- **Port size: DN 12 ... 50, G1/2 ... 2**
- **Valve works without minimum pressure differential**
- **Up to 16 bar backpressure tight with leak rate E according to DIN EN 12266-1**



Technical features

Medium:
For slightly aggressive fluids
Switching function:
Normally closed; no switching function at back pressure
Operation:
Solenoid actuated, with forced lifting

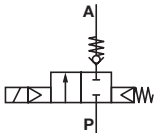
Mounting:
Solenoid vertical on top
Flow direction:
Determined
Port size:
G1/2, G3/4, G1, G1 1/4, G1 1/2, G2

Operating pressure:
P > A: 0 … 25 bar (0 ... 362 psi)
A > P: 0 ... 16 bar, (0 ... 232 psi) backpressure tight
Fluid temperature:
0° ... +90°C (+32° ... +194°F)
Ambient temperature:
0° ... +50°C (+32° ... +122°F)

Materials:
Body: Stainless Steel (1.4408)
Seat seal: NBR
Internal parts:
Stainless steel, PTFE/Carbon

For contaminated fluids the use of a strainer upstream of the valve is recommended.

Technical data - standard models

Symbol	Port size	Orifice (mm)	Flow kv-value *1) (m^3/h)	Operating pressure *2) (bar)	Weight (kg)	Model Solenoid in DC	Model Solenoid in AC
	G1/2	12	4.4	0 ... 25	2,5	8544200.8401.xxxxx *3)	8544200.8404.xxxxx *3)
	G3/4	20	7,0	0 ... 25	2,7	8544300.8401.xxxxx	8544300.8404.xxxxx
	G1	25	10,5	0 ... 25	3,1	8544400.8401.xxxxx	8544400.8404.xxxxx
	G1 1/4	32	25,0	0 ... 25	5,6	8544500.9501.xxxxx	8544500.9504.xxxxx
	G1 1/2	40	27,0	0 ... 25	5,4	8544600.9501.xxxxx	8544600.9504.xxxxx
	G2	50	43,0	0 ... 25	6,8	8544700.9501.xxxxx	8544700.9504.xxxxx

xxxxx Please insert voltage and frequency codes
*1) Cv-value (US) ≈ kv value x 1,2
*2) for gases and liquid fluids up to 25 mm2/s (cSt) up to 80 mm2/s (cSt) on request
*3) manifold of Stainless steel (1.4305)

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Option selector

8544★★★.★★★★.★★★★★

Port size	Substitute
1/2"	2
3/4"	3
1"	4
1 1/4"	5
1 1/2"	6
2"	7
Valve options	**Substitute**
Manual override, only wi h solenoid 8400	02
Seat seal FPM, Fluid temperature 0 ... +110°C	03
Seat seal EPDM, Fluid temperature 0 ... +110°C	14
Position indicator with two solenoid sensors	23

Frequency	Substitute
See table frequency codes	xx
Voltage	**Substitute**
See Voltage codes	xxx
Solenoid options	**Substitute**
G1/2 ... 1 Solenoid in V d.c.	8401
G1 1/4 ... 2 Solenoid in V d.c.	9501
G1/2 ... 1 Solenoid in V a.c.	8404
G1 1/4 ... 2 Solenoid in V a.c.	9504

Standard solenoid systems

Voltage and Frequency Solenoid 8401/8404					
Code Voltage	Code Frequency	Voltage	Frequency	Power consumption	
				Inrush	Holding
024	00	24 V d.c.	-	40 W	40 W
024	49	24 V a.c.	40 … 60 Hz	45 VA	45 VA
110	49	110 V a.c.	40 … 60 Hz	45 VA	45 VA
120	49	120 V a.c.	40 … 60 Hz	45 VA	45 VA
220	49	220 V a.c.	40 … 60 Hz	45 VA	45 VA
230	49	230 V a.c.	40 … 60 Hz	45 VA	45 VA
Voltage and Frequency Solenoid 9501/9504					
024	00	24 V d.c.	-	80 W	80 W
024	49	24 V a.c.	40 … 60 Hz	89 VA	89 VA
110	49	110 V a.c.	40 … 60 Hz	89 VA	89 VA
120	49	120 V a.c.	40 … 60 Hz	89 VA	89 VA
220	49	220 V a.c.	40 … 60 Hz	89 VA	89 VA
230	49	230 V a.c.	40 … 60 Hz	89 VA	89 VA

Further options on request!

