

82540/82640

2/2-way diaphragm valves

DN 8 ... 50, G1/4 ... 2, 1/4 ... 2 NPT

High flow rate
For robust industry solutions
Damped operation
Suitable for vacuum
For systems with low or fluctuating pressure
Valve operates without differential pressure
Solenoid interchangeable without tools (*Click-on*®)
only solenoid 915x and 940x

Click-on®



Technical features

Medium:

Neutral gases and liquids

Switching function:

Normally closed

Operation:

Solenoid actuated,
with forced lifting

Mounting position:

Optional,
preferably solenoid
vertical on top

Flow direction:

Determined

Port size:

G1/4, G3/8, G1/2, G3/4, G1,
G1 1/4, G1 1/2, G2
1/4 NPT, 3/8 NPT, 1/2 NPT,
3/4 NPT, 1 NPT, 1 1/4 NPT,
1 1/2 NPT, 2 NPT

Operating pressure:

See table

Fluid temperature:

-10 ... +90°C

Ambient temperature:

-10 ... +50°C

Material:

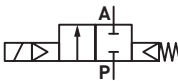
Body: Brass (CW617N)

Seat seal: NBR-K

Internal parts: Stainless steel,
PVDF, Brass

For contaminated fluids insertion
of a strainer is recommended.

Technical data - standard models

Symbol	Port size	Orifice (mm)	Flow kv value *1) (m³/h)	Operating pressure *2) (bar)	Weight (kg)	Model Solenoid in V d.c.	Model Solenoid in V a.c.
	G1/4	8	1,9	0 ... 10	0,8	8254000.9151.xxxxx	8254000.9154.xxxxx
	G1/4	8	1,9	0 ... 16 3*)	0,8	8254000.9301.xxxxx	8254000.9304.xxxxx
	1/4 NPT	8	1,9	0 ... 10	0,8	8264000.9151.xxxxx	8264000.9154.xxxxx
	1/4 NPT	8	1,9	0 ... 16 3*)	0,8	8264000.9301.xxxxx	8264000.9304.xxxxx
	G3/8	10	3	0 ... 10	0,8	8254100.9151.xxxxx	8254100.9154.xxxxx
	G3/8	10	3	0 ... 16 3*)	0,8	8254100.9301.xxxxx	8254100.9304.xxxxx
	3/8 NPT	10	3	0 ... 10	0,8	8264100.9151.xxxxx	8264100.9154.xxxxx
	3/8 NPT	10	3	0 ... 16 3*)	0,8	8264100.9301.xxxxx	8264100.9304.xxxxx
	G1/2	12	3,4	0 ... 10	0,9	8254200.9151.xxxxx	8254200.9154.xxxxx
	G1/2	12	3,4	0 ... 16 3*)	0,9	8254200.9301.xxxxx	8254200.9304.xxxxx
	1/2 NPT	12	3,4	0 ... 10	0,9	8264200.9151.xxxxx	8264200.9154.xxxxx
	1/2 NPT	12	3,4	0 ... 16 3*)	0,9	8264200.9301.xxxxx	8264200.9304.xxxxx
	G3/4	20	5,8	0 ... 10	1	8254300.9151.xxxxx	8254300.9154.xxxxx
	G3/4	20	5,8	0 ... 16 3*)	1	8254300.9301.xxxxx	8254300.9304.xxxxx
	3/4 NPT	20	5,8	0 ... 10	1	8264300.9151.xxxxx	8264300.9154.xxxxx
	3/4 NPT	20	5,8	0 ... 16 3*)	1	8264300.9301.xxxxx	8264300.9304.xxxxx
	G1	25	8	0 ... 10	1,3	8254400.9151.xxxxx	8254400.9154.xxxxx
	G1	25	8	0 ... 16 3*)	1,3	8254400.9301.xxxxx	8254400.9304.xxxxx
	1 NPT	25	8	0 ... 10	1,3	8264400.9151.xxxxx	8264400.9154.xxxxx
	1 NPT	25	8	0 ... 16 3*)	1,3	8264400.9301.xxxxx	8264400.9304.xxxxx
	G 1 1/4	32	23	0 ... 16	4,3	8254500.9401.xxxxx	8254500.9404.xxxxx
	1 1/4 NPT	32	23	0 ... 16	4,3	8264500.9401.xxxxx	8264500.9404.xxxxx
	G 1 1/2	40	25	0 ... 16	4,3	8254600.9401.xxxxx	8254600.9404.xxxxx
	1 1/2 NPT	40	25	0 ... 16	4,3	8264600.9401.xxxxx	8264600.9404.xxxxx
	G2	50	41	0 ... 16	5,4	8254700.9401.xxxxx	8254700.9404.xxxxx
	2 NPT	50	41	0 ... 16	5,4	8264700.9401.xxxxx	8264700.9404.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]

