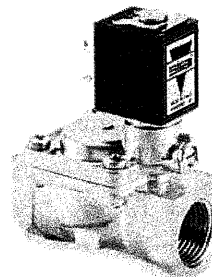
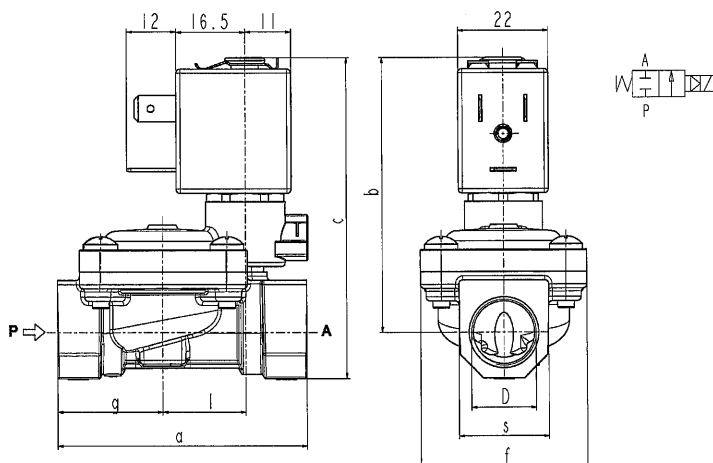




**SOLENOID VALVE**  
**2/2- NC (Normally closed)**  
 Pilot operated  
**G 3/8 ÷ G 1**

**L182**



D	a	b	c	f	g	h	s
G 3/8	60	66	77	40	25,5	20	22
G 1/2	66	68	82	40	29	20	27
G 3/4	79	72,5	89	50	35,5	24,5	33
G 1	105	85	106	71	46	28	42

► **GENERAL FEATURES**

Diaphragm valve, pilot operated, having full orifice.  
 Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with material in contact).

► **TECHNICAL FEATURES**

Maximum allowable pressure (PS) 20bar

**Response times**

Opening time (ms)

Closing time (ms)

Fluid temperature

Max viscosity

3/8	1/2	3/4	1
70	70	70	90
670	600	500	420

-10°C +90°C (NBR)  
 0°C +130°C (FPM)  
 -10°C +140°C (EPDM)  
 5°E (~37 cStokes or mm<sup>2</sup>/s)

► **MATERIALS IN CONTACT WITH FLUID**

Body Brass  
 Sealing NBR or FPM or EPDM  
 Internal components Brass and stainless steel  
 Seat Brass  
 Core tube Stainless steel  
 Shading coil Copper

► **COIL**

Approval  
 Encapsulation material

Insulation class  
 Ambient temperature

Continuous duty  
 Electric connection

Protection degree

Voltages DC  
 AC

ZB10A	ZB12A *	ZB14A *
/	UL and CSA	UL and CSA
PA fiberglass reinforced	PET fiberglass reinforced	PET fiberglass reinforced
F (155°C) -10°C +60°C	F (155°C) -10°C +60°C	H (180°C) -10°C +75°C
ED 100%		
DIN 46340 - 3 poles plug connector		
IP 65 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector
12-24V (+10% -5%)		
24V/50-60Hz - 115V/50Hz - 230V/50-60Hz (+10% -15%)		
(Other voltages and frequencies on request).		
/	<b>ZB12Y</b>	<b>ZB14Y</b>
/	UL	UL
/	220-230V/50Hz 208-240V/60Hz (+10% -15%)	

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m <sup>3</sup> /h)	Series and type			Power absorption				Sealings	Notes	Weight (kg)	
		Δp min	Δp max				Valve	Valve with manual override	Coil	AC (VA)			DC				
			Gases		Liquids					Inrush	Holding						
			AC	DC	AC						DC	VA					VA
3/8	13,5	0,35	16	16	16	16	L182(*1)	L182(*2)	ZB10A ZB12A	12	6	4	5,5	(*) = B (NBR)	1-3	0,32	
1/2			16 (12)	16 (12)	16 (12)	16 (12)										3,8	0,38
3/4	18		12	12	12	12									5	2-3	0,52
1	24		12 (10)	12 (10)	12 (10)	12 (10)									12		1,08

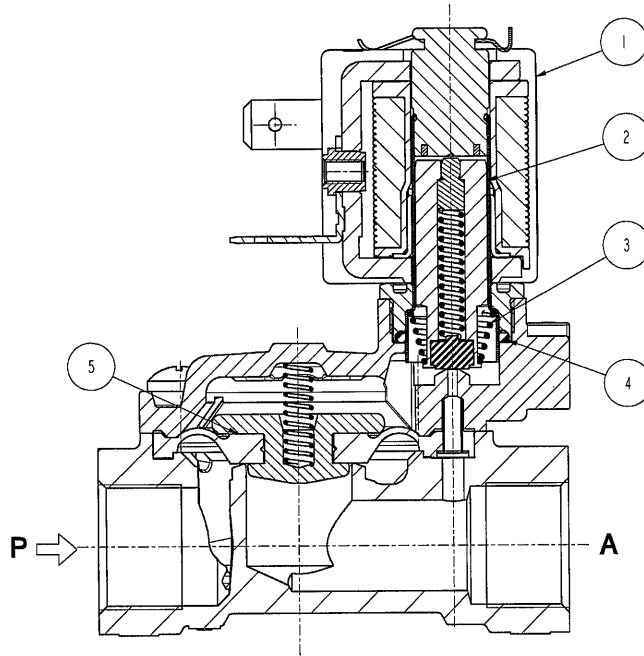
► **NOTES**

- Sealings: B(NBR)=Nitrile-butylene elastomer V(FPM)=Fluoro-carbon elastomer D(EPDM)=Ethylene-propylene elastomer (WRAS/KTW certified compound)
- Operation with gaseous media, at high pressure without any outlet restriction, can reduce the diaphragm life.
- On request coil in class H (ZB14A - see § "COIL")
- The bracketed values of Δp max are related to valves with V(FPM) seals.
- 1 - Low power consumption coil on request (3,5 VA in AC - 3W in DC): Δp max = 12 bar
- 2 - Low power consumption coil on request (3,5 VA in AC - 3W in DC): Δp max = 8 bar
- 3 - L182D01 - L182D02: WRAS certified solenoid valves (certificate n. 1411048).

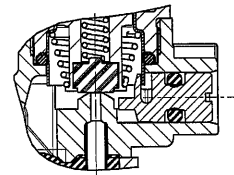
# L182

## ► SPARE PARTS

### L182 B-V-D01



### L182 B-V-D02



#### Kit description

#### Kit P.N.

#### Consisting of:

Core kit	L182B-V		G3138201	Core kit pos.2 Core return spring pos. 3 O-Ring guide assembly pos. 4		
	L182D		G3138202			
Diaphragm assembly	L182B	3/8-1/2	2844302R	Diaphragm assembly pos.5		
	L182V	3/8-1/2	2844303R			
	L182D	3/8-1/2	2844306R			
	L182B	3/4	1		2299701R	
			1		2380101R	
	L182V	3/4	1		2299702R	
			1		2380102R	
	L182D	3/4	1		2299708R	
			1		2380106R	
	Coil				ZB10	Coil pos.1
					ZB12	
					ZB14	

## ► INSTALLATION

- Solenoid valve can be mounted in any position; vertical with coil upwards preferred.

