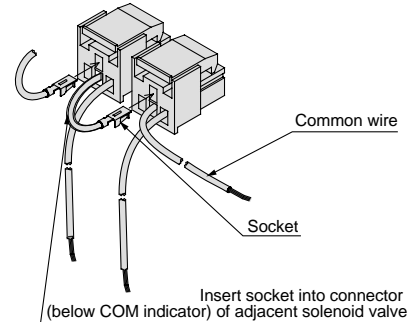
*SX100-42-4S 1 set (for single solenoid)

[SX100-42-4D 2 sets (for double solenoid, for 3 position type)

The * symbol indicates built-in. Put the * symbol at the beginning of part numbers for solenoid valves, etc., which are to be attached.

Common connector assembly wiring

When ordering common connector assemblies alone, wiring should be performed as outlined in the drawing below. For details on attachment of sockets, refer to the section "How to use plug connectors" on page 48.



Caution

Precautions for One-touch fittings

The pitch of each piping port (P, A, B, etc.) for Series SZ is based on the assumption that Series KJ One-touch fittings will be used. For this reason, when other fittings are used, they may interfere with one another depending on their types and sizes. Therefore, the dimensions of the fittings to be used should first be confirmed in their respective catalogs.

Caution

Exhaust restriction

Since the Series SZ is a type in which the pilot valve exhaust joins the main valve exhaust inside the valve, care must be taken that the piping from the exhaust port is not restricted.

Caution

Series SZ3000 used as a 3 port valve

Using a 5 port valve as a 3 port valve

Series SZ3000 valves can be used as normally closed (N.C.) or normally open (N.O.) 3 port valves by closing one of the cylinder ports (A or B) with a plug. However, they should be used with the exhaust ports kept open. They are convenient at times when a double solenoid type 3 port valve is required.

Plug position		Port B	Port A
Switching		N.C.	N.O.
Number of solenoids	Single		
	Double		



SZ3000: Specific Product Precautions 3

Be sure to read before handling.

Refer to pages 44 through 47 for safety instructions and common precautions.

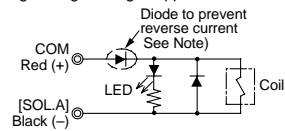
Caution

Light/Surge voltage suppressor

Pos. common specifications

Single solenoid type

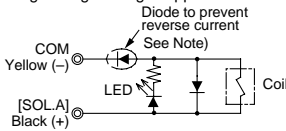
Light/Surge voltage suppressor



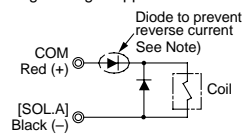
Neg. common specifications

Single solenoid type

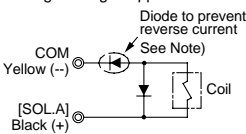
Light/Surge voltage suppressor



Surge voltage suppressor



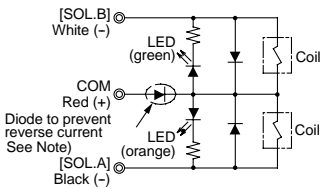
Surge voltage suppressor



Pos. common specifications

Double solenoid, 3 position type

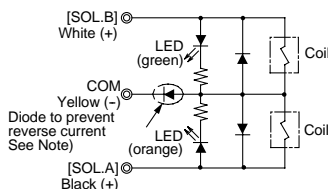
Light/Surge voltage suppressor



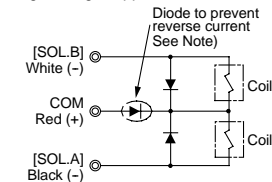
Neg. common specifications

Double solenoid, 3 position type

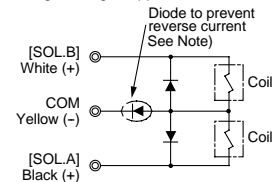
Light/Surge voltage suppressor



Surge voltage suppressor



Surge voltage suppressor



Note) Connect so that polarity is matched to the connector's (+), (-) and A, B, COM indicators. In case of voltage specifications other than 12 or 24VDC, take care to avoid mistaking polarity, as there is no diode to prevent reverse current. In the event that lead wires are connected in advance, they will be as shown below.

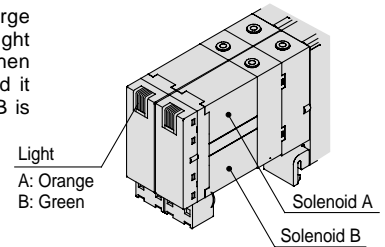
Pos. common specifications
A (-): Black
COM (+): Red
B (-): White (no lead wire in case of single solenoid)

Neg. common specifications
A (+): Black
COM (-): Yellow
B (+): White (no lead wire in case of single solenoid)

Caution

Light indication

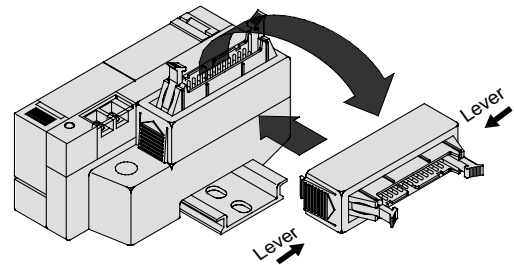
In the case of light/surge voltage suppressor, the light window turns orange when solenoid A is energized, and it turns green when solenoid B is energized.



Caution

Changing the connector entry direction

To change the connector's entry direction, press the levers on both sides of the connector, take it off, and change the direction as shown in the drawing. Since lead wires are attached to the connector, excessive pulling or twisting can cause broken wires or other trouble. Also, take care that lead wires are not pinched when installing the connector.





SZ3000: Specific Product Precautions 4

Be sure to read before handling.

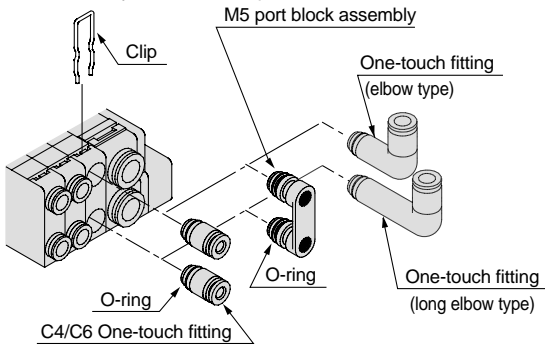
Refer to pages 44 through 47 for safety instructions and common precautions.

⚠ Caution

Replacement of fitting assemblies

By replacing a valve's fitting assembly, it is possible to change the connection diameter of the A, B, P and R ports.

When replacing it, pull out the fitting assembly after removing the clip with a flat head screw driver, etc. To mount a new fitting assembly, insert it into place and then fully reinsert the clip.



Part numbers

	Port size	Part no.
Ports A, B	ø4 One-touch fitting assembly	VVQ1000-50A-C4
	ø6 One-touch fitting assembly	VVQ1000-50A-C6
	ø4 One-touch fitting assembly (elbow type)	SZ3000-73-1A-L4
	ø6 One-touch fitting assembly (elbow type)	SZ3000-73-1A-L6
	ø4 One-touch fitting assembly (long elbow type)	SZ3000-73-2A-L4
	ø6 One-touch fitting assembly (long elbow type)	SZ3000-73-2A-L6
Ports P, R	M5 port block assembly	SZ3000-56-1A
	ø6 One-touch fitting assembly	VVQ1000-51A-C6
	ø8 One-touch fitting assembly	VVQ1000-51A-C8
	ø6 One-touch fitting assembly (elbow type)	SZ3000-74-1A-L6
	ø8 One-touch fitting assembly (elbow type)	SZ3000-74-1A-L8
	ø6 One-touch fitting assembly (long elbow type)	SZ3000-74-2A-L6
	ø8 One-touch fitting assembly (long elbow type)	SZ3000-74-2A-L8

Note 1) When changing the connection diameters for ports P and R, indicate this on the manifold specification sheets (pages 37 through 41).

Note 2) Take care not to get scratches or dirt, etc., on O-rings, as this can cause air leakage.

Note 3) When removing a straight type fitting assembly from a valve, after removing the clip, connect a tube or plug (KQP-□□) to the One-touch fitting and pull it out by holding the tube (or plug). If the fitting assembly is pulled out by holding its release button (resin part), the release bushing may be damaged.

Note 4) Before disassembly, be sure to turn off the electric power and air supplies. Also, since air may still remain inside actuators, piping and manifolds, confirm that this air has been completely exhausted before performing any work.

Note 5) When inserting tubing into an elbow type fitting assembly, insert the tubing while holding the elbow fitting assembly body with your hand. If the tubing is inserted without holding the elbow, excessive force can be applied to the valve and fitting assembly, causing air leakage or damage, etc.

⚠ Caution

Precautions for One-touch fittings

1. Tube attachment/detachment for One-touch fittings

1) Attaching of tube

① Take a tube having no flaws on its periphery and cut it off at a right angle. When cutting the tube, use tube cutters TK-1, 2 or 3. Do not use pinchers, nippers or scissors, etc. If cutting is done with tools other than tube cutters, the tube may be cut diagonally or become flattened, etc. This can make a secure installation impossible, and cause problems such as the tube pulling out after installation or air leakage. Allow some extra length in the tube.

② Grasp the tube and push it in slowly, inserting it securely all the way into the fitting.

③ After inserting the tube, pull on it lightly to confirm that it will not come out. If it is not installed securely all the way into the fitting, this can cause problems such as air leakage or the tube pulling out.

2) Detaching of tube

① Push in the release button sufficiently, pushing the collar evenly.

② Pull out the tube while holding down the release button so that it does not come out. If the release button is not pressed down sufficiently, there will be increased bite on the tube and it will become more difficult to pull it out.

③ When the removed tube is to be used again, cut off the portion which has been chewed before reusing it. If the chewed portion of the tube is used as is, this can cause trouble such as air leakage or difficulty in removing the tube.

⚠ Caution

Precautions on other tube brands

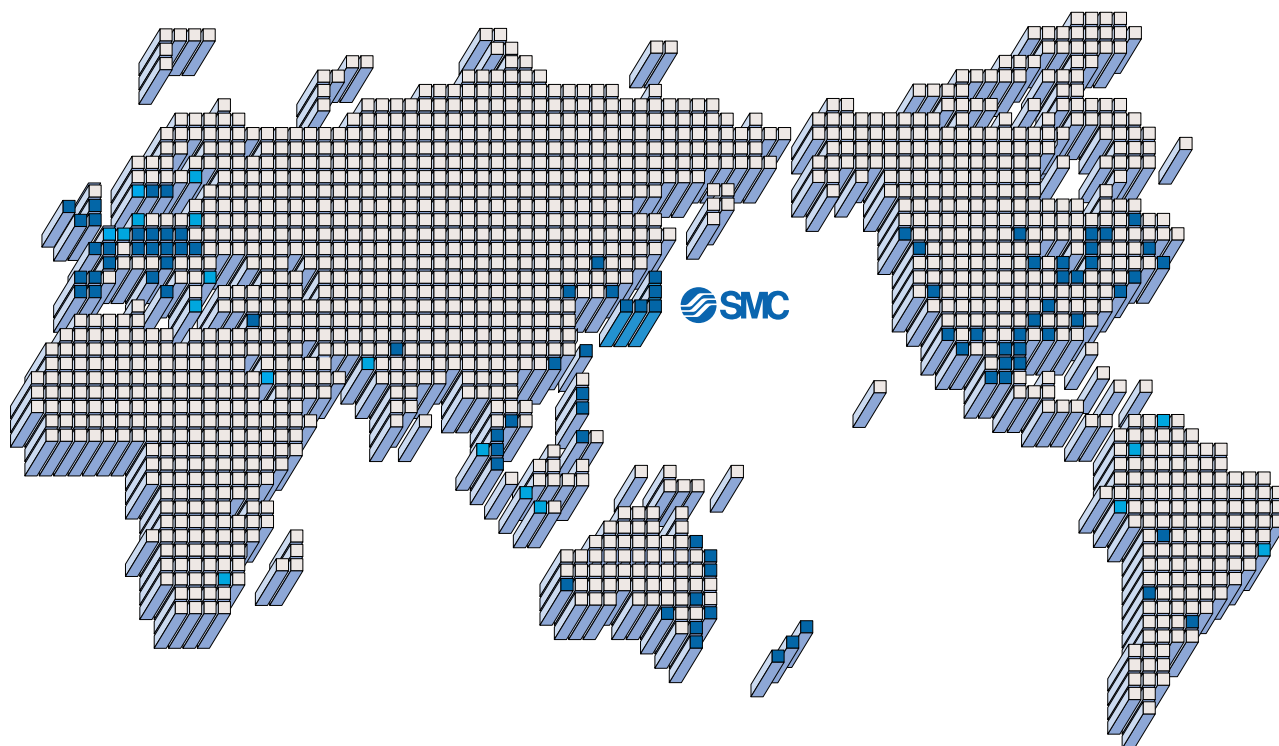
1. When using other than SMC brand tubes, confirm that the following specifications are satisfied with respect to the outside diameter tolerance of the tube.

