

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
Outdoor
SpecFld
Custom
Ending



Internal pilot 3-port valve with solenoid valve

NP13/NP14 Series

- NC (open when energized), NO (closed when energized)
- Port size: Rc3/8 to Rc2

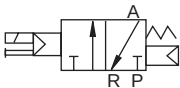


Refer to the Ending for details.

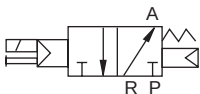


JIS symbol

- NC (open when energized)



- NO (closed when energized)



Common specifications

Item	NP13	NP14
Actuation	NC (normally closed)	NO (closed when energized)
Fluid pressure supply port	Port P	Port R
Working fluid	Compressed air	
Proof pressure MPa	1.2	
Working pressureMPa	0.2 to 0.8	
Fluid temperature °C	5 to 60	
Ambient temperature °C	10 A to 25 A: -5 to 60 and 32 A to 50 A: -5 to 40 for both NP13/NP14	
Thermal class	Class 130 (B)	
Lubrication	No lubrication (use turbine oil Class 1 ISO VG32 for lubrication)	
Valve seat leakagecm ³ /min	1 or less (at pneumatic pressure 0.2 to 0.8 MPa)	
Valve structure	Internal pilot balance poppet structure	
Mounting orientation	Unrestricted	

Individual specifications

Item Model No.	Port size		Orifice size (mm)	Response time (ms)	Rated voltage	Apparent power (VA)				Power consumption (W)		Weight (kg)
	P, A ports	R port				When holding		When starting		AC 50/60 Hz	DC	
						50 Hz	60 Hz	50 Hz	60 Hz			
NC (port P pressurization)												
NP13-10A	Rc3/8	Rc1/2	14.8 or equiv.	30 or less (*1)	100, 200 VAC (50/60 Hz)	3.6	2.8	11	9	1.9/1.5	4	0.7
NP13-15A	Rc1/2		25.4 or equiv.	60 or less (*1)								0.7
NP13-20A	Rc3/4	Rc 1	25.4 or equiv.	60 or less (*1)	110, 220 VAC (60Hz)	15	11	40	35	7.5/6.0	8	1.5
NP13-25A	Rc 1		41.4 or equiv.	120 or less (*1)								1.5
NP13-32A	Rc1 ¹ / ₄	Rc 2	41.4 or equiv.	120 or less (*1)	24 VDC	15	11	40	35	7.5/6.0	8	4.5
NP13-40A	Rc1 ¹ / ₂											4.5
NP13-50A	Rc 2											4.4
NO (port R pressurization)												
NP14-10A	Rc3/8	Rc1/2	14.8 or equiv.	30 or less (*1)	100, 200 VAC (50/60 Hz)	3.6	2.8	11	9	1.9/1.5	4	0.7
NP14-15A	Rc1/2		25.4 or equiv.	60 or less (*1)								0.7
NP14-20A	Rc3/4	Rc 1	25.4 or equiv.	60 or less (*1)	110, 220 VAC (60Hz)	15	11	40	35	7.5/6.0	8	1.5
NP14-25A	Rc 1		41.4 or equiv.	120 or less (Note1)								1.5
NP14-32A	Rc1 ¹ / ₄	Rc 2	41.4 or equiv.	120 or less (Note1)	24 VDC	15	11	40	35	7.5/6.0	8	4.5
NP14-40A	Rc1 ¹ / ₂											4.5
NP14-50A	Rc 2											4.4

*1: The response times are values with supply pressure of 0.5MPa, without lubrication, and with the power ON. They depend on the pressure and the lubricant quality.

*2: Use the product within ±10% of the rated voltage.

Flow characteristics

Model No.	P→A				A→R			
	C[dm ³ /(s·bar)]	b	Cv	S(mm ²)	C[dm ³ /(s·bar)]	b	Cv	S(mm ²)
NC (open when energized) (port P pressurization)								
NP13-10A	15	0.31	3.4	-	16	0.28	3.4	-
NP13-15A	18	0.29	3.6	-	17	0.26	3.6	-
NP13-20A	35	0.27	8.4	-	41	0.21	8.6	-
NP13-25A	-	-	8.6	200	-	-	9.0	210
NP13-32A	-	-	25.8	600	-	-	26.2	610
NP13-40A	-	-	27.0	630	-	-	26.6	620
NP13-50A	-	-	28.2	660	-	-	27.0	630
Model No.	R→A				A→P			
	C[dm ³ /(s·bar)]	b	Cv	S(mm ²)	C[dm ³ /(s·bar)]	b	Cv	S(mm ²)
NO (closed when energized) (port R pressurization)								
NP14-10A	15	0.31	3.4	-	15	0.33	3.4	-
NP14-15A	17	0.30	3.6	-	18	0.31	3.6	-
NP14-20A	41	0.21	8.6	-	35	0.27	8.4	-
NP14-25A	-	-	9.0	210	-	-	8.6	200
NP14-32A	-	-	26.2	610	-	-	25.8	600
NP14-40A	-	-	26.6	620	-	-	27.0	630
NP14-50A	-	-	27.0	630	-	-	28.2	660

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

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
Outdoor
SpecFld
Custom
Ending

NP13/NP14 Series

How to order

NP1 3 - 15A - 1 2G S - 1

Model No.

