



Pilot operated 2-port solenoid valve for compressed air

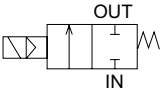
EXA Series

- NC
- Port size: Push-in fitting $\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$
- Diaphragm drive



JIS symbol

● NC

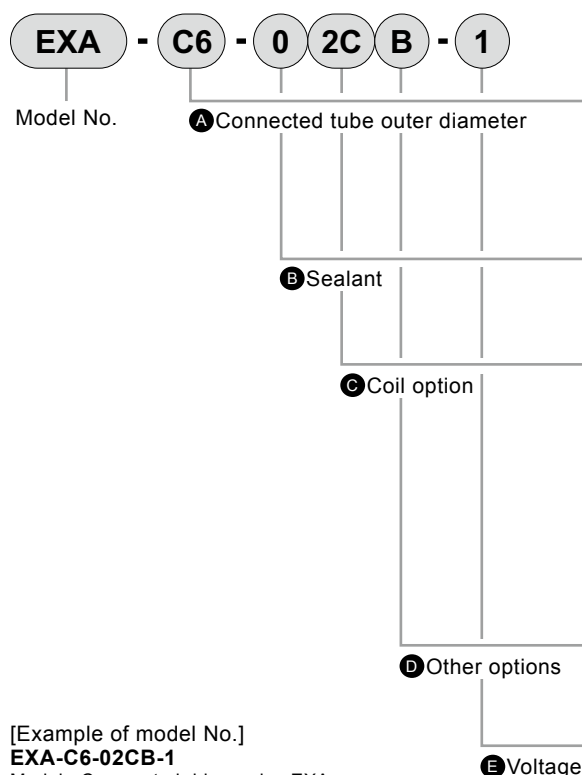


Specifications

Descriptions	EXA-C6	EXA-C8	EXA-C10	EXA-C12
Working fluid	Compressed air			
Working pressure differential MPa	0.01 (≈1.7 psi, 0.1 bar) to 0.7 (≈100 psi, 7 bar)			
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)			
Proof pressure (water pressure) MPa	1.05 (≈150 psi, 10.5 bar)			
Fluid temperature °C	0 (32°F) to 55 (131°F) (no freezing)			
Ambient temperature °C	-5 (23°F) to 55 (131°F)			
Atmosphere	Place free of corrosive gas/explosive gas and not exposed to water			
Valve structure	Pilot operated diaphragm drive			
Internal leakage cm ³ /min	2 or less			
External leakage cm ³ /min	2 or less			
Mounting orientation	Unrestricted			
Port size	Push-in fitting φ6	Push-in fitting φ8	Push-in fitting φ10	Push-in fitting φ12
C[dm ³ /(s·bar)]	1.6	3.0	3.3	3.6
b	0.45	0.33	0.26	0.20
Weight *1 g	56	57	68	69
Electrical specifications				
Rated voltage	100 VAC(50/60 Hz), 24 VDC, 12 VDC			*2
Apparent power VA	1.2			
Power consumption W	DC	0.6		
Thermal class	Class 130 (B)			
Degree of protection (IEC standard: 529)	Lead wire: IPX0, with DIN terminal box: IPX5			

*1 : Weight with the DIN terminal box is +20 g.
 *2 : The voltage fluctuation range is ±10%.

How to order



- A** Connected tube outer diameter : $\phi 6$
- B** Sealant : H-NBR
- C** Coil option : Lead wire
- D** Other options : With mounting plate
- E** Voltage : 100 VAC

⚠ Precautions for model No. selection

If using under conditions with a small pressure difference before and after the solenoid, select code 1 for the seal material and pilot combination. (Refer to "Design/selection 1. Checking the specifications" on page 40 for details.)

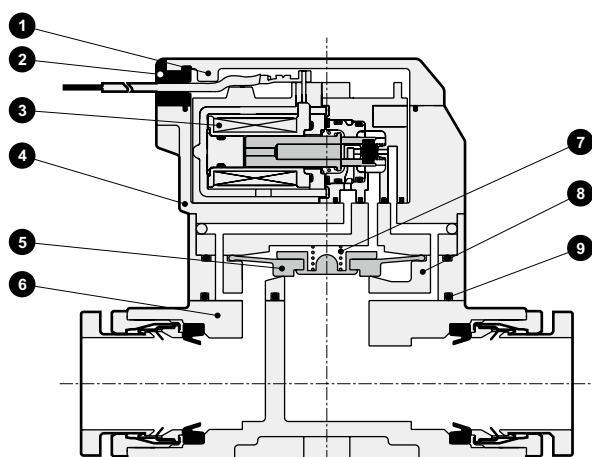
Code	Content
A Connected tube outer diameter	
C6	$\phi 6$
C8	$\phi 8$
C10	$\phi 10$
C12	$\phi 12$
B Sealant	
0	H-NBR, internal exhaust specifications
H	H-NBR, oil-prohibited specs, internal exhaust specs
C Coil option *1	
2C	Standard Lead wire (without lamp/surge suppressor)
2G	Option DIN terminal box (Pg7), without lamp
2GS	
2H	
2HS	
2KS	
	DIN terminal box (Pg7), with lamp (inside terminal box)
	DIN terminal box (Pg7), with lamp (inside terminal box)/with surge suppressor
	DIN terminal box, with M12 connector cable, with lamp (inside terminal box)/with surge suppressor
D Other options	
Blank	None
B	With mounting plate
E Voltage *1	
1	100 VAC
3	24 VDC
4	12 VDC

*1 : Refer to the table below for the available coil option and voltage combinations.

