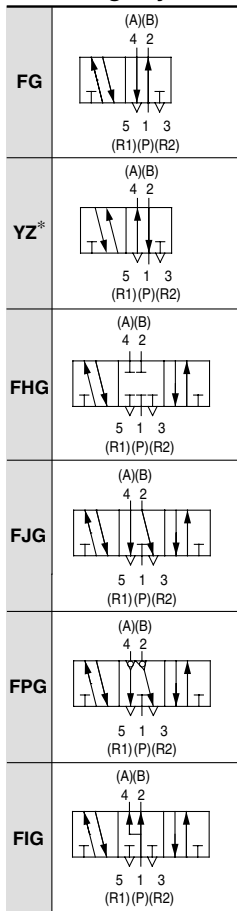


ISO Standard Solenoid Valve: Size 2 Metal Seal/Rubber Seal, Single Unit Series VQ7-8

How to Order Valves

VQ7-8-FG-S-3- - - - -

Passage symbol



* Option

Number of solenoids

S	Single
D	Double

Connector

Nil	DIN terminal block (With connector)
O	DIN terminal block (Without connector)
SC	Pre-wired connector

Sub-plate port size

Nil	Without sub-plate
A03	Side ported Rc 3/8
A04	Side ported Rc 1/2
A06	Side ported Rc 3/4
B03	Bottom ported Rc 3/8
B04	Bottom ported Rc 1/2
B06	Bottom ported Rc 3/4

Thread type

Nil	Rc
F	G
T	NPTF

Seal

Nil	Metal seal
R	Rubber seal

Option

Nil	None
Z	Light/Surge voltage suppressor
V	Individual pilot exhaust

* When two or more symbols are specified, indicate them alphabetically.

Coil rated

1	100 VAC
2	200 VAC
3	24 VDC
4	12 VDC
9	Other voltages

* For other voltages, please contact SMC separately.

How to Order Sub-plate

VS7-2-A03- -

Port size

A03	Side ported Rc 3/8
A04	Side ported Rc 1/2
A06	Side ported Rc 3/4
B03	Bottom ported Rc 3/8
B04	Bottom ported Rc 1/2
B06	Bottom ported Rc 3/4

Thread type

Nil	Rc
F	G
T	NPTF

Specifications

Model	Porting specifications		Weight (kg)
	Piping location	Port size	
VS7-2-A03□	Side	3/8	0.68
VS7-2-A04□		1/2	
VS7-2-A06□		3/4	
VS7-2-B03□	Bottom	3/8	0.68
VS7-2-B04□		1/2	
VS7-2-B06□		3/4	

ISO Standard Solenoid Valve: Size 2 Metal Seal/Rubber Seal Series VQ7-8

Model

Series	Number of positions	Model		Port size	Flow characteristics						(1) Response time (ms)	(2) Weight (kg)		
					1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)						
					C[dm ³ /(s·bar)]	b	Cv	C[dm ³ /(s·bar)]	b	Cv				
VQ7-8	2 position	Single	Metal seal	VQ7-8-FG-S-□	3/8	10	0.18	2.4	12	0.24	3.0	40 or less	0.64	
			Rubber seal	VQ7-8-FG-S-□R		12	0.24	3.0	13	0.27	3.3	45 or less		
		Double	Metal seal	VQ7-8-FG-D-□		10	0.18	2.4	12	0.24	3.0	15 or less		0.70
			Rubber seal	VQ7-8-FG-D-□R		12	0.24	3.0	13	0.27	3.3	20 or less		
	3 position	Closed center	Metal seal	VQ7-8-FHG-D-□		10	0.28	2.4	10	0.24	2.4	45 or less	0.75	
			Rubber seal	VQ7-8-FHG-D-□R		11	0.25	2.8	11	0.27	2.8	50 or less		
		Exhaust center	Metal seal	VQ7-8-FJG-D-□		10	0.16	2.4	10	0.20	2.4	45 or less	0.75	
			Rubber seal	VQ7-8-FJG-D-□R		11	0.26	2.8	13	0.27	3.3	50 or less		
		Double check	Metal seal	VQ7-8-FPG-D-□	7.2	—	—	7.0	—	—	60 or less	1.98		
				VQ7-8-FPG-D-□R	7.2	—	—	7.0	—	—	60 or less			
			Pressure center	Metal seal	VQ7-8-FIG-D-□	10	0.26	2.4	11	0.25	2.8		45 or less	0.75
				Rubber seal	VQ7-8-FIG-D-□R	13	0.27	3.3	12	0.29	3.0		50 or less	