A Actuation

B Port size

C Body/sealant combination

D Coil housing

*1

E Other Option

*2

F Rated voltage

⚠ Precautions for model No. selection

*1 : Pg thread of the DIN terminal box is Pg9 for port size 10A to 25A, and Pg11 for 32A to 50A.

*2 : When selecting the grommet coil, the optional surge suppressor is attached (port size 10A to 25A) or incorporated (port size 32A to 50A). When selecting the coil with a terminal box, it is mounted in the terminal box.

*3 : Manual override (non-locking) is provided as standard.

[Example of model No.]

NP13-15A-12GS-1

Model:NP

A Actuation : NC (normally closed)

B Port size : Rc 1/2

C Body/sealant combination : Body/aluminum, sealant/nitrile rubber

D Coil housing : With DIN terminal box

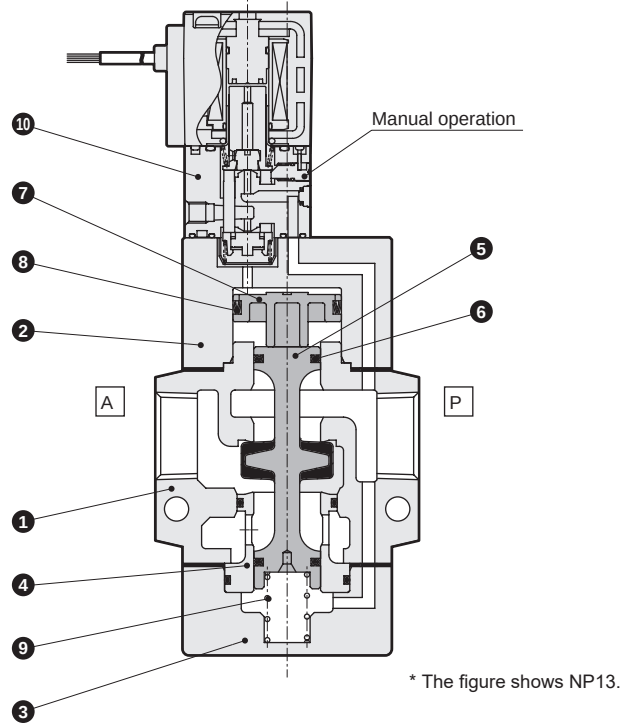
E Other options : With surge suppressor

F Voltage : 100 VAC (50/60 Hz), 110 VAC (60 Hz)

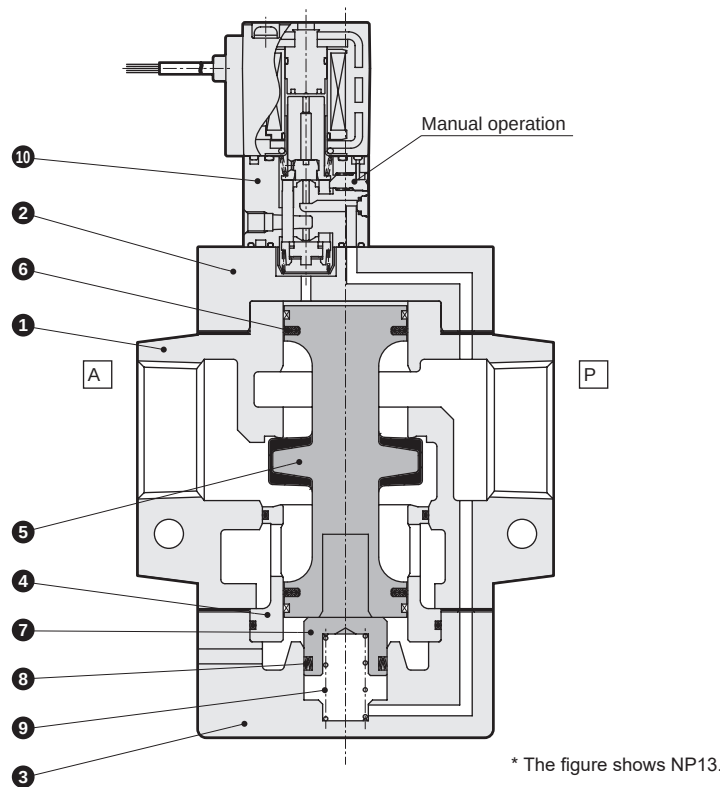
Code	Description	
A Actuation		
3	NC (normally closed)	
4	NO (closed when energized)	
B Port size		
10A	Rc 3/8	
15A	Rc 1/2	
20A	Rc 3/4	
25A	Rc 1	
32A	Rc 1 1/4	
40A	Rc 1 1/2	
50A	Rc 2	
C Body/sealant combination		
	Body	Seal
1	Aluminum	Nitrile rubber
D Coil housing		
2C	Std.	Grommet coil
2G	Option	DIN terminal box (Pg thread)
2H		DIN terminal box with lamp (Pg thread)
3T		With T type terminal box (G1/2)
3R		T type terminal box with lamp (G1/2)
E Other options		
Blank	No option	
S	With surge suppressor	
F Rated voltage		
1	Standard	100 VAC(50/60Hz), 110 VAC(60Hz)
2		200 VAC(50/60Hz), 220 VAC(60Hz)
3		24 VDC
AC110V	Custom	110 VAC(50/60Hz)
AC220V		220 VAC(50/60Hz)

