

2/2-way valves DN 20 to 50



For neutral gaseous and liquid fluids
Indirectly solenoid actuated
Piston seat valves
Internal threads G ¼ to G 2
Operating pressure 0.5 to 40 bar (see table)



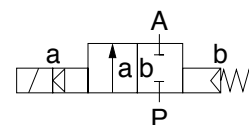
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Catalogue index
A 6
84 300 series

Description (standard valve)

Solenoid valve for air, water and oil

Flow direction: determined
Fluid temperature: max. +90 °C
Ambient temperature: max. +50 °C
Sum of fluid and ambient temperature: max. +130 °C
Mounting position: optional, solenoid preferably vertical on top
Material Body: Brass
Seat seal: NBR
Internal parts: 2.0402, 1.4104, 1.4301

For contaminated fluids insertion of a strainer is recommended (see accessories).



Switching function:
Normally closed

Features

- Flat piston valve
- High flow rate
- Damped operation

Characteristic data

DN [mm]	Connection (Thread acc. to DIN ISO 228/1)	Operating pressure with gaseous and liquid fluids up to 40 mm ² /s (cSt) [bar]		kv-value ²⁾ (Base m ³ /h)	Weight [kg]	Section no	Dimension table no	Cat no			
		min. ¹⁾	max.					Valve XX XXX	Solenoid DC XX.XXXX	Valve XX XXX	Solenoid AC XX.XXXX
20	G ¾	0.5	16	11	1.75	01	01	84 303 00.8001	84 303 00.8001 ³⁾	84 303 00.8301	84 303 00.8304
20	G ¾	0.5	40	11	2.55	02	06	84 304 00.8001	84 304 00.8001 ³⁾	84 304 00.8301	84 304 00.8304
25	G1	0.5	16	14	1.60	01	02	84 305 00.8001	84 305 00.8001 ³⁾	84 305 00.8301	84 305 00.8304
25	G1	0.5	40	14	2.40	02	07	84 306 00.8001	84 306 00.8001 ³⁾	84 306 00.8301	84 306 00.8304
32	G1 ¼	0.5	16	30	3.50	01	03	84 307 00.8001	84 307 00.8001 ³⁾	84 307 00.8301	84 307 00.8304
32	G1 ¼	0.5	40	30	4.30	02	08	84 308 00.8001	84 308 00.8001 ³⁾	84 308 00.8301	84 308 00.8304
40	G1 ½	0.5	16	33	3.25	01	04	84 309 00.8001	84 309 00.8001 ³⁾	84 309 00.8301	84 309 00.8304
40	G1 ½	0.5	40	33	4.05	02	09	84 310 00.8001	84 310 00.8001 ³⁾	84 310 00.8301	84 310 00.8304
50	G2	0.5	16	48	4.70	01	05	84 311 00.8001	84 311 00.8001 ³⁾	84 311 00.8301	84 311 00.8304
50	G2	0.5	40	48	5.50	02	10	84 312 00.8001	84 312 00.8001 ³⁾	84 312 00.8301	84 312 00.8304

State voltage [V] and frequency [Hz]

¹⁾ Minimum pressure differential P[] A 0.5 bar

²⁾ C_v-value (US) ≈ kv-value x 1.2

³⁾ With solenoid A.C. only up to 1 mm²/s (cSt)

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Solenoids

Standard-voltages	DC	AC	
		50 Hz	60 Hz ¹⁾
	24 V	24 V	–
	–	110 V	120 V
	205 V	230 V	220 V

¹⁾ 40 to 60 Hz at solenoid 8304

Design acc. to VDE 0580

100 % duty cycle

Voltage range $\pm 10\%$

Protection class acc. to EN 60529 IP 65 (previous DIN 40 050)

Socket acc. to DIN 43 650,

A.C. solenoid 8304 with rectifier

Attention: Restricted temperature range for explosion proof solenoids

For technical details see catalog-register "Solenoids"

Further models

available at extra cost

- XX XXX **01.83XX** Normally open, operating pressure max. 35 bar
- XX XXX **03.XXXX** Seat seal FPM, max. fluid temperature +110 °C
- XX XXX **06.XXXX** Seat seal PTFE, max. fluid temperature +110 °C, operating pressure max. 16 bar
- **On request** Further versions
- XX XXX **XX.8004** DC Solenoid with rectifier, for AC only
- XX XXX **XX.8041** Solenoid in protection class EEx me II T3
- XX XXX **XX.8341** Solenoid in protection class EEx me II T3

