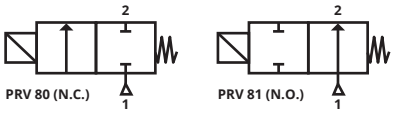
TECHNICAL SPECIFICATIONS, DESCRIPTIONS and GENERAL FEATURES



Low Pressure Loss | Don't Require Differantial Pressure | Coil Rotatable 360° | Large Orifice

Low Weight | Patented Enclosing Tube Design | Fast Opening and Closing | Long Life

*** Fluids:** Valves are suitable for water, low viscosity oils etc... non-aggressive liquids and Air, Inert Gas etc... gaseous but is not suitable for hazardous fluids

*** Switching Function:** Normally Closed (N.C., Closed when de-energised) [PRV 80 Series] and Normally Open (N.O., Open when de-energised) [PRV 81 Series]

*** Principle of Operation:** Direct Operated

*** Way Number:** 2/2 (Ports / Positions)

*** Connection and Port Sizes:** G3/8" and G1/2"

*** Connection Type:** Thread (Female), G (BSPP / ISO 228-1)

*** Pressure Range:** 0-7 Bar (PRV 80 Series), 0-10 Bar (PRV 81 Series)

*** Fluid Temperature:** -10 °C to max 80 °C

*** Ambient Temperature:** -20 °C to max 70 °C

*** Opening Time:** 25 ms

*** Closing Time:** 25 ms

*** Max. Viscosity:** 38 cSt or mm2/s

*** Max. Allowable Pressure or Design Pressure:** 10 bar (PRV 80 Series) , 15 bar (PRV 81 Series)

* Don't require differantial pressure, internal exhaust system (for PRV 81 Series)

* Valve ha ssealing o-rings

* Sutiable AC and DC voltage, high voltage tolerance

* Coil interchangeable without dismantling the valve (don't matter AC or DC)

* Low flow loss, low power loss

* Various flow rate options, wide range of pressure ratings, wide range of orifice options

* Mounting position, optional any position but preferably solenoid coil vertical on top

* The fluid passing through the valve must be filtered

* According 97/23/EC Pressure Equipment Directive (PED), 2006/95/EEC Low Voltage Directive (LVD) and 2004/108/EC Electromagnetic Compatibility Directive (EMC)

* Flow rate (Q) can be usually calculated as a function of pressure, density and flow coefficient

Model No	Position	Connection and Port Size	Orifice Size	Flow Factor / Coefficient Kv		Operating Pressure Differantial				Fluid Temperature		Seal	Approximate Weight
						Min. (For AC)	Min. (For DC)	Max. (For AC)	Max. (For DC)	Min.	Max.		
PRV		G	mm	L/m	m3/h	Bar	Bar	Bar	Bar	°C	°C		Kg
PRV 80.02.050	N.C.	3/8"	5	9.5	0.57	0	0	7	7	-10	+80	NBR	0.47
PRV 80.02.060	N.C.	3/8"	6	11.5	0.69	0	0	6	6	-10	+80	NBR	0.47
PRV 80.02.070	N.C.	3/8"	7	12.5	0.75	0	0	5	5	-10	+80	NBR	0.47
PRV 80.02.080	N.C.	3/8"	8	14	0.84	0	0	3	3	-10	+80	NBR	0.47
PRV 80.02.090	N.C.	3/8"	9	19	1.14	0	0	2	2	-10	+80	NBR	0.47
PRV 80.02.100	N.C.	3/8"	10	20	1.20	0	0	1	1	-10	+80	NBR	0.47
PRV 80.03.050	N.C.	1/2"	5	9.5	0.57	0	0	7	7	-10	+80	NBR	0.44
PRV 80.03.060	N.C.	1/2"	6	11.5	0.69	0	0	6	6	-10	+80	NBR	0.44
PRV 80.03.070	N.C.	1/2"	7	12.5	0.75	0	0	5	5	-10	+80	NBR	0.44
PRV 80.03.080	N.C.	1/2"	8	14	0.84	0	0	3	3	-10	+80	NBR	0.44
PRV 80.03.090	N.C.	1/2"	9	19	1.14	0	0	2	2	-10	+80	NBR	0.44
PRV 80.03.100	N.C.	1/2"	10	20	1.20	0	0	1	1	-10	+80	NBR	0.44
PRV 81.02.025	N.O.	3/8"	2.5	3.3	0.19	0	0	10	10	-10	+80	NBR	0.50
PRV 81.03.025	N.O.	1/2"	2.5	3.3	0.19	0	0	10	10	-10	+80	NBR	0.47

GENERAL PURPOSE SOLENOID VALVES

PRV 80-81

DIRECT OPERATED, N.C. AND N.O., 2/2 WAY, G3/8" UP TO G1/2", 0 TO 10 BAR

OPTIONS

* Custom options can be performed for customer's special requests.