Note 1) Based on JIS B 8375-1981 (Value for supply pressure of 0.5 MPa, with light/surge voltage suppressor, when using clean air.) Response time values will change depending on pressure and air quality. Value when ON for double type.
 Note 2) Weight without sub-plate. (Sub-plate: Rc 3.8, 1/2: 0.68 kg, Rc 3/4: 1.29 kg)

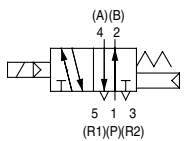


Standard Specifications

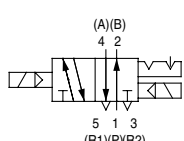
Valve specifications	Valve construction		Metal seal	Rubber seal
	Fluid		Air/Inert gas	
	Maximum operating pressure		1.0 MPa	
	Min. operating pressure	Single	0.15 MPa	0.20 MPa
		Double	0.15 MPa	0.15 MPa
		3 position	0.15 MPa	0.20 MPa
	Ambient and fluid temperature		-10 to 60°C ⁽¹⁾	-5 to 60°C ⁽¹⁾
	Lubrication		Not required	
	Manual override		Push type (Tool required)	
	Shock/Vibration resistance		150/30 m/s ² ⁽²⁾	
Enclosure		IP65 (Dusttight, Low jetproof)		
Solenoid specifications	Coil rated voltage		12 VDC, 24 VDC, 100 VAC, 110 VAC, 200 VAC, 220 VAC (50/60 Hz)	
	Allowable voltage fluctuation		±10% of rated voltage	
	Coil insulation type		Class B or equivalent	
	Power consumption (Current)	24 VDC	1 W DC (42 mA)	
		12 VDC	1 W DC (83 mA)	
		100 VAC	Inrush 1.2 VA (12 mA), Holding 1.2 VA (12 mA)	
110 VAC		Inrush 1.3 VA (11.7 mA), Holding 1.3 VA (11.7 mA)		
200 VAC	Inrush 2.4 VA (12 mA), Holding 2.4 VA (12 mA)			
220 VAC	Inrush 2.6 VA (11.7 mA), Holding 2.6 VA (11.7 mA)			

JIS Symbol

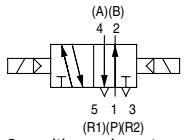
2 position single



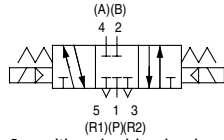
2 position double (Metal)



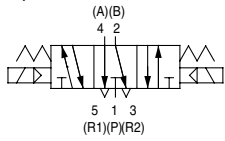
2 position double (Rubber)



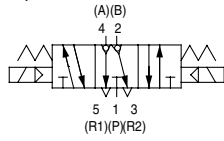
3 position closed center



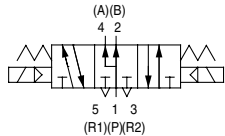
3 position exhaust center



3 position double check



3 position pressure center



Note 1) Use dry air to prevent condensation when operating at low temperatures.

