

80400 series, 3/2 Pilot actuated poppet valve

- Port size: 1/2 ... 1 1/2 (ISO G or NPT)
- Main application;
Booster for large single acting actuators
- TÜV-approval based on type examination DIN EN 161, DIN 3394 and IEC 61 508, multichannel up to SIL 3
- Wide temperature range
-60°C ... +80°C
- Suitable for installation in extreme low temperature, outdoor and off shore applications
- High flow rates
- NAMUR pilot valve mounting interface
- Atex approval:
II 2G Ex h IIC T6 ... T5 Gb
II 2D Ex h IIC T55°C ... T95°C



Technical features

Medium:

Filtered, non-lubricated compressed air, instrument air, nitrogen or other nonflammable, neutral dry fluids

Operating pressure:

0 ... 10 bar (0 ... 145 psi)

Pilot pressure:

2 ... 10 bar (≥ operating pressure)
(29 ... 145 psi)

Orifice

15 ... 40 mm

Port size:

1/2 ... 1 1/2 NPT or
G1/2 ... G1 1/2
Pilot size 1/4 NPT or G1/4
Interface according to
VDI/VDE 3845, NAMUR valve
flange

Fluid/Ambient temperature:

-60 ... 80°C (-76 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C. (35°F)
For outdoor installation please protect all connections against the penetration of moisture!
Please contact Norgren for operational conditions below -55°C. (-67°F)

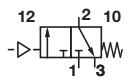
Material:

Housing, flange and inner parts: stainless steel 1.4404 (316 L) *
Dynamic seals: PUR
Static seals: PUR and NBR
* Cracking-resistant for use in H2S-contaminated environments (DIN EN ISO 15156-3:2005).

Flow conversion:

Cv US Gallon/min (water) =
l/min (air) x 0,001
Kv m³/h (water) =
l/min (air) x 0,000906

Technical data

Symbol	Port size 1 & 2		Orifice (mm)	Flow *1)		Flow *2)		Operating pressure (bar) (psi)		Pilot pressure (bar) (psi)		Weight (kg)	Model
	1	2		1 » 2 (l/min)	2 » 3 (l/min)	1 » 2 (l/min)	2 » 3 (l/min)						
	1/2 NPT	3/4 NPT	15	6700	7600	17200	19800	0 ... 10	0 ... 145	2 ... 10	29 ... 145	3,5	8040005
	3/4 NPT	1 NPT	20	11500	14000	29000	35000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	6,6	8040015
	1 NPT	1 1/4 NPT	25	13900	14700	32300	39600	0 ... 10	0 ... 145	2 ... 10	29 ... 145	6,6	8040025
	1 1/2 NPT	1 1/2 NPT	30	24700	30500	56800	72600	0 ... 10	0 ... 145	2 ... 10	29 ... 145	13,7	8040035
	G1/2	G3/4	15	6700	7600	17200	19800	0 ... 10	0 ... 145	2 ... 10	29 ... 145	3,5	8040055
	G3/4	G1	20	11500	14000	29000	35000	0 ... 10	0 ... 145	2 ... 10	29 ... 145	6,6	8040065
	G1	G1 1/4	25	13900	14700	32300	39600	0 ... 10	0 ... 145	2 ... 10	29 ... 145	6,6	8040075
	G1 1/2	G1 1/2	30	24700	30500	56800	72600	0 ... 10	0 ... 145	2 ... 10	29 ... 145	13,7	8040085

Flow conducted according to ISO 6358

In order to ensure full flow and proper function make sure that sufficient pressure supply with feed pipe diameters according to the port size is available.

*1) Inlet pressure 6 bar (87 psi), outlet pressure 5 bar (72 psi)