- 1) Nylon tube within $\pm 0.1\text{mm}$
- 2) Soft nylon tube within $\pm 0.1\text{mm}$
- 3) Polyurethane tube within $+0.15\text{mm}$
within -0.2mm

Do not use tubes which do not meet these outside diameter tolerances. It may not be possible to connect them, or they may cause other trouble, such as air leakage or the tube pulling out after connection.



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5/2, 5/3 пневмораспределитель с электропневматическим управлением

EVF3000/5000

G1/8 – G3/8

- Пропускная способность до 2450 норм. л/мин при компактных размерах
- Индивидуальный монтаж и монтаж на общей плите

Технические характеристики

Среда		Очищенный сжатый воздух, с содержанием масла* или без него
Рабочее давление (МПа)	5/2 с пружинным возвратом	0.15–0.9
	5/2 с двусторонним импульсным управлением	0.1–0.9
	5/3 со средним положением	0.1–0.9
Рабочая температура, макс. (°C)		50
Время срабатывания (мс)	5/2	<30
	5/3	<50
Макс. частота срабатывания (Гц)	5/2	5
	5/3	3
Вспомогательное ручное управление		фиксируется
Монтажное положение		произвольное
Электрический подвод		3-х клеммный разъем по стандарту DIN 43650, конструктивное исполнение В
Напряжение (В)**	DC	24
	AC	220
Допуск по напряжению		от -15% до+10%
Степень защиты		IP65
Класс изоляции		В
Потребляемая мощность (Вт, DC)		1.8
Искрогашение		по запросу
Индикатор рабочего состояния		по запросу



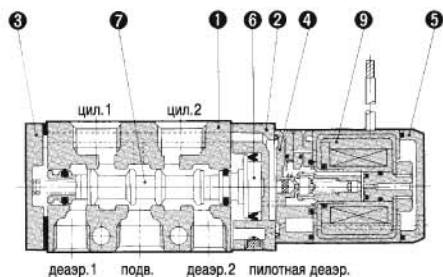
* Рекомендуемое качество масла: ISO VG 32 класс

** Другие напряжения по запросу

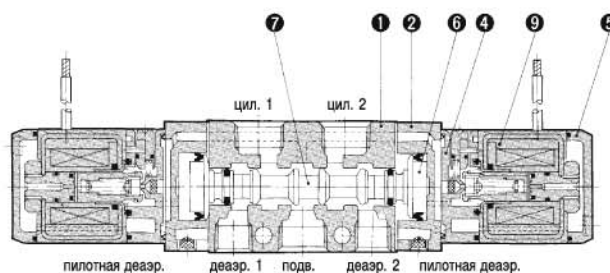
Конструктивное исполнение	Тип	Принцип действия	Условное обозначение	Присоединительная резьба	Расход (л/мин)	Вес (г)	
Индивидуальный монтаж, монтаж на плите	EVF3133	5/2 с пружинным возвратом		G1/8	780	210	
	EVF5120			G1/4	980	380	
	EVF3233	5/2 с двусторонним импульсным управлением		G1/8	780	290	
	EVF5220			G1/4	980	380	
	EVF3333			G3/8	2450	450	
	EVF5320	5/3, в среднем положении закрыт		G1/8	638	420	
	EVF3433			G1/4	780	380	
	EVF5420	5/3, в среднем положении открыт		G3/8	1960	560	
					G1/8	780	420
					G1/4	980	380
				G3/8	2250	560	

Спецификация

5/2 с пружинным возвратом в исходное положение

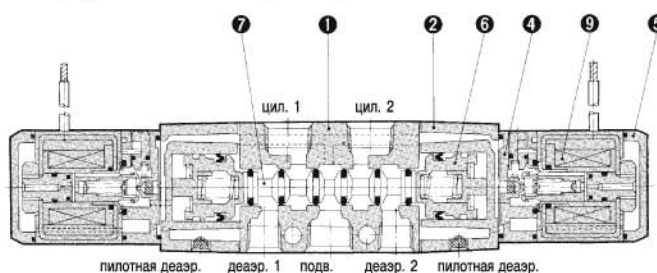


5/2 с двусторонним импульсным управлением



Поз.	Обозначение	Материал
1	Корпус пневмораспределителя	Алюминий
2	Промежуточная деталь	Алюминий
3	Концевая пластина	Алюминий
4	Пилотный элемент	Полиацеталь
5	Крышка	Полиацеталь
6	Поршень управления	Полиацеталь (для 5/3 - алюминий)
7	Золотник	Алюминий, NBR
9	Вспомогательный элемент упр.	-

5/3, в среднем положении открыт/закрыт



Запасные части

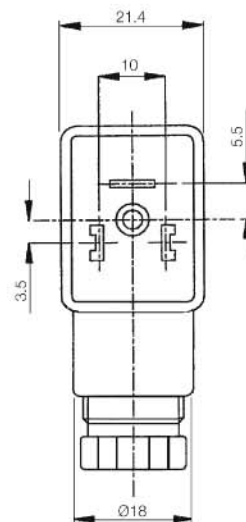
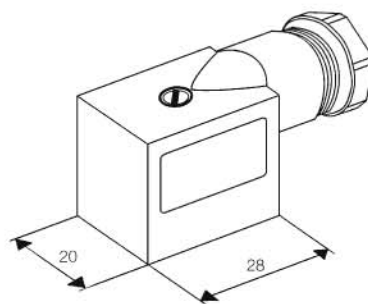
Обозначение	Напряжение	Номер для заказа
Элемент включения с катушкой электромагнита	24 V DC	SF4-5YOB-50
	220 V AC	SF4-4YOB-50

Принадлежности

Обозначение	Тип	Номер для заказа
Крышка с уплотнением и винтами (заглушка на 1 позицию плиты)	EVF3000	DXT031-38-1A
	EVF5000	DXT156-19-1A

Номер для заказа ответных частей разъема (заказываются отдельно)

Номер для заказа		Описание
24 VDC	220 VAC	
X31		Без индикатора рабочего состояния и искрогашения
X32	X30	С индикатором рабочего состояния и искрогашением



Данные по заказу

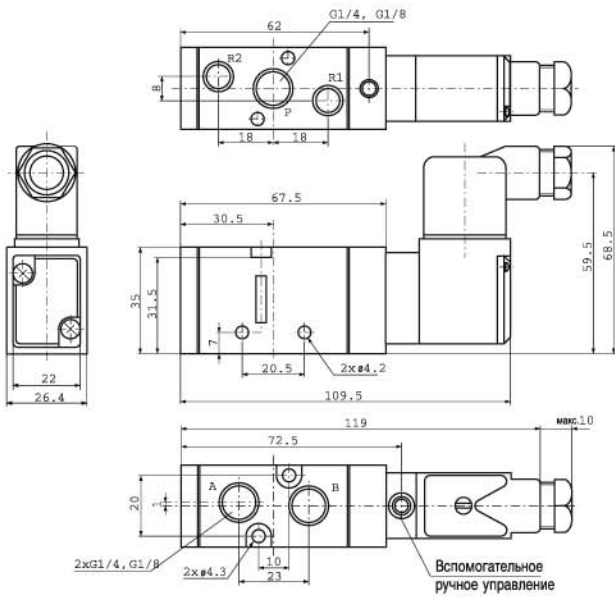
Принцип действия	Напряжение	Номер для заказа		
		EVF3000	EVF5000	EVF5000
5/2 с пружинным возвратом	24 V DC	EVF3133-5YOB-01F	EVF3133-5YOB-02F	EVF5120-5YOB-03F
	220 V AC	EVF3133-4YOB-01F	EVF3133-4YOB-02F	EVF5120-4YOB-03F
5/2 с двусторонним импульсным управлением	24 V DC	EVF3233-5YOB-01F	EVF3233-5YOB-02F	EVF5220-5YOB-03F
	220 V AC	EVF3233-4YOB-01F	EVF3233-4YOB-02F	EVF5220-4YOB-03F
5/3 в среднем положении закрыт	24 V DC	EVF3333-5YOB-01F	EVF3333-5YOB-02F	EVF5320-5YOB-03F
	220 V AC	EVF3333-4YOB-01F	EVF3333-4YOB-02F	EVF5320-4YOB-03F
5/3 в среднем положении открыт	24 V DC	EVF3433-5YOB-01F	EVF3433-5YOB-02F	EVF5420-5YOB-03F
	220 V AC	EVF3433-4YOB-01F	EVF3433-4YOB-02F	EVF5420-4YOB-03F

Винты и уплотнительные элементы для монтажа на платах пневмораспределителей поставляются вместе с платами.

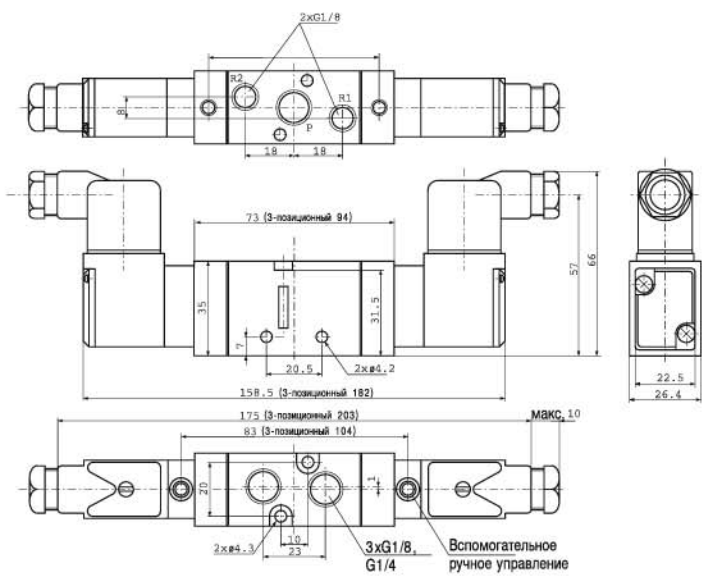
5/2, 5/3 пневмораспределитель с электропневматическим управлением EVF3000/5000

