- **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**
- **International approvals**

Technical features

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

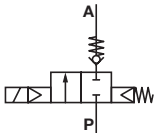
Mounting:
Solenoid vertical on top
Flow direction:
Determined
Port size:
G1/2, G3/4, G1, G1 1/4, G1 1/2, G2

Operating pressure:
P > A: 0 … 25 bar (0 ... 362 psi)
A > P: 0 ... 16 bar (0 ... 232 psi) backpressure tight
Fluid temperature:
–10 ... +90°C (+32 ... +194°F)
Ambient temperature:
–10 ... +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)	(psi)	Weight (kg)	Model Solenoid in DC	Model Solenoid in AC
	G1/2	12	4.4	0 ... 25	0 ... 362	2,5	8544200.8401.xxxxx *3)	8544200.8404.xxxxx *3)
	G3/4	20	7,0	0 ... 25	0 ... 362	2,7	8544300.8401.xxxxx	8544300.8404.xxxxx
	G1	25	10,5	0 ... 25	0 ... 362	3,1	8544400.8401.xxxxx	8544400.8404.xxxxx
	G1 1/4	32	25,0	0 ... 25	0 ... 362	5,6	8544500.9501.xxxxx	8544500.9504.xxxxx
	G1 1/2	40	27,0	0 ... 25	0 ... 362	5,4	8544600.9501.xxxxx	8544600.9504.xxxxx
	G2	50	43,0	0 ... 25	0 ... 362	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 mm^2/s (cSt) up to 80 mm^2/s (cSt) on request
*3) manifold of Stainless steel (1.4305)

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 with solenoid 8400	02
Seat seal FPM, Fluid temperature 0 ... +110°C (+32 ... +230°F)	03
Seat seal EPDM, Fluid temperature 0 ... +110°C (+32 ... +230°F)	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

Code Voltage	Code Frequency	Voltage	Frequency	Power consumption Inrush	Power consumption Holding
Voltage and Frequency Solenoid 8401 / 8404					
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 (+68°F).
At operating state temperature the input power of a coil decreases by up to ca. 30% due to physical reasons.