THE VALIDITY OF REPORTED DATA IS REFERRED TO THE DATE OF ISSUE. POSSIBLE UPDATES ARE AVAILABLE ON REQUEST



Pilot Operated  
**General Service Solenoid Valves**  
 Brass or Stainless Steel Bodies  
 3/8" to 2 1/2" NPT

**2/2**  
**SERIES**  
**8210**

2-WAY

**Features**

- Wide range of pressure ratings, sizes, and resilient materials provide long service life and low internal leakage
- High flow valves for liquid, corrosive, and air/inert gas service
- Lead-free versions available for Safe Drinking Water Act Compliance
- Industrial applications include:
  - Car wash
  - Laundry equipment
  - Air compressors
  - Industrial water control
  - Pumps

**Construction**

Valve Parts in Contact with Fluids		
Body	Brass	304 Stainless Steel*
Seals and Discs	NBR or PTFE	
Disc-Holder	PA	
Core Tube	305 Stainless Steel	
Core and Plugnut	430F Stainless Steel	
Springs	302 Stainless Steel	
Shading Coil	Copper	Silver

\*Catalog Numbers 8210G127, 8210G129, 8210G132, 8210G133 have 316L Stainless Steel bodies.

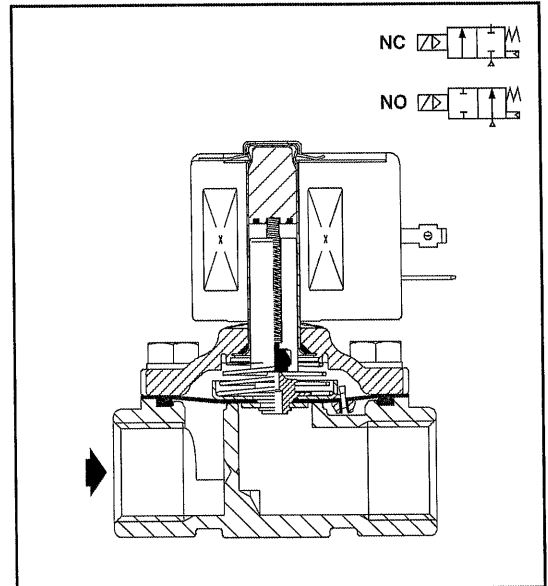
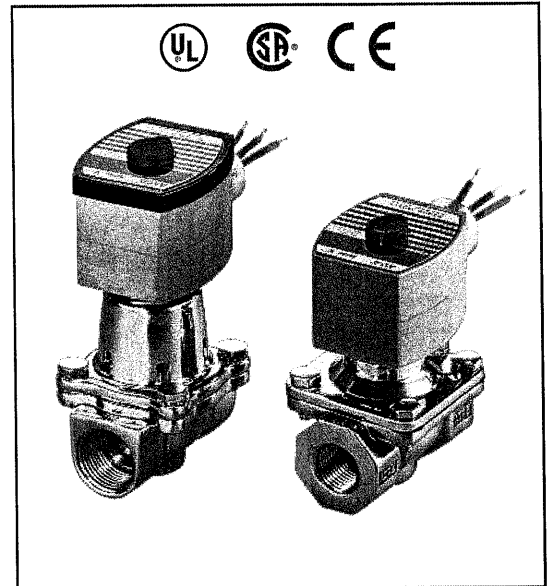
**Electrical**

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part Number			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	-	6.1	16	40	238210	-	238214	-
F	11.6	10.1	25	70	238610	238710	238614	238714
F	16.8	16.1	35	180	272610	97617	272614	97617
F	-	17.1	40	93	238610	-	238614	-
F	-	20	43	240	99257	-	99257	-
F	-	20.1	48	240	272610	-	272614	-
F	30.8	-	-	-	-	501695	-	501696
H	11.6	-	-	-	-	238910	-	238914
H	40.6	-	-	-	-	238910	-	238914

**Standard Voltages:** 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz). 6, 12, 24, 120, 240 volts DC. Must be specified when ordering.  
 Other voltages available when required.

**Solenoid Enclosures**

**Standard:** RedHat II - Watertight, Types 1, 2, 3, 3S, 4, and 4X; RedHat - Type I.  
**Optional:** RedHat II - Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9; Red-Hat - Explosionproof and Watertight, Types 3, 4, 4X, 7, and 9.  
 (To order, add prefix "EF" to catalog number, except Catalog Numbers 8210B057, 8210B058, and 8210B059, which are not available with Explosionproof enclosures.)  
 See *Optional Features Section* for other available options.



**Nominal Ambient Temp. Ranges**

RedHat II/RedHat AC: 32°F to 125°F (0°C to 52°C)  
 RedHat II DC: 32°F to 104°F (0°C to 40°C)  
 RedHat DC: 32°F to 77°F (0°C to 25°C)  
 (104°F/40°C occasionally)  
 8210G227 AC: 32°F to 130°F (0°C to 54°C)  
 DC: 32°F to 90°F (0°C to 32°C)  
 Refer to *Engineering Section* for details.

**Approvals**

UL listed as indicated. CSA certified.  
 RedHat II meets applicable CE directives.  
 Refer to *Engineering Section* for details.  
 ATEX/IECEx certified with prefix "EV" as listed. Refer to *Optional Features Electrical Section* for details.