Размеры

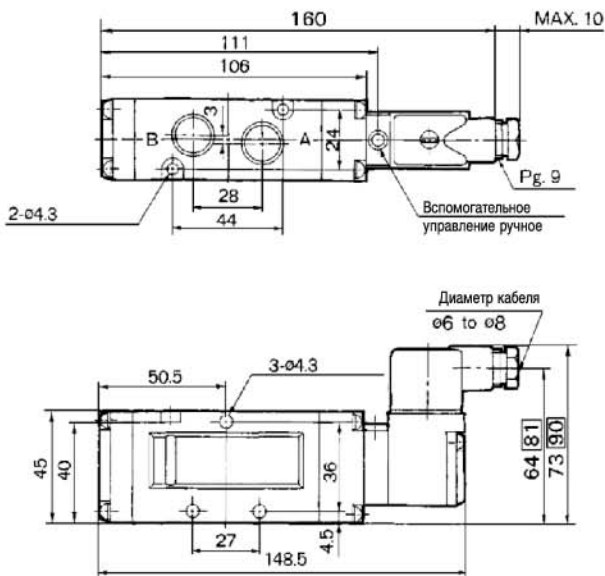
EVF3133-□YOB-01F / EVF3133-□YOB-02F



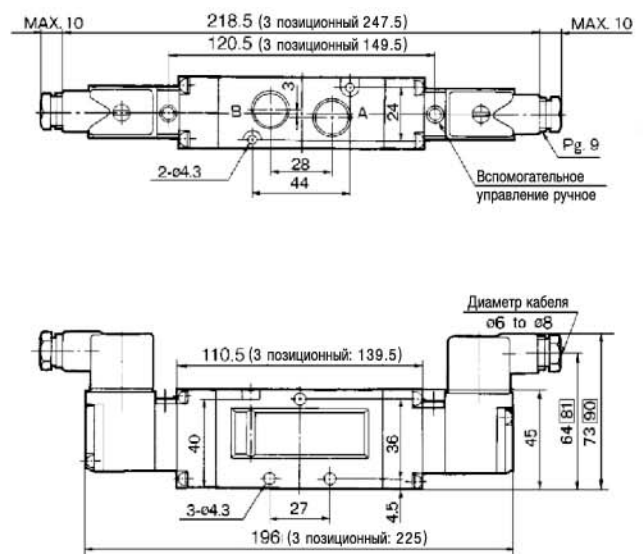
EVF3233-□YOB-01F / EVF3233-□YOB-02F



EVF5120-□YOB-03F



EVF5□20-□YOB-03F



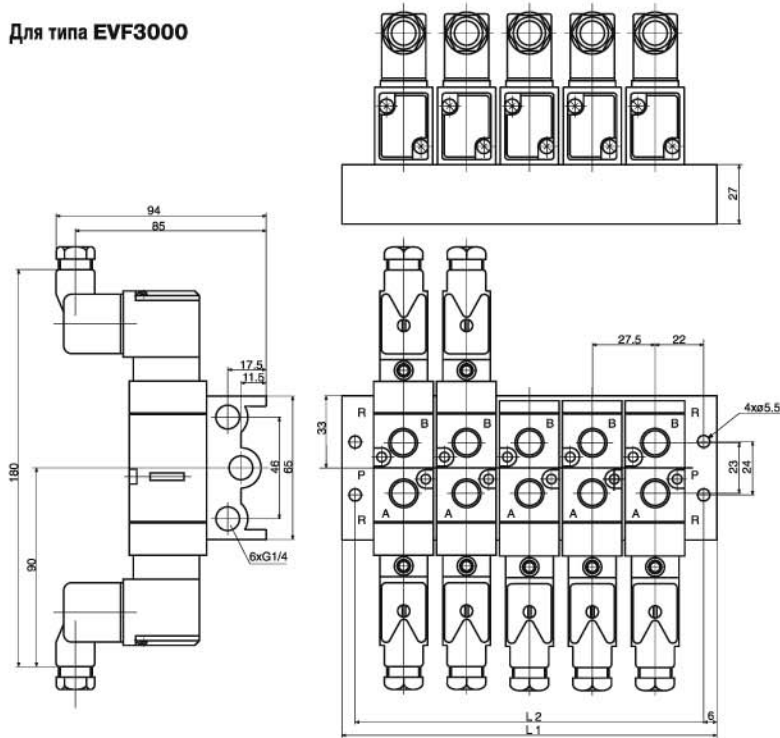
Данные по заказу многосекционной присоединительной плиты

Количество секций	Номер для заказа	
	EVF3000 (G1/4)*	EVF5000 (G3/8)
2	EVV5F3-30-021-00F	EVV5F5-20-021-00F
3	EVV5F3-30-031-00F	EVV5F5-20-031-00F
4	EVV5F3-30-041-00F	EVV5F5-20-041-00F
5	EVV5F3-30-051-00F	EVV5F5-20-051-00F
6	EVV5F3-30-061-00F	EVV5F5-20-061-00F
7	EVV5F3-30-071-00F	EVV5F5-20-071-00F
8	EVV5F3-30-081-00F	EVV5F5-20-081-00F
9	EVV5F3-30-091-00F	EVV5F5-20-091-00F
10	EVV5F3-30-101-00F	EVV5F5-20-101-00F

* Максимальное количество секций – 20

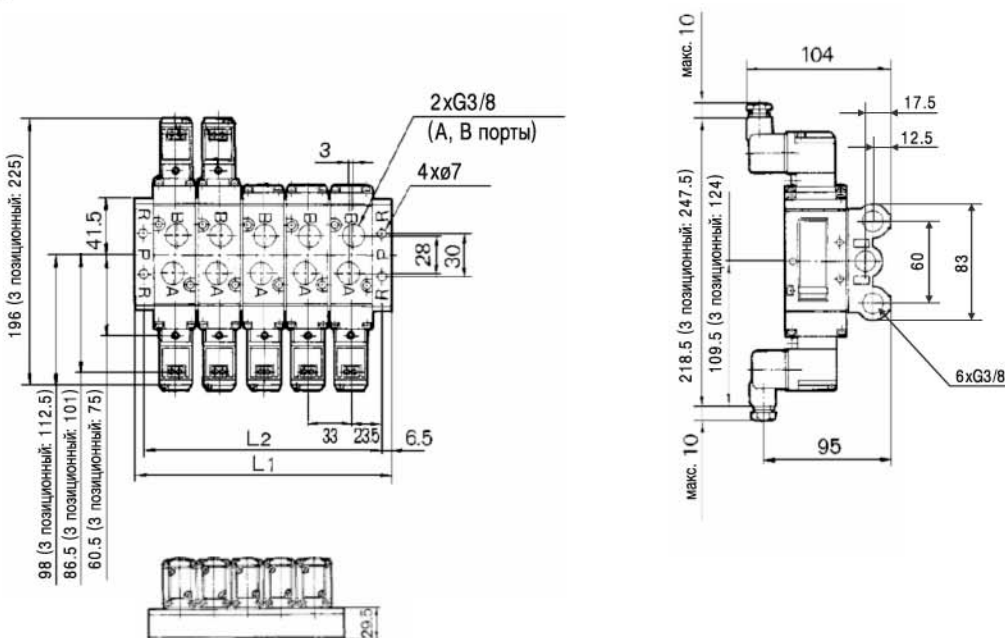
Размеры / многосекционная присоединительная плита

Для типа EVF3000



Кол. секций	2	3	4	5	6	7	8	9	10
L1	83.5	111	138.5	166	193.5	221	248.5	276	303.5
L2	71.5	99	126.5	154	181.5	209	236.5	264	291.5

Для типа EVF5000



Кол. секций	2	3	4	5	6	7	8	9	10
L1	93	126	159	192	225	258	291	324	357
L2	80	113	146	179	212	245	278	311	344

Пневмораспределители серии EVS7 по стандарту ISO/СНОМО

5/2, 5/3 пневмораспределители с электропневматическим управлением

- Золотник из нержавеющей стали
- Ресурс более 100 миллионов рабочих циклов
- Высокая пропускная способность
- Монтаж на платах по ISO стандарту

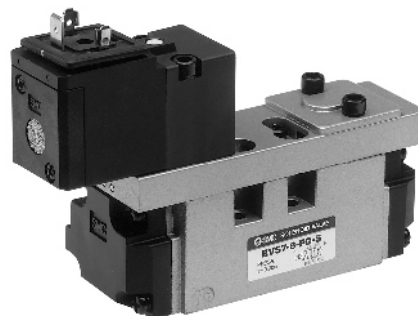
Технические характеристики

Типоразмер		ISO 1	ISO 2	ISO 3
		EVS7-6	EVS7-8	EVS7-10
Среда		Очищенный сжатый воздух с содержанием масла* или без него		
Рабочее давление (МПа)		0.1~0.99**		
Рабочая температура (С)		макс. 60		
Время срабатывания (мс), не более	5/2 с односторонним управлением	25	45	50
	5/2 с двусторонним управлением	15	20	25
	5/3	45	60	60
Максимальная частота срабатывания (Гц)	5/2	20	15	10
	5/3	30	8	5
Вспомогательное ручное управление		не блокируется		
Монтажное положение		произвольное		
Электрический подвод		3-х клеммный разъем по DIN 43650, конструктивное исполнение А		
Напряжение		24 VDC, 220 VAC ***		
Допуск по напряжению		от -15% до +10%		
Степень защиты		IP65		
Класс изоляции		В		
Потребляемая мощность (Вт, DC)		2		
Искрогашение		по запросу		
Индикатор рабочего состояния		по запросу		

* Рекомендуемое качество масла: ISO VG 32 класс 1

** Работа на вакууме возможна при подводе внешнего пилотного воздуха

*** Другие напряжения по запросу



Исполнение

Конструктивное исполнение	Тип	Принцип действия	Условное обозначение	Присоед. резьба плиты *	Расход (л/мин)	Вес (г)
Монтаж на плате	EVS7-6-FG-S	5/2 с пружинным возвратом		G1/4; G3/8	1470	460
	EVS7-8-FG-S			G3/8; G1/2	3160	698
	EVS7-10-FG-S			G3/4; G1	4905	1050
	EVS7-6-FG-D	5/2 с двусторонним импульсным управлением		G1/4; G3/8	1470	560
	EVS7-8-FG-D			G3/8; G1/2	3160	806
	EVS7-10-FG-D			G3/4; G1	4905	1160
	EVS7-6-FHG-D	5/3 в среднем положении закрыт		G1/4; G3/8	1390	635
	EVS7-8-FHG-D			G3/8; G1/2	3160	867
	EVS7-10-FHG-D			G3/4; G1	4905	1230
	EVS7-6-FJG-D	5/3 в среднем положении открыт		G1/4; G3/8	1470	635
	EVS7-8-FJG-D			G3/8; G1/2	3160	867
	EVS7-10-FJG-D			G3/4; G1	4905	1230

* Плиты пневмораспределителей заказываются отдельно

Данные по заказу

Данные по заказу

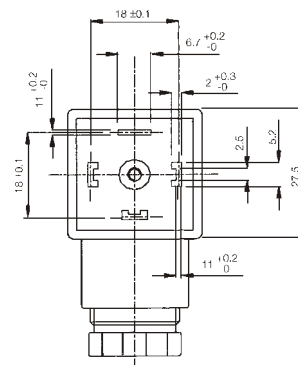
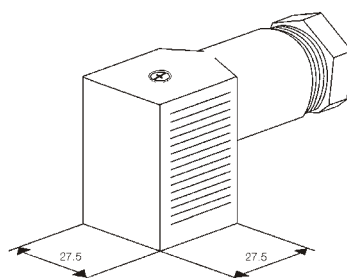
Принцип действия	Напряжение*	Номер для заказа		
		EVS7-6 (ISO 1)	EVS7-8 (ISO 2)	EVS7-10 (ISO 3)
5/2 с пружинным возвратом	24 V DC	EVS7-6-FG-S-3CVO	EVS7-8-FG-S-3CVO	EVS7-10-FG-S-3CVO
	220 V AC	EVS7-6-FG-S-9CVO(AC220V)	EVS7-8-FG-S-9CVO(AC220V)	EVS7-10-FG-S-9CVO(AC220V)
5/2 с двусторонним импульсным управлением	24 V DC	EVS7-6-FG-D-3CVO	EVS7-8-FG-D-3CVO	EVS7-10-FG-D-3CVO
	220 V AC	EVS7-6-FG-D-9CVO(AC220V)	EVS7-8-FG-D-9CVO(AC220V)	EVS7-10-FG-D-9CVO(AC220V)
5/3 в среднем положении закрыт	24 V DC	EVS7-6-FHG-D-3CVO	EVS7-8-FHG-D-3CVO	EVS7-10-FHG-D-3CVO
	220 V AC	EVS7-6-FHG-D-9CVO(AC220V)	EVS7-8-FHG-D-9CVO(AC220V)	EVS7-10-FHG-D-9CVO(AC220V)
5/3 в среднем положении открыт	24 V DC	EVS7-6-FJG-D-3CVO	EVS7-8-FJG-D-3CVO	EVS7-10-FJG-D-3CVO
	220 V AC	EVS7-6-FJG-D-9CVO(AC220V)	EVS7-8-FJG-D-9CVO(AC220V)	EVS7-10-FJG-D-9CVO(AC220V)

* Другие напряжения по запросу

Винты и уплотнительные элементы для монтажа на плитах пневмораспределителей поставляются вместе с пневмораспределителями.