Internal structure and parts list

● NP¹³₁₄-10A/15A



● NP¹³₁₄-20A to 50A



Part No.	Part name	Material
1	Body	AC4C Aluminum casting
2	Stuffing	AC4C Aluminum casting
3	Cap	AC4C Aluminum casting
4	Valve seat	C3604 Brass
5	Valve stem	NBR, A2017 Nitrile rubber, Aluminum

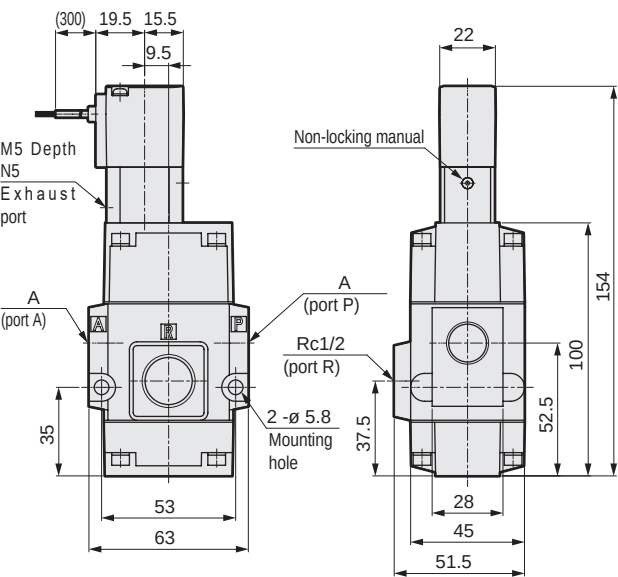
Part No.	Part name	Material	Weight
6	Packing	NBR	Nitrile rubber
7	Piston	POM	Acetal resin
8	MY packing	NBR	Nitrile rubber
9	Spring	SUS304	Stainless steel
10	Pilot solenoid valve	-	-

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
Outdoor
SpecFld
Custom
Ending

NP13/NP14 Series

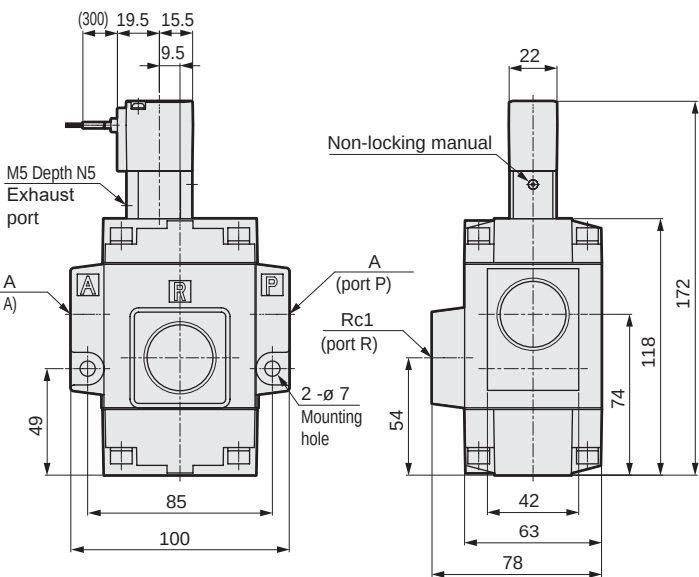
Dimensions

● Grommet coil
NP¹³₁₄-10A/15A-12C



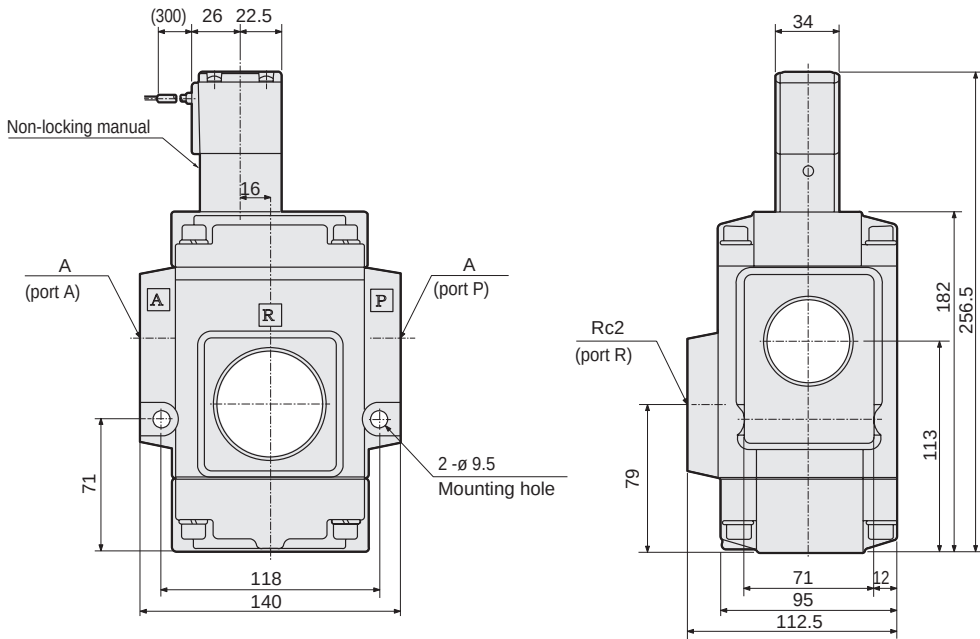
Model No.	A
NP1*-10A-1**	Rc3/8
NP1*-15A-1**	Rc1/2