## Specifications (English units)

Pipe Size (in)	Orifice Size (in)	Cv Flow Factor	Operating Pressure Differential (psi)							Max. Fluid Temp. °F		Brass Body			Stainless Steel Body			Watt Rating/ Class of Coil Insulation ⑦		
			Min.	Max. AC			Max. DC				AC	DC	Catalog Number	Const. Ref. ④	UL ⑤ Listing	Catalog Number	Const. Ref. ④	UL ⑤ Listing	AC	DC
				Air-Inert Gas	Water	Light Oil @ 300 SSU	Air-Inert Gas	Water	Light Oil @ 300 SSU											
<b>NORMALLY CLOSED (Closed when de-energized), NBR or PTFE ② Seating</b>																				
3/8	3/8	1.5	0	150	125	-	40	40	-	180	150	8210G073 ③	1P	●	8210G036 ③	1P	●	6.1/F	11.6/F	
3/8	5/8	3	0	150	150	-	40	40	-	180	150	8210G093	5D	○	-	-	-	10.1/F	11.6/F	
3/8	5/8	3	5	200	150	135	125	100	100	180	150	8210G001 ▼	6D	○	-	-	-	6.1/F	11.6/F	
3/8	5/8	3	5	300	300	300	-	-	-	175	-	8210G006 ✓	5D	○	-	-	-	17.1/F	-	
1/2	7/16	2.2	0	150	125	-	40	40	-	180	150	8210G015 ③	2P	●	8210G037 ③	2P	●	6.1/F	11.6/F	
1/2	5/8	4	0	150	150	-	40	40	-	180	150	8210G094 ✓/♠	5D	○	-	-	-	10.1/F	11.6/F	
1/2	5/8	4	0	150	150	125	40	40	-	175	150	-	-	-	8210G087 ✓	7D	●	17.1/F	11.6/F	
1/2	5/8	4	5	200	150	135	125	100	100	180	150	8210G002 ▼/♠	6D	○	-	-	-	6.1/F	11.6/F	
1/2	5/8	4	5	300	300	300	-	-	-	175	-	8210G007	5D	○	-	-	-	17.1/F	-	
1/2	3/4	4	5	-	300	-	-	300	-	130	90	8210G227	5D	○ †	-	-	-	17.1/F	40.6/H	
3/4	5/8	4.5	0	150	150	125	40	40	-	175	150	-	-	-	8210G088 ✓	7D	●	17.1/F	11.6/F	
3/4	3/4	5	5	125	125	125	100	90	75	180	150	8210G009 ▼/♠	9D	○	-	-	-	6.1/F	11.6/F	
3/4	3/4	5	0	150	150	-	40	40	-	180	150	8210G095 ✓/♠	8D	○	-	-	-	10.1/F	11.6/F	
3/4	3/4	6.5	5	250	150	100	125	125	125	180	150	8210G003 ▼	11D	○	-	-	-	6.1/F	11.6/F	
3/4	3/4	6	0	350	300	200	200	200	200	200	180	8210G026 ② †	40P/10D	●	-	-	-	16.1/F	30.8/F	
1	1	13	0	150	125	125	135	120	120	180	180	8210G054 †	41D/31D	●	8210G089 †	45D/15D	●	16.1/F	30.8/F	
1	1	13	5	150	150	100	125	125	125	180	150	8210G004 ▼/♠	12D	○	-	-	-	6.1/F	11.6/F	
1	1	13.5	0	300	225	115	-	-	-	200	-	8210G027 †	42P	●	-	-	-	20.1/F	-	
1	1	13.5	10	300	300	300	-	-	-	175	-	8210G078 ②	13P	-	-	-	-	17.1/F	-	
1 1/4	1 1/8	15	0	150	125	125	135	120	120	180	180	8210G055 †	43D/32D	●	-	-	-	16.1/F	30.8/F	
1 1/4	1 1/8	15	5	150	150	100	125	125	125	180	150	8210G008 ▼	16D	○	-	-	-	6.1/F	11.6/F	
1 1/2	1 1/4	22.5	0	150	125	125	135	120	120	180	180	8210G056 †	44D/33D	●	-	-	-	16.1/F	30.8/F	
1 1/2	1 1/4	22.5	5	150	150	100	125	125	125	180	150	8210G022 ▼	18D	○	8210G127	-	-	6.1/F	11.6/H	
2	1 3/4	43	5	150	125	90	50	50	50	180	150	8210G100	20P	●	8210G129	-	-	6.1/F	11.6/H	
2 1/2	1 3/4	45	5	150	125	90	50	50	50	180	150	8210G101	21P	●	-	-	-	6.1/F	11.6/F	
<b>NORMALLY OPEN (Open when de-energized), NBR Seating (PA Disc-Holder, except as noted)</b>																				
3/8	5/8	3	0	150	150	125	125	125	80	180	150	8210G033	23D	●	-	-	-	10.1/F	11.6/F	
3/8	5/8	3	5	250	200	200	250	200	200	180	180	8210G011 ③ ⑤	39D	●	-	-	-	10.1/F	11.6/F	
1/2	5/8	4	0	150	150	125	125	125	80	180	150	8210G034 ✓	23D	●	-	-	-	10.1/F	11.6/F	
1/2	5/8	3	0	150	150	100	125	125	80	180	150	-	-	-	8210G030 ✓	37D	●	10.1/F	11.6/F	
1/2	5/8	4	5	250	200	200	250	200	200	180	180	8210G012 ③ ⑤	39D	●	-	-	-	10.1/F	11.6/F	
3/4	3/4	5.5	0	150	150	125	125	125	80	180	150	8210G035 ✓	25D	●	-	-	-	10.1/F	11.6/F	
3/4	5/8	3	0	150	150	100	125	125	80	180	150	-	-	-	8210G038 ✓	38D	●	10.1/F	11.6/F	
3/4	3/4	6.5	5	-	-	-	250	200	200	-	180	8210C013	24D	●	-	-	-	-	16.8/F	
3/4	3/4	6.5	5	250	200	200	-	-	-	180	-	8210G013	46D	●	-	-	-	16.1/F	-	
1	1	13	0	125	125	125	-	-	-	180	-	8210B057 ③ ⑤	34D	●	-	-	-	20/F	-	
1	1	13	5	-	-	-	125	125	125	-	180	8210D014	26D	●	-	-	-	16.8/F	-	
1	1	13	5	150	150	125	-	-	-	180	-	8210G014	47D	●	-	-	-	16.1/F	-	
1 1/4	1 1/8	15	0	125	125	125	-	-	-	180	-	8210B058 ③ ⑤	35D	●	-	-	-	20/F	-	
1 1/4	1 1/8	15	5	-	-	-	125	125	125	-	180	8210D018	28D	●	-	-	-	-	16.8/F	
1 1/4	1 1/8	15	5	150	150	125	-	-	-	180	-	8210G018	48D	●	-	-	-	16.1/F	-	
1 1/2	1 1/4	22.5	0	125	125	125	-	-	-	180	-	8210B059 ③ ⑤	36D	●	-	-	-	20/F	-	
1 1/2	1 1/4	22.5	5	-	-	-	125	125	125	-	180	8210D032	29D	●	-	-	-	-	16.8/F	
1 1/2	1 1/4	22.5	5	150	150	125	-	-	-	180	-	8210G032	49D	●	8210G132	-	-	16.1/F	-	
2	1 3/4	43	5	-	-	-	125	125	125	-	150	8210 103	30P	●	-	-	-	-	16.8/F	
2	1 3/4	43	5	125	125	125	-	-	-	180	-	8210G103	50P	●	8210G133	-	-	16.1/F	-	
2 1/2	1 3/4	45	5	-	-	-	125	125	125	-	150	8210 104	27P	●	-	-	-	-	16.8/F	
2 1/2	1 3/4	45	5	125	125	125	-	-	-	180	-	8210G104	51P	●	-	-	-	16.1/F	-	

① 5 psi on Air; 1 psi on Water.

② Valve provided with PTFE main disc.

③ Valve includes Ultem (G.E. trademark) piston.

④ Letter "D" = diaphragm construction; "P" = piston construction.

⑤ ○ Safety Shutoff Valve; ● General Purpose Valve.

Refer to Engineering Section (Approvals) for details.

⑥ Valves not available with Explosionproof enclosures.