Coil option	Voltage		
	1	3	4
2C	●	●	●
2G	●		
2GS		●	●
2H	●		
2HS		●	●
2KS		●	

Select from the combinations indicated with ● above.

Internal structure and parts list



Cannot be disassembled

No.	Part name	Material
1	Cover (*1)	PBT Polybutylene terephthalate
2	Bush	NBR Nitrile rubber
3	Coil assembly	-
4	Body	PPS Polyphenylene sulfide
5	Diaphragm assembly	H-NBR/PPS Hydrogenated nitrile rubber/polyphenylene sulfide
6	Main body	PBT Polybutylene terephthalate
7	Spring	SUS Stainless steel
8	Valve body	PBT Polybutylene terephthalate
9	Gasket	H-NBR Hydrogenated nitrile rubber

*1 : PA66 and polyamide are used when the DIN terminal box is attached.



EXA

Dimensions

FWD

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/

AD

APK/

ADK

DryAir

EX-

XPLNprf

XPLNprf

HVB/

HVL

SAB/

NAB

LAD/

NAD

Water-

Rela

NP/NAP/

NVP

SNP

CHB/G

MXB/G

Other

valves

SWD/

MWD

DustColl

CVE/

CVSE

CCH /

CPE/D

LifeSci

Gas-

Combus

Auto-

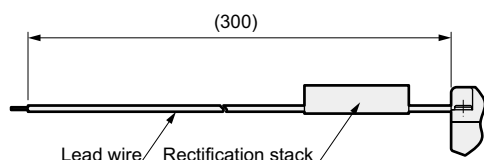
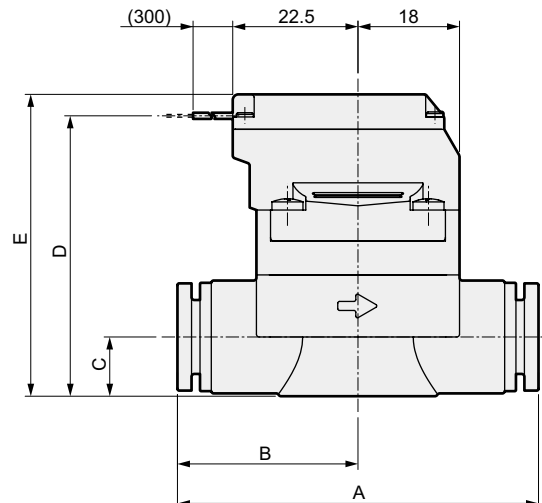
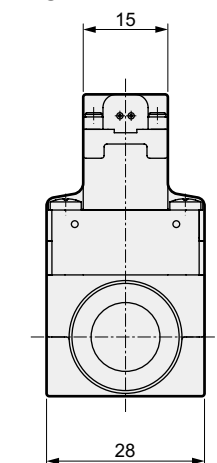
Water

SpecFld

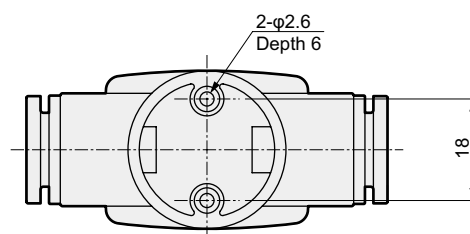
Custom

Ending

- Lead wire
EXA-*-*2C



The alternating current (AC) only has a rectification stack assembled into the lead wire.



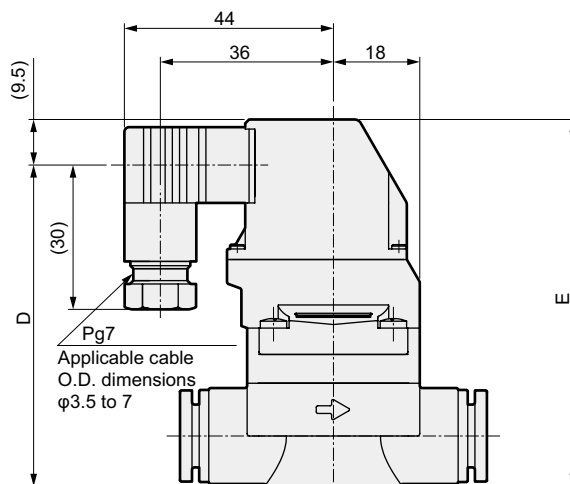
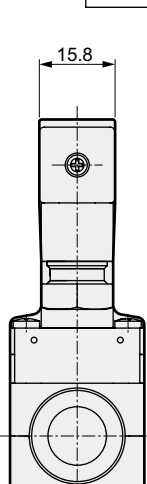
Model No.	A	B	C	D	E
EXA-C6	52	28	8	45	48.5
EXA-C8	53	28.5	8	45	48.5
EXA-C10	62	31	11.5	51	54.5
EXA-C12	64	32	11.5	51	54.5

* The figure indicates port size φ10 dimensions.