Номер для заказа ответной части разъема (заказываются отдельно)

Описание	Номер для заказа	
	24 V DC	220 V AC
Без индикатора рабочего состояния и искрогашения	A0	
С индикатором рабочего состояния и искрогашением	A6	A7



Запасные части

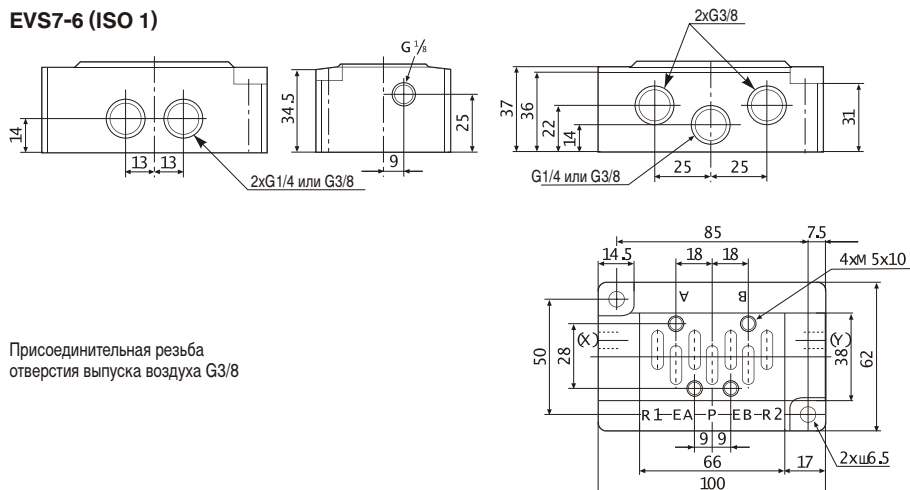
Описание	Номер для заказа		
	EVS7-6	EVS7-8	EVS7-10
Уплотнение между распределителем и плитой, крепежные винты	BG-EVS7-6	BG-EVS7-8	BG-EVS7-10
Пилотный клапан CNOMO	24 V DC	EAXT518A-3	
	220 V AC	EAXT518A-6	

Номер для заказа индивидуальной присоединительной плиты (без уплотнения и винтов)

Присоединительная резьба	Типоразмер	Номер для заказа
G1/4	EVS7-6	EVS7-1-A02F
G3/8		EVS7-1-A03F
G3/8	EVS7-8	EVS7-2-A03F
G1/2		EVS7-2-A04F
G3/4	EVS7-10	EVS7-3-A06F
G1		EVS7-3-A10F

Размеры / присоединительная плита для индивидуального монтажа пневмораспределителя

EVS7-6 (ISO 1)



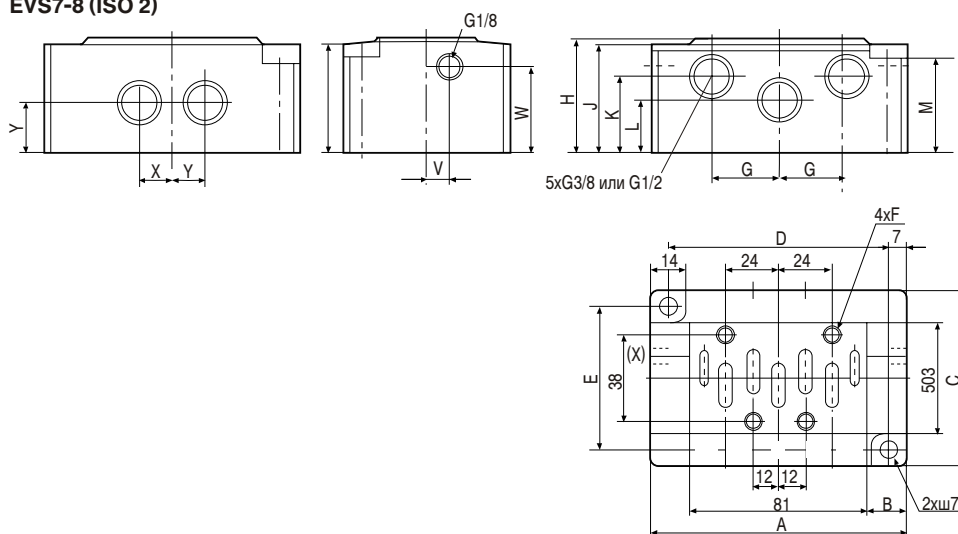
Присоединительная резьба
отверстия выпуска воздуха G3/8

Пневмораспределители серии EVS7 по стандарту ISO/CNOMO

5/2, 5/3 пневмораспределители с электропневматическим управлением

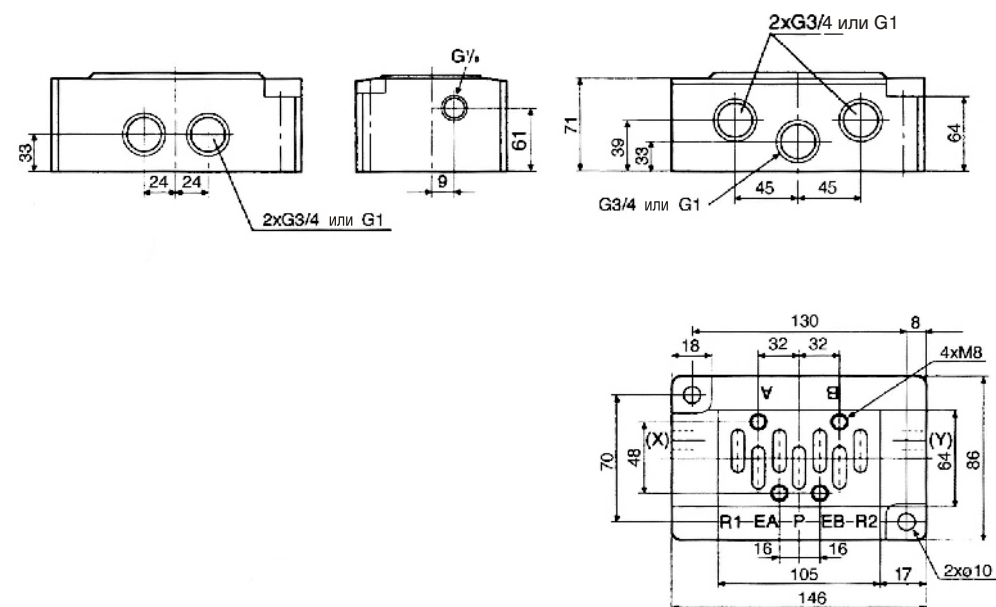
Размеры / присоединительная плата для индивидуального монтажа пневмораспределителя

EVS7-8 (ISO 2)



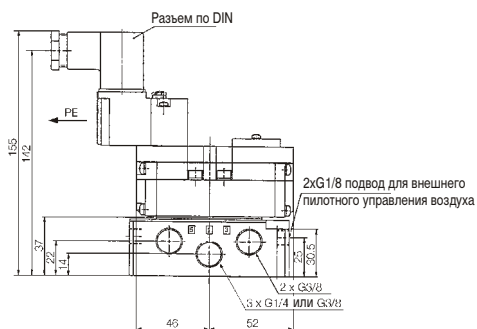
Присоединение	A	B	C	D	E	F	G	H	J	K	L	M	U	V	W	X	Y
G3/8, G1/2	112	15.5	75	98	62	4-M6x10	30	50	49	32	23	42	47.5	10	38	16	23

EVS7-10 (ISO 3)

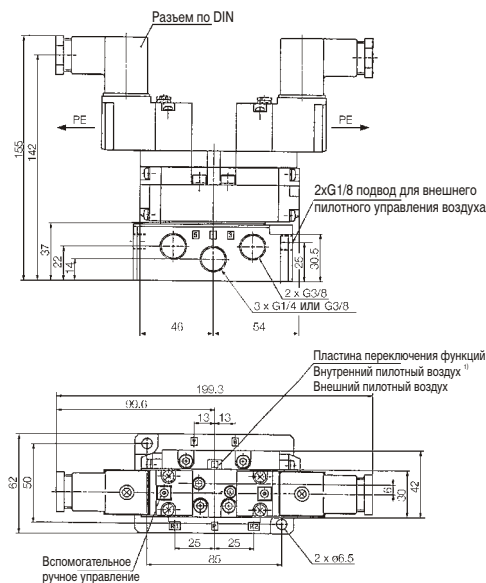


Размеры

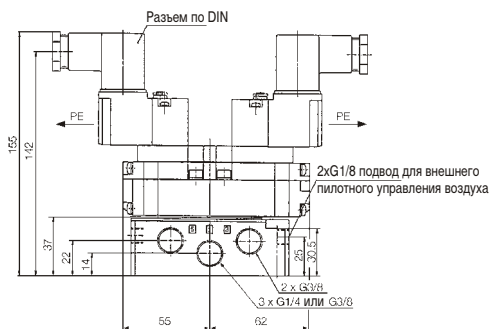
EVS7-6-FG-S-□CVO



EVS7-6-FG-D-□CVO



EVS7-6-FHG-D-□CVO / EVS7-6-FJG-D-□CVO / EVS7-6-FIG-D-□CVO



1) Пилотное управление

Пневмораспределители серии ISO/CNOMO в соответствии со стандартом оснащены функциональной пластиной, поворачивая которую можно установить как режим внутреннего снабжения пилотным воздухом, так и режим снабжения пилотным воздухом снаружи. Режимные установки наглядно отмаркированы на функциональной пластине буквами "I" (внутренний пилотный воздух) и, соответственно, "R" (внешний пилотный воздух).

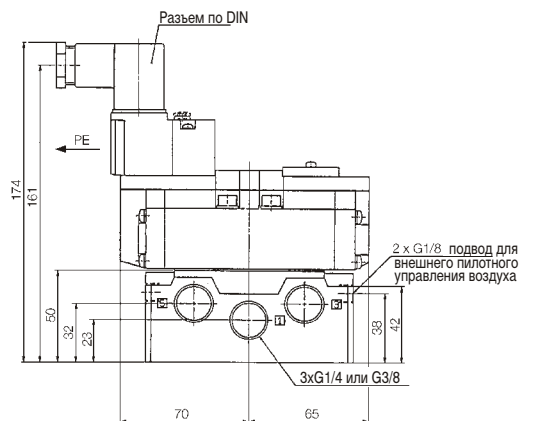
При использовании внешнего пилотного воздуха давление должно подаваться в оба пилотных порта.