⑦ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts.

⑧ AC construction also has PA seating.

⑨ No disc-holder.

⑩ Stainless steel disc-holder.

† UL listed for fire protection systems per UL429A 120/60,

110/5024VDC, no prefix and voltage options offered.

‡ DC constructions must have solenoid mounted vertical and upright.

✓ ATEX/IECEx certified with prefix "EV".

▼ ATEX/IECEx certified for DC only with prefix "EV".

◆ Not available in 6 Volt DC. EF and HB prefix only.

♠ Valve available with lead-free brass body and bonnet using suffix "LF". The term "Lead-Free" for brass materials is defined by SDWA 1417 as having a maximum weighted average lead content of 0.25% on the wetted surface area.



**2/2  
SERIES  
8210**

2-WAY

**Specifications (Metric units)**

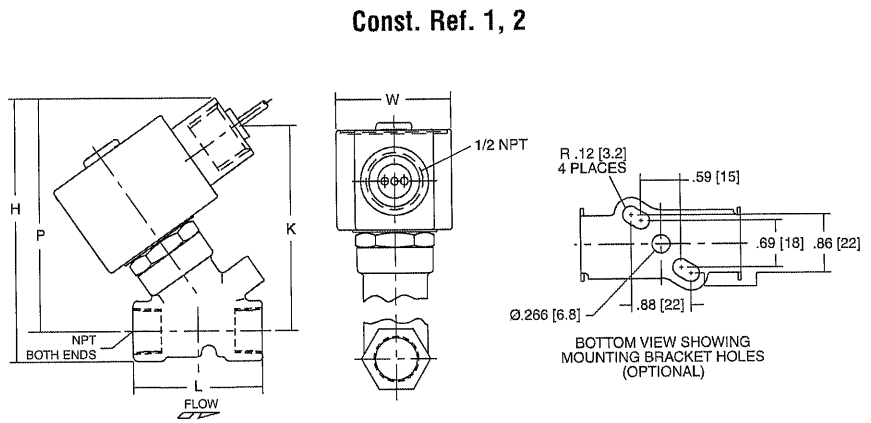
Pipe Size (in)	Orifice Size (mm)	Kv Flow Factor (m <sup>2</sup> /hr)	Operating Pressure Differential (bar)							Max. Fluid Temp. °C		Brass Body			Stainless Steel Body			Watt Rating/ Class of Coil Insulation ⑦		
			Min.	Max. AC			Max. DC			AC	DC	Catalog Number	Const. Ref. ④	UL ⑤	Catalog Number	Const. Ref. ④	UL ⑤	AC	DC	
				Air-Inert Gas	Water	Light Oil @ 300 SSU	Air-Inert Gas	Water	Light Oil @ 300 SSU											
<b>NORMALLY CLOSED (Closed when de-energized), NBR or PTFE ② Seating</b>																				
3/8	10	1.3	①	10	9	-	3	3	-	82	65	8210G073 ③	1P	●	8210G036 ③	1P	●	6.1/F	11.6/F	
3/8	16	2.6	0	10	10	-	3	3	-	82	65	8210G093	5D	○	-	-	-	10.1/F	11.6/F	
3/8	16	2.6	0.3	14	10	9	9	7	7	82	65	8210G001 ▼	6D	○	-	-	-	6.1/F	11.6/F	
3/8	16	2.6	0.3	21	21	21	-	-	-	79	-	8210G006 ✓	5D	○	-	-	-	17.1/F	-	
1/2	11	1.9	①	10	9	-	3	3	-	82	65	8210G015 ③	2P	●	8210G037 ③	2P	●	6.1/F	11.6/F	
1/2	16	3.4	0	10	10	-	3	3	-	82	65	8210G094 ✓	5D	○	-	-	-	10.1/F	11.6/F	
1/2	16	3.4	0	10	10	9	3	3	-	79	65	-	-	-	8210G087 ✓	7D	●	17.1/F	11.6/F	
1/2	16	3.4	0.3	14	10	9	9	7	7	82	65	8210G002 ▼	6D	○	-	-	-	6.1/F	11.6/F	
1/2	16	3.4	0.3	21	21	21	-	-	-	79	-	8210G007	5D	○	-	-	-	17.1/F	-	
1/2	19	3.4	0.3	-	21	-	-	21	-	54	32	8210G227	5D	○ †	-	-	-	17.1/F	40.6H	
3/4	16	3.9	0	10	10	9	3	3	-	79	65	-	-	-	8210G088 ✓	7D	●	17.1/F	11.6/F	
3/4	19	4.3	0.3	9	9	9	7	6	5	82	65	8210G009 ▼	9D	○	-	-	-	6.1/F	11.6/F	
3/4	19	4.3	0	10	10	-	3	3	-	82	65	8210G095 ✓	8D	○	-	-	-	10.1/F	11.6/F	
3/4	19	5.6	0.3	17	10	7	9	9	9	82	65	8210G003 ▼	11D	○	-	-	-	6.1/F	11.6/F	
3/4	19	5.1	0	24	21	14	14	14	14	93	82	8210G026 ② ‡	40P/10D	●	-	-	-	16.1/F	30.8/F	
1	25	11	0	10	9	9	9	8	8	82	82	8210G054 ‡	41D/31D	●	8210G089 ‡	45D/15D	●	16.1/F	30.8/F	
1	25	11	0.3	10	10	7	9	9	9	82	65	8210G004 ▼	12D	○	-	-	-	6.1/F	11.6/F	
1	25	11.5	0	21	16	8	-	-	-	93	-	8210G027 ‡	42P	●	-	-	-	20.1/F	-	
1	25	11.5	0.7	21	21	21	-	-	-	79	-	8210G078 ②	13P	-	-	-	-	17.1/F	-	
1 1/4	29	13	0	10	9	9	9	8	8	82	82	8210G055 ‡	43D/32D	●	-	-	-	16.1/F	30.8/F	
1 1/4	29	13	0.3	10	10	7	9	9	9	82	65	8210G008 ▼	16D	○	-	-	-	6.1/F	11.6/F	
1 1/2	32	19.5	0	10	9	9	9	8	8	82	82	8210G056 ‡	44D/33D	●	-	-	-	16.1/F	30.8/F	
1 1/2	32	19.5	0.3	10	10	7	9	9	9	82	65	8210G022 ▼	18D	○	8210G127	-	-	-	6.1/F	11.6/H
2	44	37	0.3	10	9	6	3	3	3	82	65	8210G100	20P	●	8210G129	-	-	-	6.1/F	11.6H
2 1/2	44	39	0.3	10	9	6	3	3	3	82	65	8210G101	21P	●	-	-	-	6.1/F	11.6/F	
<b>NORMALLY OPEN (Open when de-energized), NBR Seating (PA Disc-Holder, except as noted)</b>																				
3/8	16	2.6	0.0	10	10	9	9	9	6	82	65	8210G033	23D	●	-	-	-	10.1/F	11.6/F	
3/8	16	2.6	0.3	17	14	14	17	14	14	82	82	8210G011 ③ ⑤	39D	●	-	-	-	10.1/F	11.6/F	
1/2	16	3.4	0	10	10	9	9	9	6	82	65	8210G034 ✓	23D	●	-	-	-	10.1/F	11.6/F	
1/2	16	3.4	0	10	10	7	9	9	6	82	65	-	-	-	8210G030 ✓	37D	●	10.1/F	11.6/F	
1/2	16	3.4	0.3	17	14	14	17	14	14	82	82	8210G012 ③ ⑤	39D	●	-	-	-	10.1/F	11.6/F	
3/4	19	4.7	0	10	10	9	9	9	6	82	65	8210G035 ✓	25D	●	-	-	-	10.1/F	11.6/F	
3/4	16	2.6	0	10	10	7	9	9	6	82	65	-	-	-	8210G038 ✓	38D	●	10.1/F	11.6/F	
3/4	19	5.6	0.3	-	-	-	17	14	14	-	82	8210C013	24D	●	-	-	-	-	16.8/F	
3/4	19	5.6	0.3	17	14	14	-	-	-	82	-	8210G013	46D	●	-	-	-	16.1/F	-	
1	25	11	0	9	9	9	-	-	-	82	-	8210B057 ⑥ ⑧	34D	●	-	-	-	20/F	-	
1	25	11	0.3	-	-	-	9	9	9	-	82	8210D014	26D	●	-	-	-	16.8/F	-	
1	25	11	0.3	10	10	9	-	-	-	82	-	8210G014	47D	●	-	-	-	16.1/F	-	
1 1/4	29	13	0	9	9	9	-	-	-	82	-	8210B058 ⑥ ⑧	35D	●	-	-	-	20/F	-	
1 1/4	29	13	0.3	-	-	-	9	9	9	-	82	8210D018	28D	●	-	-	-	-	16.8/F	
1 1/4	29	13	0.3	10	10	9	-	-	-	82	-	8210G018	48D	●	-	-	-	16.1/F	-	
1 1/2	32	19.5	0	9	9	9	-	-	-	82	-	8210B059 ⑥ ⑧	36D	●	-	-	-	20/F	-	
1 1/2	32	19.5	0.3	-	-	-	9	9	9	-	82	8210D032	29D	●	-	-	-	-	16.8/F	
1 1/2	32	19.5	0.3	10	10	9	-	-	-	82	-	8210G032	49D	●	8210G132	-	-	-	16.1/F	-
2	44	37	0.3	-	-	-	9	9	9	-	65	8210 103	30P	●	-	-	-	16.8/F	-	
2	44	37	0.3	9	9	9	-	-	-	82	-	8210G103	50P	●	8210G133	-	-	-	16.1/F	-
2 1/2	44	39	0.3	-	-	-	9	9	9	-	65	8210 104	27P	●	-	-	-	-	16.8/F	
2 1/2	44	39	0.3	9	9	9	-	-	-	82	-	8210G104	51P	●	-	-	-	16.1/F	-	

① 0.3 bar on Air; 0.0 bar on Water.  
 ② Valve provided with PTFE main disc.  
 ③ Valve includes Ultem (G.E. trademark) piston.  
 ④ Letter "D" = diaphragm construction; "P" = piston construction.  
 ⑤ ○ Safety Shutoff Valve; ● General Purpose Valve.  
 Refer to Engineering Section (Approvals) for details.  
 ⑥ Valves not available with Explosionproof enclosures.  
 ⑦ On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts.  
 ⑧ AC construction also has PA seating.  
 ⑨ No disc-holder.  
 ⑩ Stainless steel disc-holder.  
 † UL listed for fire protection systems per UL429A 120/60, 110/5024VDC, no prefix and voltage options offered.  
 ‡ DC constructions must have solenoid mounted vertical and upright.  
 ✓ ATEX/IECEx certified with prefix "EV".  
 ▼ ATEX/IECEx certified for DC only with prefix "EV".  
 ◆ Not available in 6 Volt DC, EF and HB prefix only.  
 ◆ Valve available with lead-free brass body and bonnet using suffix "LF". The term "Lead-Free" for brass materials is defined by SDWA 1417 as having a maximum weighted average lead content of 0.25% on the wetted surface area.

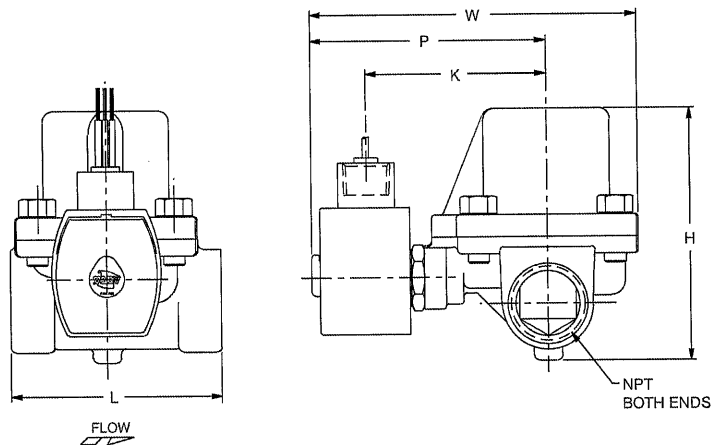
Dimensions: inches (mm)

Const. Ref.		H	K	L	P	W
1*	in	3.85	3.00	1.91	3.41	1.69
	mm	98	76	49	87	43
2*	in	4.17	3.25	2.28	3.63	1.69
	mm	106	83	58	92	43
5	in	3.84	2.31	2.75	3.28	2.28
	mm	98	59	70	83	58
6*	in	3.38	1.94	2.75	2.80	2.28
	mm	86	49	70	71	58
7	in	4.19	2.50	2.81	3.47	2.39
	mm	106	64	71	88	61
8	in	4.13	2.47	2.81	3.44	2.29
	mm	105	63	71	87	58
9*	in	3.66	2.10	2.81	2.96	2.28
	mm	93	53	71	75	58
10*	in	5.20	3.40	2.80	4.50	2.50
	mm	131	86	71	114	62
11*	in	4.16	2.66	3.84	3.52	2.75
	mm	106	68	98	89	70
12	in	5.64	3.15	3.75	4.01	3.36
	mm	143	80	95	102	85
13	in	4.44	3.22	3.75	4.19	5.81
	mm	113	82	95	106	147
15*	in	5.20	3.30	3.80	4.40	3.80
	mm	133	83	98	111	98
16	in	5.64	3.15	3.66	4.01	3.56
	mm	143	80	93	102	90
18*	in	6.11	3.30	4.38	4.16	3.92
	mm	155	84	111	106	100
20*	in	7.33	3.71	5.06	4.57	4.87
	mm	186	94	129	116	124
21*	in	7.33	3.71	5.50	4.57	4.87
	mm	186	94	140	116	124
23	in	4.35	2.65	2.75	3.79	2.28
	mm	110	67	70	96	58
24	in	5.06	X	3.78	4.44	2.75
	mm	129	X	96	113	70
25	in	4.64	2.81	2.81	3.94	2.28
	mm	118	71	71	100	58
26	in	6.53	X	3.75	4.91	3.19
	mm	166	X	95	125	81
27	in	8.22	X	5.50	5.47	4.87
	mm	209	X	140	139	124
28	in	6.53	X	3.66	4.91	3.19
	mm	166	X	93	125	81
29	in	7.03	X	4.38	5.06	4.40
	mm	179	X	111	129	112