*3) For liquid mediums and an operating pressure → 10 bar is the maximum allowed differential pressure limited to 2 bar.

Option Selector

82★4★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Thread form	Substitute
ISO G	5
NPT	6
Port size	Substitute
1/4	0
3/8	1
1/2	2
3/4	3
1	4
1 1/4	5
1 1/2	6
2	7
Valve options	Substitute
Normally open (NO), up to G1 (1 NPT) with solenoid 9150 max. 10 bar, with solenoid 9300 max. 16 bar, from G1 1/4 (1 1/4 NPT) only with solenoid 8400 max. 16 bar	01
Manual override, up to G1 1/4 (1 1/4 NPT)	02
Seat seal FPM, Fluid temperature -5 ... +110°C	03
Seat seal EPDM, for hot water, Fluid temperature -10 ... +110°C	14
Normally open, Seat seal FPM, Fluid temperature -5 ... +110°C, from G1 1/4 (1 1/4 NPT) only with solenoid 8400 max. 16 bar	17

Frequency	Substitute
See table frequency codes	xx
Voltage	Substitute
See Voltage codes	xxx
Solenoid options	Substitute
G1/4 ... 1 Operating pressure 0 ... 10 bar Solenoid in V d.c.	9151
G1/4 ... 1 Operating pressure 0 ... 10 bar Solenoid in V a.c.	9154
G1/4 ... 1 Operating pressure 0 ... 16 bar *3) Solenoid in V d.c.	9301
G1/4 ... 1 Operating pressure 0 ... 16 bar *3) Solenoid in V a.c.	9304
G1 1/4 ... 2 Operating pressure 0 ... 16 bar Solenoid in V d.c.	9401
G1 1/4 ... 2 Operating pressure 0 ... 16 bar Solenoid in V a.c.	9404

Standard solenoid systems

Voltage and Frequency Solenoid 9151/9154 *1)					
Code Voltage	Code Frequency	Voltage	Frequency	Power consumption	
				Inrush	Holding
024	00	24 V DC	-	18 W	18 W
024	50	24 V AC	50 Hz	20 VA	20 VA
110	50	110 V AC	50 Hz	20 VA	20 VA
120	60	120 V AC	60 Hz	20 VA	20 VA
230	50	230 V AC	50 Hz	20 VA	20 VA
Voltage and Frequency Solenoid 9301/9304 *1)					
024	00	24 V DC	-	18 W	18 W
024	50	24 V AC	50 Hz	20 VA	20 VA
110	50	110 V AC	50 Hz	20 VA	20 VA
120	60	120 V AC	60 Hz	20 VA	20 VA
230	50	230 V AC	50 Hz	20 VA	20 VA
Voltage and Frequency Solenoid 9401/9404 *1)					
024	00	24 V DC	-	38 W	38 W
024	49	24 V AC	40 ... 60 Hz	42 VA	42 VA
110	49	110 V AC	40 ... 60 Hz	42 VA	42 VA
120	49	120 V AC	40 ... 60 Hz	42 VA	42 VA
230	49	230 V AC	40 ... 60 Hz	42 VA	42 VA

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	9356	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	9326	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	8426	24 V d.c., 110 V a.c., 230 V a.c.
II2GD	EEx me II T3 T 140°C	8441	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	9176	24 V d.c., 110 V a.c., 230 V a.c.
II2GD	EEx me II T3 T 140°C	9191	24 V d.c., 110 V a.c., 230 V a.c.
II3GD	EEx nA II T4 T 135°C	9426	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.