● Grommet coil
NP¹³₁₄-20A/25A-12C



Model No.	A
NP1*-20A-1**	Rc3/4
NP1*-25A-1**	Rc 1

● Grommet coil
NP¹³₁₄-32A/40A/50A-12C



Model No.	A
NP1*-32A-1**	Rc1 1/4
NP1*-40A-1**	Rc1 1/2
NP1*-50A-1**	Rc 2

NP13/NP14 Series

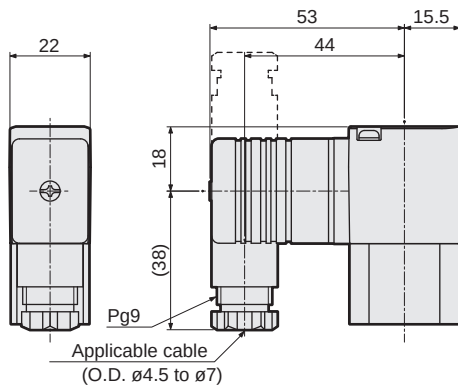
Solenoid valve (NC/NO)

Optional dimensions



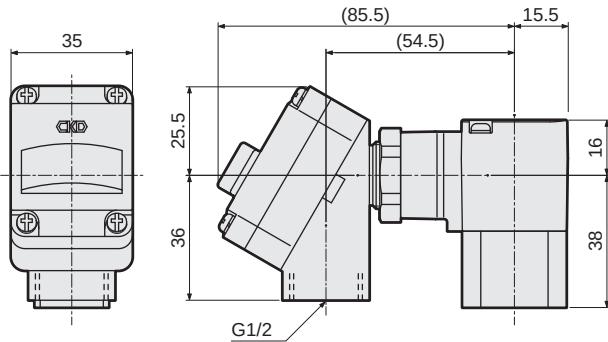
● With DIN terminal box (Pg9)

NP¹³₁₄-10A/15A/20A/25A-1 **2G**
2H



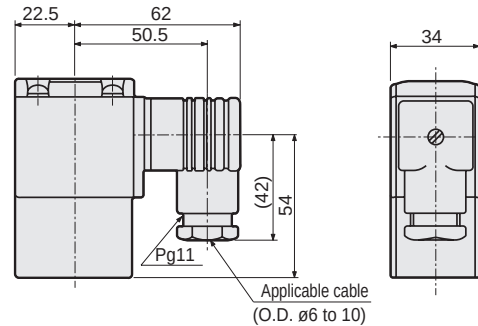
● With T type terminal box (G1/2)

NP¹³₁₄-10A/15A/20A/25A-1 **3T**
3R



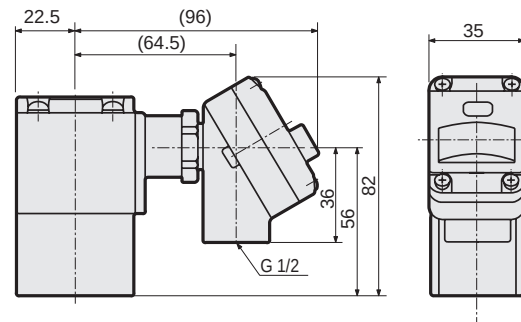
● With DIN terminal box (Pg11)

NP¹³₁₄-32A/40A/50A-1 **2G**
2H



● With T type terminal box (G1/2)

NP¹³₁₄-32A/40A/50A-1 **3T**
3R

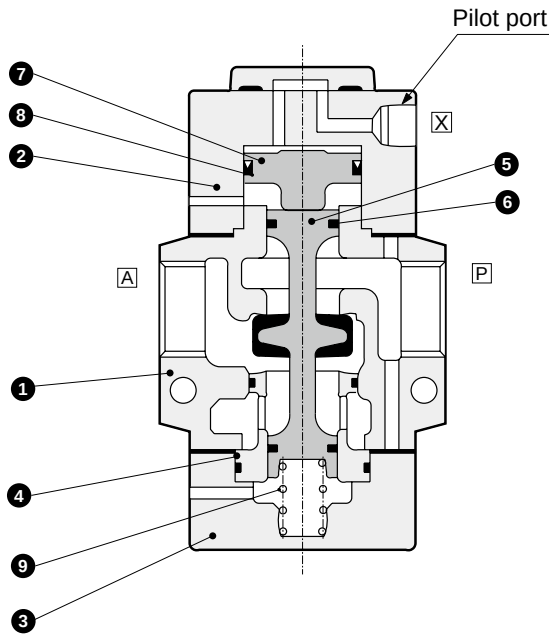


EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/ AD
APK/ ADK
DryAir
EX- XPLNprf
XPLNprf
HVB/ HVL
S◇B/ NAB
LAD/ NAD
Water- Rela
NP/NAP/ NVP
SNP
CHB/G
MXB/G
Other valves
SWD/ MWD
DustColl
CVE/ CVSE
CCH/ CPE/D
LifeSci
Gas- Combus
Auto- Water
Outdoor
SpecFld
Custom
Ending