Additional solenoid systems for hazardous areas

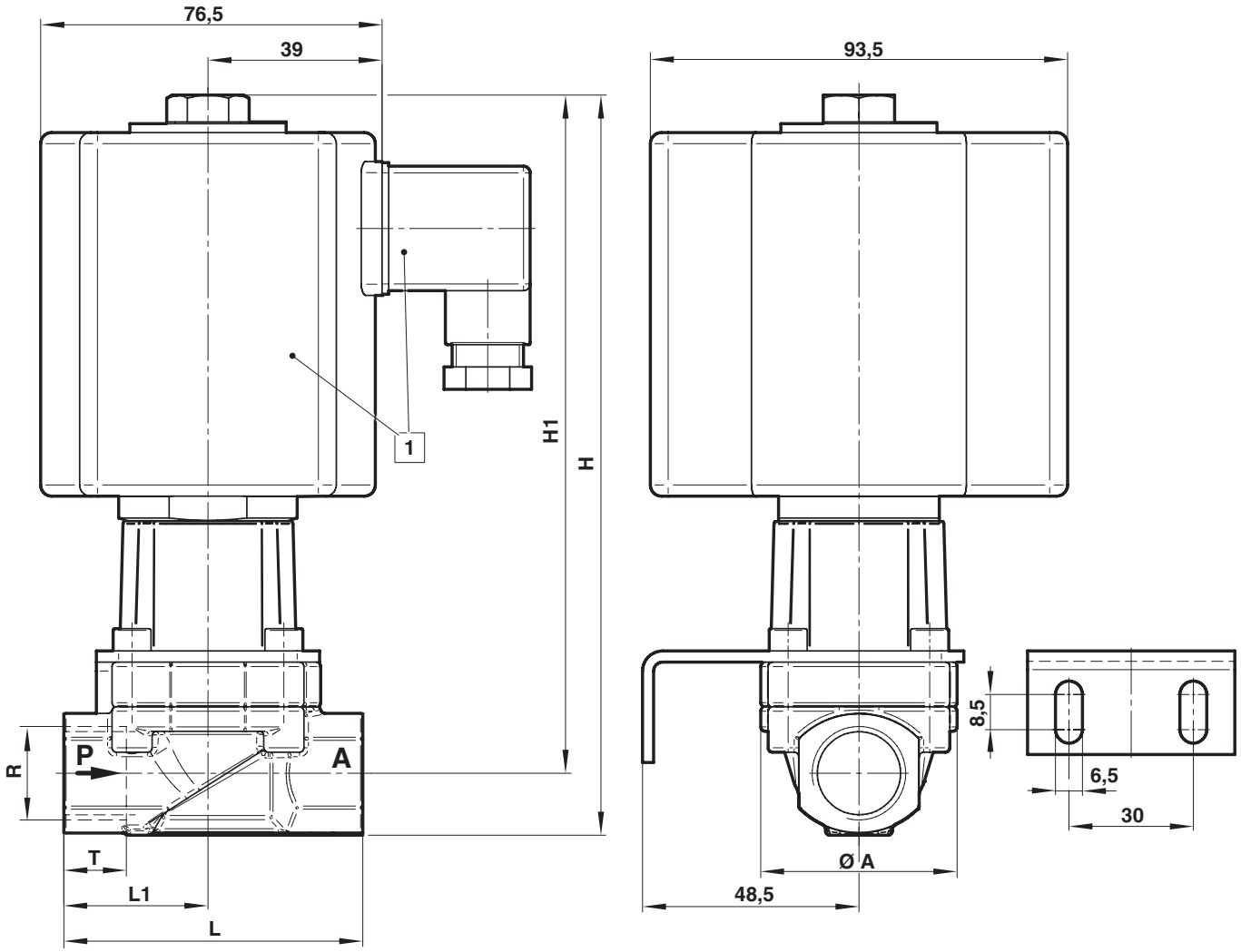
ATEX category	ATEX protection class	IP protetion class	Solenoid	Standard voltages
II 3G II 3D	Ex ec IIC T4 Gc Ex tc IIIC T130°C Dc *4)	IP65	8426	24 V d.c., 110 V a.c., 230 V a.c.
II 2G	Ex d IIC T4/T5 Ex tD A21 IP65 T130°C or T95°C	IP65	8920	24 V d.c., 110 V a.c., 230 V a.c.
II 2G II 2D	Ex e mb II T3/T4 Ex tD A21 IP65 T140°C	IP65	9540	24 V d.c., 110 V a.c., 230 V a.c.
II 2G II 2D	Ex eb mb IIC T3 Gb Ex mb tb IIIB T140°C Db up to G1	IP66	6240	24 V d.c., 110 V a.c., 230 V a.c.

Attention!
The conditions imposed on the Ex approvals lead to reduction of the permissible standard temperature ranges in the cases of explosion protected solenoids.
*4) Only DC, for AC solenoids with design inspection certificate acc. to category 2, e.g. XXXXXX.6240