*1)  US coil only (with the exception of solenoid 94xx up to 41 V a.c.)

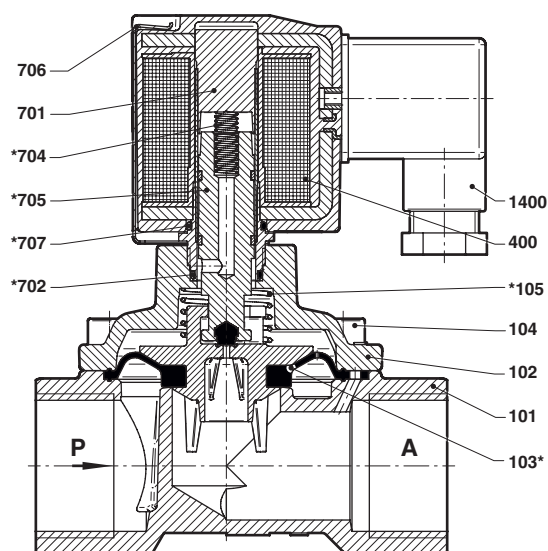
Further versions on request!

Section View and Dimensions

G1/4 ... 1 with solenoid 915x (10 bar)

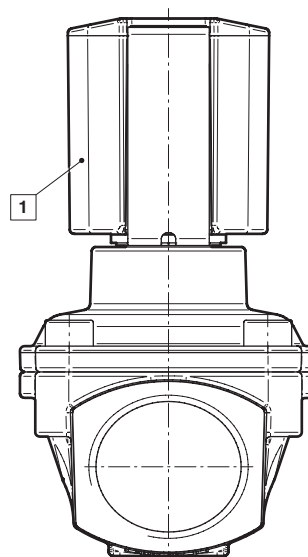
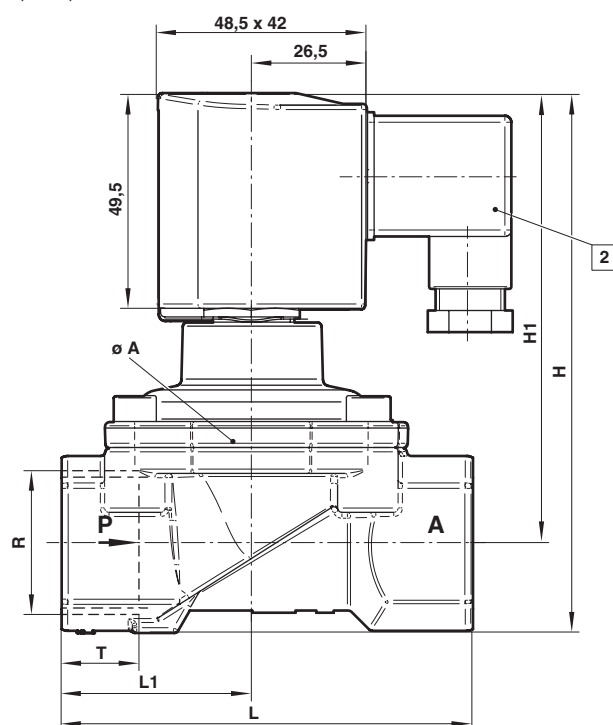
1/4 ... 1 NPT with solenoid 915x (10 bar)

No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
*704	Pressure spring
*705	Core
706	Spring clip
*707	O-ring
1400	Socket (included)



* These individual parts form a complete wearing unit.