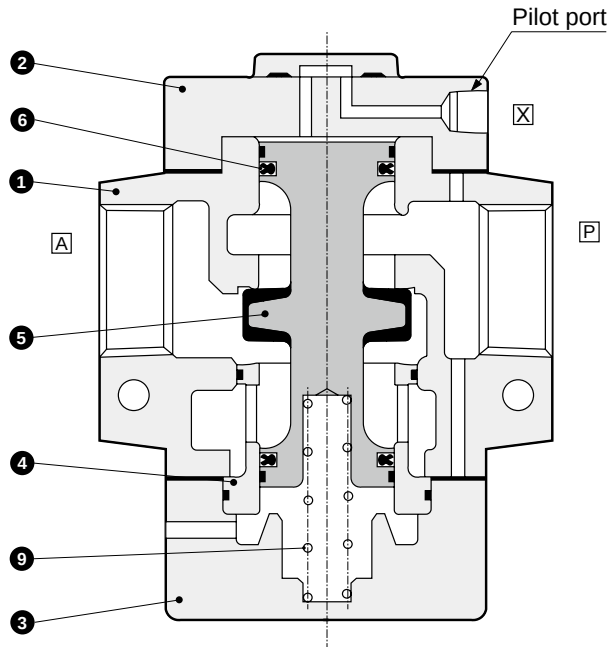
EXA
FWD
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USB/G
FAB/G
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FVB
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Other valves
SWD/ MWD
DustColl
CVE/ CVSE
CCH/ CPE/D
LifeSci
Gas- Combus
Auto- Water
Outdoor
SpecFld
Custom
Ending

Internal structure and parts list

● NAP11-10A/15A



● NAP11-20A/25A/32A/40A/50A



No.	Part name	Material	No.	Part name	Material
1	Body	AC4C Aluminum casting	6	Packing	NBR Nitrile rubber
2	Stuffing	AC4C Aluminum casting	7	Piston	POM Acetal resin
3	Cap	AC4C Aluminum casting	8	MY packing	NBR Nitrile rubber
4	Valve seat	C3604 Copper alloy	9	Spring	SWP Piano wire
5	Valve stem	NBR, A2017 Nitrile rubber, aluminum			

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-
Combust
Auto-
Water
Outdoor
SpecFld
Custom
Ending



Air operated 3-port valve with solenoid valve

NVP11 Series

- Universal
- Port size: Rc3/8 to Rc2

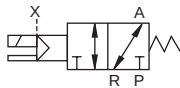


Refer to the Ending for details.



JIS symbol

- Universal



Common specifications

Item	NVP11
Actuation	Universal
Working fluid	Compressed air, low vacuum
Proof pressure MPa	1.2
Working pressure MPa	0 to 0.8 (when using with vacuum, 1.3×10^{-2} to 8×10^{-5} Pa(abs))
Fluid temperature °C	5 to 60
Ambient temperature °C	10 A to 25 A: -5 to 60 and 32 A to 50 A: -5 to 40
Thermal class	Class 130 (B)
Lubrication	No lubrication (use turbine oil Class 1 ISO VG32 for lubrication)
Valve seat leakage cm ³ /min	1 or less (at pneumatic pressure 0.02 to 0.8 MPa)
Valve structure	External pilot balance poppet structure
Mounting orientation	Unrestricted
Pilot fluid	Air
Pilot pressure MPa	0.35 to 0.7
Pilot port size (port X)	Rc1/8

Individual specifications

Item	Port size		Orifice size (mm)	Response time (ms)	Rated voltage	Apparent power (VA)				Power consumption (W)		Weight (kg)
Model No.	P, A ports	R port				When holding		When starting		AC 50/60 Hz	DC	
						50 Hz	60 Hz	50 Hz	60 Hz			
NVP11-10A	Rc3/8	Rc1/2	14.8 or equiv.	30 or less (*1)	100, 200 VAC (50/60 Hz)	3.6	2.8	11	9	1.9/1.5	4	0.7
NVP11-15A	Rc1/2											0.7
NVP11-20A	Rc3/4	Rc 1	25.4 or equiv.	60 or less (*1)	110, 220 VAC (60Hz)	15	11	40	35	7.5/6.0	8	1.5
NVP11-25A	Rc 1											1.5
NVP11-32A	Rc1 1/4	Rc 2	41.4 or equiv.	120 or less(*1)	24 VDC	15	11	40	35	7.5/6.0	8	4.5
NVP11-40A	Rc1 1/2											4.5
NVP11-50A	Rc 2											4.4

*1: The response times are values with supply pressure of 0.5MPa, without lubrication, and with the power ON. They depend on the pressure and the lubricant quality.

*2: Use the product within ±10% of the rated voltage.

Flow Rate Characteristics

Model No.	P→A				A→R			
	C[dm ³ /(s·bar)]	b	Cv	S(mm ²)	C[dm ³ /(s·bar)]	b	Cv	S(mm ²)
NVP11-10A	15	0.31	3.4	-	16	0.28	3.4	-
NVP11-15A	18	0.29	3.6	-	17	0.26	3.6	-
NVP11-20A	35	0.27	8.4	-	41	0.21	8.6	-
NVP11-25A	-	-	8.6	200	-	-	9.0	210
NVP11-32A	-	-	25.8	600	-	-	26.2	610
NVP11-40A	-	-	27.0	630	-	-	26.6	620
NVP11-50A	-	-	28.2	660	-	-	27.0	630

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

How to order

NVP11-15A-12GS-1

Model No.

A Actuation

B Port size

C Body/sealant combination

D Coil housing

*1

E Other options

*2

F Rated voltage

Code	Description	
A Actuation		
1	Universal	
B Port size		
10A	Rc 3/8	
15A	Rc 1/2	
20A	Rc 3/4	
25A	Rc 1	
32A	Rc 1 1/4	
40A	Rc 1 1/2	
50A	Rc 2	
C Body/sealant combination		
	Body	Seal
1	Aluminum	Nitrile rubber
D Coil housing		
2C	Std.	Grommet coil
2G	Option	DIN terminal box (Pg thread)
2H		DIN terminal box with lamp (Pg thread)
3T		With T type terminal box (G1/2)
3R		T type terminal box with lamp (G1/2)
E Other options		
Blank	No option	
S	With surge suppressor	
F Rated voltage		
1	Standard	100 VAC 50/60 Hz, 110 VAC 60 Hz
2		200 VAC 50/60 Hz, 220 VAC 60 Hz
3		24 VDC
AC110V	Custom	110 VAC 50/60 Hz
AC220V		220 VAC 50/60 Hz

⚠ Precautions for model No. selection

*1: DIN terminal box Pg thread is Pg9 for port size 10A to 25A and Pg11 for 32A to 50A.

*2: When selecting the grommet coil, the optional surge suppressor is attached (port size 10A to 25A) or incorporated (port size 32A to 50A). When the coil is with terminal box, it is mounted in the terminal box.

*3: Manual override (non-locking) is provided as standard.

[Example of model No.]

NVP11-15A-12GS-1

Model: NVP

- A** Actuation : Universal
- B** Port size : Rc1/2
- C** Body/sealant combination : Body/aluminum, sealant/nitrile rubber
- D** Coil housing : With DIN terminal box
- E** Other options : With surge suppressor
- F** Voltage : AC100V50/60Hz, AC110V60Hz

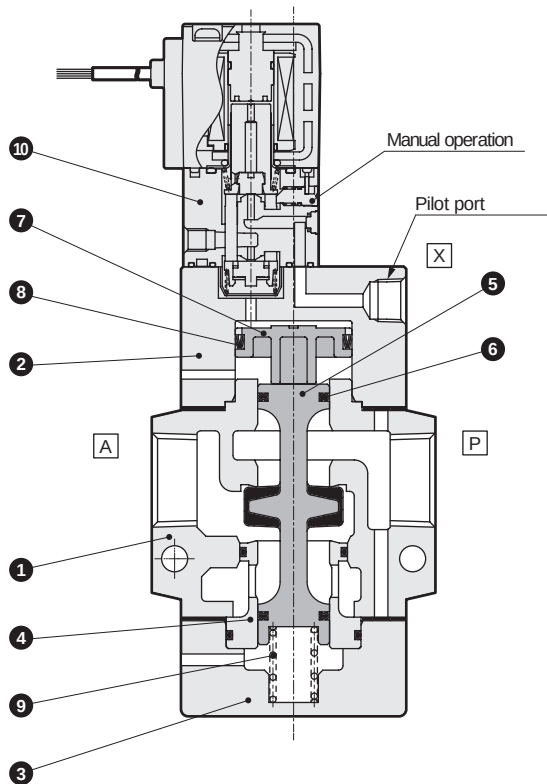
EXA
FWD
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USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
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AP/
AD
APK/
ADK
DryAir
EX-
XPLNprf
XPLNprf
HVB/
HVL
S[◇]B/
NAB
LAD/
NAD
Water-
Rela
NP/NAP/
NVP
SNP
CHB/G
MXB/G
Other
valves
SWD/
MWD
DustCoil
CVE/
CVSE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

NVP11 Series

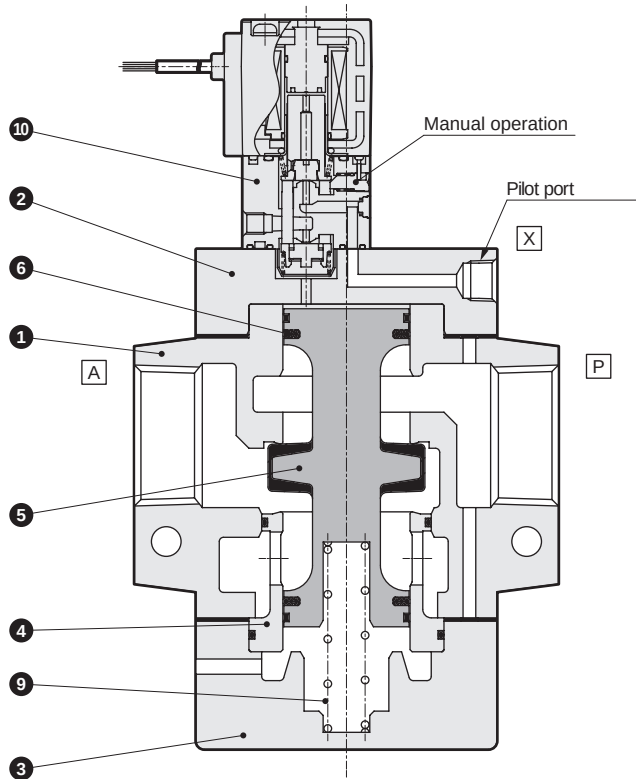
EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
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APK/ ADK
DryAir
EX- XPLNprf
XPLNprf
HVB/ HVL
S◇B/ NAB
LAD/ NAD
Water- Rela
NP/NAP/ NVP
SNP
CHB/G
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Other valves
SWD/ MWD
DustColl
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CCH/ CPE/D
LifeSci
Gas- Combus
Auto- Water
Outdoor
SpecFld
Custom
Ending

Internal structure and parts list

● NVP11-10A/15A



● NVP11-20A/25A/32A/40A/50A

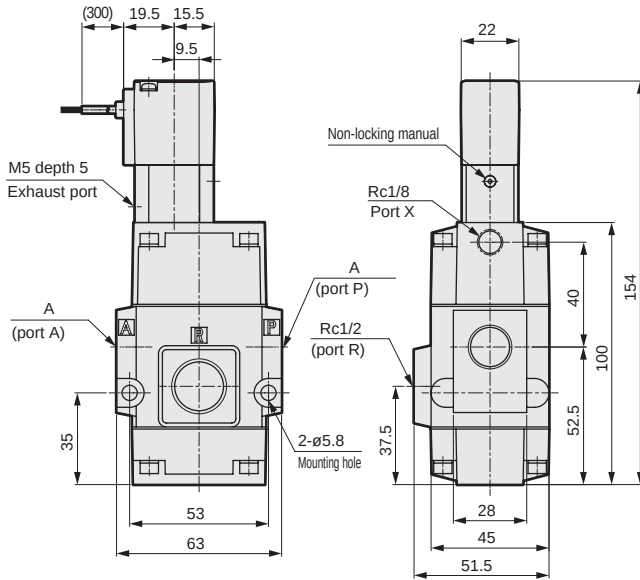


Part No.	Part name	Material	Part No.	Part name	MaterialWeight
1	Body	AC4C Aluminum casting	6	Packing	NBR Nitrile rubber
2	Stuffing	AC4C Aluminum casting	7	Piston	POM Acetal resin
3	Cap	AC4C Aluminum casting	8	MY packing	NBR Nitrile rubber
4	Valve seat	C3604 Brass	9	Spring	SWP Piano wire
5	Valve stem	NBR, A2017 Nitrile rubber, Aluminum	10	Pilot solenoid valve	- -