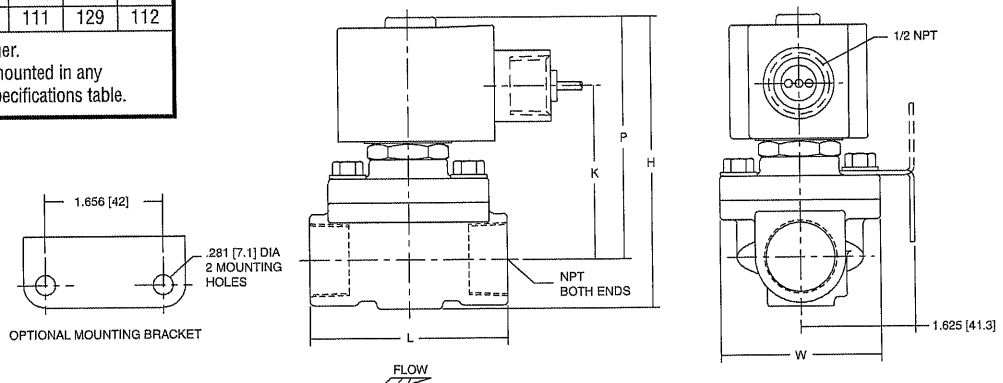
\* DC dimensions slightly larger.  
**IMPORTANT:** Valves may be mounted in any position, except as noted in specifications table.



Const. Ref. 13



Const. Ref. 5-9, 11, 23, 25, 37,38, 40-46

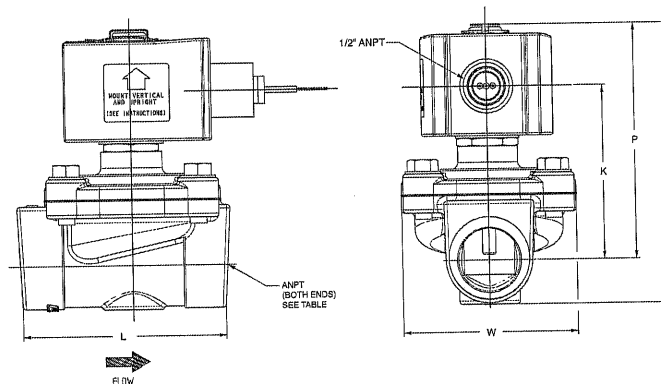


### Dimensions: inches (mm)

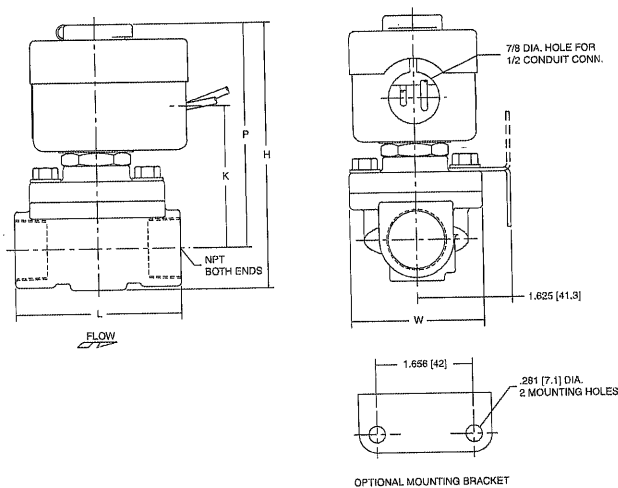
Const. Ref.		H	K	L	P	W
30	in	8.22	X	5.06	5.47	4.87
	mm	209	X	129	139	124
31	in	5.13	3.19	3.76	4.32	3.27
	mm	130	81	95	110	83
32	in	5.60	3.44	3.66	4.57	3.27
	mm	142	87	93	116	83
33	in	5.92	3.66	4.51	4.80	3.89
	mm	150	93	115	122	99
34	in	6.91	X	3.75	6.09	3.25
	mm	176	X	95	155	83
35	in	7.34	X	3.66	6.34	3.25
	mm	186	X	93	161	83
36	in	7.66	X	4.38	6.56	3.91
	mm	195	X	111	167	99
37	in	4.61	2.75	2.81	3.89	2.39
	mm	117	70	71	99	61
38	in	4.61	2.75	2.81	3.89	2.39
	mm	117	70	71	99	61
39	in	5.42	2.31	2.75	4.86	3.80
	mm	138	59	70	123	97
40	in	5.20	3.29	2.81	4.50	2.28
	mm	132	83	71	114	58
41	in	5.13	3.10	3.75	4.32	3.25
	mm	130	79	95	110	83
42	in	6.43	4.40	3.93	5.62	3.25
	mm	163	112	100	143	83
43	in	5.57	3.35	3.66	4.57	3.25
	mm	142	85	93	116	83
44	in	5.90	3.57	4.38	4.79	3.91
	mm	150	91	111	122	99
45	in	5.26	3.17	3.75	4.38	3.84
	mm	134	81	95	111	98
46	in	4.95	3.10	3.84	4.31	2.75
	mm	126	79	98	110	70
47	in	6.43	3.59	3.75	4.81	3.52
	mm	163	91	95	122	90
48	in	6.43	3.59	3.66	4.81	3.73
	mm	163	91	93	122	95
49	in	6.91	3.75	4.38	4.96	4.40
	mm	176	95	111	126	112
50	in	8.13	4.15	5.06	5.37	4.87
	mm	207	105	129	136	124
51	in	8.13	4.15	5.50	5.37	5.18
	mm	207	105	140	136	132

**IMPORTANT:** Valves may be mounted in any position, except as noted in specifications table.

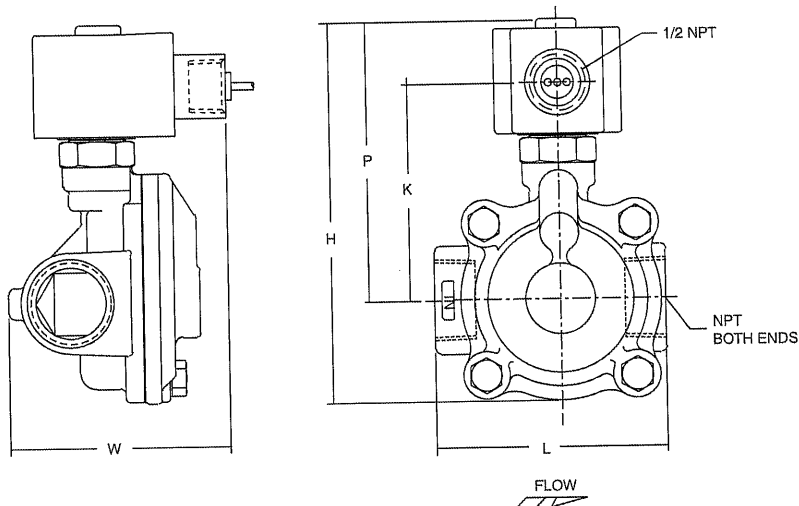
Const. Ref. 10, 15, 31, 32, 33



Const. Ref. 24, 34, 35, 36

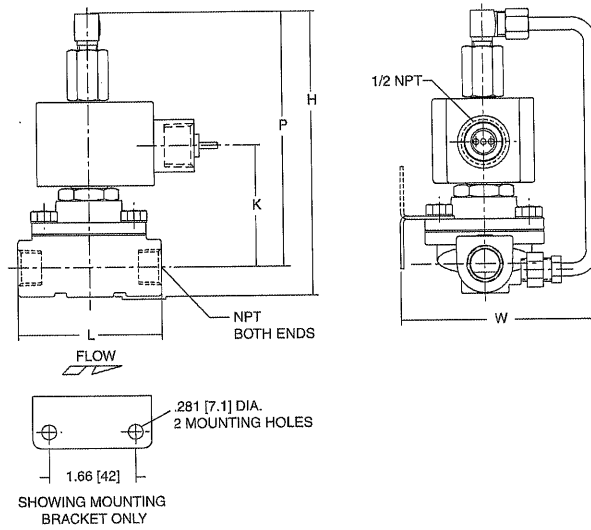


Const. Ref. 12, 16, 26, 28, 47, 48

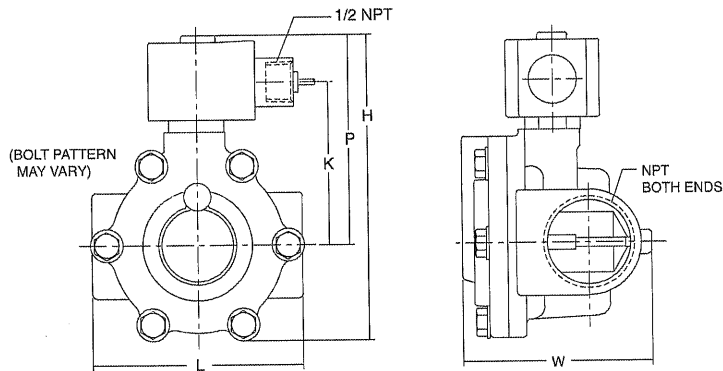


Dimensions: inches (mm)