Пневмораспределители серии EVS7 по стандарту ISO/CNOMO

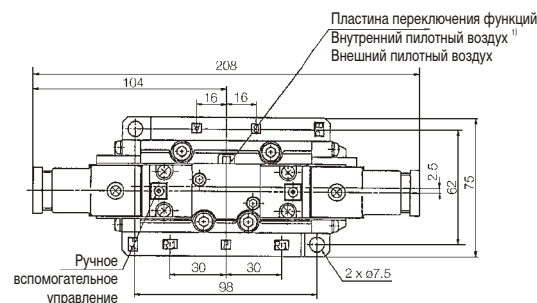
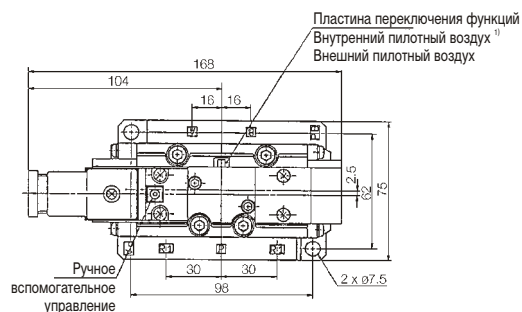
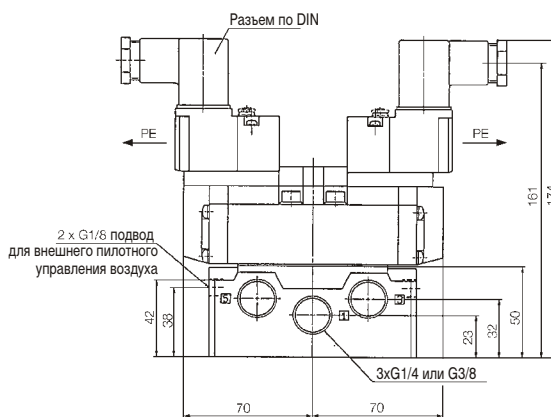
5/2, 5/3 пневмораспределители с электропневматическим управлением

Размеры

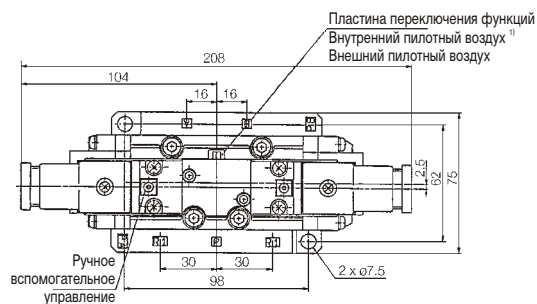
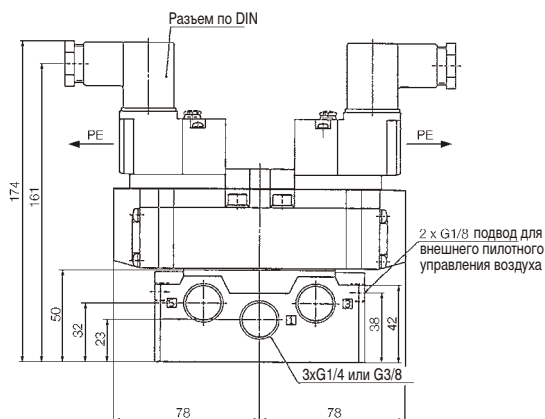
EVS7-8-FG-S-□CVO



EVS7-8-FG-D-□CVO



EVS7-8-FHG-D-□CVO / EVS7-8-FJG-D-□CVO / EVS7-8-FIG-D-□CVO



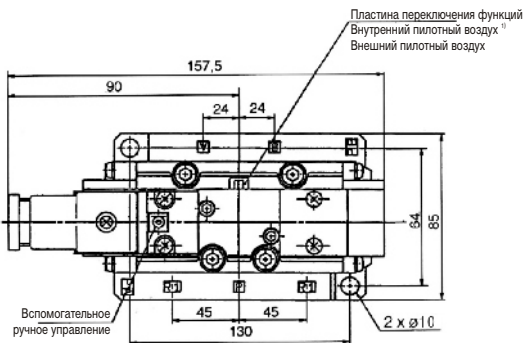
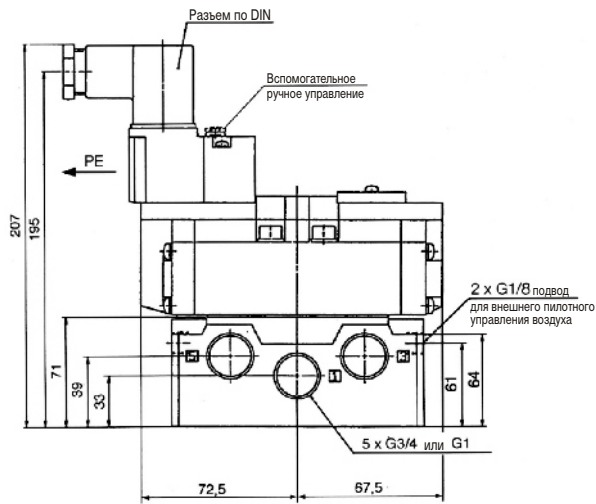
¹⁾ Пилотное управление

Пневмораспределители серии ISO/CNOMO в соответствии со стандартом оснащены функциональной пластиной, поворачивая которую можно установить как режим внутреннего снабжения пилотным воздухом, так и режим снабжения пилотным воздухом снаружи. Режимные установки наглядно отмаркированы на функциональной пластине буквами "I" (внутренний пилотный воздух) и, соответственно, "R" (внешний пилотный воздух).

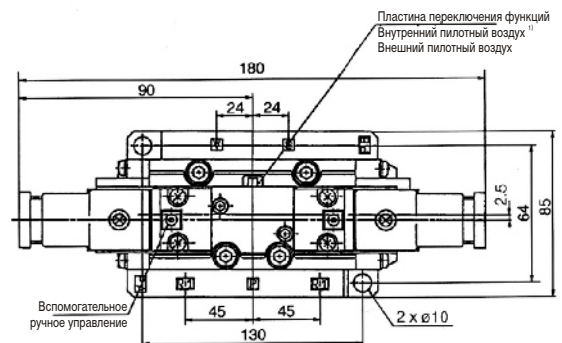
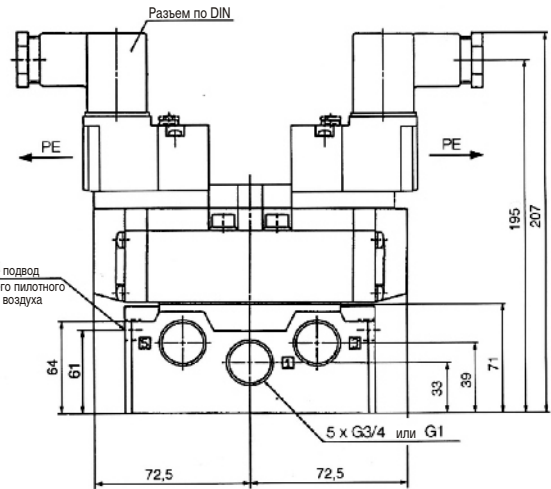
При использовании внешнего пилотного воздуха давление должно подаваться в оба пилотных порта.

Размеры

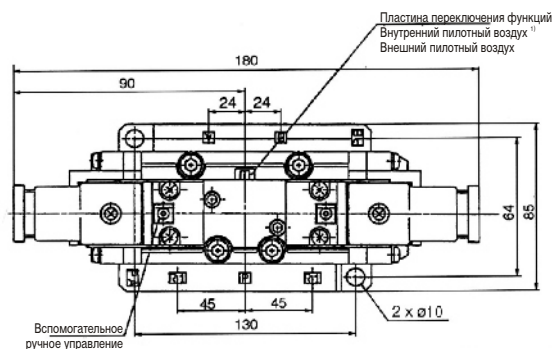
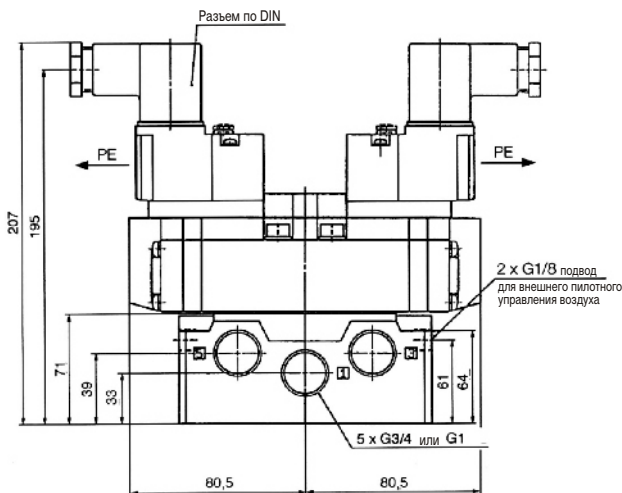
EVS7-10-FG-S-□CVO



EVS7-10-FG-D-□CVO



EVS7-10-FHG-D-□CVO / EVS7-10-FJG-D-□CVO



¹⁾ Пилотное управление

Пневмораспределители серии ISO/CNOMO в соответствии со стандартом оснащены функциональной пластиной, поворачивая которую можно установить как режим внутреннего снабжения пилотным воздухом, так и режим снабжения пилотным воздухом снаружи. Режимные установки наглядно отмаркированы на функциональной пластине буквами "I" (внутренний пилотный воздух) и, соответственно, "R" (внешний пилотный воздух).

При использовании внешнего пилотного воздуха давление должно подаваться в оба пилотных порта.

Пневмораспределители серии EVS7 по стандарту ISO/CNOMO

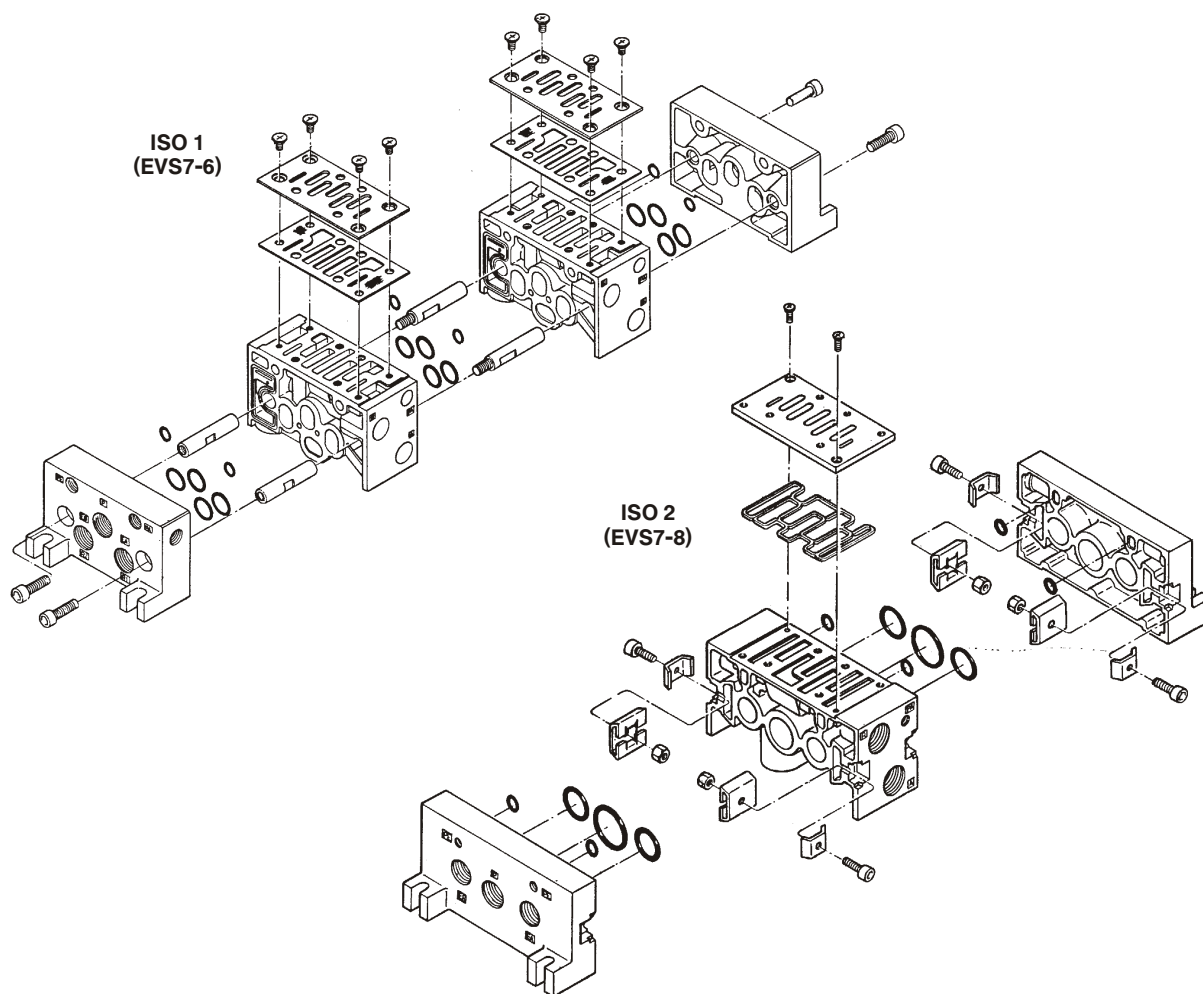
Модульная система плит пневмораспределителей

Плиты пневмораспределителей для блочного монтажа

В модульной системе плит пневмораспределителей отдельные плиты соединяются в блоки с помощью стяжек (EVS7-6) или скоб (EVS7-8). Блок пневмораспределителей в любое время может быть расширен за счет присоединения дополнительных промежуточных плит.

