

Discrete valve/body piping
Pilot operated explosion-proof 5-port valve pneumatic valve

4F1/3*0E Series

NAMUR standards option

- Japan Conformity Certificate No.
Class A: No. T64364
Class H: No. T64363
- China Conformity Certificate No. (CCC) 2020322307002070
- China explosion-proof type (NEPSI) GYB20.2251X

RoHS

Common specifications

Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0
Min. working pressure MPa	0.1
Proof pressure MPa	1.5
Ambient temperature °C	-10 to 60 *1
Fluid temperature °C	5 to 60
Lubrication	Not required (use turbine oil ISO VG32 if necessary for lubrication)
Explosion-proof performance	d2G4
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environments

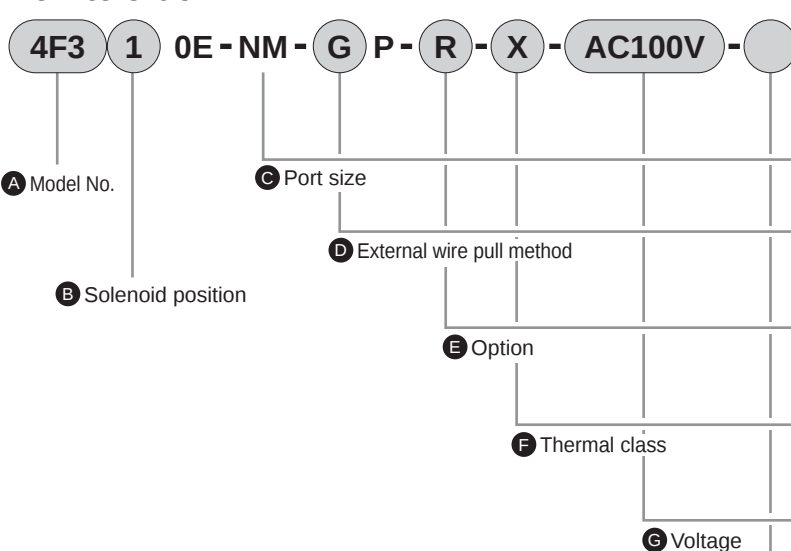
*1: The ambient temperature indicates the temperature for storage and upon installation, which will differ from the fluid temperature during operation.

Flow characteristics

Model No.	Solenoid position	Port size	Sonic conductance C[dm ³ /(s·bar)]
4F1	2-position Single	Rc1/4 (S,E1,E2)	1.6
	Double		
4F3	2-position Single	Rc1/4 (S,E1,E2)	3.1
	Double		

*1: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

How to order



⚠ Precautions for model No. selection

- *1: 4F1-NM is a 4F1 standard product for the body repair parts, etc., and 4F3 for the pilot actuator assembly.
- *2: 4F3-NM is not used because the repair parts of the body are dedicated parts.
- *3: The only piping port is Rc1/4. The threads of the C1/C2 port on the NAMUR face have not been machined.
- *4: 4F1 is used outdoors. Install it so that rainwater, etc., does not enter, as the PE exhaust and breathing hole are connected to the atmosphere.