Note 2) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

VK

VZ

VF

VFR

VP4

VZS

VFS

VS4

VQ7

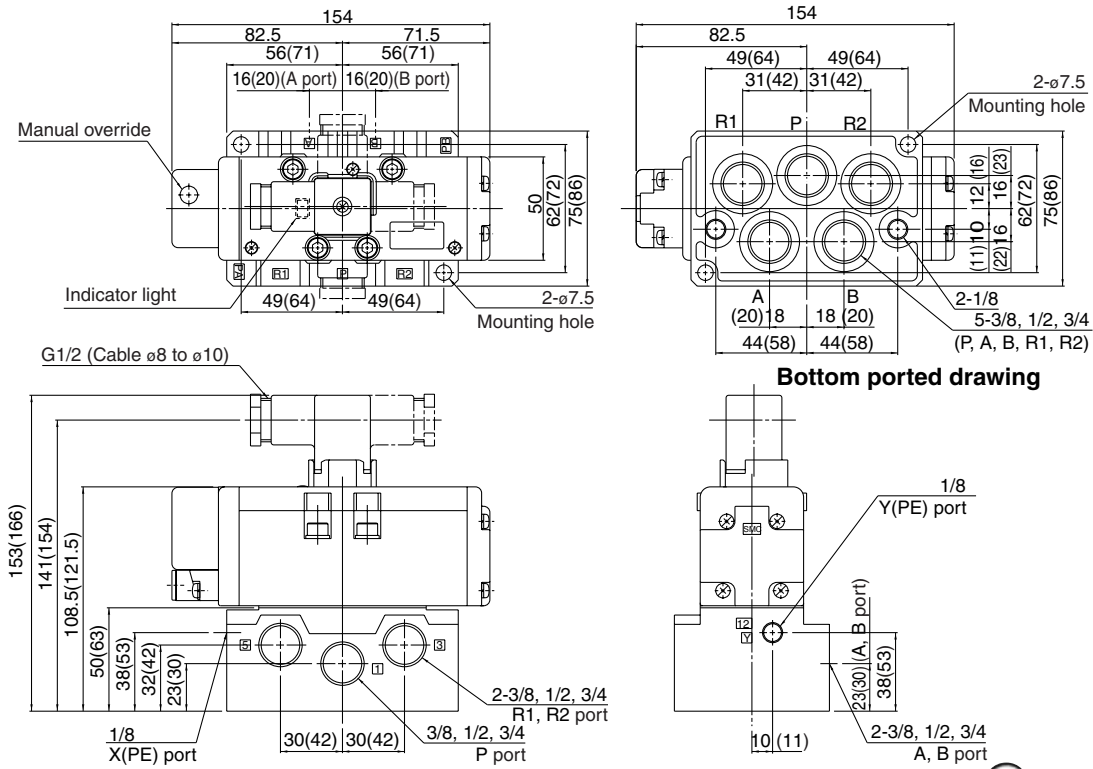
EVS

VFN

Series VQ7-8

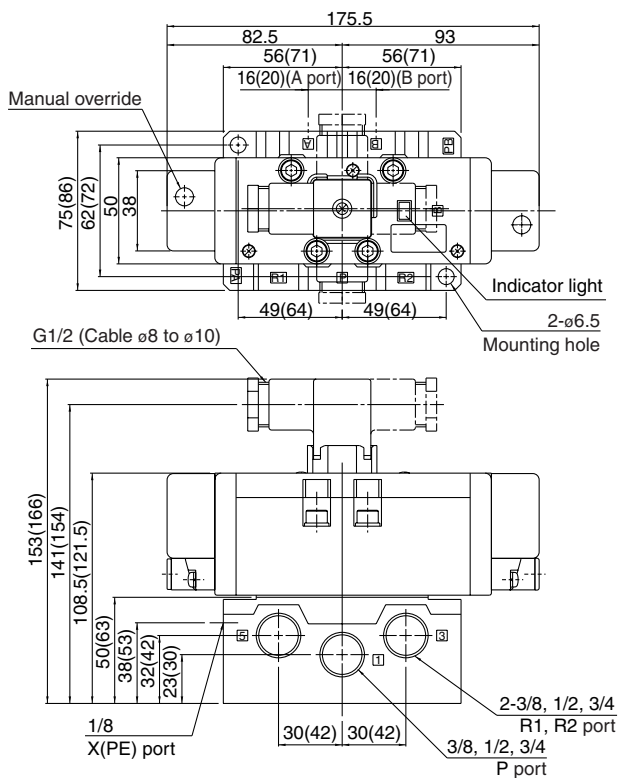
DIN Terminal Type

2 position single : VQ7-8-FG-S
single (Reverse pressure): VQ7-8-YZ-S



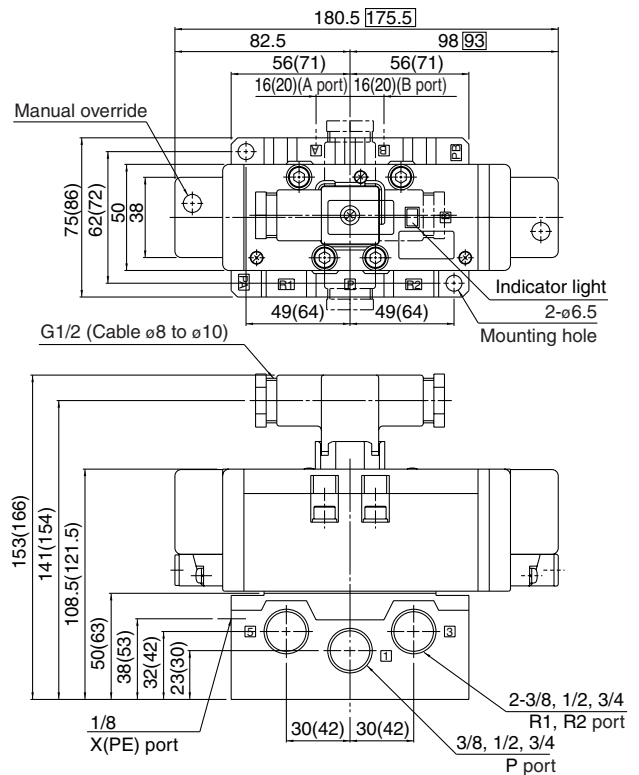