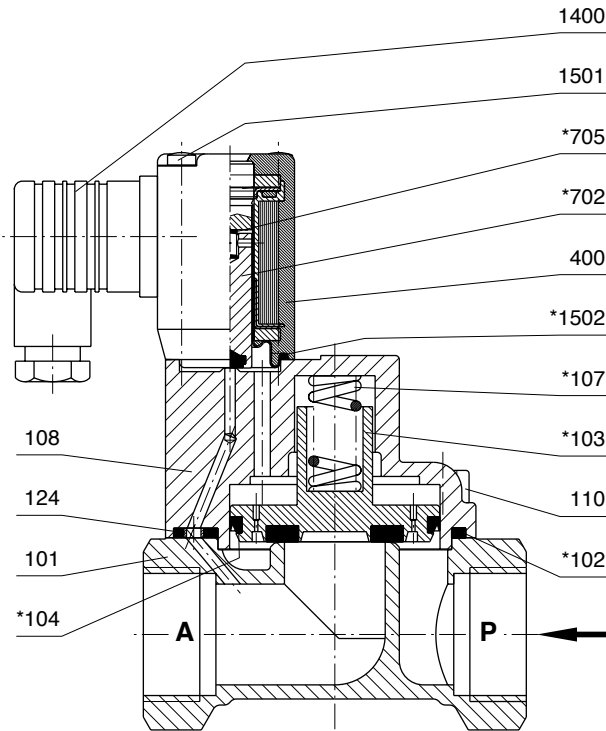
Power consumption ²⁾

Solenoid	DC	AC	
		Inrush	Holding
8001	12 W	20 VA	16 VA
8301	22 W	–	–
8304	–	25 VA	25 VA

²⁾ According to VDE 0580 at coil temperature +20 °C. In operating the solenoid coil decrease the power consumption appr. 30 %.

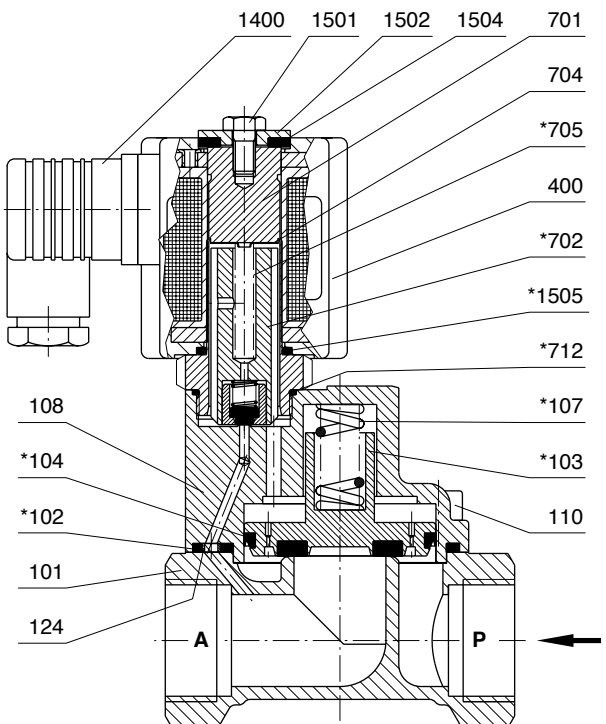
Sectional drawings

01



- | | | | |
|------|-----------------------|-------|-----------------------|
| 101 | Valve body | 400 | Solenoid |
| *102 | Gasket | *702 | Core |
| *103 | Valve piston | *705 | Pressure spring |
| *104 | Grooved ring | 1400 | Socket |
| *107 | Pressure spring | 1501 | Cheese head cap screw |
| 108 | Body cover | *1502 | O-ring |
| 109 | Spring washer | | |
| 110 | Cheese head cap screw | | |
| 124 | Bushing | | |