Optional dimensions

- DIN terminal box (Pg7)

EXA-*-*
2G
2GS
2H
2HS

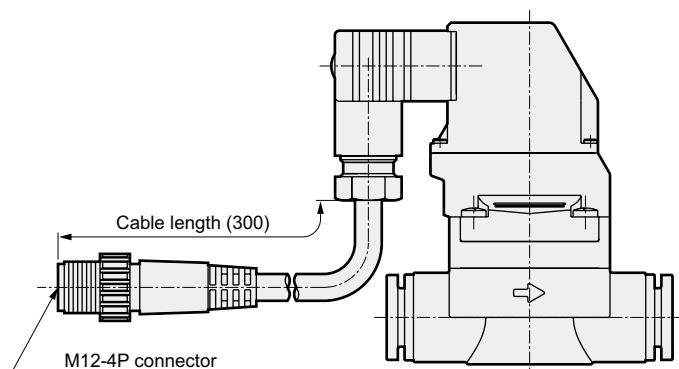


Model No.	D	E
EXA-C6	62	71.5
EXA-C8	62	71.5
EXA-C10	68	77.5
EXA-C12	68	77.5

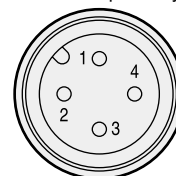
* The figure indicates port size φ10 dimensions.

Optional dimensions

- With DIN terminal box, with M12 connector cable, with lamp
EXA-*-*2KS



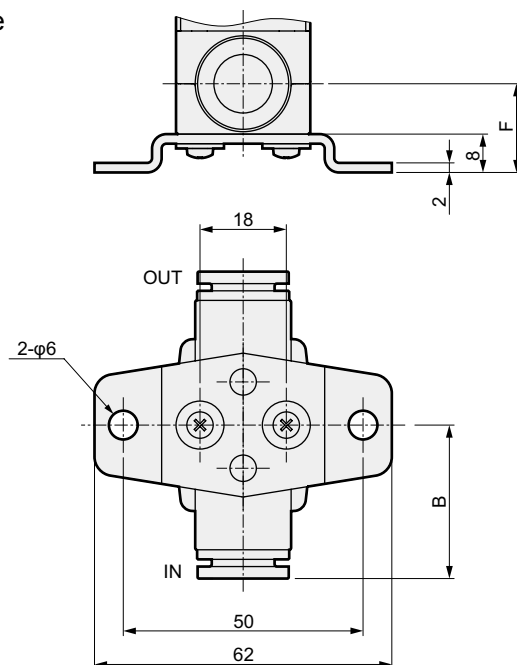
Connector pin array



PIN No.	Applications
1PIN	(Not used)
2PIN	(Not used)
3PIN	Power supply -
4PIN	Power supply +

- With mounting plate
EXA-*-*B

Material: Steel
Zinc plated



* Contact CKD for details about discrete mounting plate orders.

Model No.	B	F
EXA-C6	28	16
EXA-C8	28.5	16
EXA-C10	31	19.5
EXA-C12	32	19.5

* The figure indicates port size $\phi 10$ dimensions.

EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/ AD
APK/ ADK
DryAir
EX- XPLNprf
XPLNprf
HVB/ HVL
S ∇ B/ NAB
LAD/ NAD
Water- Rela
NP/NAP/ NVP
SNP
CHB/G
MXB/G
Other valves
SWD/ MWD
DustColl
CVE/ CVSE
CCH / CPE/D
LifeSci
Gas- Combus
Auto- Water
SpecFld
Custom
Ending

EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/
AD
APK/
ADK
DryAir
EX-
XPLNprf
XPLNprf
HVB/
HVL
SAB/
NAB
LAD/
NAD
Water-
Rela
NP/NAP/
NVP
SNP
CHB/G
MXB/G
Other
valves
SWD/
MWD
DustColl
CVE/
CVSE
CCH /
CPE/D
LifeSci
Gas-
Combus
Auto-
Water
SpecFld
Custom
Ending



Pilot operated 2-port solenoid valve for compressed air, manifold

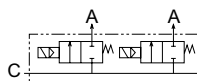
GEXA Series

- NC
- Port size: Push-in fitting $\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$
- Diaphragm drive



