

 Contact our sales office for delivery dates and prices as this is a special model.

SP031X-054E-A
P: UY

 **P.G.Information** (Specialized Product)

Flameproof 5 Port Solenoid Valve

Certified by PCEC (Chinese Certification Body)

50-VFE3000/5000-X50

SMC CORPORATION
4-14-1, SOTO-KANDA,
CHIYODA-KU,
TOKYO 101-0021, JAPAN
URL <http://www.smcworld.com>

■ Features:

PCEC* certified model (*:Supervision & test center of Ex-products of China Petroleum & Chemical Industry)



■ Specifications

Fluid	Air	
Operating pressure range	2-position single/3-position	0.15 to 0.9MPa
	2-position double	0.1 to 0.9MPa
Ambient and fluid temperature	- 10 to 50°C (No freezing)	
Response time (Note)	2-position single/ double	45ms or less
	3-position	50-VFE3000: 60ms or less 50-VFE5000: 70ms or less
Max. operating frequency	2-position single/ double	5Hz
	3-position	2Hz
Lubrication	Not required	
Override	Non-locking push type、Push-turn locking D type	
Mounting orientation	Unrestricted	

Note: Based on dynamic performance test, JIS B8419-1993 (0.5 MPa, at rated voltage, without surge voltage suppressor)

• Solenoid Specifications

*: Option

Rated voltage	AC (50/60 Hz)		100 V, 200V, 12 V*, 24 V*, 32 V*, 48 V*, 110 V*, 120 V*, 220 V*, 240 V*
	DC		24 V, 6 V*, 12 V*, 30V*, 48V*, 75V* 100V*, 110V*, 120V*, 125V*
Allowable voltage fluctuation	-15 to 10% of rated voltage		
Apparent power	AC	Inrush	9.1 VA (50 Hz), 7.8 VA (60 Hz)
		Holding	6.2 VA (50 Hz), 4.6 VA (60 Hz)
Power consumption	DC	Note1) 3.5 W (In the case of 6, 12, 24VDC)	
Type of protection	Flameproof enclosures construction Exd II BT4		
Lead inlet type	Metal conduit threaded type, Flameproof enclosure cable gland (not supplied) type		
Electrical entry	Conduit terminal		
Coil insulation	Class B (130°C)		

Note1) The other voltage : 4W or less

• Flow-rate Characteristics

50-VFE3000-X50

Port size	Type of actuation	Flow-rate characteristics					
		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
1/8	Single solenoid	3.0	0.38	0.78	2.8	0.30	0.67
1/4		4.0	0.36	1.0	3.1	0.32	0.75
1/8	Double solenoid	3.0	0.38	0.78	2.8	0.30	0.67
1/4		4.0	0.36	1.0	3.1	0.32	0.75
1/8	Closed center	2.4	0.31	0.64	1.8	0.37	0.46
1/4		2.4	0.45	0.68	1.9	0.37	0.47
1/8	Exhaust center	2.6	0.37	0.70	3.0 (2.5)	0.32 (0.28)	0.76 (0.62)
1/4		3.0	0.42	0.82	3.1 (2.7)	0.36 (0.29)	0.79 (0.66)
1/8	Pressure center	3.0 (1.4)	0.42 (0.44)	0.83 (0.39)	2.4	0.27	0.59
1/4		5.5 (1.4)	0.37 (0.50)	1.4 (0.40)	2.6	0.32	0.64

Note (): Normal position

50-VFE5000-X50

Port size	Type of actuation	Flow-rate characteristics					
		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
1/4	Single solenoid	7.1	0.46	1.9	7.7	0.51	2.2
3/8		8.8	0.44	2.4	10	0.49	2.9
1/4	Double solenoid	7.1	0.46	1.9	7.7	0.51	2.2
3/8		8.8	0.44	2.4	10.0	0.49	2.9
1/4	Closed center	6.7	0.46	1.8	6.6	0.41	1.8
3/8		7.5	0.43	2.0	7.5	0.38	1.9
1/4	Exhaust center	7.1	0.42	1.9	8.0 (7.4)	0.45 (0.47)	2.2 (2.1)
3/8		8.3	0.40	2.2	10 (8.7)	0.48 (0.46)	3.0 (2.4)
1/4	Pressure center	6.8 (2.7)	0.51 (0.50)	2.0 (0.78)	5.7	0.37	1.4
3/8		9.2 (3.0)	0.50 (0.49)	2.6 (0.85)	6.1	0.35	1.6