() : 3/4

2 position double : VQ7-8-FG-D
double (Reverse pressure): VQ7-8-YZ-D



() : 3/4

3 position closed center : VQ7-8-FHG-D
exhaust center : VQ7-8-FJG-D
pressure center : VQ7-8-FIG-D

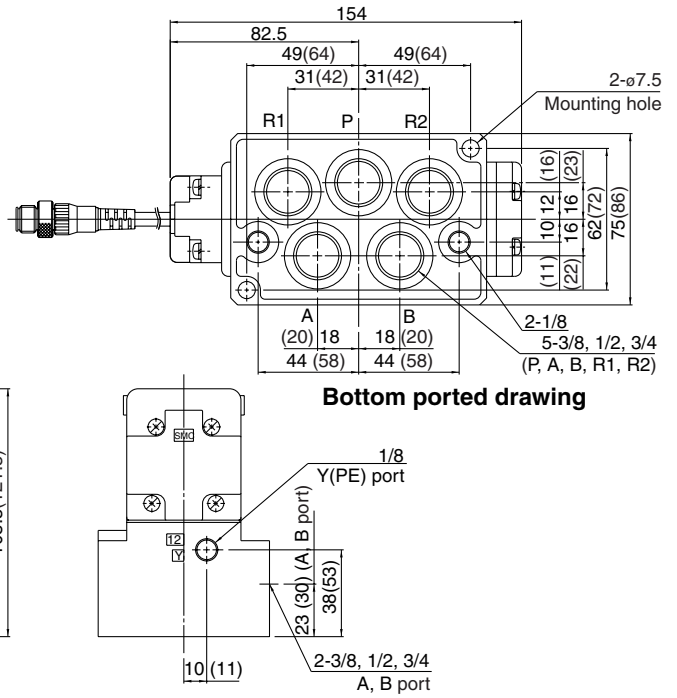
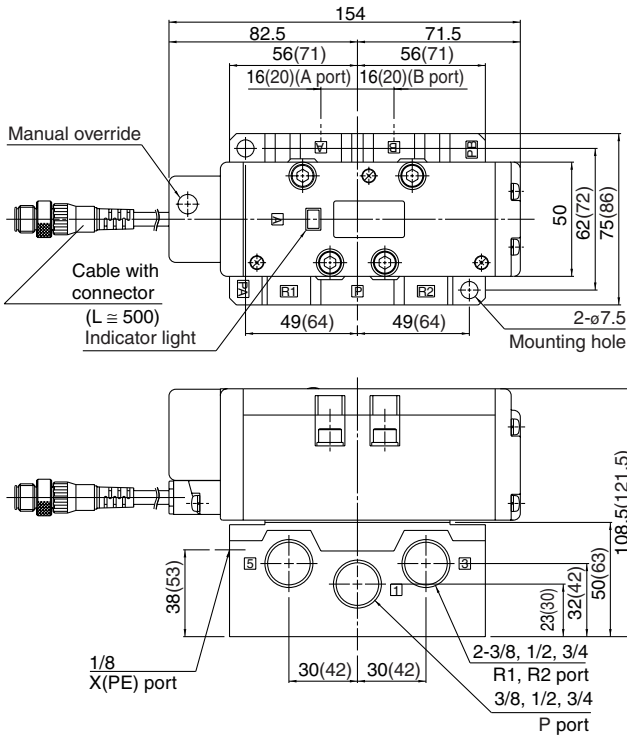


() : 3/4
Dimensions inside □ are for rubber seals.