H Organizations for explosive-proof certification

Electrical specifications

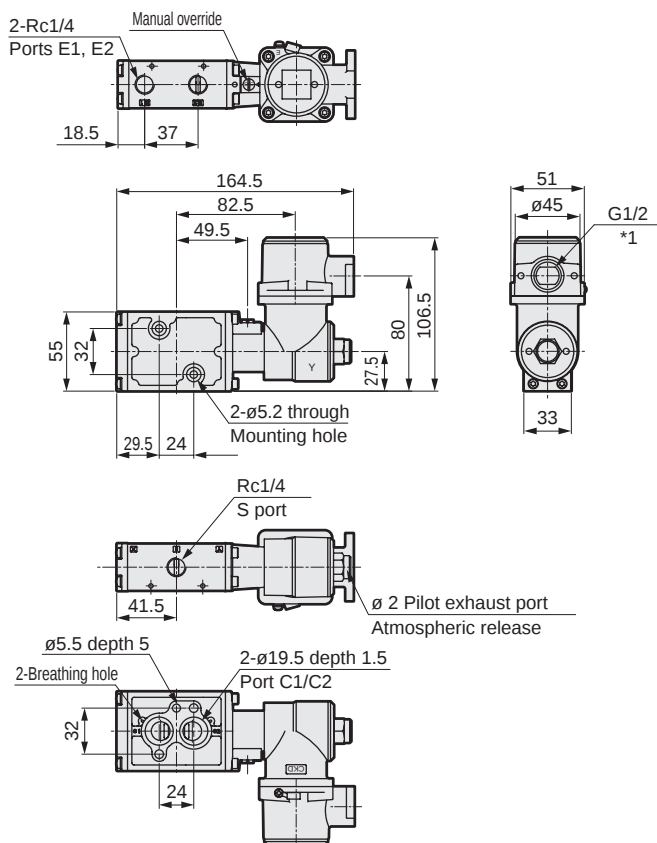
Item	Description
Rated voltage V	AC 100V, 200V, 110V, 220V(50/60Hz) DC 24V, 12V
Rated voltage fluctuation range	±10%
Starting current A	AC 100V 0.186/0.135 200V 0.093/0.068 110V 0.169/0.123 220V 0.085/0.061 DC 24V 0.166 12V 0.332
Holding current A	AC 100V 0.06/0.05 200V 0.03/0.025 110V 0.055/0.045 220V 0.027/0.023 DC 24V 0.166 12V 0.332
Power consumption W	AC 100V 4.5/4.0 200V 4.5/4.0 110V 4.5/4.0 220V 4.5/4.0 DC 24V 4.0 12V 4.0
Thermal class	A (*1, H)

*1: Thermal class H is available as an option. The dimensions are the same as those of A.

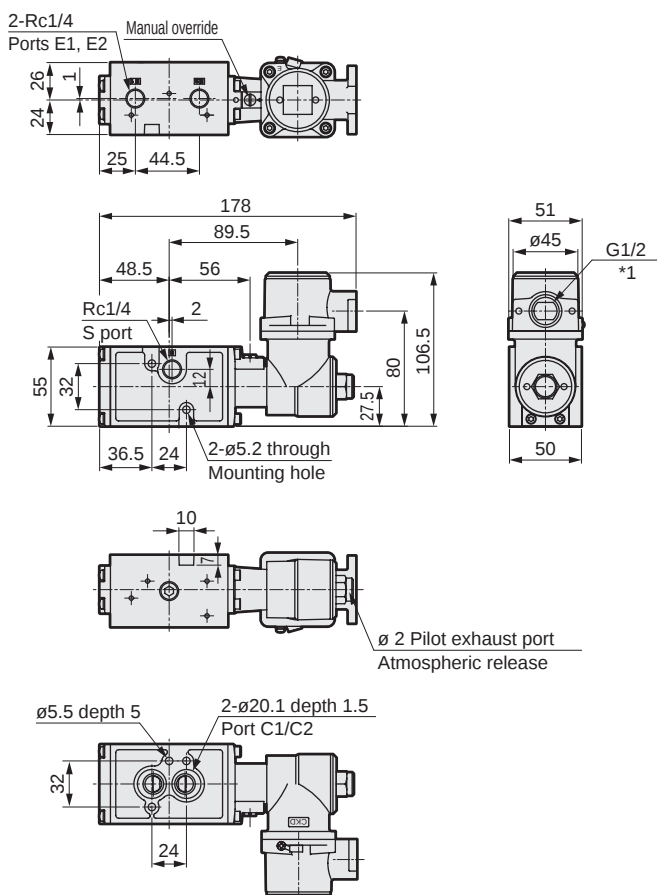
Code	Description	4F1	4F3
B Solenoid position			
1	2 position single	●	●
2	2-position double	●	●
C Port size			
NM	NAMUR standards (port size Rc1/4) *3	●	●
D External wire pull method			
G	Pressure proof packing protection pipe screw-in	●	●
T	Conduit thread system	●	●
E Option			
Blank	No option	●	●
R	Position change of manual override	●	●
F Thermal class			
Blank	A (standard product)	●	●
X	H (Option)	●	●
G Voltage			
AC100V	100 VAC (50/60 Hz)	●	●
AC200V	200 VAC (50/60 Hz)	●	●
DC24V	24 VDC	●	●
DC12V	12 VDC	●	●
AC110V	110 VAC (50/60 Hz)	●	●
AC220V	220 VAC (50/60 Hz)	●	●
* Other made-to-order products			
[AC voltage]			
12V, 24V, 48V, 115V, 120V, 125V		●	●
127V, 210V, 230V, 240V, 250V, 380V		●	●
[DC voltage]			
45V, 48V, 80V, 100V, 110V, 125V		●	●
H Organizations for explosive-proof certification			
Blank	Japan Certification (TIIS)	●	●
CN	China Compulsory Certificate (CCC)	●	●

