

# Directional seated valves with various actuations

connection hole pattern NG 6 (DIN 24 340-A 6) or CETOP 3

Pressure  $p_{max}$  = 500 bar  
Flow  $Q_{max}$  = 12 lpm

Further valves with the same function: type NBVP acc. to D 7765N

## 1. General information

The solenoid actuated directional seated valves (only size 1), illustrated in pamphlet D 7300, are available with a connection hole pattern conforming NG 6 acc. to DIN 24 340-A 6 (or CETOP 3).  
For a detailed description regarding the basic functions as well as the actuations, see D 7300.

## 2. Available versions, main data

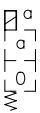
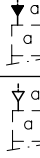
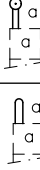
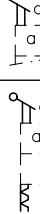
Order example:

**NG 3 -1 RS - N 24**

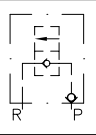
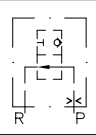
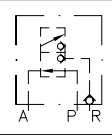
Coding, for industrial standard connection hole pattern (NG 6, CETOP 3)

For plugs incl. voltage specification, see table 1 "Solenoid actuation"

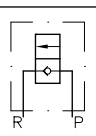
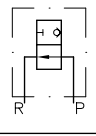


**Table 1:** Actuation mode

Codings, flow pattern symbols and main data <sup>1)</sup>			
<b>Solenoid actuation</b> 	Basic type	DC	AC
		<b>NG, exNG <sup>6)</sup></b>	<b>NWG</b>
	Nom. voltage <sup>2)</sup>	12V DC   24V DC	110V AC   230V AC 50/60 Hz <sup>3)</sup>
	Current $I_N$	0,83 A	0,1 A
	Power rating $P_N$	20 W (Type exNG.. = 23 W)	
	Switching time (guide line)	On: 100 ms Off: 50 ms	100 ms 125 ms
Plug versions:			
Coding <b>G</b>	G (24) A (24)	Standard Adapter; Plug <sup>5)</sup> is customer furnished	
	N (24) L (24)	Adapter with plug <sup>5)</sup> with integrated LED	
Coding <b>WG</b>	WG (230)	Adapter with plug <sup>5)</sup> with integrated bridge rectifier	
<b>Pressure actuation</b> 	Hydraulic	<b>NH</b>	Control pressure: $p_{contr\ min} = 12\ bar$ $p_{st\ max} = 700\ bar$
	Pneumatic	<b>NP</b>	Control pressure: $p_{st\ min} = 2.5\ bar$ $p_{st\ max} = 15\ bar$
<b>Mechanic actuation</b> 	Roller	<b>NK</b>	Actuation force: 25 ... 28 N
	Pin	<b>NT</b>	Actuation force: 51 ... 57 N
<b>Manual actuation</b> 	Lever	<b>NF</b>	Actuation force: 25 ... 28 N
	Turn knob	<b>ND</b>	Actuation moment: 63 Ncm

**Table 3:** Additional elements

Check valve insert type ER 11 acc. to D 7325	Orifice insert <sup>4)</sup> type EB 1-0,8 acc. to D 6465	Return pressure stop HAWE-No. 7332 000 b
<b>R</b>	<b>B</b>	<b>S</b>
		
Note: Combinations are possible, e.g. check valve with orifice (NG 3-1 <b>BS</b> ) or orifice with return pressure stop (NWGZ 3-1 <b>RS</b> )		
Nom. size 6 corresponds valve size 1 (Only this size is available !)		

**Table 2:** Flow pattern symbols

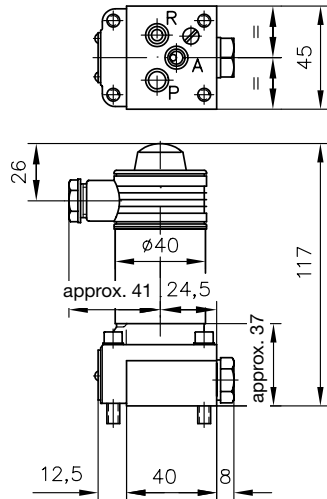
Coding and detailed flow pattern symbols (complete by actuation symbol)	2/2-directional valve	3/2-directional valve
<b>R 2</b>		<b>3</b>
<b>S 2</b>		<b>Z 3</b>
Simplified flow pattern symbols		

- For detailed data see D 7300
- Standard; For special voltages, see D 7300 sect. 4.1
- DC-solenoid (98V DC or 205V DC) with bridge rectifier in the plug
- Orifice  $\varnothing 0.8$  as standard; Also available ( $\varnothing 0.4 - 0.6 - 1.0$ ) specify when required, e.g. NG... -1 **B 0,4** - ...; NWG... -1 **B 0,6 S** - ... etc.
- Shape A DIN 43 650 (ISO 4400)
- Type ex NG.. - version with explosion-proof solenoid. **The notes stated in D 7300, B ATEX and B02/2003 are binding!**

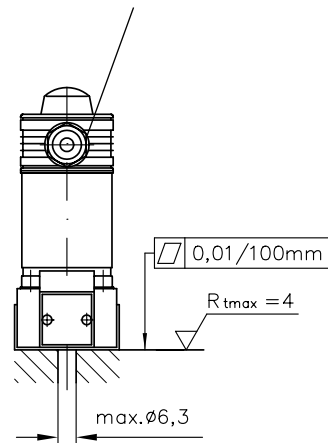
### 3. Unit dimensions

All dimensions in mm, subject to change without notice !

