# Direct Operated Pressure Relief Valve **Series EVSA**

The direct operated pressure relief valve series EVSA is a seated type valve for screw-in mounting. It is available in two sizes and three pressure stages.

# Function

When the pressure in port P exceeds the setting pressure the cone opens to port T and thus limits the pressure in port P to the adjusted level.

The integrated damping spool prevents pressure fluctuations in the transition region. The pressure is set by the adjusting screw, which is locked by the clamping screw. The setting can optionally be secured by a cylinder lock.

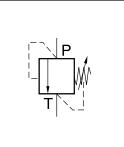
# Features

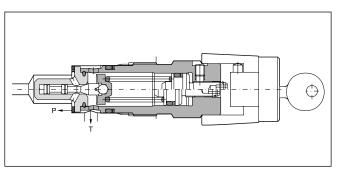
- · Seated type valve
- · Screw-in mounting
- · 3 pressure stages
- · 2 adjustment modes:
  - screw with hexagon socket
  - cylinder lock

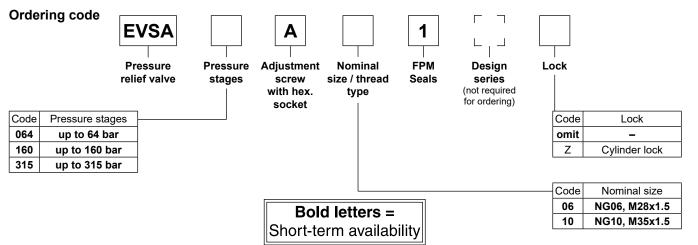
## Note

The spring must be unloaded when the EVSA is screwed out of the manifold.









## **Technical data**

| General                 |                              |   |      |  |  |  |  |
|-------------------------|------------------------------|---|------|--|--|--|--|
| Design                  |                              | Direct operated relief valve, seated type |      |  |  |  |  |
| Nominal size            |                              | NG06                                      | NG10 |  |  |  |  |
| Interface               |                              | Screw-in mounting                         |      |  |  |  |  |
| Mounting position       |                              | unrestricted                              |      |  |  |  |  |
| Ambient temperature     | [°C]                         | -20+60                                    |      |  |  |  |  |
| MTTF <sub>p</sub> value | [years]                      | 150                                       |      |  |  |  |  |
| Weight                  | [kg]                         | 0.3                                       | 0.45 |  |  |  |  |
| Hydraulics              |                              |   |      |  |  |  |  |
| Max. operating pressure | [bar]                        | Port P 315, Port T depressurized          |      |  |  |  |  |
| Pressure stages [bar]   |                              | 64, 160, 315                              |      |  |  |  |  |
| Nominal flow [l/min]    |                              | 40 (NG06), 80 (NG10)                      |      |  |  |  |  |
| Fluid                   |                              | Hydraulic oil according to DIN 51524      |      |  |  |  |  |
|                         |                              | -20+70                                    |      |  |  |  |  |
| Viscosity permitted     | [cSt] / [mm <sup>2</sup> /s] |   |      |  |  |  |  |
| recommended             | [cSt] / [mm <sup>2</sup> /s] | 3080                                      |      |  |  |  |  |
| Filtration              |                              | ISO 4406 (1999); 18/16/13                 |      |  |  |  |  |

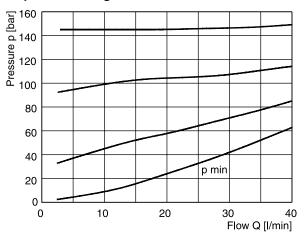
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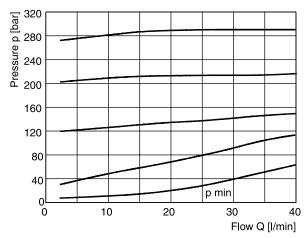
# $\Delta p/Q$ performance curves

#### NG06 pressure stage 64 bar Pressure p [bar] 70 60 50 40 30 20 p min 10 0 0 10 20 30 40 Flow Q [l/min]

NG06 pressure stage 160 bar

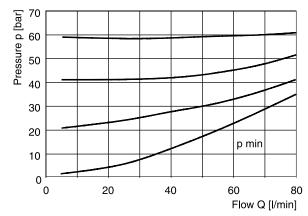


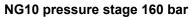
NG06 pressure stage 315 bar

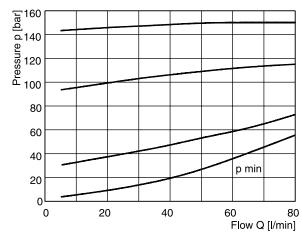


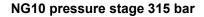
All characteristic curves measured with HLP46 at 50 °C.

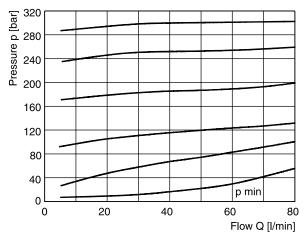
# NG10 pressure stage 64 bar









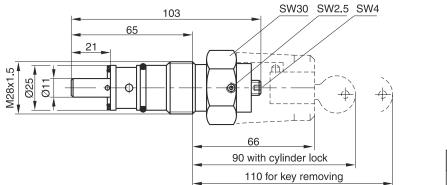


# 4

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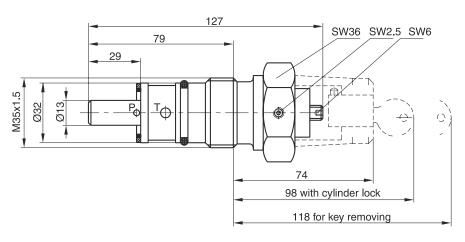
# NG06





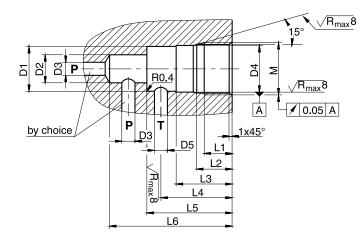
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# **NG10**





# Installation dimensions



| Tightening torque [Nm] ±5 % |      |      |  |  |  |  |  |  |
|-----------------------------|------|------|--|--|--|--|--|--|
| Pressure<br>stages          | NG06 | NG10 |  |  |  |  |  |  |
| 064, 160                    | 50   | 100  |  |  |  |  |  |  |
| 315                         | 80   | 150  |  |  |  |  |  |  |

| Size | М         | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> | D <sub>4</sub>    | D₅   | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | L <sub>6</sub> |
|------|-----------|----------------|----------------|----------------|-------------------|------|----------------|----------------|----------------|----------------|----------------|----------------|
| NG06 | M28 x 1.5 | Ø24.8          | Ø15            | Ø6.8           | Ø25 <sup>H9</sup> | Ø6.8 | 15             | 19             | 30             | 35             | 45             | 65             |
| NG10 | M35 x 1.5 | Ø31.8          | Ø18.5          | Ø10            | Ø32 <sup>H9</sup> | Ø10  | 18             | 23             | 35             | 41 - 46        | 52             | 80             |

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