Note (): Normal position

How to Order

50-VFE 5 1 2 0 1 T 03 -X50

Type of protection

50	Flameproof enclosures
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Body size

Symbol	Body size, Applicable series	
	50-VFE3000	50-VFE5000
3	•	—
5	—	•

Type

1	Single solenoid
2	Double solenoid
3	Closed center
4	Exhaust center
5	Pressure center

Body type

Symbol	Body type	Applicable series	
		50-VFE3000	50-VFE5000
2	Body Ported (Type 20 manifold)	—	•
3	Body Ported (Type 30 manifold)	•	—
4	Base Ported (Type 40 manifold)	•	•
5	Type 50 manifold	•	—

Body Option

Symbol	Body Option	Applicable series	
		50-VFE3000	50-VFE5000
0	Standard	50-VFE3□ 30 40 50	50-VFE5□ 20
3*	Main/Pilot valve common exhaust	50-VFE3□ 33 43	—
4	Common pilot exhaust	—	50-VFE5□ 44

*Option

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

Port size (P, A, B)

Symbol	Port size	Applicable series	
		50-VFE3000	50-VFE5000
Nil	—	50-VFE3□ 40 43 50	50-VFE5□ 44
01	1/8	50-VFE3□ 30 33	—
02	1/4	50-VFE3□ 30 33	50-VFE5□ 20
03	3/8	—	50-VFE5□ 20

Option

F	Bracket
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*Available only for 50-VFE3*30/33 or 50-VFE5*20 (The bracket will be shipped unattached.)

Manual override

Nil	Push type
D	Push-turn locking D type (slotted type)

External wire connection

T	Metal conduit threaded type Flameproof enclosure cable gland (not supplied)/type*
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* Please use a commercially available cable gland with Chinese flameproof certification if a product is used as a flameproof enclosure cable gland type.

Rated voltage

AC(50/60Hz)		DC	
1	AC100V	5	DC24V
2	AC200V	6*	DC12V
3*	AC110V	V*	DC6V
4*	AC220V	54*	DC75V
7*	AC240V	55*	DC100V
8*	AC48V	57*	DC125V
A*	AC12V	67*	DC30V
B*	AC24V	68*	DC120V
F*	AC32V	Y*	DC48V
16*	AC120V	Z*	DC110V

*Option

Pilot valve Ass'y How to order

50-VF3 1 T D -X50

Type of protection

50	Flameproof enclosures
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Series No.

Rated voltage

AC(50/60Hz)		DC	
1	AC100V	5	DC24V
2	AC200V	6*	DC12V
3*	AC110V	V*	DC6V
4*	AC220V	54*	DC75V
7*	AC240V	55*	DC100V
8*	AC48V	57*	DC125V
A*	AC12V	67*	DC30V
B*	AC24V	68*	DC120V
F*	AC32V	Y*	DC48V
16*	AC120V	Z*	DC110V

*Option

Manual override

Nil	Push type
D	Push-turn locking D type (slotted type)