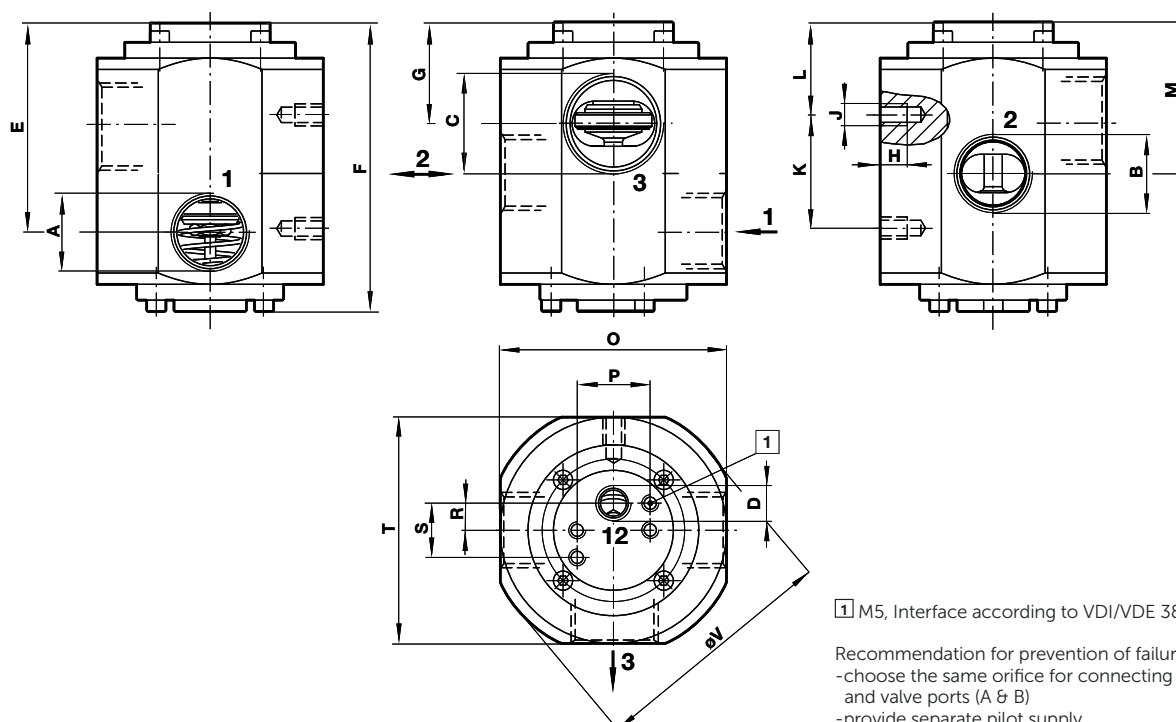
*2) Inlet pressure 10 bar (145 psi), outlet pressure 0 bar (0 psi)

Option selector

Function		Substitute		804★0★5		Ports 1 & 2		Substitute	
3/2 way valve, pneumatic actuated		0				3			
3/2 way valve, solenoid actuated		On request				1/2 NPT		3/4 NPT	
						3/4 NPT		1 NPT	
						1 NPT		1 1/4 NPT	
						1 1/2 NPT		1 1/2 NPT	
						G1/2		G3/4	
						G3/4		G1	
						G1		G1 1/4	
						G1 1/2		G1 1/2	

Drawing

Dimensions in mm
Projection/First angle



A	B	C	D	E	F	G	H	J	K	L	M	O	P	R	S	T	V	Model
1/2 NPT	1/2 NPT	3/4 NPT	1/4 NPT	78,5	110,5	41,5	12	M8	42	36	60,2	80	32	12	24	80	85	8040005
3/4 NPT	3/4 NPT	1 NPT	1/4 NPT	93	128,5	45,5	12	M8	50	41	67	100	32	12	24	100	110	8040015
1 NPT	1 NPT	1 1/4 NPT	1/4 NPT	93	128,5	45,5	12	M8	50	41	67	100	32	12	24	100	110	8040025
1 1/2 NPT	1 1/2 NPT	1 1/2 NPT	1/4 NPT	122	168	53,5	18	M12	87	41	86	125	32	12	24	125	135	8040035
G1/2	G1/2	G3/4	G1/4	78,5	110,5	41,5	12	M8	42	36	60,2	84	32	12	24	84	90	8040055
G3/4	G3/4	G1	G1/4	93	128,5	45,5	12	M8	50	41	67	100	32	12	24	100	110	8040065
G1	G1	G1 1/4	G1/4	93	128,5	45,5	12	M8	50	41	67	102	32	12	24	105	115	8040075
G1 1/2	G1 1/2	G1 1/2	G1/4	122	168	53,5	18	M12	87	41	86	127	32	12	24	130	140	8040085

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.