

- > **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**



### 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 H<sub>2</sub>S-contaminated environments (DIN EN ISO 15156-3:2005).

#### Flow conversion:

Cv US Gallon/min (water) =  
 l/min (air) x 0,001  
 Kv m<sup>3</sup>/h (water) =  
 l/min (air) x 0,000906

### Technical data

| Symbol | Port size |           | Orifice (mm) | Flow *1)      |               | Flow *2)      |               | Operating pressure |           | Pilot pressure |            | Weight (kg) | Model   |
|--------|-----------|-----------|--------------|---------------|---------------|---------------|---------------|--------------------|-----------|----------------|------------|-------------|---------|
|        | 1 & 2     | 3         |              | 1 » 2 (l/min) | 2 » 3 (l/min) | 1 » 2 (l/min) | 2 » 3 (l/min) | (bar)              | (psi)     | (bar)          | (psi)      |             |         |
|        | 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)

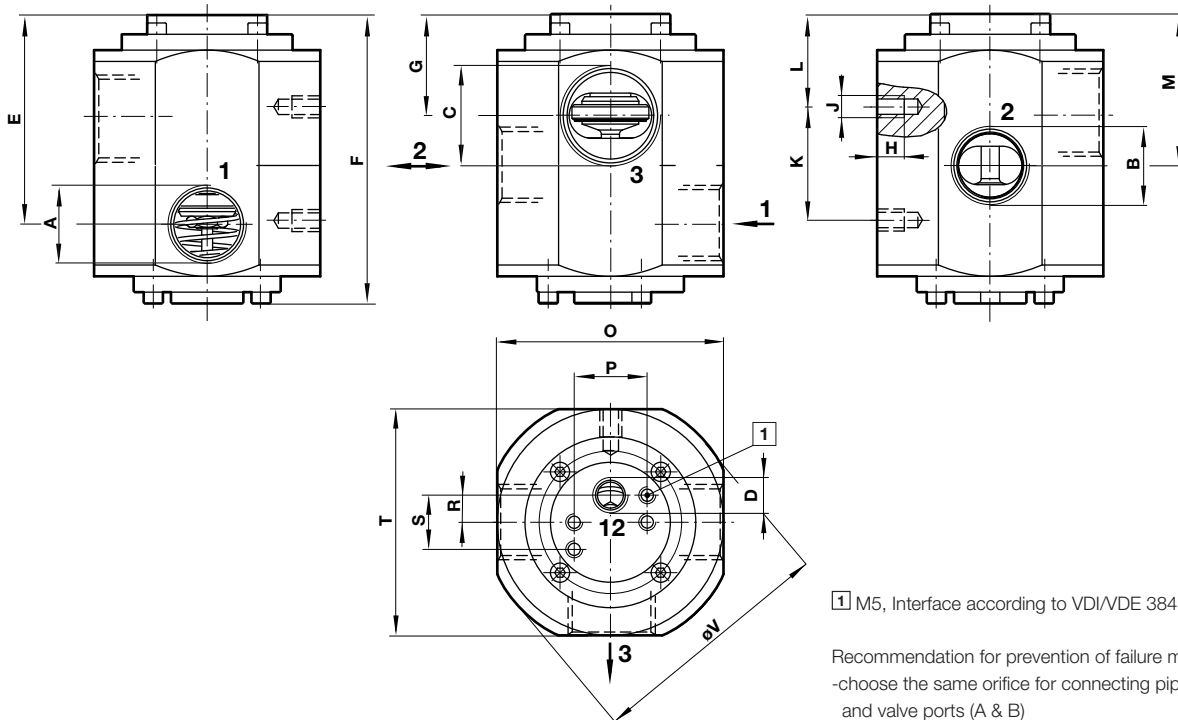
### Option selector

**804★0★5**

| Function                          | Substitute        | Ports 1 & 2 | 3         | Substitute |
|-----------------------------------|-------------------|-------------|-----------|------------|
| 3/2 way valve, pneumatic actuated | <b>0</b>          | 1/2 NPT     | 3/4 NPT   | <b>0</b>   |
| 3/2 way valve, solenoid actuated  | <b>On request</b> | 3/4 NPT     | 1 NPT     | <b>1</b>   |
|                                   |                   | 1 NPT       | 1 1/4 NPT | <b>2</b>   |
|                                   |                   | 1 1/2 NPT   | 1 1/2 NPT | <b>3</b>   |
|                                   |                   | G1/2        | G3/4      | <b>5</b>   |
|                                   |                   | G3/4        | G1        | <b>6</b>   |
|                                   |                   | G1          | G1 1/4    | <b>7</b>   |
|                                   |                   | G1 1/2      | G1 1/2    | <b>8</b>   |

Drawing

Dimensions in mm  
Projection/First angle



1 M5, Interface according to VDI/DE 3845, NAMUR

Recommendation for prevention of failure malfunction:  
-choose the same orifice for connecting pipe and valve ports (A & B)  
-provide separate pilot supply

| 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   | 105 | 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   | 130 | 32 | 12 | 24 | 130 | 140 | 8040085 |

Warning

These products are intended for use in industrial compressed air and fluid 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.

Functional safety (SIL): Suitable for certain applications can only be evaluated through examination of each safety-related overall system with regard to the requirements of IEC 61508/61511.