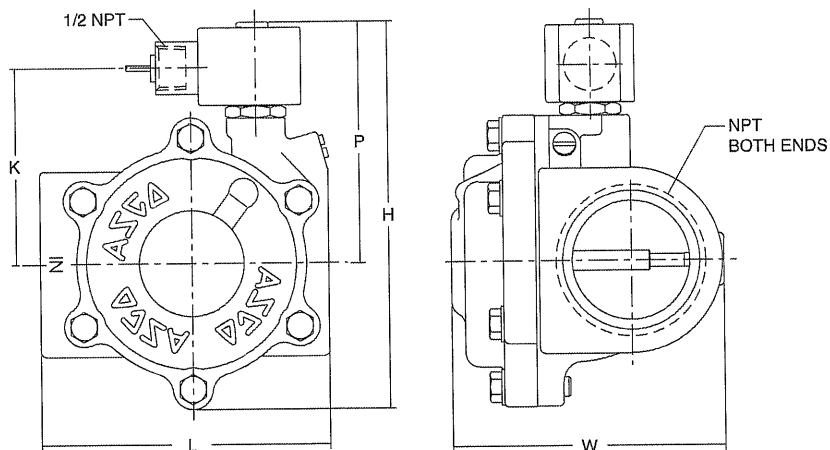
Const. Ref. 39



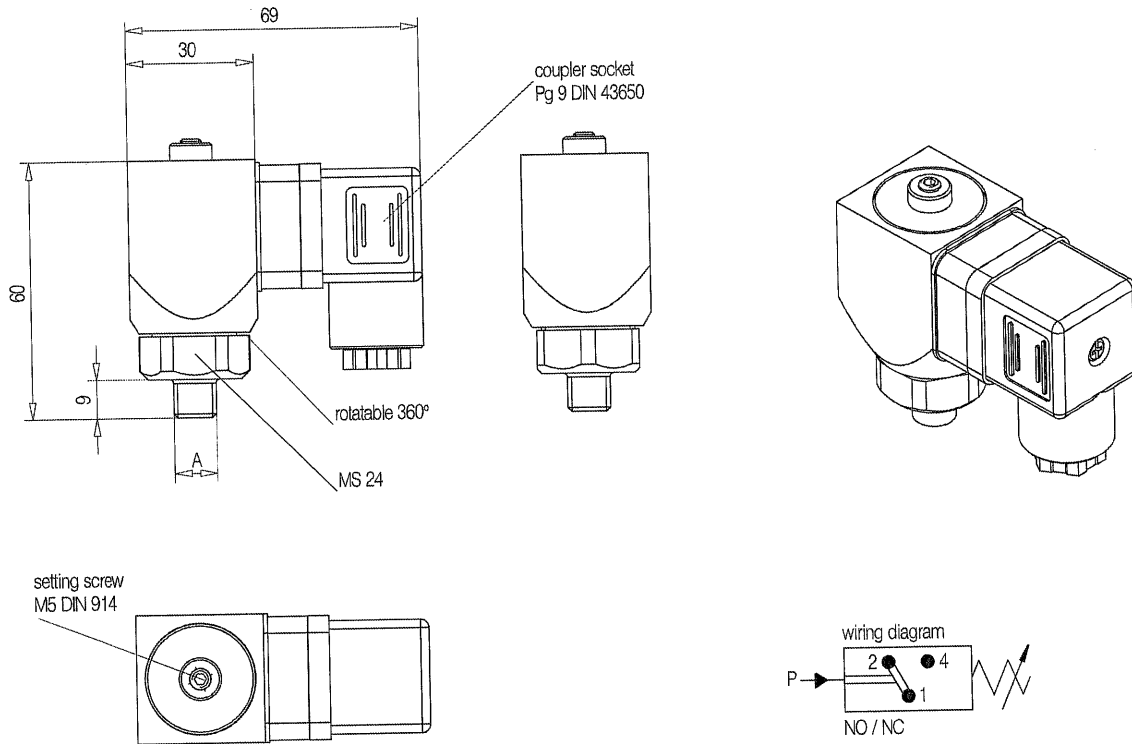
Const. Ref. 18, 29, 49



Const. Ref. 20, 21, 27, 30, 50, 51







### TECHNICAL DATES

	600 002	600 010	600 070	600 200
order no.	600 002	600 010	600 070	600 200
pressure setting range	0,3 – 2 bar	1 – 10 bar	10 – 70 bar	50 – 200 bar
working pressure max.	2 bar	10 bar	70 bar	200 bar
bursting pressure	5 bar	20 bar	120 bar	300 bar
design	spring safety membranes			spring-loaded piston
diaphragm/seal	NBR, special design VITON, CR, EPDM, KALREZ			UR, special design NBR, VITON
manner of fastening	male thread			
fitting thread >A<	G 1/4", G 1/8", M12 x 1.5, M 10x1, M10 x 1 cone			
mounting position	any			
ambient temperature	-25°C bis + 85°C, higher temperatures on demand			
medium	air, hydraulic oil, oil emulsions, water, others on demand			
adjustability	under pressure			
switch back difference	15% – 25%			
mechanical life	10 <sup>6</sup>			
material	galvanized steel, special design brass or VA			
weight	230 gr			
switching element	microswitch - silver-plated contacts / special gold-plated contacts			
reference voltage	250 V			
reference frequency	not over 100 Hz			
switching frequency max.	200/min.			
electrical connection	by coupler socket PG9 DIN 43 650			
protective system	IP65, terminale IP00 DIN 40 050			

breaking capacity	A.C.		D.C.				
	125 V	250 V	30 V	50 V	75 V	125 V	250 V
voltage up to	125 V	250 V	30 V	50 V	75 V	125 V	250 V
resistance load	5 A	5 A	5 A	2 A	1 A	0,5 A	0,25 A
incandescent lamp load	0,5 A	0,5 A	0,5 A	0,4 A	0,3 A	0,2 A	0,1 A
inductive load	5 A	5 A	5 A	2 A	1 A	0,06 A	0,03 A

It is recommended not to use only the manometric switch to separate the device from the mains. for inductively loaded DC circuits e. g. for magnets, spark extinguishers have to be provided.

**ELFA**  
**SHIMIZU**

TYPE  
V230  
W4

ZB12A  
50-60 Hz

ED: 100%  
Class: F T: 60°C

L182B01

G12x135

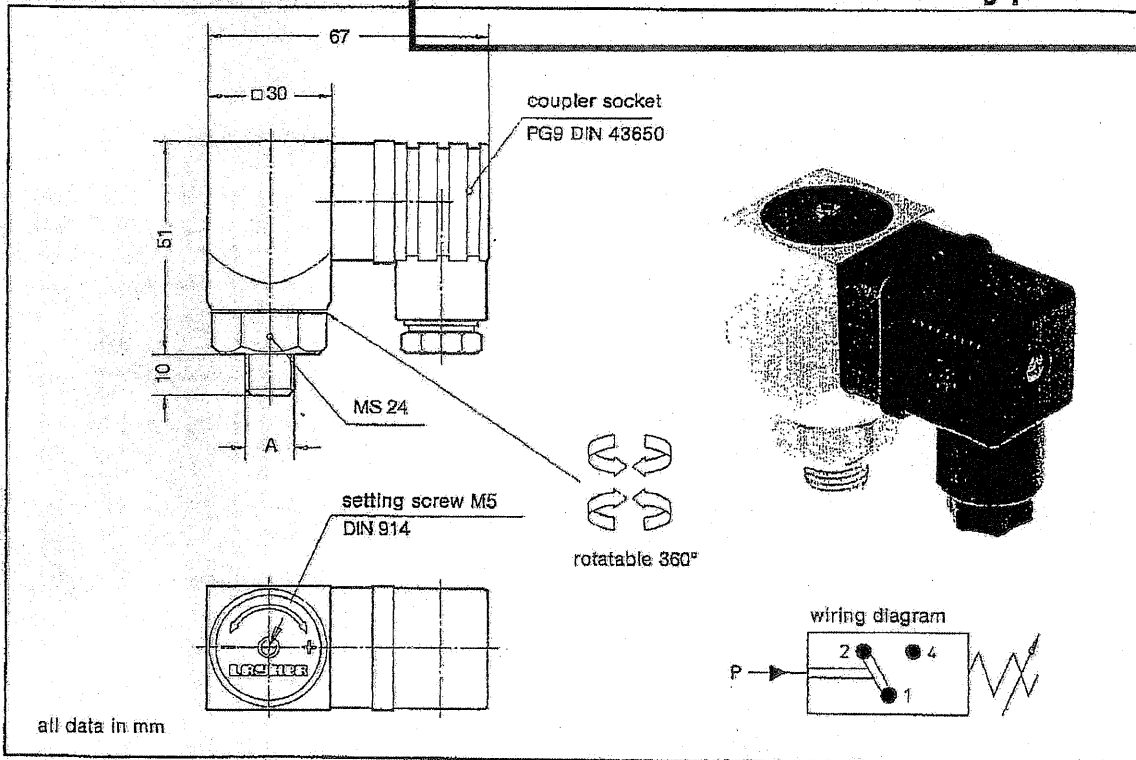
4p Gas=0.35-16 bar

4p Lin=0.35-16 bar

PS = 20 bar

**LAYHER**

# Manometric Switch Typ 600



**TECHNICAL DATES**

order no.	600 002	<b>600 010</b>	600 070	600 200
pressure setting range	0,3 - 2 bar	1 - 10 bar	10 - 70 bar	50 - 200 bar
working pressure max.	2 bar	10 bar	70 bar	200 bar
bursting pressure	6 bar	20 bar	120 bar	300 bar
design	spring safety membranes			spring-loaded piston
diaphragm/seal	NBR			
manner of fastening	male thread			
fitting thread >A<	G 1/4"			
mounting position	any			
ambient temperature	-25°C bis + 85°C, higher temperatures on demand			
medium	air, hydraulic oil, oil emulsions, water, others on demand			
adjustability	under pressure			
switch back difference	15% - 25%			
mechanical life	10 <sup>6</sup>			
material	stainless steel 1.4571			
weight	230 gr			
switching element	microswitch			
reference voltage	250 V			
reference frequency	not over 100 Hz			
switching frequency max.	200/min.			
electrical connection	by coupler socket PG9 DIN 43 650			
protective system	IP 65, terminate IP00 DIN 40 050			

breaking capacity	A.C.		D.C.				
	125 V	250 V	30 V	50 V	75 V	125 V	250 V
voltage up to			30 V	50 V	75 V	125 V	250 V
resistance load	5 A	5 A	5 A	2 A	1 A	0,5 A	0,25 A
incandescent lamp load	0,5 A	0,5 A	0,5 A	0,4 A	0,3 A	0,2 A	0,1 A
inductive load	5 A	5 A	5 A	2 A	1 A	0,06 A	0,03 A

It is recommended not to use only the manometric switch to separate the device from the mains. For inductively loaded DC circuits e. g. for magnets, spark extinguishers have to be provided.

subject to technical changes

LAYHER GmbH, Maschinenbau, Kalkwerkstraße 23, D-71737 Kirchberg/Murr, Telefon (07144) 3204, Telefax (07144) 34307