When ordering spare parts please state Model No. and Series No.



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

Port size R	ø A *1)	H	H1	L	L1	T	Model
G1/4	44	104	92,5	60	27,5	12	8254000.915x.xxxxx
1/4 NPT	44	104	92,5	60	27,5	10	8264000.915x.xxxxx
G3/8	44	104	92,5	60	27,5	12	8254100.915x.xxxxx
3/8 NPT	44	104	92,5	60	27,5	10,5	8264100.915x.xxxxx
G1/2	44	108	94,5	67	31	14	8254200.915x.xxxxx
1/2 NPT	44	108	94,5	67	31	13,5	8264200.915x.xxxxx
G3/4	50	115	99	80	36,5	16	8254300.915x.xxxxx
3/4 NPT	50	115	99	80	36,5	14	8264300.915x.xxxxx
G1	62	124	103,5	95	44	18	8254400.915x.xxxxx
1 NPT	62	124	103,5	95	44	17	8264400.915x.xxxxx

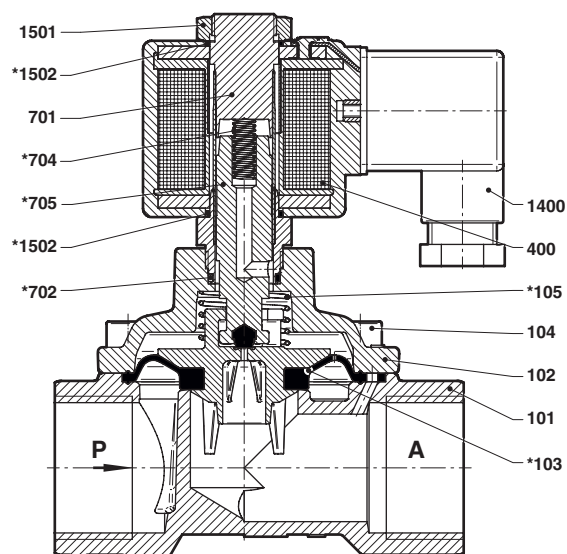
*1) ø A = max. depth

Section View and Dimensions

G1/4 ... 1 with solenoid 930x (16 bar)

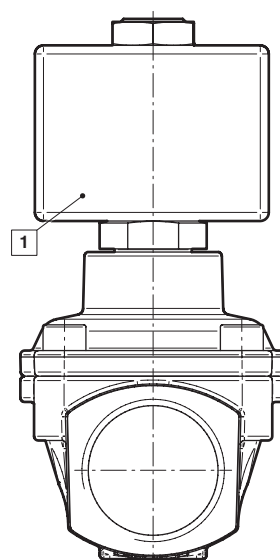
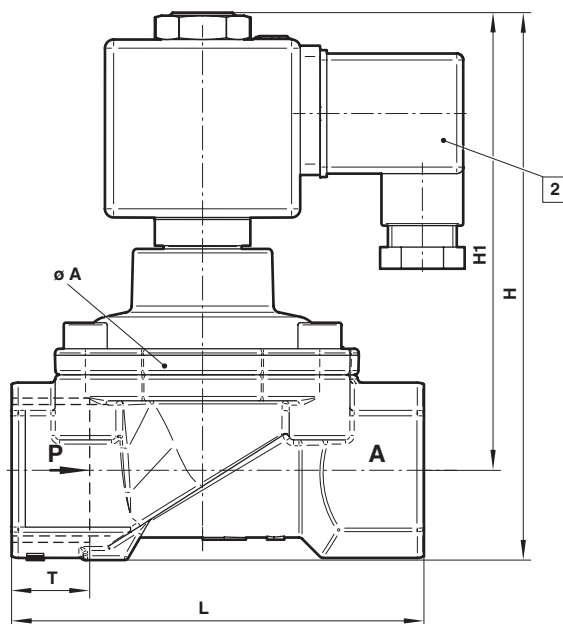
1/4 ... 1 NPT with solenoid 930x (16 bar)

No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
*704	Pressure spring
*705	Core
1400	Socket (included)
1501	Special hexagon nut
*1502	O-ring (2x)



* These individual parts form a complete wearing unit.