Electrical details for all solenoid systems

Design	DIN VDE 0580
Voltage range	±10%
Duty cycle	100% ED
Protection class	EN 60529 IP65
Socket	Form A acc. to DIN EN 175301-803 (included)

According to DIN VDE 0580 at a solenoid temperature of +20°C.
At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

Additional solenoid systems

ATEX category	Protection class	Solenoid	Standard voltages
II2GD	EEx me II T3 T 140°C up to G1	8441	24 V DC, 110 V AC, 230 V AC
II3G	Ex nA II T4 Ex tD A22 IP65 T 135°C *1)	8426	24 V DC, 110 V AC, 230 V AC
II2G	Ex d IIC T4/T5 Ex tD A21 IP65 T 130°C or T 95°C	8920	24 V DC, 110 V AC, 230 V AC
II2GD	Ex e mb II T3/T4 Ex tD A21 IP65 T140°C	8540	24 V DC, 110 V AC, 230 V AC

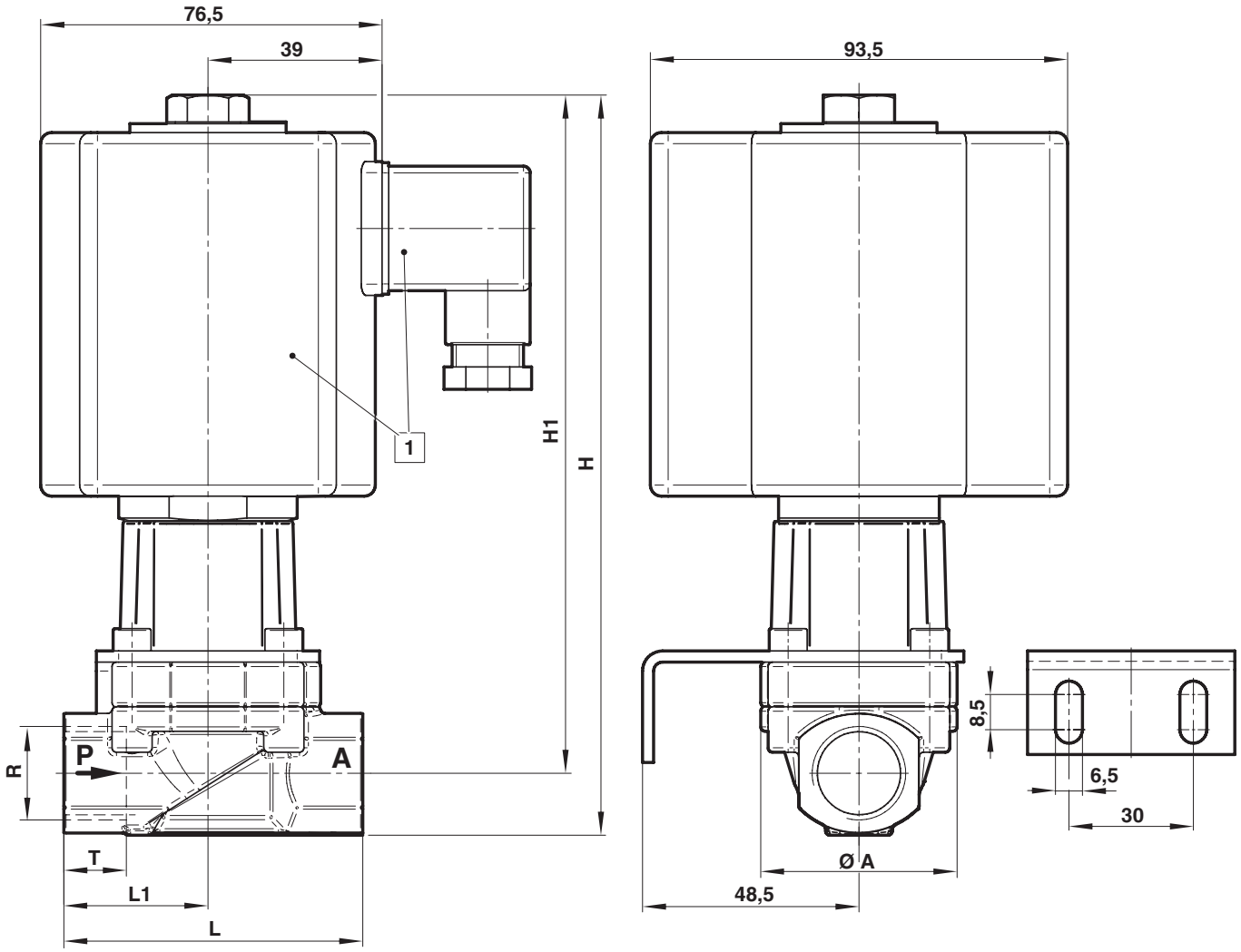
Attention!
The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.
*1) Only DC, for AC solenoids with design inspection certificate acc. to category 2, e.g. XXXXXX.8441

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Dimensions

up to G1

Dimensions in mm
Projection/First angle



1 Solenoid rotatable 360°
Socket turnable 4 x 90°
(Socket included)

Connection R	Ø A	H	H1	L	L1	T	Type
G1/2	44	166,5	150	80	40,0	14	8544200.840x.xxxxx *1)
G3/4	50	166,5	150	80	38,6	16	8544300.840x.xxxxx
G1	62	184,0	164	95	45,6	18	8544400.840x.xxxxx