JIS symbol

- NC
Common supply/
C port pressurization



Specifications

Descriptions	GEXA-□C6	GEXA-□C8	GEXA-□C10	GEXA-□C12
Working fluid	Compressed air			
Working pressure differential MPa	0.01 (≈ 1.5 psi, 0.1 bar) to 0.7 (≈ 100 psi, 7 bar)			
Max. working pressure MPa	0.7 (≈ 100 psi, 7 bar)			
Proof pressure (water pressure) MPa	1.05 (≈ 150 psi, 10.5 bar)			
Fluid temperature °C	0 (32°F) to 55 (131°F) (no freezing)			
Ambient temperature °C	-5 (23°F) to 55 (131°F)			
Atmosphere	Place free of corrosive gas/explosive gas and not exposed to water			
Valve structure	Pilot operated diaphragm drive			
Internal leakage cm ³ /min	2 or less (per station)			
External leakage cm ³ /min	3 or less (per station)			
Mounting orientation	Unrestricted			
A port size (C port: Push-in fitting $\phi 10$, $\phi 12$)	Push-in fitting $\phi 6$	Push-in fitting $\phi 8$	Push-in fitting $\phi 10$	Push-in fitting $\phi 12$
C value	1.6	3.0	3.3	3.6
b	0.36	0.24	0.18	0.16

Electrical specifications	
Rated voltage	100 VAC(50/60 Hz), 24 VDC, 12 VDC *1
Apparent power VA	1.2
Power consumption W DC	0.6
Thermal class	Class 130 (B)
Degree of protection (IEC standard: 529)	Lead wire: IPX0, with DIN terminal box: IPX5

*1 : The voltage fluctuation range is $\pm 10\%$.

For internal structure, refer to page 7.

How to order

GEXA - C10 C8 - 3 - 0 2HS - 3

Model No.

A C-port connected tube outer diameter

B A-port connected tube outer diameter

C Manifold station No.

D Sealant/
pilot operated combination

E Coil option

[Example of model No.]

GEXA-C10C8-3-02HS-3

A C-port connected tube outer diameter : $\phi 10$

B A-port connected tube outer diameter : $\phi 8$

C Manifold station No. : 3 stations

D Sealant/pilot operated combination : H-NBR/external exhaust specifications

E Coil option : DIN terminal box (Pg7)
With lamp/surge suppressor
(inside terminal box)

F Voltage : 24 VDC

! Precautions for model No. selection

If using under conditions with a small pressure differential before and after the solenoid, select code 1 for the sealant and pilot combination. (Refer to "Design/selection 1. Checking the specifications" on page 40 for details.)

Code	Content
A C-port connected tube outer diameter	
C10	$\phi 10$
C12	$\phi 12$
B A-port connected tube outer diameter	
C6	$\phi 6$
C8	$\phi 8$
C10	$\phi 10$
C12	$\phi 12$
C Manifold station No.	
2	2 stations
to	to
5	5 stations
D Sealant/pilot operated combination	
0	H-NBR/internal exhaust specifications
E Coil option *1	
2C	Standard Lead wire (without lamp/surge suppressor)
2G	Option DIN terminal box (Pg7), without lamp
2GS	
2H	
2HS	
2KS	
	DIN terminal box (Pg7), with lamp (inside terminal box)
	DIN terminal box (Pg7), with lamp/surge suppressor (inside terminal box)
	DIN terminal box, with M12 connector cable, with lamp/surge suppressor (inside terminal box)
F Voltage *1	
1	100 VAC
3	24 VDC
4	12 VDC

*1 : Refer to the table below for the available coil option and voltage combinations.

Coil option	Voltage		
	1	3	4
2C	●	●	●
2G	●		
2GS		●	●
2H	●		
2HS		●	●
2KS		●	

Select from the combinations indicated with ● above.