When ordering spare parts please state Model No. and Series No.



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

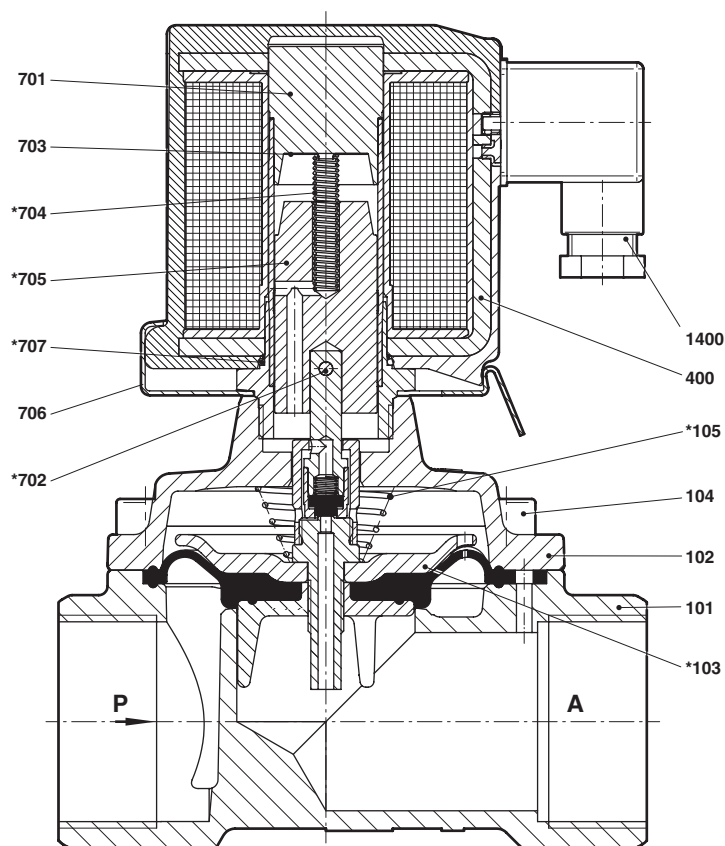
Port size R	ø A *1)	H	H1	L	T	Model
G1/4	44	108	96	60	12	8254000.930x.xxxxx
1/4 NPT	44	108	96	60	10	8264000.930x.xxxxx
G3/8	44	108	96	60	12	8254100.930x.xxxxx
3/8 NPT	44	108	96	60	10,5	8264100.930x.xxxxx
G1/2	44	110	96	67	14	8254200.930x.xxxxx
1/2 NPT	44	110	96	67	13,5	8264200.930x.xxxxx
G3/4	50	117	100	80	12,5	8254300.930x.xxxxx
3/4 NPT	50	117	100	80	14	8264300.930x.xxxxx
G1	62	126	105	95	14	8254400.930x.xxxxx
1 NPT	62	126	105	95	17	8264400.930x.xxxxx

*1) ø A = max. depth

Section View

G1 1/4 ... 1 with solenoid 940x (16 bar)

1 1/4 ... 1 NPT with solenoid 940x (16 bar)