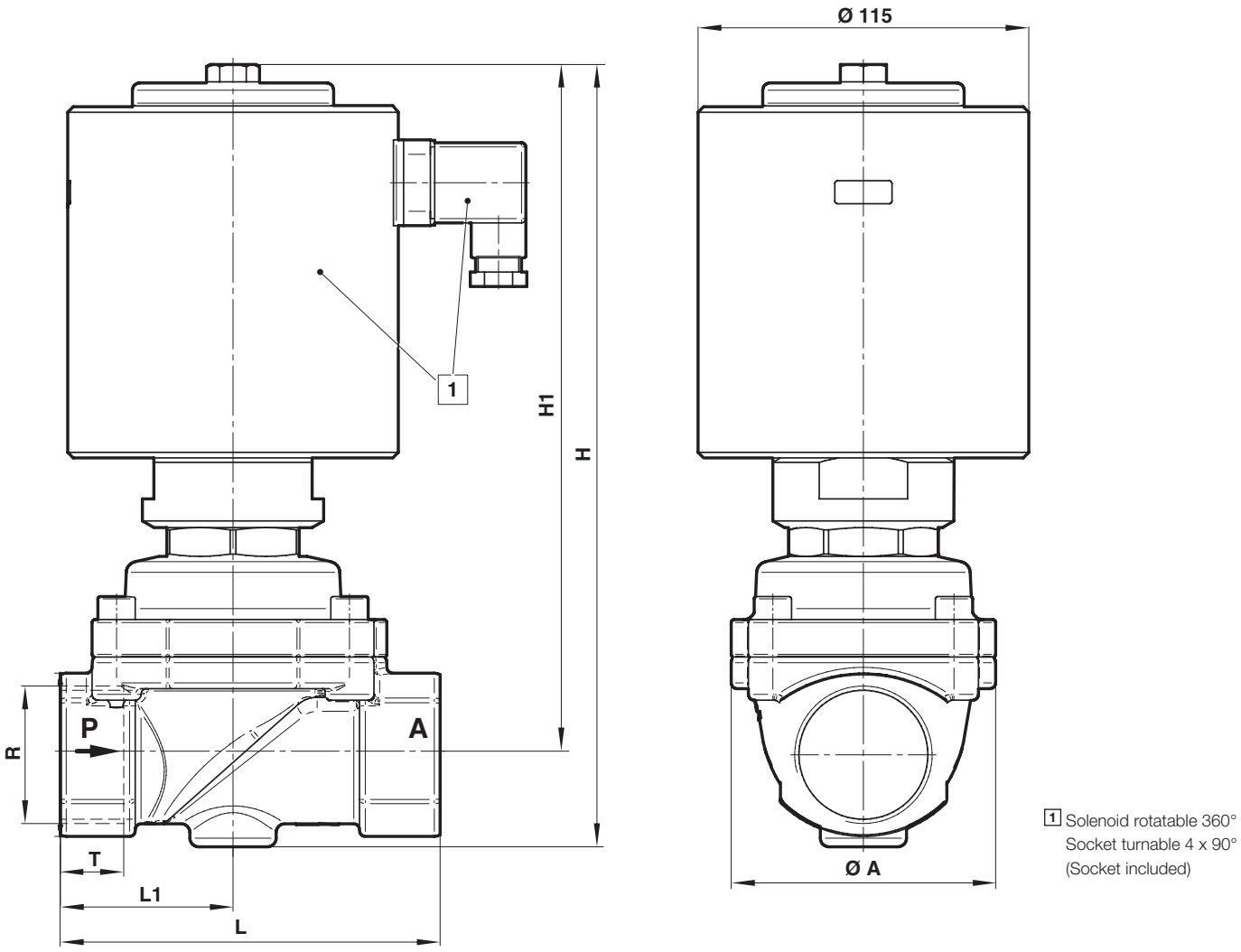
*1) manifold of Stainless steel (1.4305)

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Dimensions

from G1 1/4

Dimensions in mm
Projection/First angle



1 Solenoid rotatable 360°
Socket turnable 4 x 90°
(Socket included)

Connection R	Ø A	H	H1	L	L1	T	Type
G1 1/4	92	186,0	253	132	60	20	8544500.950x.xxxxx
G1 1/2	92	286,0	253	132	60	22	8544600.950x.xxxxx
G2	109	N.D.	N.D.	160	74	24	8544700.950x.xxxxx

Note to Pressure Equipment Directive (PED):
The valves of this series, including the connection size DN 25 (G 1), are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG. This means interpretation and production are in accordance to engineers practice wellknown in the member countries.

The CE-sign at the valve refers not to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G 1) Art. 3 § (1) No.1.4 applies.
The basic requirements of the Enclosure I of the PED must be fulfilled. The CE-sign at the valve includes the PED. A certificate of conformity of this directive will be available on request.

Note to Electromagnetic Compatibility Guideline (EEC):
The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 61000-6-3 and EN 61000-6-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2004/108/EG) satisfield.

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