EXA

FWD

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/

AD

APK/

ADK

DryAir

EX-

XPLNprf

XPLNprf

HVB/

HVL

SAB/

NAB

LAD/

NAD

Water-

Rela

NP/NAP/

NVP

SNP

CHB/G

MXB/G

Other

valves

SWD/

MWD

DustCoil

CVE/

CVSE

CCH /

CPE/D

LifeSci

Gas-

Combus

Auto-

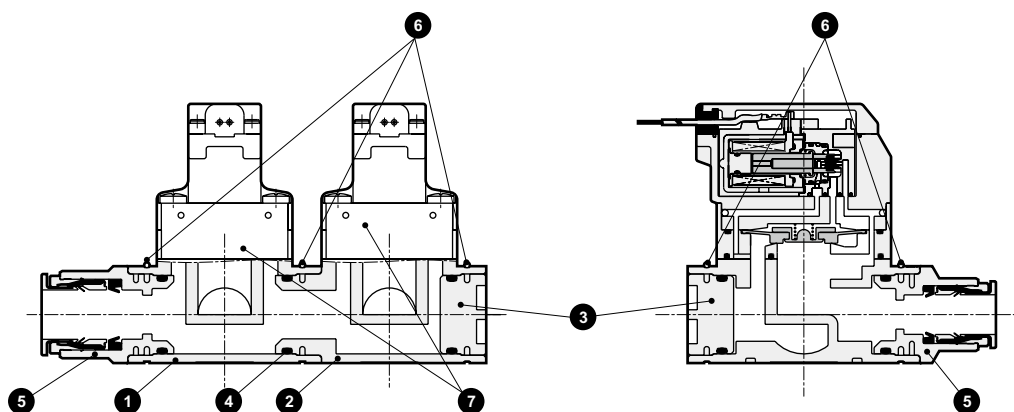
Water

SpecFld

Custom

Ending

Internal structure and parts list



No.	Part name	Material	
1	Block body A	PBT	Polybutylene terephthalate
2	Block body B	PBT	Polybutylene terephthalate
3	Plug assembly	A, NBR	Aluminum, nitrile rubber
4	O-ring	NBR	Nitrile rubber
5	Fitting assembly	PBT, C, NBR	Polybutylene terephthalate/copper alloy/nitrile rubber
6	Stopper ring	SUS	Stainless steel
7	EXA Actuator assembly	-	(Refer to the internal structure diagram on page 7)

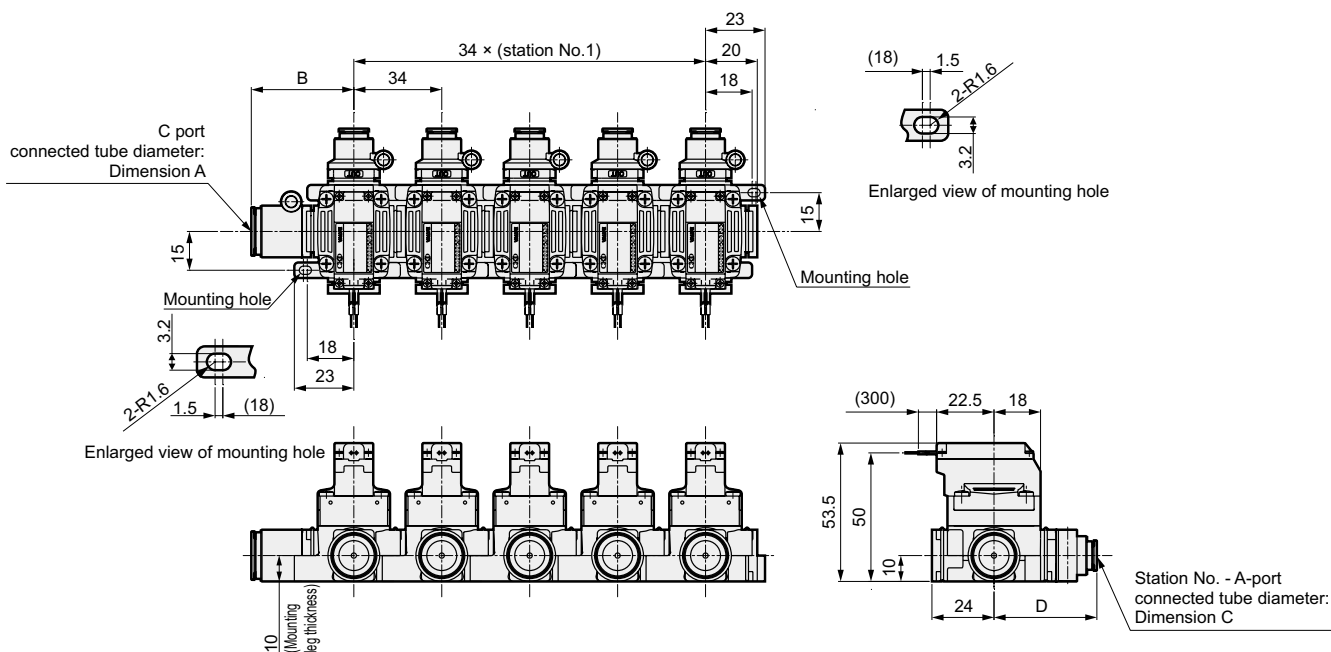
Cannot be disassembled

* This figure shows a 2-station.