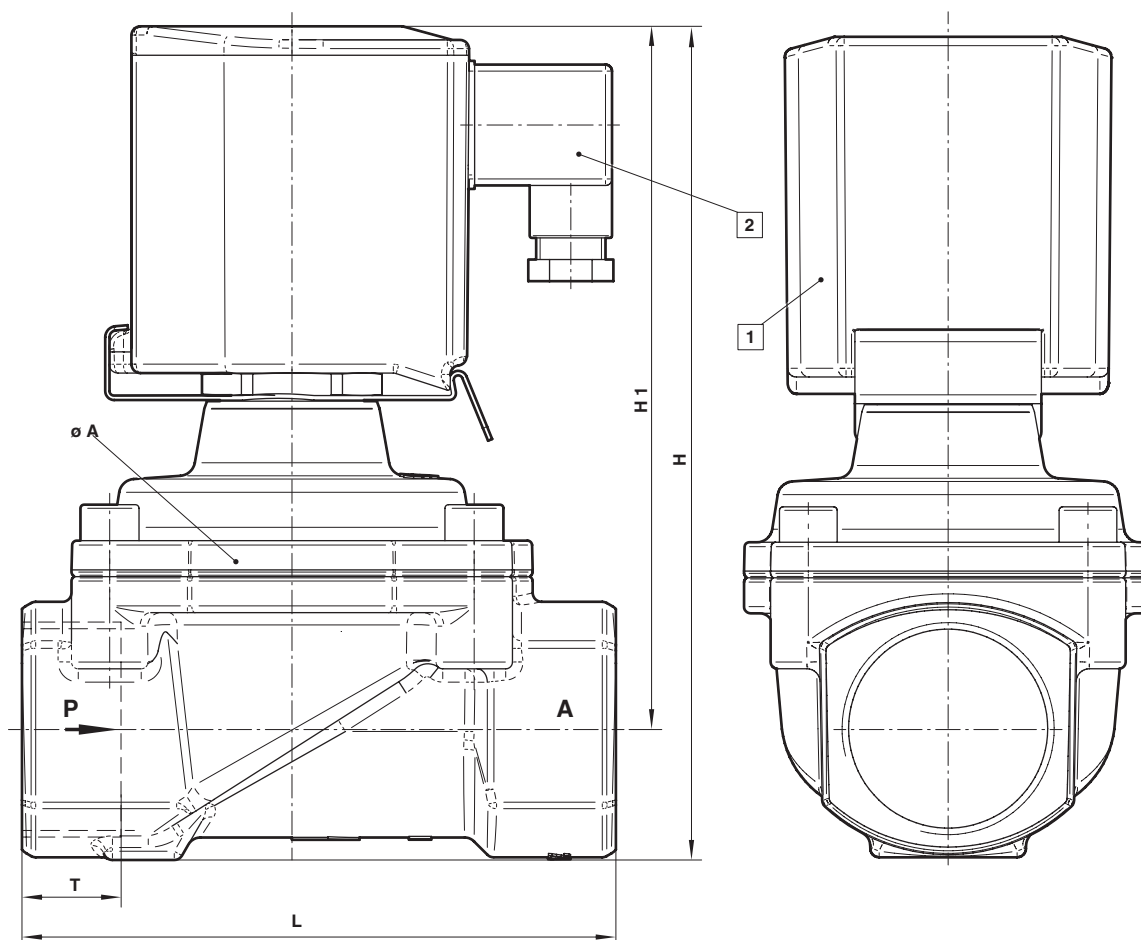
No.	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Allen head screw
*105	Pressure spring
400	Solenoid
701	Core tube
*702	O-ring
703	Round plate
*704	Pressure spring
*705	Core
706	Spring clip
*707	O-ring
1400	Socket (included)

* These individual parts form a complete wearing unit.

When ordering spare parts please state Model No. and Series No.

Dimensions

G1 1/4 ... 1 with solenoid 940x (16 bar)
1 1/4 ... 1 NPT with solenoid 940x (16 bar)



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

Port size R	ø A *1)	H	H1	L	T	Model
G1 1/4	92	186	157	132	20	8254500.940x.xxxxx
1 1/4 NPT	92	186	157	132	17	8264500.940x.xxxxx
G1 1/2	92	186	157	132	22	8254600.940x.xxxxx
1 1/2 NPT	92	186	157	132	17	8264600.940x.xxxxx
G2	109	201,5	167	160	24	8254700.940x.xxxxx
2 NPT	109	201,5	167	160	17,5	8264700.940x.xxxxx

*1) ø A = max. depth

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) satisfied.