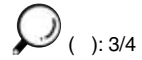
ISO Standard Solenoid Valve: Size 2 Metal Seal/Rubber Seal Series VQ7-8

Prewired Connector Type

2 position single : VQ7-8-FG-S-□□□□SC
 single (Reverse pressure): VQ7-8-YZ-S-□□□□SC

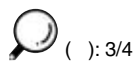
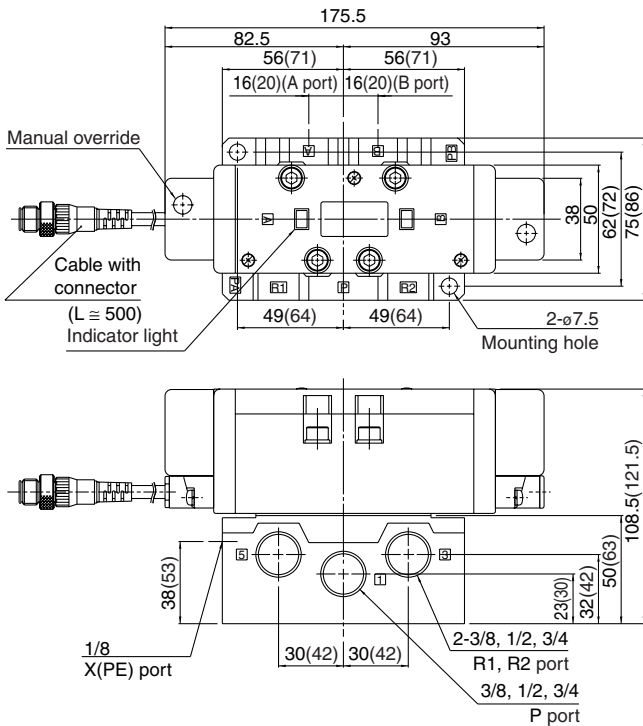


Bottom ported drawing

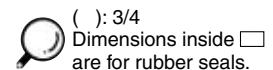
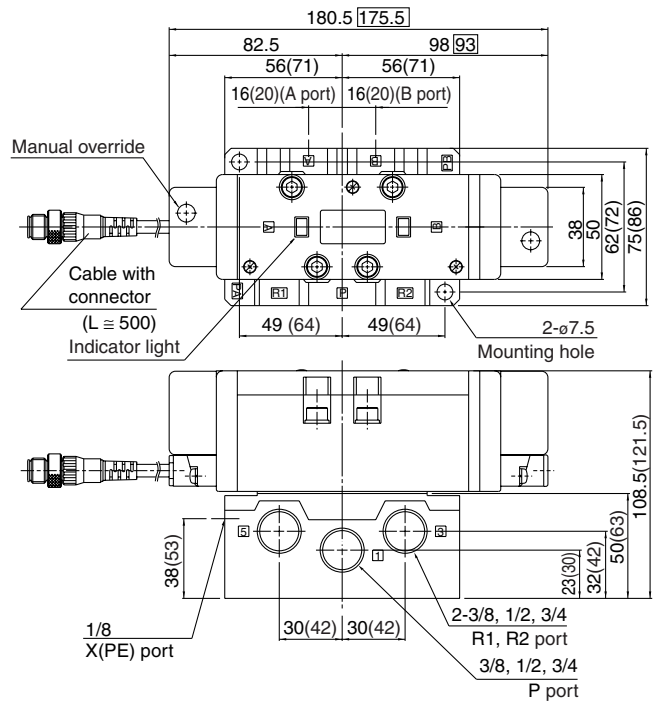


- VK
- VZ
- VF
- VFR
- VP4
- VZS
- VFS
- VS4
- VQ7
- EVS
- VFN

2 position single : VQ7-8-FG-D-□□□□SC
 single (Reverse pressure): VQ7-8-YZ-D-□□□□SC