Dimensions

- Lead wire

GEXA-**-**2C



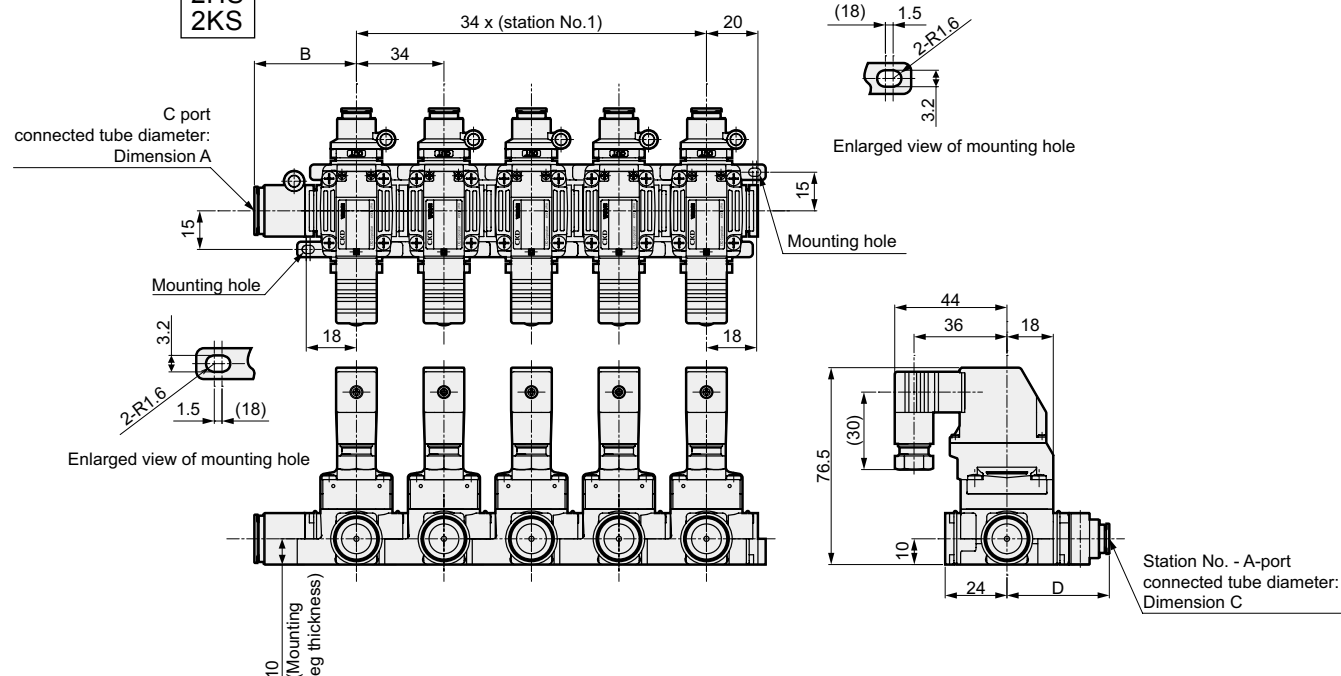
Model No.	A	B	C	D
GEXA-C10C6	φ10	38	φ6	40
GEXA-C10C8			φ8	
GEXA-C10C10			φ10	42
GEXA-C10C12			φ12	44
GEXA-C12C6	φ12	40	φ6	40
GEXA-C12C8			φ8	
GEXA-C12C10			φ10	42
GEXA-C12C12			φ12	44

Dimensions

● DIN terminal box

GEXA-**-**-*

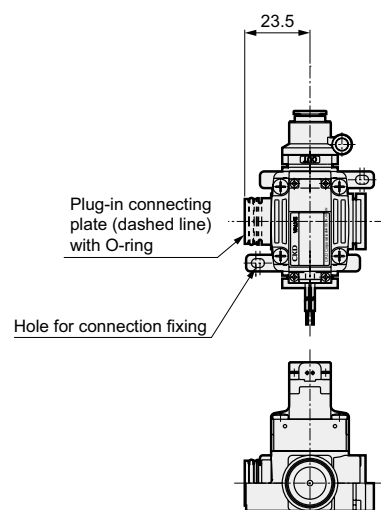
2G
2GS
2H
2HS
2KS



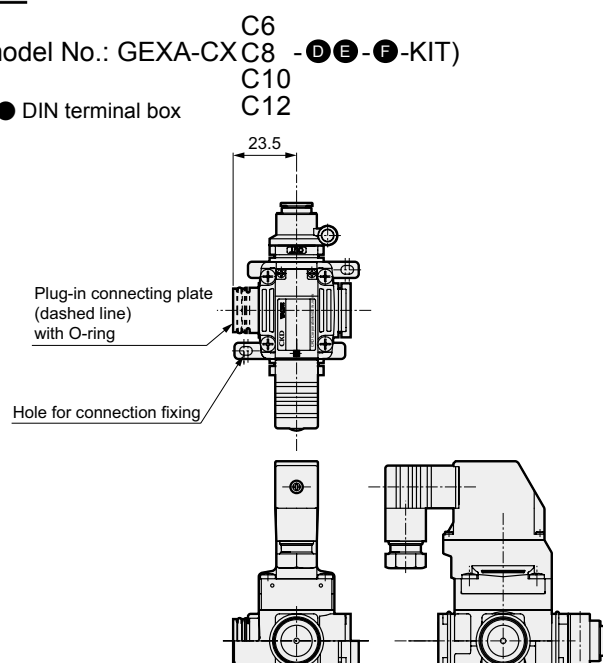
Model No.	A	B	C	D
GEXA-C10C6	φ10	38	φ6	40
GEXA-C10C8			φ8	
GEXA-C10C10			φ10	
GEXA-C10C12			φ12	
GEXA-C12C6	φ12	40	φ6	40
GEXA-C12C8			φ8	
GEXA-C12C10			φ10	
GEXA-C12C12			φ12	

● Single item dimensions for expanding manifold stations (model No.: GEXA-CX C6 - D E - F -KIT)

● Lead wire



● DIN terminal box



*1: For parts other than those above and dimensions after connecting, refer to pages 12 and 13 for the manifold dimensions.

*2: The following components are attached.

Stopper pin: 1 pc., fixing screw for connecting: 2 pcs

*3: If you are considering increasing the number of stations, contact CKD for details.



Pilot operated 2-port solenoid valve for compressed air

EXA Series screw-in connection body

- NC
- Port size: Rc1/4, 3/8



EXA

FWD

HNB/G

USB/G

FAB/G

FGB/G

FVB

FWB/G

FHB

FLB

AB

AG

AP/
AD

APK/
ADK

DryAir

EX-
XPLNprf

XPLNprf

HVB/
HVL

SAB/
NAB

LAD/
NAD

Water-
Rela

NP/NA/
NVP

SNP

CHB/G

MXB/G

Other valves

SWD/
MWD

DustColl

CVE/
CVSE

CCH /
CPE/D

LifeSci

Gas-
Combus

Auto-
Water

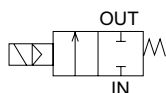
SpecFld

Custom

Ending

JIS symbol

- NC



Specifications

Descriptions	EXA-02	EXA-03
Working fluid	Compressed air	
Working pressure differential MPa	0.01 (≈1.5 psi, 0.1 bar) to 0.7 (≈100 psi, 7 bar)	
Max. working pressure MPa	0.7 (≈100 psi, 7 bar)	
Proof pressure (water pressure) MPa	1.05 (≈150 psi, 10.5 bar)	
Fluid temperature °C	0 (32°F) to 55 (131°F) (no freezing)	
Ambient temperature °C	-5 (23°F) to 55 (131°F)	
Atmosphere	Place free of corrosive gas/explosive gas and not exposed to water	
Valve structure	Pilot operated diaphragm drive	
Internal leakage cm ³ /min	2 or less	
External leakage cm ³ /min	2 or less	
Mounting orientation	Unrestricted	
Port size	Rc1/4	Rc3/8
C[dm ³ /(s·bar)]	4.5	4.7
b	0.32	0.36
Weight *1 g	56	57
Electrical specifications		
Rated voltage	100 VAC(50/60 Hz), 24 VDC, 12 VDC	
Apparent power VA	1.2	
Power consumption W DC	0.6	
Thermal class	Class 130 (B)	
Degree of protection (IEC standard: 529)	Lead wire: IPX0, with DIN terminal box: IPX5	

*1 : Weight with the DIN terminal box is +20 g.

*2 : The voltage fluctuation range is ±10%.

How to order

EXA - 02 - 0 2C - 3

Model No.

Port size

Sealant/
pilot operated combination

Coil option

[Example of model No.]

EXA-02-02C-3

Port size : Rc1/4

Sealant/pilot operated combination : H-NBR, external exhaust specification

Coil option : Lead wire (without surge suppressor)

Voltage : 24 VDC

Coil option	Voltage		
	1	3	4
2C	●	●	●
2G	●		
2GS		●	●
2H	●		
2HS		●	●
2KS		●	

Select from the combinations indicated with ● above.

Voltage

Code	Content	
A Port size		
02	Rc1/4	
03	Rc3/8	
B Sealant/pilot operated combination		
0	H-NBR, internal exhaust specifications	
C Coil option *1		
2C	Standard	Lead wire (without lamp/surge suppressor)
2G	Option	DIN terminal box (Pg7), without lamp
2GS		DIN terminal box (Pg7), without lamp/with surge suppressor
2H		DIN terminal box (Pg7), with lamp (inside terminal box)
2HS		DIN terminal box (Pg7), with lamp (inside terminal box)/with surge suppressor
2KS		DIN terminal box, with M12 connector cable, with lamp (inside terminal box)/with surge suppressor
D Voltage *1		
1	100 VAC	
3	24 VDC	
4	12 VDC	

*1 : Refer to the table on the left for the available coil option and voltage combinations.

*2 : Contact CKD for G thread and NPT thread support.

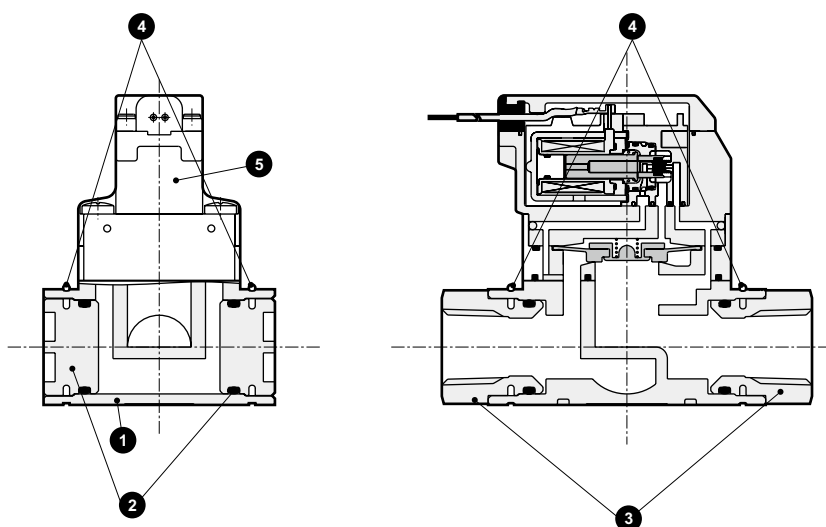
! Precautions for model No. selection

If using under conditions with a small pressure differential before and after the solenoid, select code 1 for the sealant and pilot combination. (Refer to "Design/selection 1. Checking the specifications" on page 40 for details.)

For internal structure, refer to page 15.

CKD

Internal structure and parts list



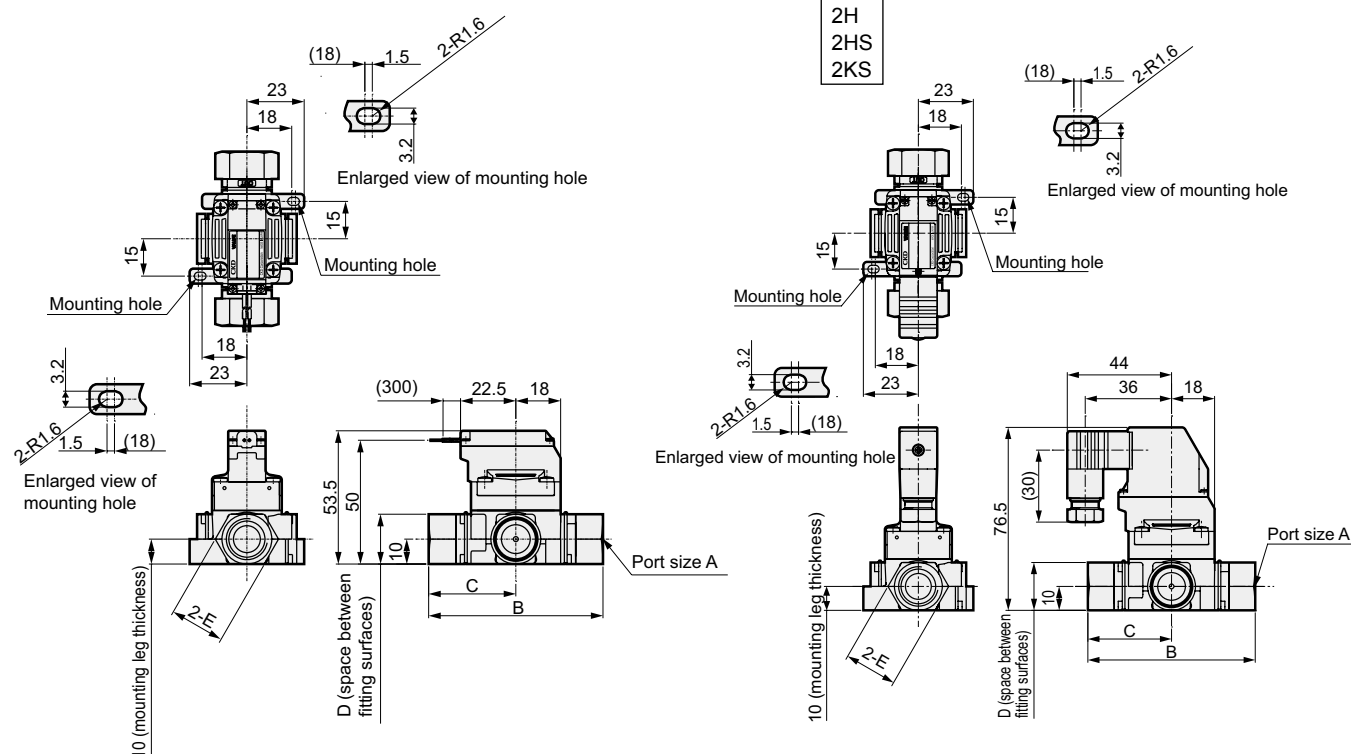
No.	Part name	Material	
1	Block body A	PBT	Polybutylene terephthalate
2	Plug assembly	A, NBR	Aluminum, nitrile rubber
3	Screw-in fitting assembly	A, NBR	Aluminum, nitrile rubber
4	Stopper ring	SUS	Stainless steel
5	EXA Actuator assembly	-	(Refer to the internal structure diagram on page 7)

Cannot be disassembled

Dimensions

- Lead wire
EXA-**-2C

- DIN terminal box
EXA-**-*2G



Model No.	A	B	C	D	E
EXA-02	Rc1/4	64	32	17	17
EXA-03	Rc3/8	70	35	20	22