Dimensions

up to G1

Dimensions in mm
Projection/First angle



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

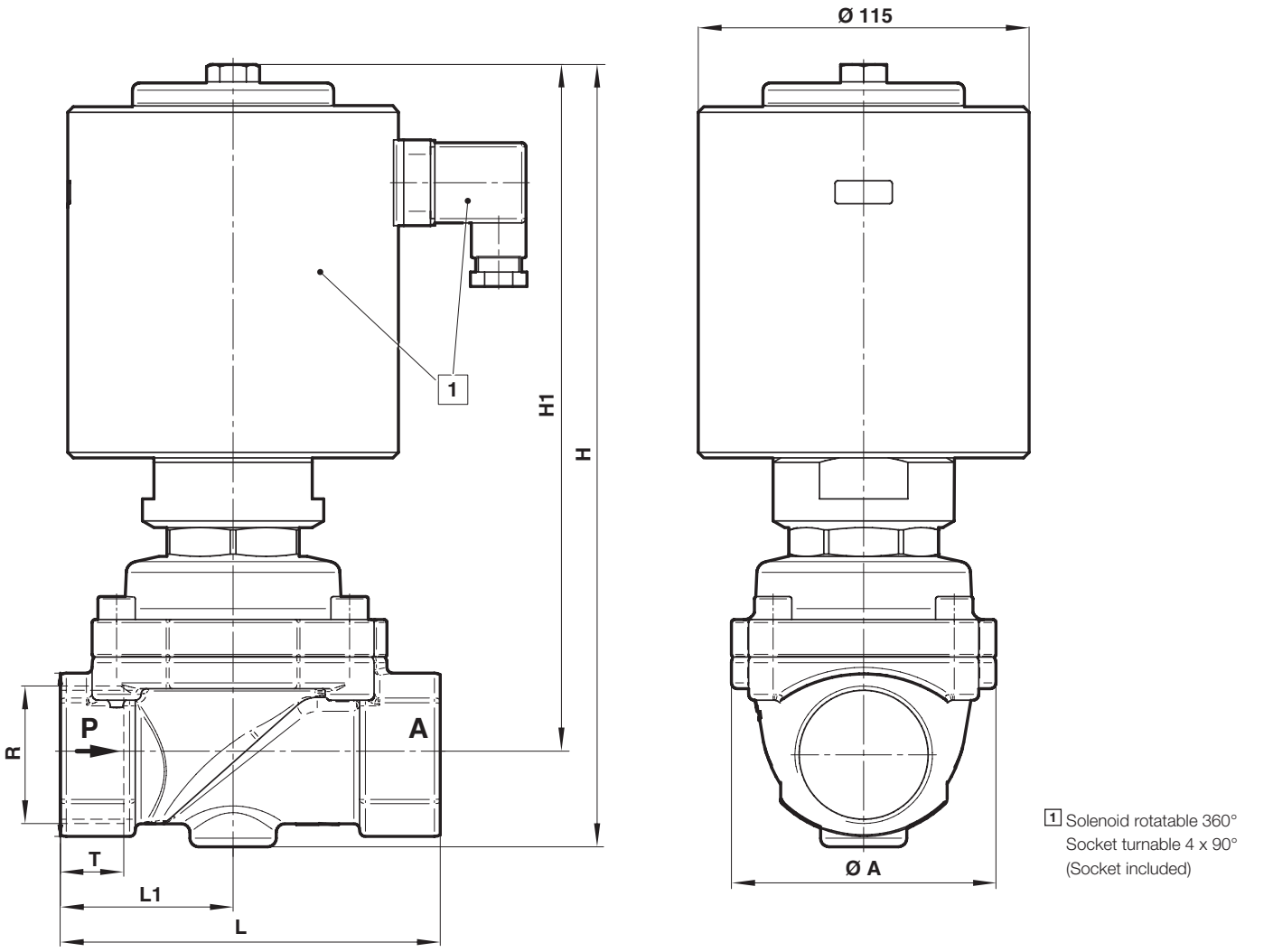
Connection R	ø A	H	H1	L	L1	T	Type
G1/2	44	166,5	150	80	40,0	14	8544200.840x.xxxxx *5)
G3/4	50	166,5	150	80	38,6	16	8544300.840x.xxxxx
G1	62	184,0	164	95	45,6	18	8544400.840x.xxxxx

*5) Manifold of Stainless steel (1.4305)

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 up to and including DN 25 (G1) are according to Art. 4 § 3 of the Pressure Equipment Directive (PED) 2014/68/EU. This means interpretation and production are in accordance to engineers practice wellknown in the member countries. The CE-sign at the valve does not refer to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G1) Art. 4 § (1) Letter d) 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 (2014/30/EU) satisfield.

Note to EAC marking:

The EAC-marked products comply with the applicable requirements stated in the technical regulations of the Eurasian Economic Union.