3 position closed center : VQ7-8-FHG-D-□□□□SC
 exhaust center : VQ7-8-FJG-D-□□□□SC
 pressure center : VQ7-8-FIG-D-□□□□SC

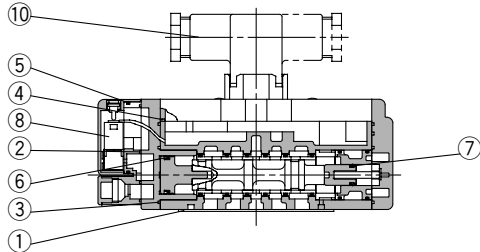


Series VQ7-8 Construction

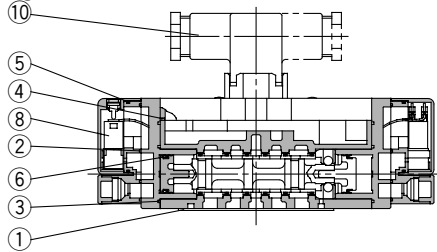
DIN Terminal Type

Metal seal

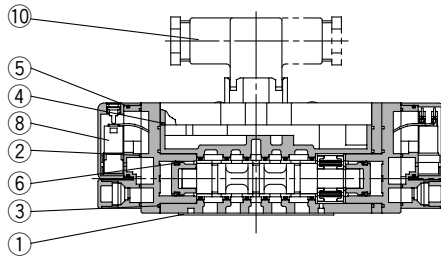
VQ7-8-FG-S-□



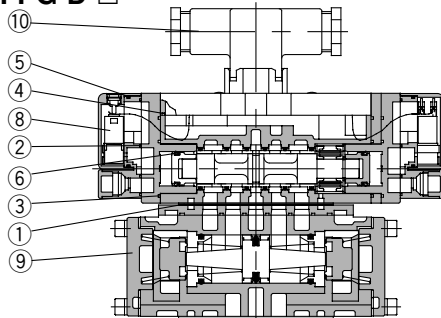
VQ7-8-FG-D-□



VQ7-8-^{FHG}_{FJG}-D-□ FIG

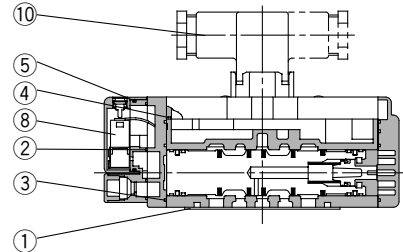


VQ7-8-FPG-D-□

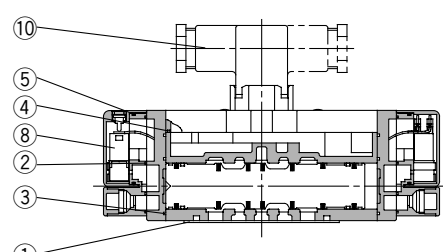


Rubber seal type

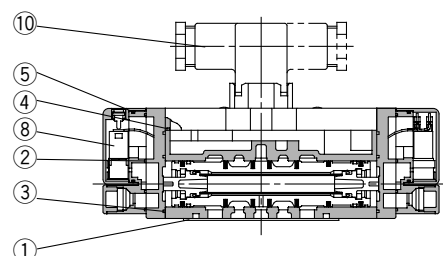
VQ7-8-FG-S-□R□



VQ7-8-FG-D-□R□



VQ7-8-^{FHG}_{FJG}-D-□R□ FIG



Replacement Parts (For valve)

Number	Description	VQ7-8-FG-S-□	VQ7-8-FG-D-□	VQ7-8-■-D-□	VQ7-8-FPG-D-□	VQ7-8-FG-S-□R□	VQ7-8-FG-D-□R□	VQ7-8-■-D-□R□
①	Gasket				AXT510-13			
②	Gasket A				VQ7060-13-2			
③	Gasket B				VQ7080-13-1			
④	Gasket C				VQ7080-13-3			
⑤	O-ring				37 x 1.6			
⑥	Mini Y seal		MYN-16		MYN-14			—
⑦	Mini Y seal		MYN-8		—			—
⑧	Pilot valve assembly				VQZ110Q-□			
⑨	Double check spacer				VV72-FPG			—
⑩	DIN terminal				UKL-S1			