02



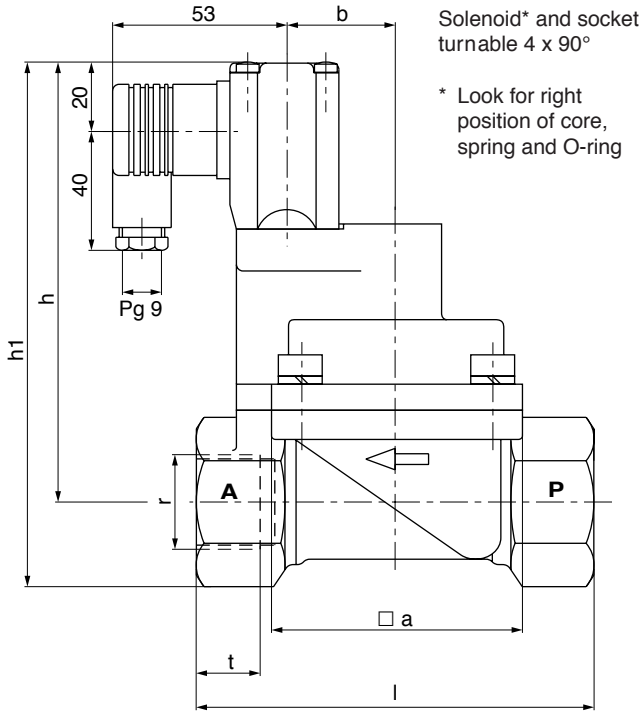
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|------|-----------------------|------|----------------------|
| 101 | Valve body | *702 | Core compl. |
| *102 | Gasket | 704 | Anti magnetic spacer |
| *103 | Valve piston | *705 | Pressure spring |
| *104 | Grooved ring | *712 | O-ring |
| *107 | Pressure spring | 1400 | Socket |
| 108 | Body cover | 1501 | Hexagon screw |
| 109 | Spring washer | 1502 | Round plate |
| 110 | Cheese head cap screw | 1504 | Gasket |
| 124 | Bushing | 1505 | O-ring |
| 400 | Solenoid | | |
| 701 | Core tube | | |

* These individual parts form a complete wearing unit.

When ordering spare parts please state Cat no and series no.

Dimensions

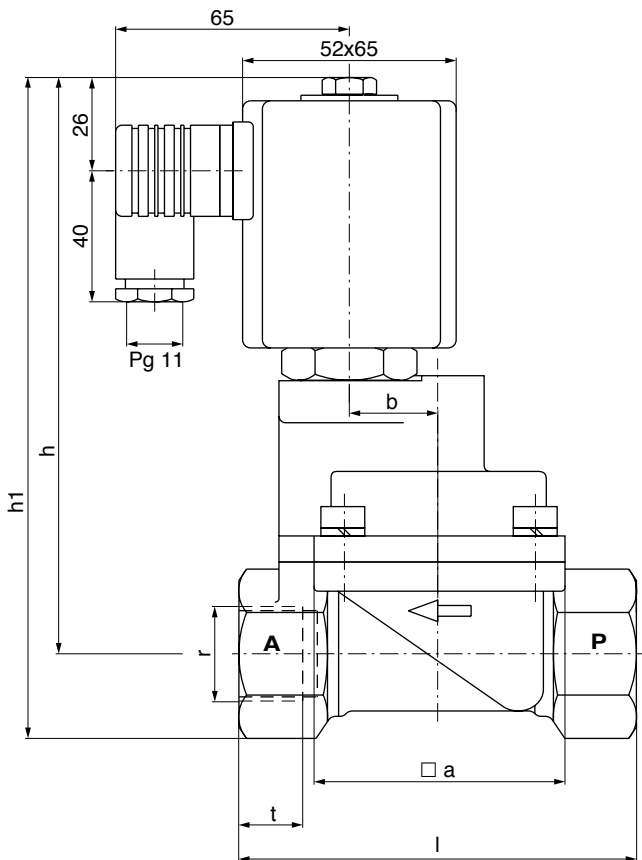
01



Dimension table no	□ a	b	h	h ₁
01	70	26	120	144
02	70	26	120	144
03	96	48	120	153
04	96	48	120	153
05	112	56	128	168

Dimension table no	l	r	t
01	95	G ¾	12.5
02	95	G1	14.0
03	132	G1 ¼	18.0
04	132	G1 ½	18.0
05	160	G2	20.0

02



Solenoid may be rotated 360°

Socket turnable 4 x 90°

Dimension table no	□ a	b	h	h ₁
06	70	26	145	169
07	70	26	145	169
08	96	48	145	178
09	96	48	145	178
10	112	56	153	193

Dimension table no	l	r	t
06	95	G ¾	12.5
07	95	G1	14.0
08	132	G1 ¼	18.0
09	132	G1 ½	18.0
10	160	G2	20.0