#### Solenoid actuation

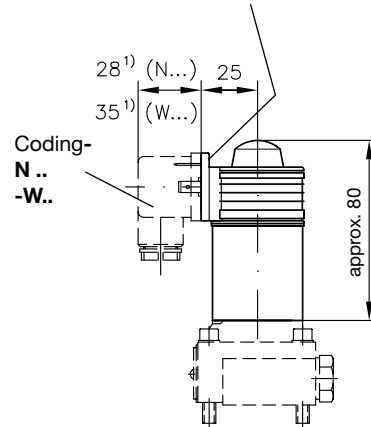


Standard plug incl. cable gland Pg 9



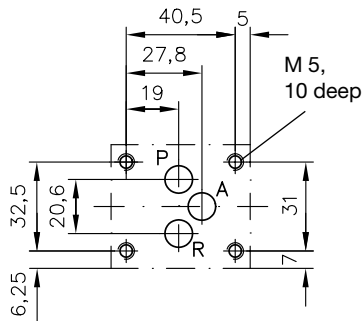
#### Special version plugs:

Coding -A .. (without DIN-plug)



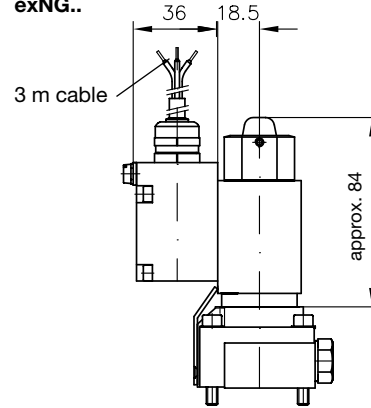
1) This dimension is depending on the manufacturer and can be up to 40 mm acc. to DIN 43650.

#### Hole pattern of the manifold

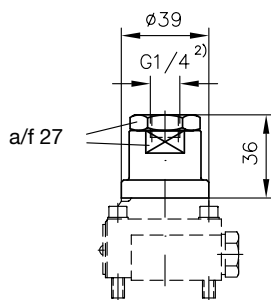


Sealing of ports A, P and R via O-rings 8x1.5 NBR 90 Sh

#### exNG..

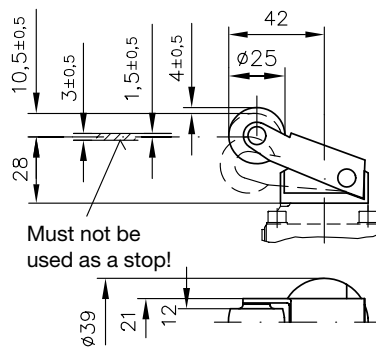


#### Hydraulic actuation

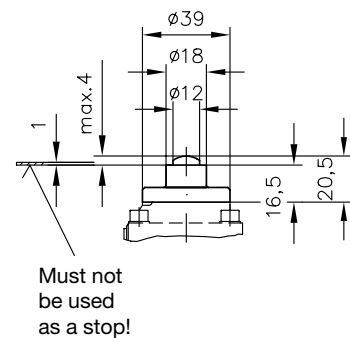


#### Mechanical actuation

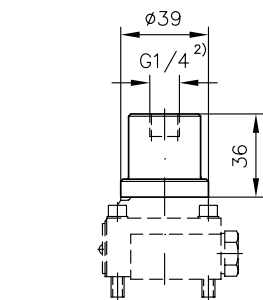
With roller



With pin

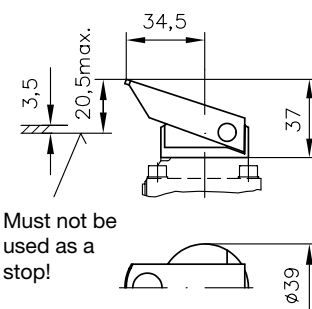


#### Pneumatic actuation

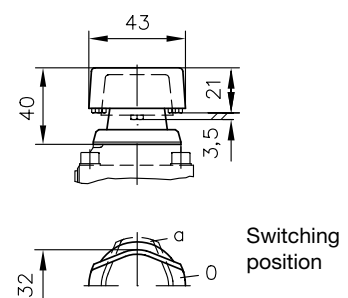


#### Manual actuation

With lever



With turn knob



2) DIN ISO 228/1 (BSPP)