Dimensions

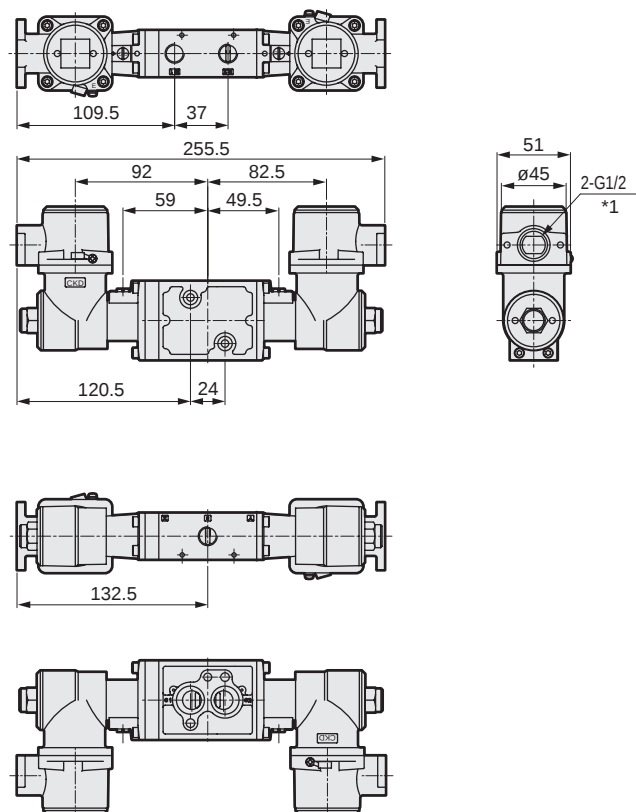
● 4F110E-NM



● 4F310E-NM

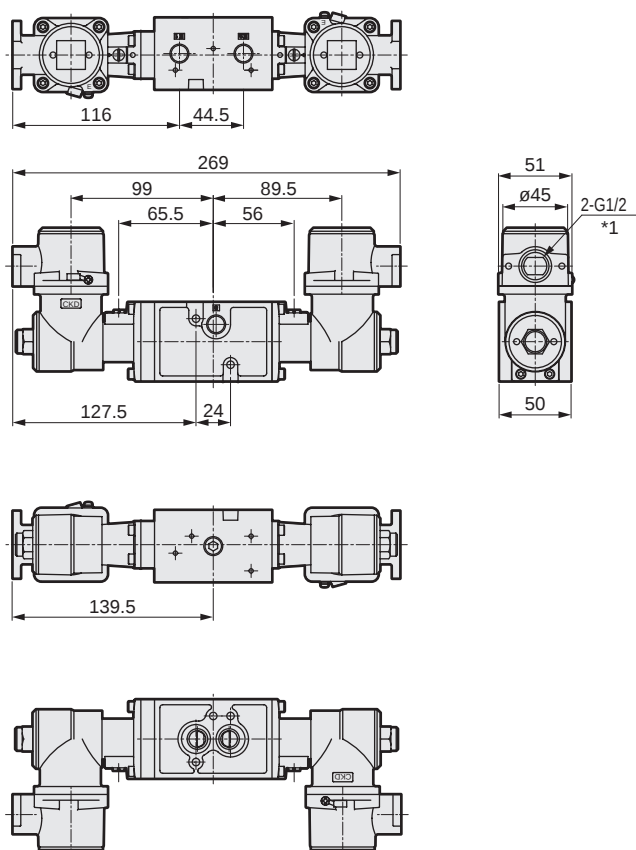


● 4F120E-NM



● 4F320E-NM

*1 If model No. "-CN", it will be NPT1/2.



4GA/B
M4GA/B
MN4GA/B
4GA/B (master)
4GB With sensor
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (master)
4F
4F (master)
PV5G
GMF
PV5
GMF
PV5S-0
3Q
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP
NVP
4G*0EJ
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending