2/2 Directional Control Valves DN 1 to 10

For neutral gaseous and liquid fluids
Solenoid direct and indirectly operated poppet valves
Connection: Internal thread G 1/8 to G 1/2
Operating pressure 0 to 300 or 1 to 200 bar

Catalog Register
A3

Publication 750**3141**.06.09.98

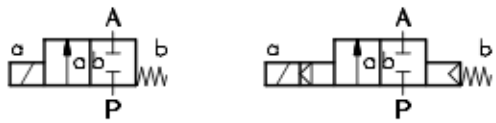
OBSOLETE DOCUMENT
Technical Reference Only

Description

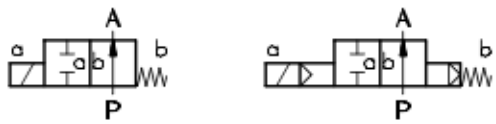
Solenoid valve for neutral gaseous and thin liquid fluids

Flow direction:	Fixed
Temperature min.:	–10 °C Lower temperatures on request
Temperature max.:	Liquid fluids +80 °C Liquid fluids +60 °C Higher temperatures on request
Mounting position:	Optional, preferably with solenoid on top
Material	
– Body:	See valve parameters
– Seat seal:	See valve parameters
– Inner parts:	Brass / 1.4104 1.4305 / 1.4104 1.4305 / 1.4522

With contaminated fluids, upstream installation of a dirt trap is recommended.



Switching function:
In rest position closed



Switching function:
In rest position open

Features

- High switchable Δ p at low electrical power consumption
- Hermetically tight poppet valves
- High sealing values for gaseous fluids
- Excellent repeatability of switching times
- Quick switching times

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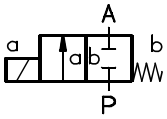
Valve parameters

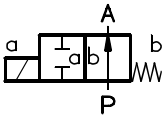
DN	Line connection	Operating pressure [bar] min.	max. Fluid gaseous	max. Fluid liquid up to 25 mm²/s	k_v value (Cv (US) ≈ k_v x 1.2)	Material Body	Material Seat seal	Weight [kg]	Sectional drawing No.	Dimensional drawing No.	Cat. No. Valve	Cat. No. Solenoid DC

Direct solenoid actuated



Switching function: In rest position closed

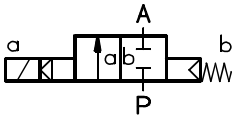
1.5	G 1/8	0	80	80	0.068	Brass	AU	0.55	01	01	**9106100.0701**	[2]
1.5	G 1/4	0	80	80	0.068	Brass	AU	0.55	01	01	**9106200.0701**	[2]
1	G 1/4	0	200	200	0.035	1.4305	POM	0.6	01	03	**9106250.0801**	[1]
1.2	G 1/4	0	300	300	0.035	1.4305	PI	1.2	02	04	**9922202.1001**	[1]
1.8	G 1/4	0	175	175	0.07	1.4305	PI	1.2	02	04	**9922203.1001**	[1]



Switching function: In rest position open

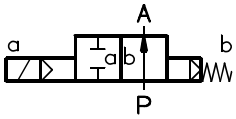
1.0	G 1/8	0	80	–	0.035	Brass	AU	0.55	05	02	**9106112.0701**	[2]
1.0	G 1/4	0	80	–	0.035	Brass	AU	0.55	05	02	**9106212.0701**	[2]

Solenoid pilot operated



Switching function: In rest position closed

6	G 1/4	1	–	80	0.57	Brass	POM	0.6	04	05	**9107200.0701**	
6	G 1/4	1	80	–	0.57	Brass	POM	0.6	04	05	**9107400.0701**	
7	G 1/4	2	250	–	0.80	1.4305	PI	1.3	03	04	**9922205.1001**	[1]
7	G 1/4	2	–	250	0.80	1.4305	PI	1.3	03	04	**9922225.1001**	[1]
10	G 1/2	1	–	80	1.44	Brass	POM	0.76	04	06	**9107300.0701**	
10	G 1/2	1	80	–	1.44	Brass	POM	0.76	04	06	**9107500.0701**	
10	G 1/2	1	–	130	1.40	1.4305	PVDF	0.76	04	07	**9107318.0801**	
10	G 1/2	1	130	–	1.40	1.4305	PVDF	0.76	04	07	**9107525.0801**	
10	G 1/2	1	–	170	1.40	1.4305	PVDF	0.76	04	07	**9107318.9301**	
10	G 1/2	1	170	–	1.40	1.4305	PVDF	0.76	04	07	**9107525.9301**	



Switching function: In rest position open

6	G 1/4	10	–	80	0.57	Brass	POM	0.6	06	05	**9107212.0701**	
6	G 1/4	10	80	–	0.57	Brass	POM	0.6	06	05	**9107412.0701**	
7	G 1/4	3	175	–	0.80	1.4305	PI	1.3	–	04	**9922206.1001**	[1]
10	G 1/2	10	–	80	1.44	Brass	POM	0.76	06	06	**9107312.0701**	
10	G 1/2	10	80	–	1.44	Brass	POM	0.76	06	06	**9107512.0701**	

[1] Only for DC operation
[2] Not suitable for water

Other versions on request

- Explosion-proof solenoid systems
- Other housing and sealing materials, dependent on operating fluid and operating pressure
- System solution/Valve manifolds
- Application-oriented modifications

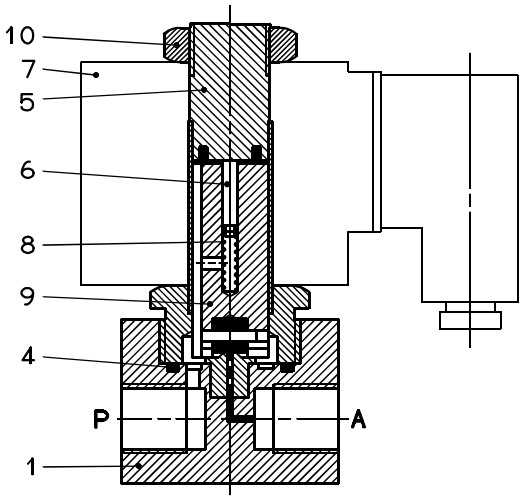
Explanation of the k_v-value:

With water, the k_v-value corresponds to the flow volume measured in m^3/h at a pressure drop of Δp = 1 bar, irrespective of the inlet pressure.

With air, the k_v-value corresponds to the flow volume measured in m^3/min at an inlet pressure of 6 bar and a pressure drop of Δp = 1 bar.

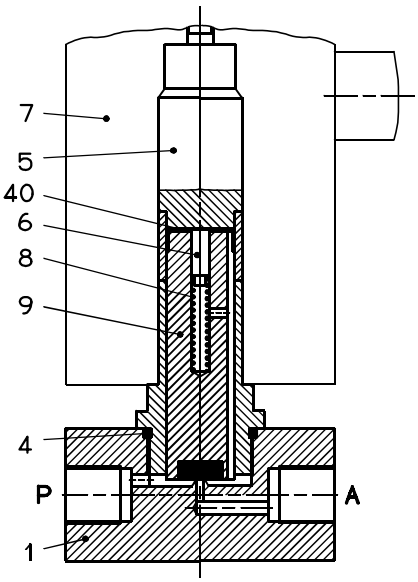
Sectional drawings

01



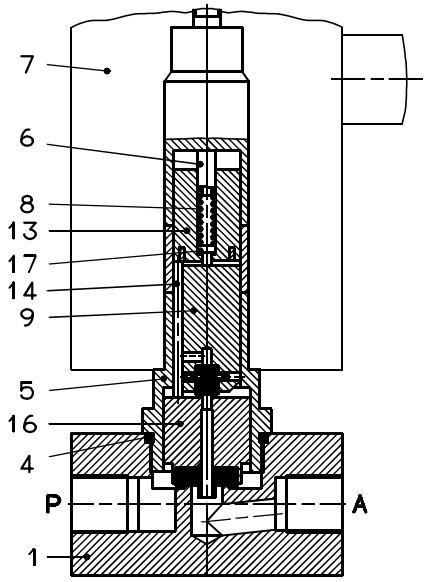
1 Body assly.
2 Valve seat assly.
3 O-ring
4 O-ring
5 Core tube
7 Solenoid
8 Spring assly.
9 Plunger assly.
10 Nut

02



1 Body
4 O-ring
5 Core tube
7 Solenoid
8 Spring assly.
9 Plunger assly.
10 Nut
40 Disc

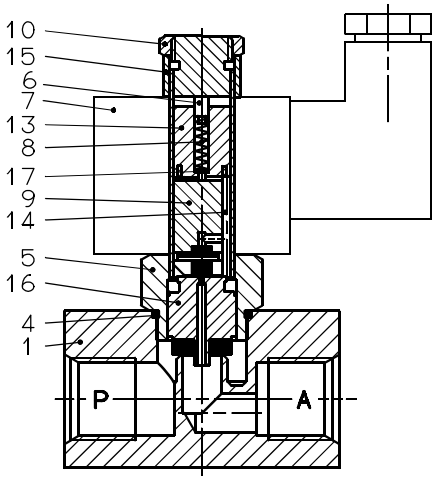
03



1 Body
4 O-ring
5 Core tube
6 Bolt
7 Solenoid
8 Spring
9 Plunger assly.
13 Plunger assly.
14 Bolt
16 Piston assly.
17 Bolt

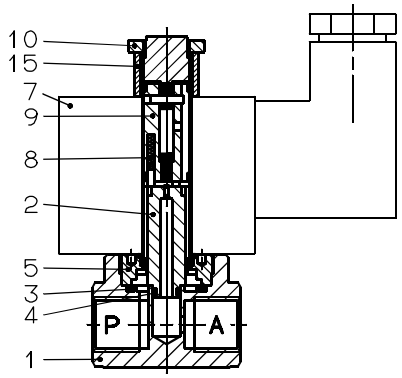
Sectional drawings

04



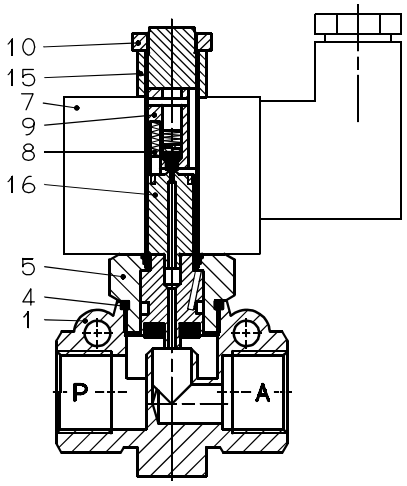
1 Body assly.
4 O-ring
5 Core tube
6 Bolt
7 Solenoid
8 Spring
9 Plunger assly.
10 Nut
13 Plunger assly.
14 Bolt
15 Tube
16 Piston assly.
17 Bolt

05



1 Body
2 Valve seat
3 O-ring
4 O-ring
5 Core tube
7 Solenoid
8 Spring assly.
9 Plunger assly.
10 Nut
15 Tube

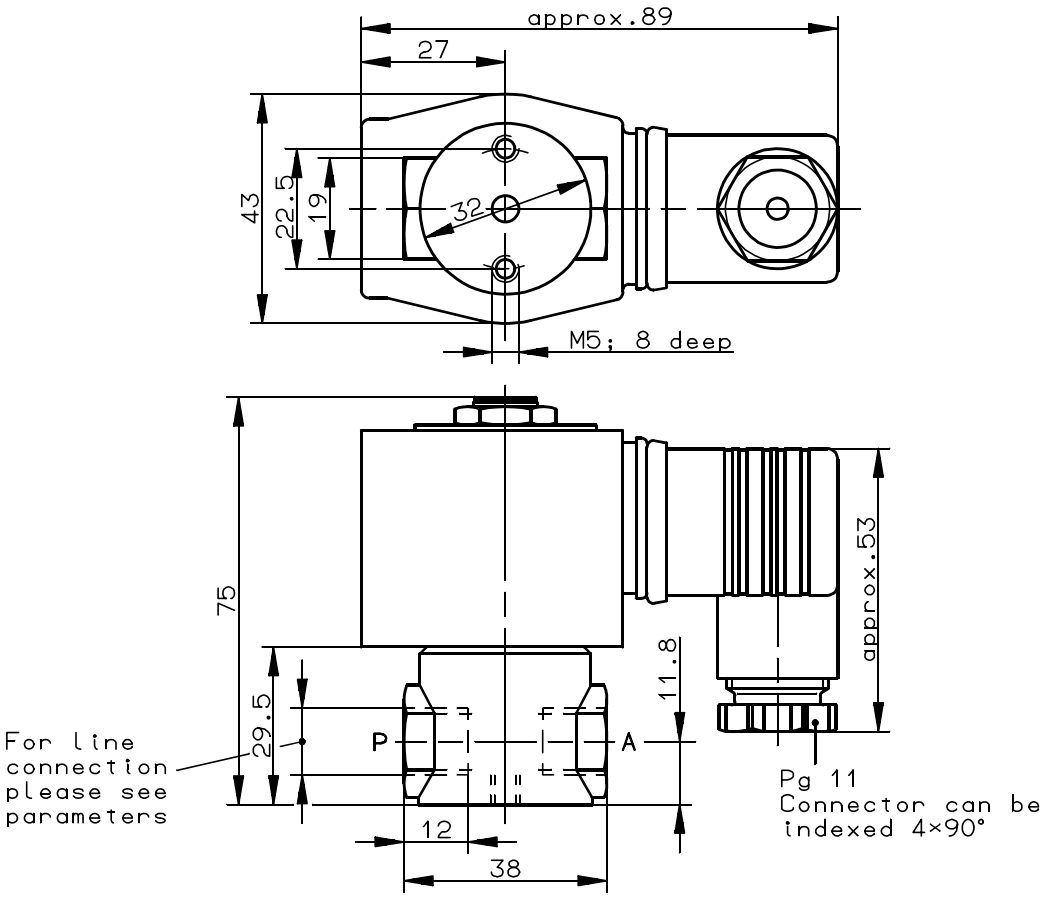
06



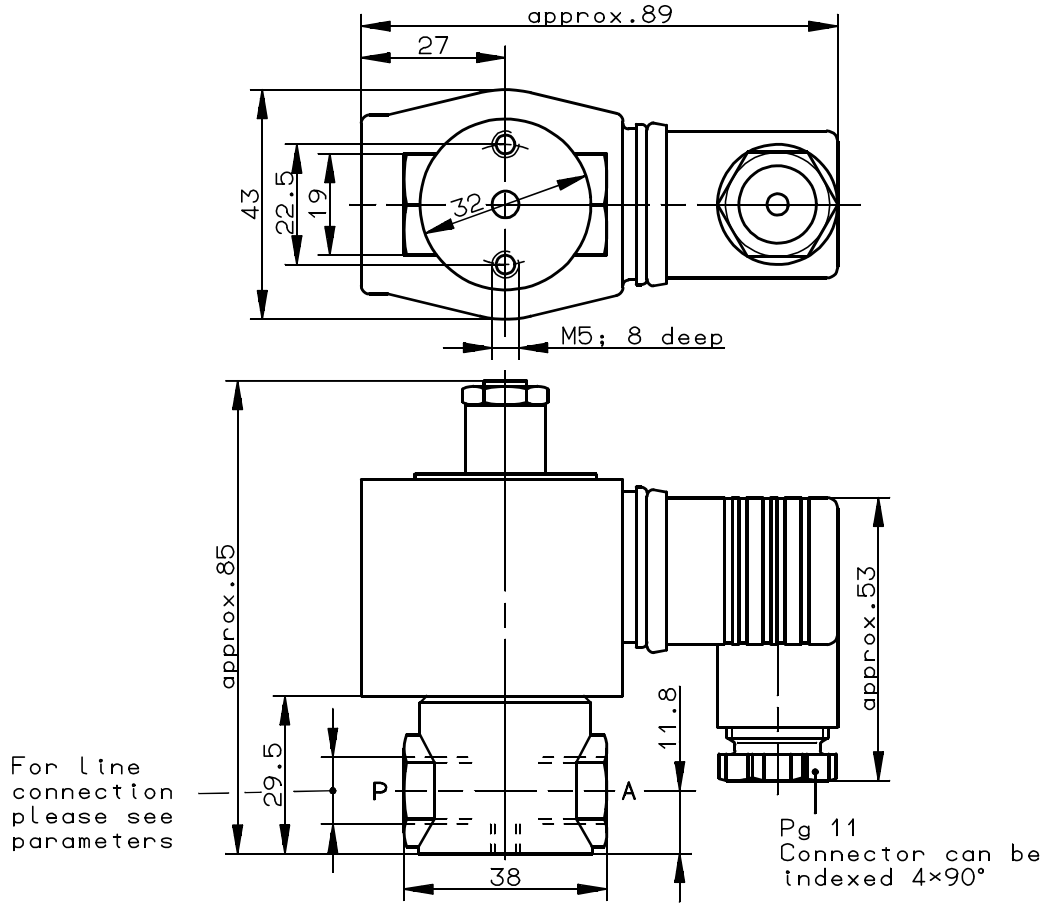
1 Body
4 O-ring
5 Core tube
7 Solenoid
8 Spring assly.
9 Plunger assly.
10 Nut
15 Tube
16 Piston assly.

Dimensional drawings

01

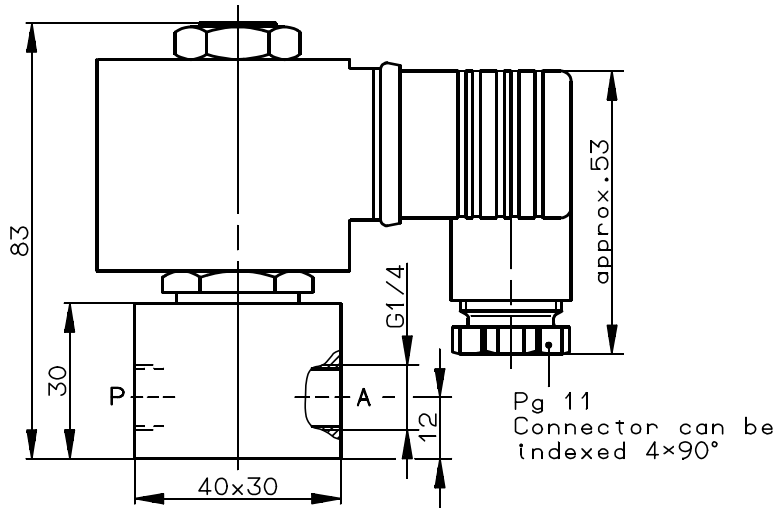


02

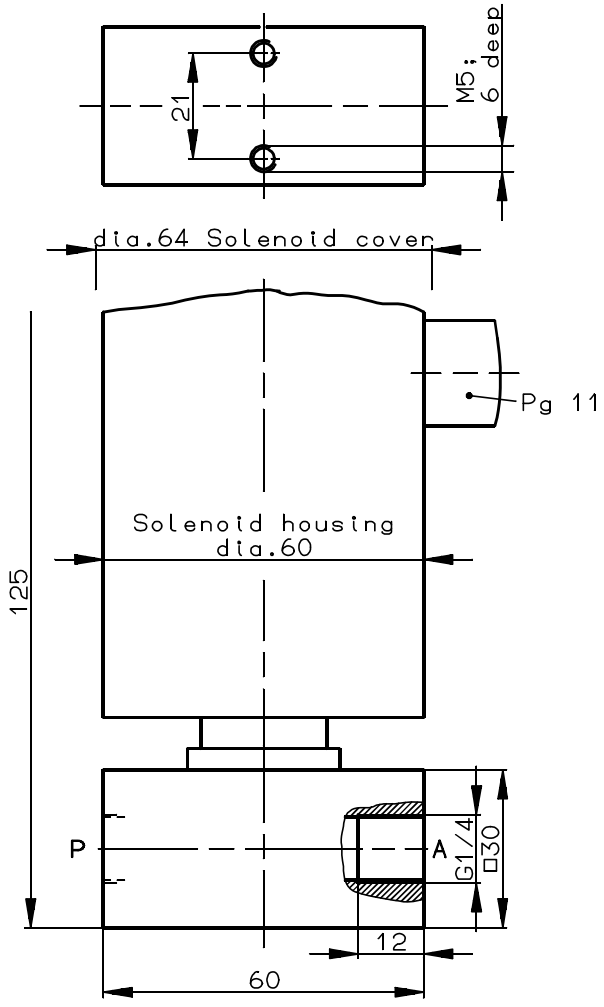


Dimensional drawings

03

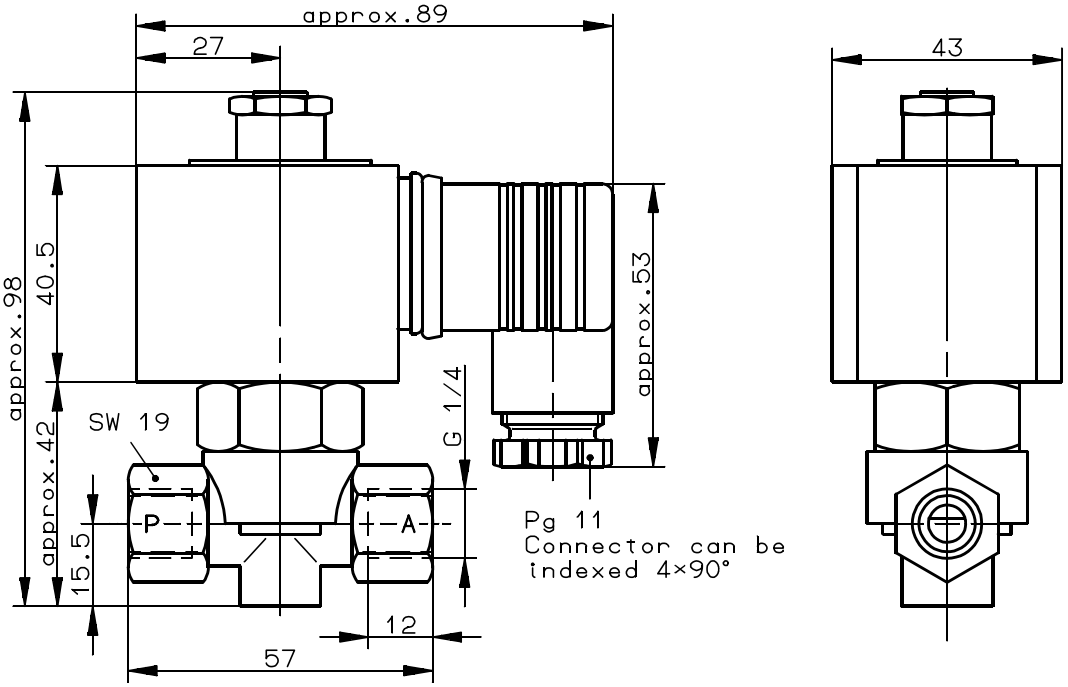


04

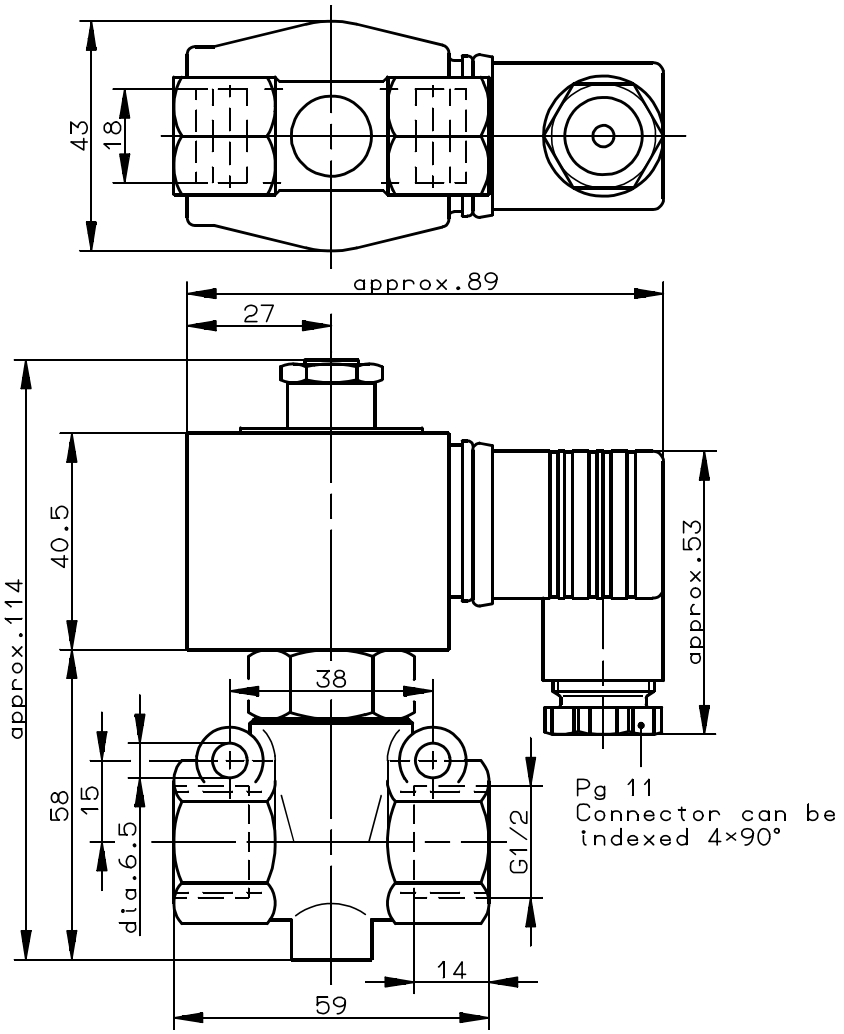


Dimensional drawings

05



06



Dimensional drawings

07