



General Purpose Valves
Catalog No. CB-03-1SA

Air operated 3-port valve

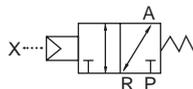
NAP11-FP1 Series

- Universal
- Port size: Rc3/8 to Rc2



JIS symbol

- Universal



Common specifications

Item	NAP11
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	-5 to 60
Lubrication	No 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 Model No.	Port size		Orifice size (mm)	Response time (ms)	Weight (kg)
	P, A Port	Port R			
NAP11-10A	Rc3/8	Rc1/2	14.8 or equiv.	30 or less (*1)	0.6
NAP11-15A	Rc1/2				
NAP11-20A	Rc3/4	Rc 1	25.4 or equiv.	60 or less (*1)	1.4
NAP11-25A	Rc 1				
NAP11-32A	Rc1 1/4	Rc 2	41.4 or equiv.	120 or less (*1)	4.2
NAP11-40A	Rc1 1/2				
NAP11-50A	Rc 2				

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

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)
NAP11-10A	15	0.31	3.4	-	16	0.28	3.4	-
NAP11-15A	18	0.29	3.6	-	17	0.26	3.6	-
NAP11-20A	35	0.27	8.4	-	41	0.21	8.6	-
NAP11-25A	-	-	8.6	200	-	-	9.0	210
NAP11-32A	-	-	25.8	600	-	-	26.2	610
NAP11-40A	-	-	27.0	630	-	-	26.6	620
NAP11-50A	-	-	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

NAP11-15A-1-FP1

Model No.

A Actuation

B Port size

C Body/sealant combination

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

[Model No. example]

NAP11-15A-1-FP1

Model: NAP

- A** Actuation : Universal
- B** Port size : Rc1/2
- C** Body/sealant combination : Body/aluminum, sealant/nitrile rubber

Electric actuator	Pneumatic cylinders	Assistive device	Pneumatic valves	FRL/Auxiliary Components	Vacuum components	Main line components	Fluid control valves	Main line components	Anti-bacterial/bacteria-removing filter	Vacuum components	Fluid control valves
				Electronic Component							

For dimensions, refer to the NAP11 Series in "General Purpose Valves (CB-03-1SA)".