Блок пневмораспределителей имеет пять сквозных каналов (P, PA, PB, R1, R2), выходы которых располагаются со стороны концевых плит. Порт P предназначен для подвода к блоку сжатого воздуха, порты PA и PB - для внешнего подвода

пилотного воздуха (в штатном режиме работы обычно не используются), порты R1 и R2 - для выпуска отработанного воздуха. Для предотвращения попадания пыли и снижения уровня шума в портах R1 и R2 рекомендуется использовать пневмоглушители. Порты A и B для подвода сжатого воздуха к цилиндрам располагаются на боковой поверхности промежуточных плит с обеих сторон. Неиспользуемые порты должны перекрываться с помощью резьбовых заглушек.



Данные для заказа

Обозначение	состоящая из:	ISO 1 (EVS7-6)		ISO 2 (EVS7-8)	
		Присоединительная резьба	Номер для заказа	Присоединительная резьба	Номер для заказа
Секция плиты пневмораспределителя	Плита пневмораспределителя/кольцевые прокладки круглого профиля/адаптерная плита/винты/стяжки (ISO1) или скобы (ISO 2)/заглушки	G1/4	EAXT502-1A-A02-L	G3/8	EAXT512-1A-A03-L
Секция плиты пневмораспределителя	Плита пневмораспределителя/кольцевые прокладки круглого профиля/адаптерная плита/винты/стяжки (ISO1) или скобы (ISO 2)/заглушки	G3/8	EAXT502-1A-A03-L	G1/2	EAXT512-1A-A04-L
Концевая плита левая	Концевая плита слева/кольцевые прокладки круглого профиля/стяжки (ISO1) или скобы (ISO 2)/винты и гайки/заглушки	G3/8	EAXT502-LA-03	G1/2	EAXT512-LA-04
Концевая плита правая	Концевая плита справа/кольцевые прокладки круглого профиля/стяжки (ISO1) или скобы (ISO 2)/винты и гайки/заглушки	G3/8	EAXT502-RA-03	G1/2	EAXT512-RA-04

Пневмораспределители типоразмера ISO 3 (EVS7-10) не имеют модульной системы плит

Данные по заказу

1. Подключение индивидуального подвода и выпуска воздуха

Путем установки разделительной заглушки могут перекрываться сквозные каналы P, EA, EB между плитами пневмораспределителей.

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Разделительная заглушка	AXT502-14	AXT512-14-1A AXT512-14-2A

Возможности использования

- При снабжении 2 групп пневмораспределителей различными давлениями на входе. Соответственно, P1 должен иметь подвод воздуха со стороны правой, а P2 - со стороны левой концевой плиты.
- При снабжении 2 групп пневмораспределителей воздухом с содержанием и без содержания масла.
- При индивидуальной деаэрации крупного потребителя (быстрый выпуск). Деаэрация этого потребителя идет через одну концевую плиту, а деаэрация остального блока идет через другую концевую плиту.

2. Защитная крышка

В определенных случаях блок плит пневмораспределителей для общего монтажа устанавливается на оборудование, которое позднее может укомплектовываться дополнительными пневматическими приводами. Для этой цели используется защитная крышка. Она закрывает незанятые монтажные позиции на плите, которые по мере надобности могут быть оснащены пневмораспределителем.

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Защитная крышка с уплотнениями, винтами, шайбами	AXT502-9A	AXT512-9A

3. Промежуточная плита индивидуального подвода воздуха

- С индивидуальным подводом P

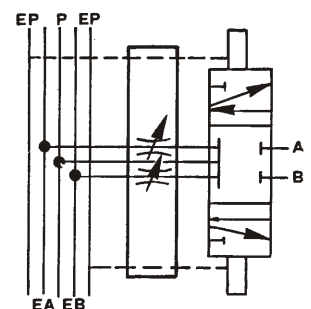
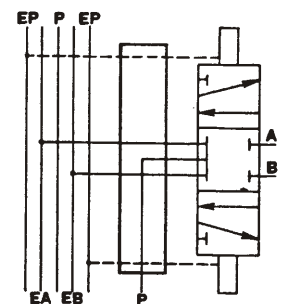
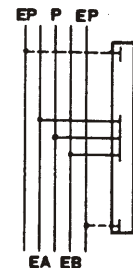
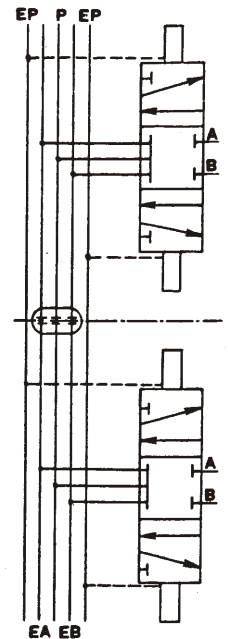
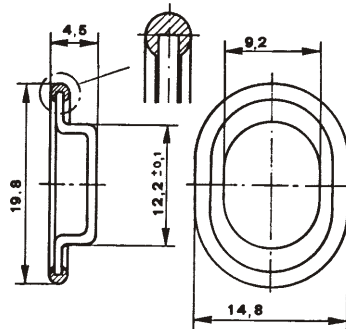
Для блоков, работающих с более, чем двумя давлениями или с чрезвычайно большим расходом воздуха (для обдува и т.п.) рекомендуется использовать промежуточную плиту с индивидуальным подводом "P".

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Промежуточная плита с индивидуальным входом P G1/4 (ISO 1), G3/8 (ISO 2) с уплотнением, винтами	EVV71-P-02-L	EVV72-P-03-L

- С индивидуальным дросселированием

Служит для регулировки расхода, напр. для регулировки скорости поршня с блока пневмораспределителей.

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Промежуточная плита с пневмодросселями, уплотнениями, винтами	AXT503-23A	AXT510-32A



Пневмораспределители серии EVS7 по стандарту ISO/СНОМО

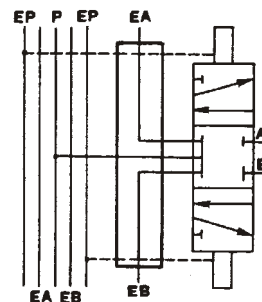
Модульная система плит пневмораспределителей

Данные по заказу

- С индивидуальной деаэрацией

Промежуточные плиты могут применяться в случаях, когда требуется обеспечить быстрый выпуск воздуха, деаэрацию крупного потребителя и т.д. Плиты могут монтироваться на любой секции пневмораспределителя и осуществляют выпуск воздуха независимо от общих деаэрационных каналов EA и EB.

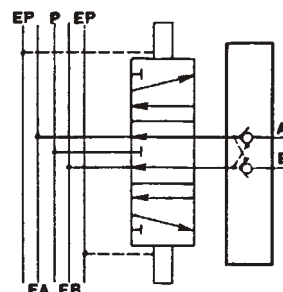
Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Промежуточная плита с индивидуальной деаэрацией R G1/4(ISO1), G3/8 (ISO 2) с уплотнениями, винтами	EVV71-R-02-L	EVV72-R-03-L
Промежуточная плита с индивидуальной деаэрацией R G3/8 (ISO 1), G1/2 (ISO 2) с уплотнениями, винтами	EVV71-R-03-L	EVV72-R-04-L



- С обратным клапаном

Каждый пневмораспределитель со стальным золотником по своей конструкции не является абсолютно герметичным. Для остановки поршня цилиндра в среднем положении рекомендуется применять промежуточную плиту. В комбинации с трехпозиционными пневмораспределителями с открытым средним положением она гарантирует 100%-ю герметичность.

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Промежуточная плита с обратным клапаном с уплотнениями, винтами	EVV71-FPG	EVV72-FPG



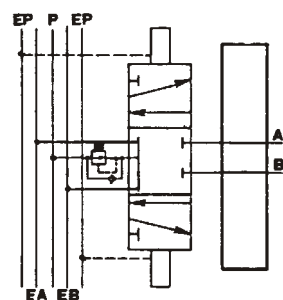
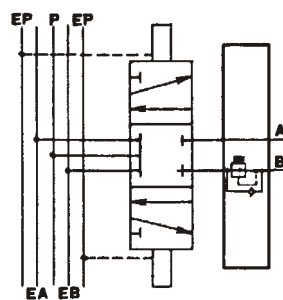
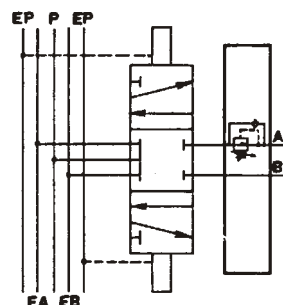
- С регулятором давления

Регулятор давления используется для монтажа на участке между базовой плитой и пневмораспределителем и может поставляться в трех исполнениях:

- для регулирования давления на выходе A
- для регулирования давления на выходе B
- для регулирования давления на входе P

Применяется для регулирования усилия зажима в пневмопатронах крутящего момента в пневматических инструментах, усилия подачи при обработке, а также натяжения (бумаги, текстиля, проволоки и т.д.) при наматывании и навивании путем регулирования давления на пневматических муфтах или натяжных роликах с приводом от цилиндров.

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Промежуточная плита с регулятором давления на выходе B с уплотнениями, винтами	ARB250-00-B	ARB350-00-B
Промежуточная плита с регулятором давления на выходе A с уплотнениями, винтами	ARB250-00-A	ARB350-00-A
Промежуточная плита с регулятором давления на входе P с уплотнениями, винтами	ARB250-00-P	ARB350-00-P



Данные по заказу

4. Плиты для монтажа пневмораспределителей с внешним подводом пилотного воздуха

Если пневмораспределители серии ISO/CNOMO переключаются на пилотную функцию "R" (снабжение пилотным воздухом снаружи) и должны при этом монтироваться на общей плите вместе с пневмораспределителями, установленными на функцию "I" (внутреннее снабжение пилотным воздухом), для секции, где

предусмотрена эксплуатация пневмораспределителя серии ISO/CNOMO с управлением от воздуха, поступающего снаружи, должна использоваться монтажная плата с внешним подводом пилотного воздуха. В этом случае подвод пилотного воздуха осуществляется через резьбовое отверстие 1/8",

расположенное на поверхности монтажной плиты со стороны портов A и B. Далее, сквозной канал PE пилотной деаэрации для этой секции должен быть отсечен от других позиций для того, чтобы пилотный воздух мог подводиться только на соответствующие секции.