Dimensions

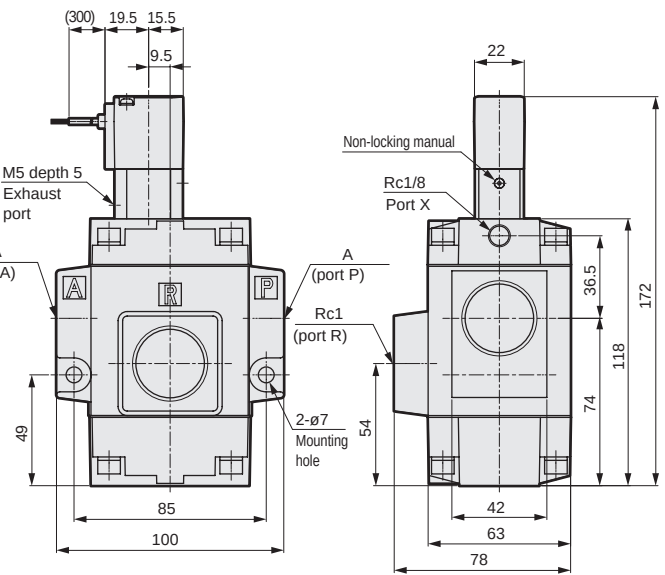


● Grommet coil NVP11-10A/15A-12C



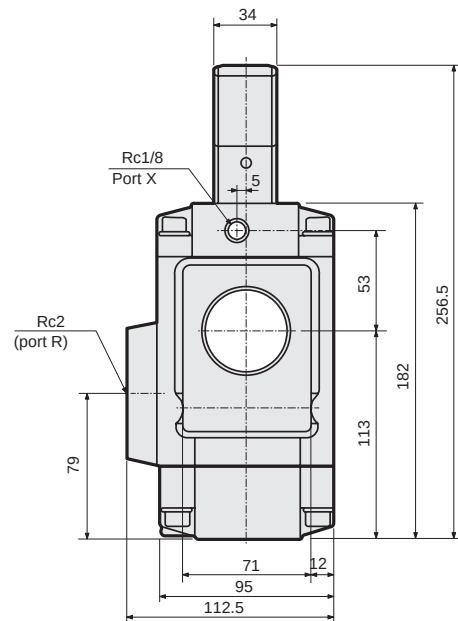
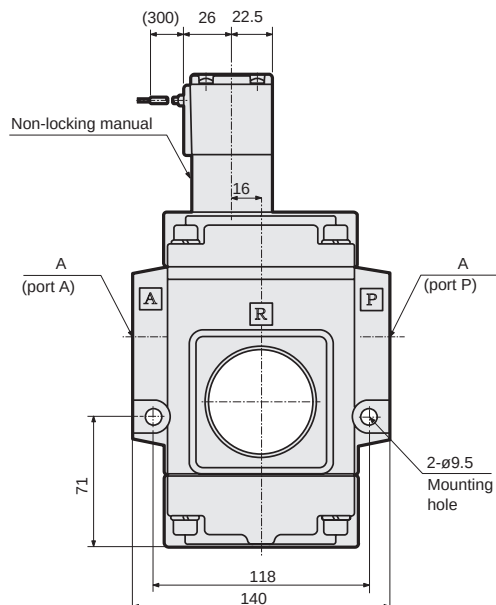
Model No.	A
NVP11-10A-1**	Rc3/8
NVP11-15A-1**	Rc1/2

● Grommet coil NVP11-20A/25A-12C



Model No.	A
NVP11-20A-1**	Rc3/4
NVP11-25A-1**	Rc1

● Grommet coil NVP11-32A/40A/50A



Model No.	A
NVP11-32A-1**	Rc1 1/4
NVP11-40A-1**	Rc1 1/2
NVP11-50A-1**	Rc 2

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
Outdoor
SpecFld
Custom
Ending

NVP11 Series

Solenoid valve (universal)

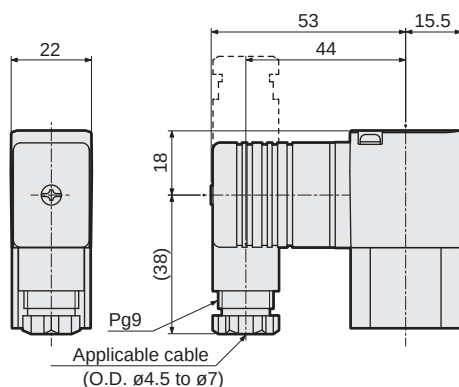
EXA
FWD
HNB/G
USB/G
FAB/G
FGB/G
FVB
FWB/G
FHB
FLB
AB
AG
AP/ AD
APK/ ADK
DryAir
EX- XPLNprf
XPLNprf
HVB/ HVL
S $\diamond$ B/ NAB
LAD/ NAD
Water- Rela
NPN/AN/ NVP
SNP
CHB/G
MXB/G
Other valves
SWD/ MWD
DustColl
CVE/ CVSE
CCH/ CPE/D
LifeSci
Gas- Combus
Auto- Water
Outdoor
SpecFld
Custom
Ending

Optional dimensions



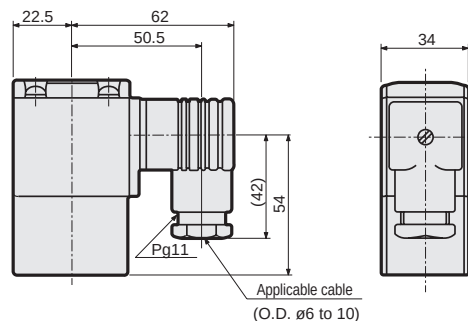
- With DIN terminal box (Pg9)

NVP11-10A/15A/20A/25A-1 **2G**
2H



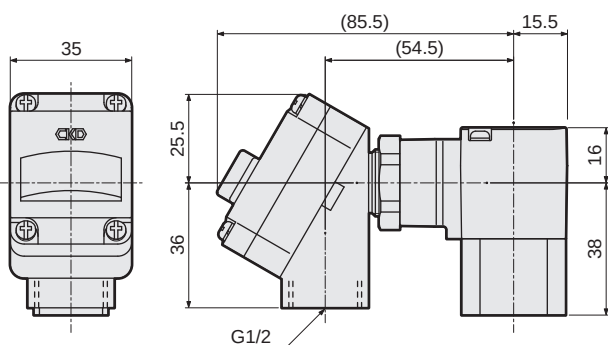
- With DIN terminal box (Pg11)

NVP11-32A/40A/50A-1 **2G**
2H



- With T type terminal box (G1/2)

NVP11-10A/15A/20A/25A-1 **3T**
3R



- With T type terminal box (G1/2)

NVP11-32A/40A/50A-1 **3T**
3R