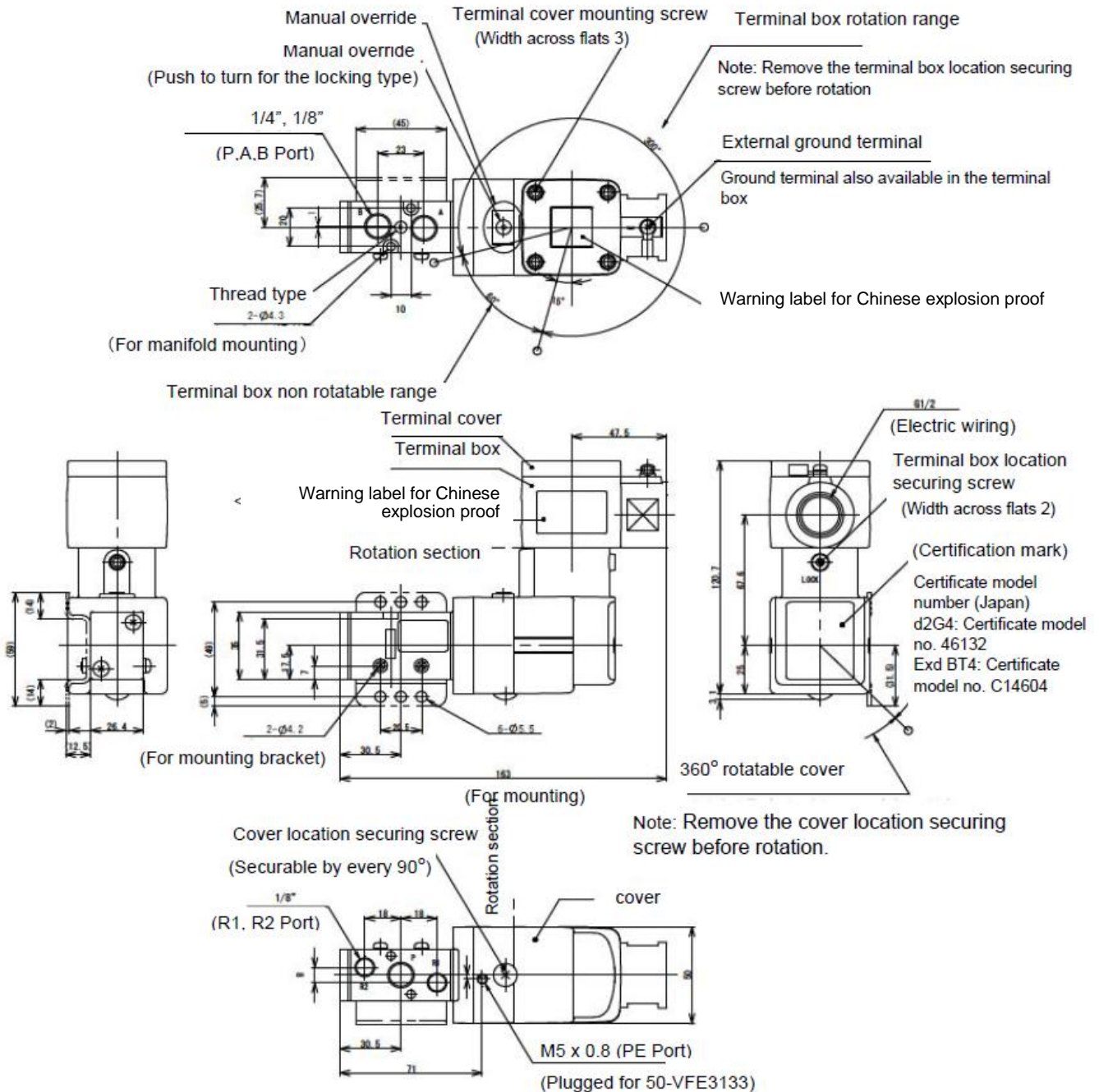
External wire connection

T	Metal conduit threaded type Flameproof enclosure cable gland (not supplied)/type*
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* Please use a commercially available cable gland with Chinese flameproof certification if a product is used as a flameproof enclosure cable gland type.

■ Dimensions: mm

50-VFE3130-*T-20-X50



Caution To ensure the safest possible operation of this product, please be sure to thoroughly read the "Safety Instructions" in our "Best Pneumatics" catalog before use.