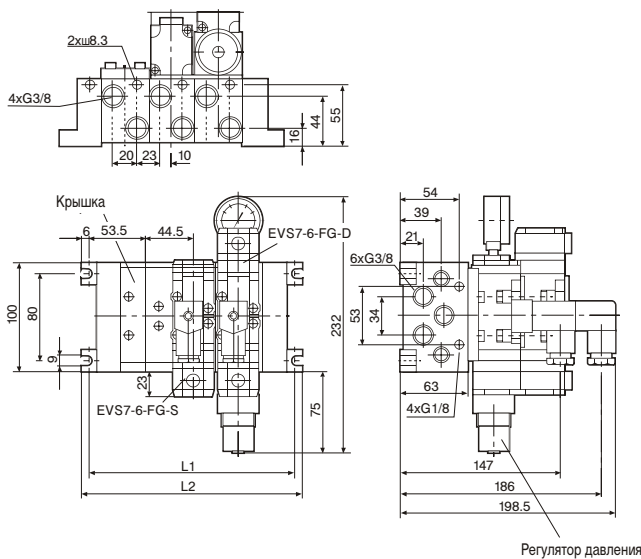
Наименование	ISO 1 (EVS7-6)		ISO 2 (EVS7-8)	
	Ввод	Номер для заказа	Ввод	Номер для заказа
Плита пневмораспределителя для монтажа в блоки с внешним подводом пилотного воздуха / кольцевые прокладки круглого профиля / адаптерная плита / винты / стяжки (ISO 1) или скобы (ISO 2) / заглушки	G1/4	EAXT502-1A-A02-L-PE01F	G3/8	EAXT512-1A-A03-L-PE01F
	G3/8	EAXT502-1A-A03-L-PE01F	G1/2	EAXT512-1A-A04-L-PE01F

Наименование	Номер для заказа	
	ISO 1 (EVS7-6)	ISO 2 (EVS7-8)
Разделительная заглушка для канала PE (пилотная деаэрация)	AZ503-53A	AZ512-49A

Размеры

EVS7-6

Пример с различными пневмораспределителями, крышкой и регулятором давления



Данные по заказу многосекционных плит пневмораспределителей см. на стр. 216

Кол. секций	2	3	4	5	6	7	8	9	10
L1	150	193	236	279	322	365	408	451	494
L2	162	205	248	291	334	377	420	463	506
Вес(r)*	1840	2290	2740	3190	3730	4180	4630	5080	5530

* Вес указан без учета пневмораспределителей

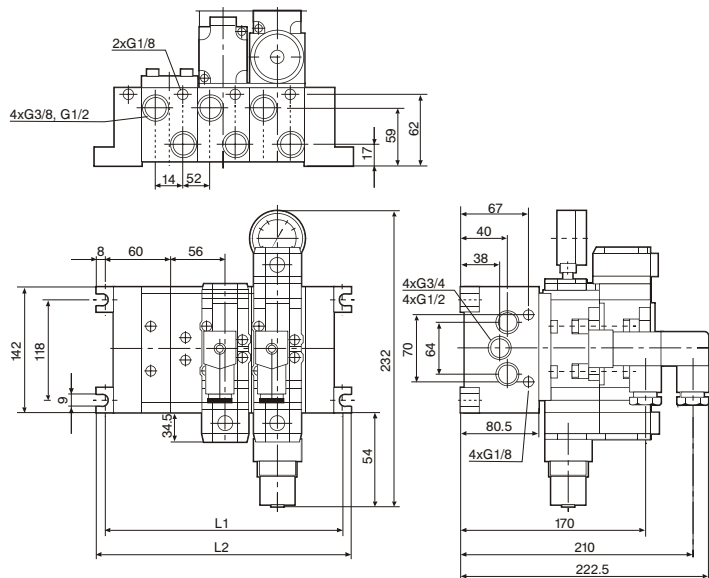
Пневмораспределители серии EVS7 по стандарту ISO/CNOMO

Модульная система плит пневмораспределителей

Размеры

EVS7-8

Пример с различными пневмораспределителями, крышкой и регулятором давления



Данные по заказу многосекционных плит пневмораспределителей см. на стр. 216.

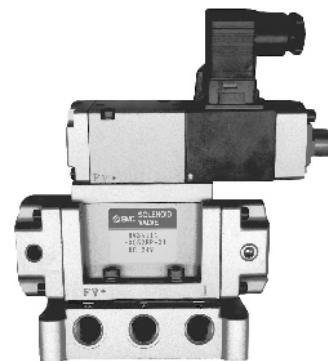
Кол. секций	2	3	4	5	6	7	8	9	10
L1	176	232	288	344	400	456	512	568	624
L2	192	248	304	360	416	472	528	584	640
Вес (г) *	2020	2560	3100	3640	4180	4720	5260	5800	6340

* Вес указан без учета пневмораспределителей

- Предназначен для работы на высоком давлении до 2.0 МПа

Технические характеристики

Среда	Очищенный сжатый воздух с содержанием масла или без него
Тип управления	Внутреннее пилотное управление
Диапазон рабочих температур (°C)	От +5 до +60
Макс. рабочее давление (МПа)	2.0
Вспомогательное ручное управление	Не блокируется
Монтажное положение	Произвольное
Электрический подвод	DIN-разъем
Напряжение	24 V DC
Индикатор рабочего состояния	Нет

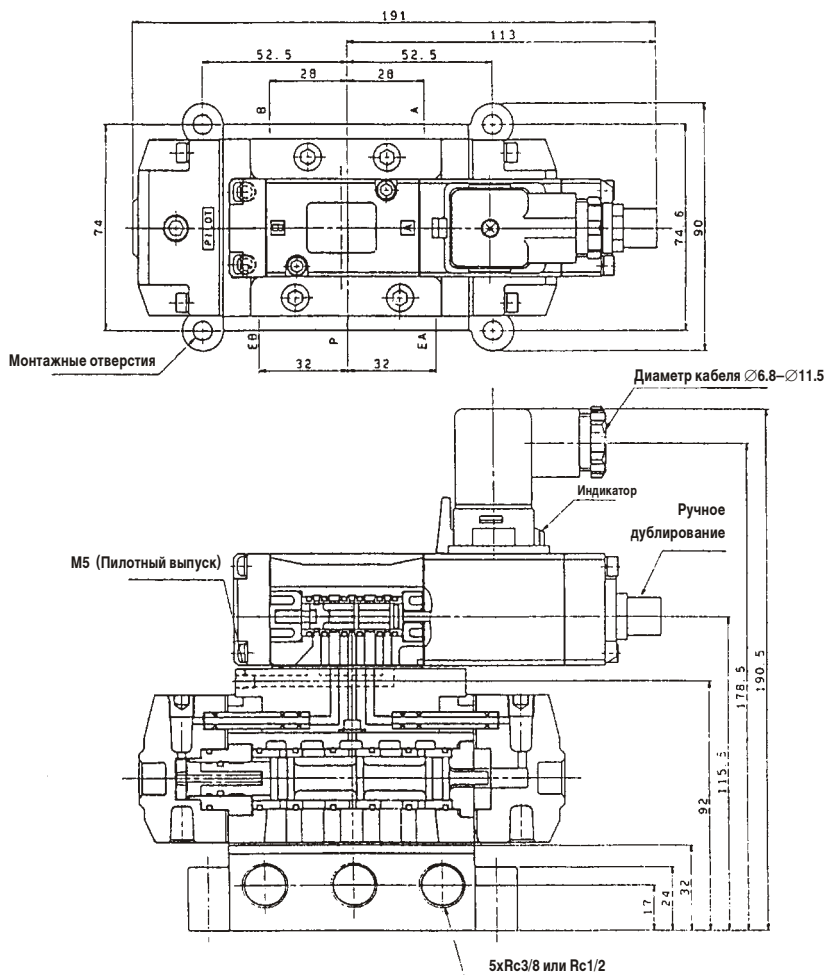


Номер для заказа

Номер для заказа	Напряжение	Тип	Условное обозначение	Присоединительная резьба, Rc(PT)
NVS4114-0352FP-X1	24 V DC	5/2 с пружинным возвратом		3/8
NVS4114-0452FP-X1				1/2

* В комплект поставки входят присоединительная плита и ответная часть разъема

Размеры



5/2, 5/3 пневмораспределитель с электропневматическим управлением

VP4000

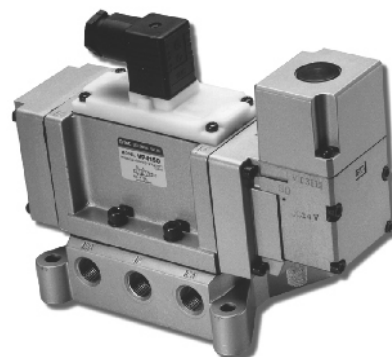
Rc3/8, Rc1 1/2

- Высокая пропускная способность
- Высокая скорость срабатывания
- Минимальные утечки
- Высокая устойчивость к вибрации
- Высокая степень защиты от пыли и влаги
- Высокая надежность

Технические характеристики

Среда	Очищенный сжатый воздух с содержанием масла	
Тип управления	Внутреннее пилотное управление	
Испытательное давление (МПа)	1.35	
Рабочий диапазон давления (МПа)	0.2 ~ 0.9	
Диапазон рабочих температур (С)	От +5 до +60	
Макс. частота срабатывания (Гц)	3	
Смазка	Требуется (турбинное масло класс 1 ISO VG32)	
Вспомогательное ручное управление	Не блокируется	
Монтажное положение	Произвольное	
Электрический подвод	DIN разъем	
Напряжение* (В)	DC	24
	AC	220
Допуск по напряжению	От -15% до +10%	
Потребляемая мощность	DC, Вт	12
	AC, ВА	73 при переключении 28 при удержании
Класс изоляции	В	
Искрогашение	По запросу	
Индикатор рабочего состояния	По запросу	

* Другие напряжения по запросу



Пневмоуправляемые распределители поставляются по запросу

Монтаж на многосекционной плите - по запросу

Номер для заказа

A				RT						Г			
15-5	15-	5	ж		8						5		
15-5	15-				1	9						5	
15-5	15-						1		58				
17-15	17-1						1 1		15				95
17-15	17-1						1 1		1				95
5-5	5-	5	Т -		8								
5-5	5-				1	9							
5-5	5-						1		58				8
7-15	7-1						1 1		15				1
7-15	7-1						1 1		1				1
5-5	5-	5	ж		8								
5-5	5-				1	9							
5-5	5-								55				
5-15	5-1						1						
5-5	5-												
5-5	5-	5	ж		8								
5-5	5-				1	9							
5-5	5-								55				
5-5	5-						1						
5-15	5-1						1						

Запасные части

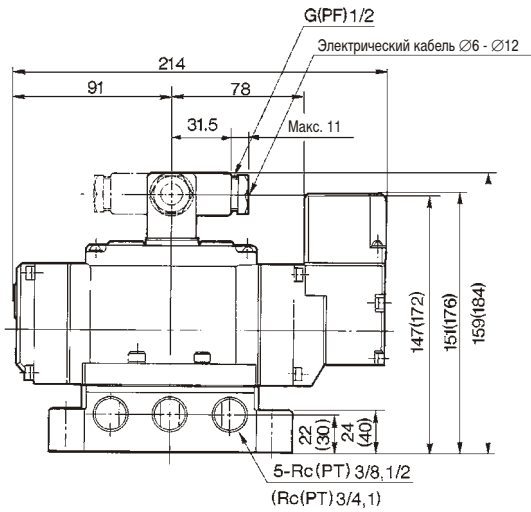
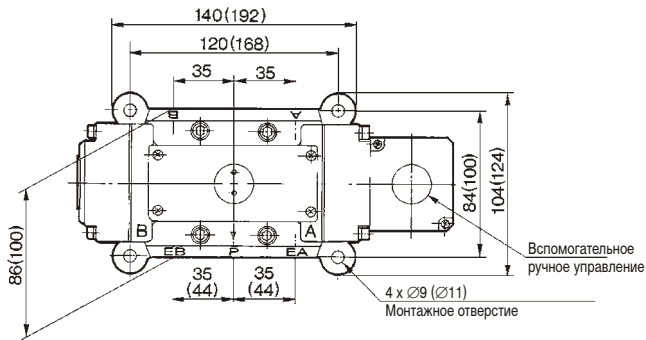
Наименование	Напряжение	Номер для заказа
Запасной элемент включения с катушкой электромагнита	24 V DC	VT3112-005D
	220 V AC	VT3112-004D

Рекомендации

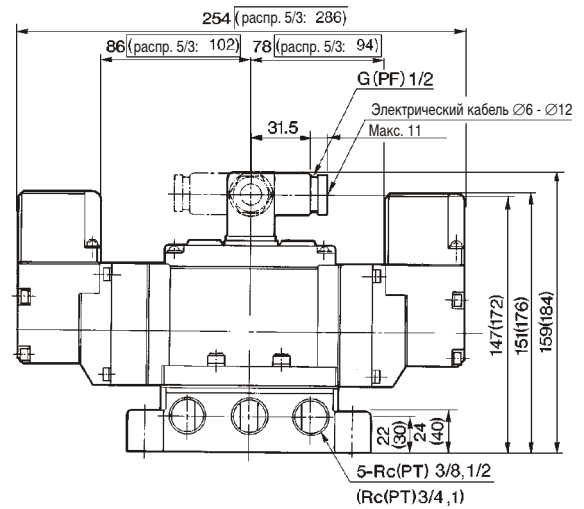
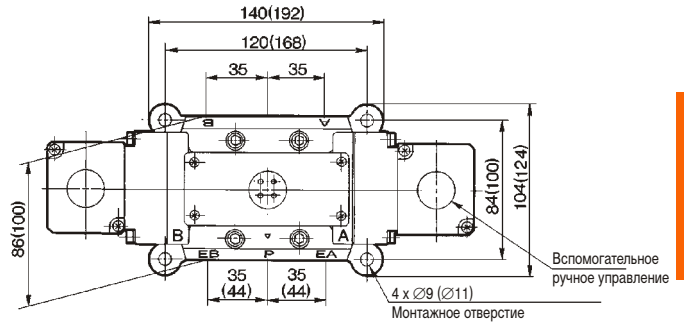
- Соединения с пневмомагистралями.**
Подвод воздуха к порту Р должен быть выполнен так, чтобы давление воздуха на входе не становилось ниже, чем требуемое рабочее давление.
Если воздух дросселируется на порте Р, или порты А и В открыты в атмосферу (либо находятся в условиях, близких к этим), возникающие при течении воздуха потери давления могут вызвать нарушения в работе пневмораспределителя.
- Окружающая среда.**
Установите пневмоглушители в порты EA/EB/PilotEXH для предотвращения попадания пыли из окружающей пространства внутрь изделия.
- Пневмораспределитель VP4350 (трехпозиционный с закрытым центром).**
Следует иметь в виду следующую особенность конструкции данного пневмораспределителя. Когда пневмоцилиндр остановлен в промежуточном положении, и при этом давление воздуха на входе (порт Р) снизилось или упало до атмосферного, воздух будет истекать из пневмоцилиндра через порт Р. Это может привести пневмоцилиндр в движение.

Размеры

VP4150

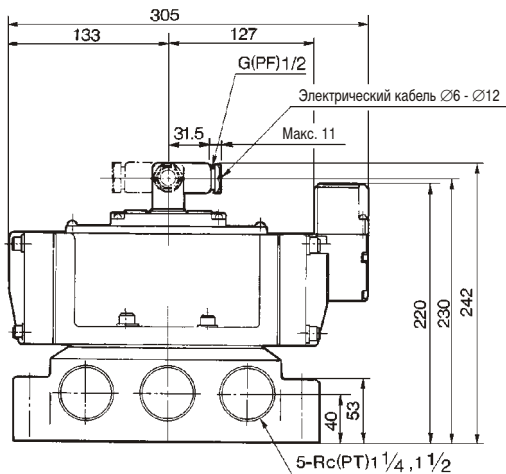
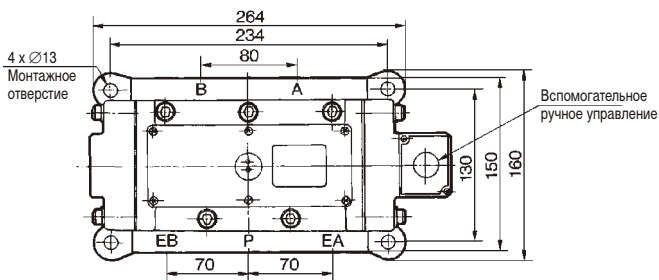


VP4250 / VP4350 / VP4450

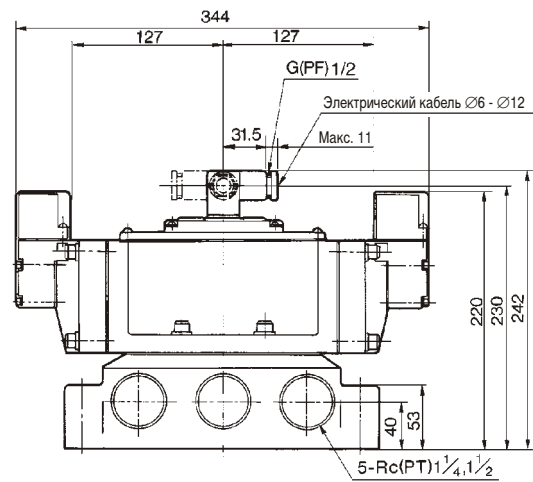
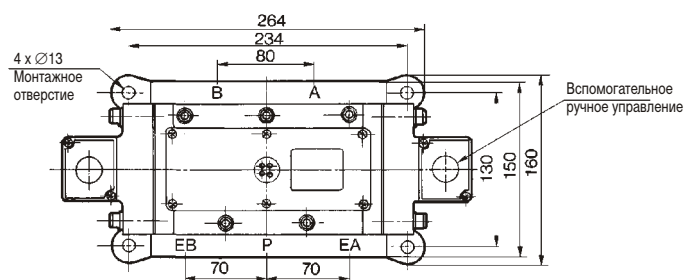


* Размеры в скобках () для исполнений с присоединительной резьбой Rc(PT) 3/4, 1

VP4170



VP4270



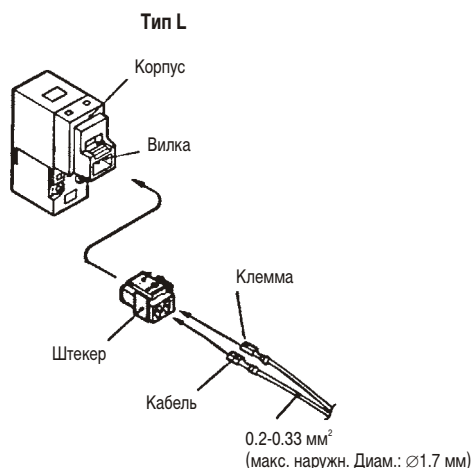
Пневмораспределители с электрическим управлением

Принадлежности

Ответные части разъемов для пневмораспределителей с электрическим управлением серии SY/VI/SYI

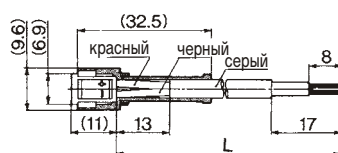
Штекер с кабелем, без оболочки, без предохранительного колпака

Длина кабеля (мм)	Номер для заказа
600	SY100-30-4A-6
2000	SY100-30-4A-20
3000	SY100-30-4A-30



Штекер с кабелем, с оболочкой, с предохранительным колпаком

Длина кабеля (мм)	Номер для заказа
600	SY100-68-A-6
2000	SY100-68-A-20
3000	SY100-68-A-30



Ответные части разъемов для пневмораспределителей с электрическим управлением серии VZ/EVZ

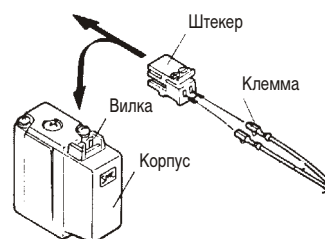
Штекер с кабелем, без оболочки, без предохранительного колпака

Длина кабеля (мм)	Номер для заказа
600	DXT170-80-4A-6
2000	DXT170-80-4A-20
3000	DXT170-80-4A-30

Штекер с кабелем, с оболочкой, с предохранительным колпаком

Длина кабеля (мм)	Номер для заказа
600	DXT170-123-A-Б
2000	DXT170-123-A-20
3000	DXT170-123-A-30

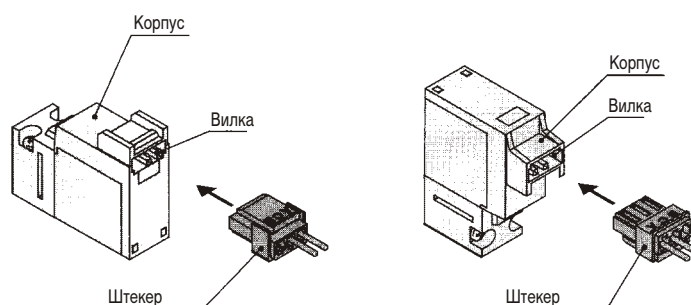
Тип М



Ответные части разъемов для пневмораспределителей с электрическим управлением серии VQ110/VQ120

Штекер с кабелем, без оболочки

Длина кабеля (мм)	Номер для заказа
600	АХТ661-14АН-6
1000	АХТ661-14АН-10
2000	АХТ661-14АН-20
3000	АХТ661-14АН-30



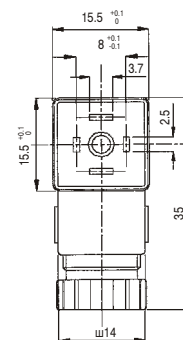
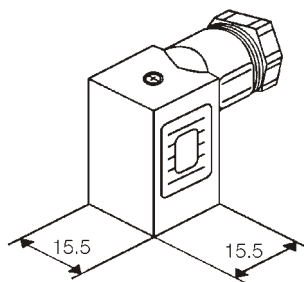
Ответные части разъемов для пневмораспределителей с электрическим управлением серии SY в конструктивном исполнении по

Без индикатора рабочего состояния, без искрогашения

Напряжение	Номер для заказа
24 V DC / 220 V AC	K41

С индикатором рабочего состояния и искрогашением

Напряжение	Номер для заказа
24 V DC	K43
220 V AC	K44



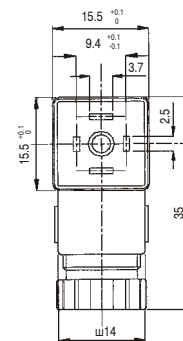
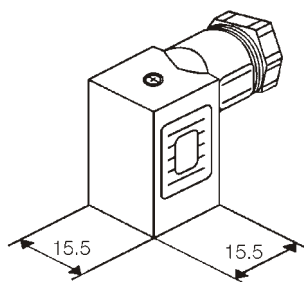
Ответные части разъемов для пневмораспределителей с электрическим управлением серии VK/VZ в конструктивном исполнении

Без индикатора рабочего состояния, без искрогашения

Напряжение	Номер для заказа
24 V DC / 220 V AC	K31

С индикатором рабочего состояния и искрогашением

Напряжение	Номер для заказа
24 В пост. тока	K33



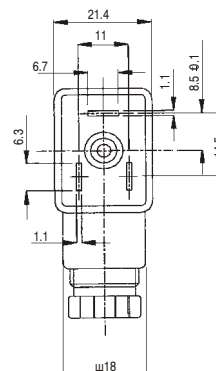
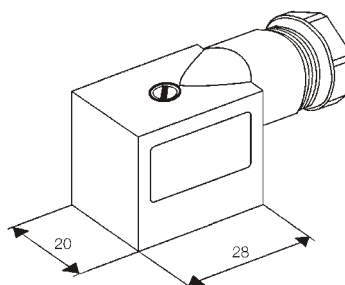
Ответные части разъемов для пневмораспределителей с электрическим управлением серии EVT/V0307

Без индикатора рабочего состояния, без искрогашения

Напряжение	Номер для заказа
24 V DC / 220 V AC	V31

С индикатором рабочего состояния и искрогашением

Напряжение	Номер для заказа
24 V DC	V32
220 V AC	V30



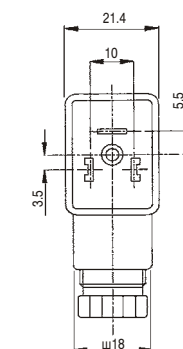
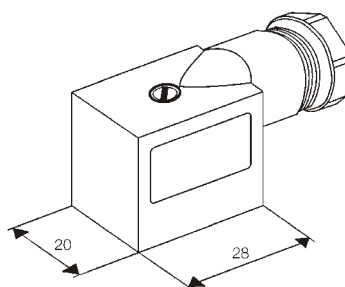
Ответные части разъемов для пневмораспределителей с электрическим управлением серии EVP/EVF/VF/VFS

Без индикатора рабочего состояния, без искрогашения

Напряжение	Номер для заказа
24 V DC / 220 V AC	X31

С индикатором рабочего состояния и искрогашением

Напряжение	Номер для заказа
24 V DC	X32
220 V AC	X30



Ответные части разъемов для пневмораспределителей с электрическим управлением серии EVS7/ EVT317/ V0317

Без индикатора рабочего состояния, без искрогашения

Напряжение	Номер для заказа
24 V DC / 220 V AC	A0

С индикатором рабочего состояния и искрогашением

Напряжение	Номер для заказа
24 V DC	A6
220 V AC	A7