* On request; NPT (ANSI 1.20.3), R (BSPT / ISO 7-1), W (BSW /Whitworth), M (Metric) etc...

* On request; diaphragm or sealing or o-rings can be FPM (VITON) (-10 °C to 160 °C) , EPDM (-10 °C to 140 °C)

* On request; various body surface coating, nickel plated body, different body materials, internal parts stainless steel (for PRV 81), seat can be stainless steel, filter, other pipe connections, 2 or 4 mounting sub-base holes at the bottom of the body.

* On request; other special supply voltages, frequencies (60 Hz), other power, coil insulation class : F (155 °C), coil duty latching model

* On request; with electronic timer , Explosion-Proof coil for use in zones 1/21-2/22 (Eex em II T4/T5), coil encapsulation material can be fiber glass reinforced (V0 or V1)

* On request; connector with LED or without connector, connector with visual indication and peak voltage suppression, connector with cable length of 2m, Spade plug (Cable Ø8-10mm), connector non-flammable

* On request; other versions

ELECTRICAL CHARACTERISTICS

* **Protection Range:** IP 65 (EN 60529) (with connector)

* **Plug Connection:** DIN 46340-3 poles connectors (DIN 43650)

* **Connector Specification:** ISO 4400 / EN 175301-803 Form A, Spade plug (Cable Ø 6-8 mm)

* **Electrical Safety:** IEC 335, EN 60335-1, EN 60204-1

* **Coil Insulation Class:** H (180 °C)

* **Coil Impregnation:** Polyester Fiber-Resin Glass

* **Coil Encapsulation Material:** Fiber Glass Reinforced (V2)

* **Supply Voltages:** For AC (~) : 12V , 24V , 48V , 110V , 230V
For DC (=) : 12V , 24V , 48V , 110V , 230V

* **Voltage Tolerances:** For AC (~) or DC (=) %-10 ; %+10

* **Frequency:** 50 Hz

* **Coil Duty Cycle:** %100 ED, Continously Rated

* Design according to DIN VDE 0580

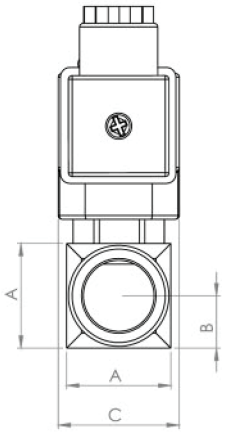
POWER CONSUMPTION

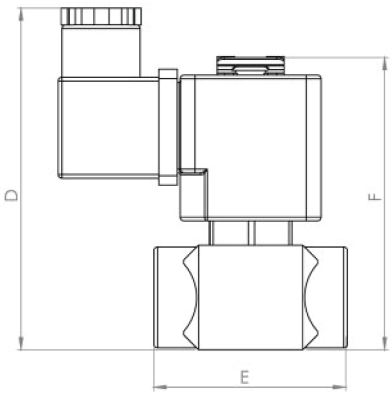
Power Consumption							
Alternating Current (AC)				Direct Current (DC)			
Model No	Voltage	Inrush (VA)	Holding (VA)	Model No	Voltage	Cold (W)	Hot (W)
PRB-1000-12 VAC	12V	30	18	PRB-1000-12 VDC	12V	16	12
PRB-1000-24 VAC	24V	30	18	PRB-1000-24 VDC	24V	16	12
PRB-1000-48 VAC	48V	30	18	PRB-1000-48 VDC	48V	16	12
PRB-1000-110 VAC	110V	30	18	PRB-1000-110 VDC	110V	16	12
PRB-1000-220 VAC	220V	30	18	PRB-1000-220 VDC	220V	16	12

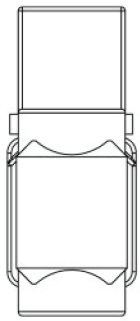
MATERIALS

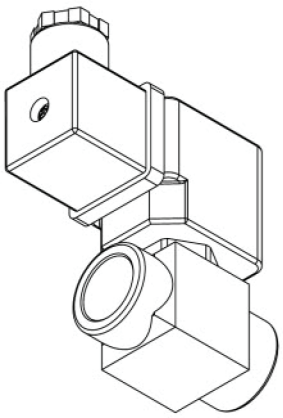
* **Body:** Brass
* **Plunger Seal:** NBR
* **Enclosing Tube:** Stainless Steel (AISI 430FR and AISI304) for PRV 80 Series , Stainless Steel (AISI430 FR and AISI304) and Brass for PRV 81 Series
* **Plunger:** Stainless Steel (AISI 430FR)
* **Springs:** Stainless Steel (AISI 302)
* **Shading Ring:** Copper
* **Seat:** Brass
* **O-rings:** NBR
* **Internal Metal Parts:** Stainless Steel and Brass

DIMENSIONS (mm)



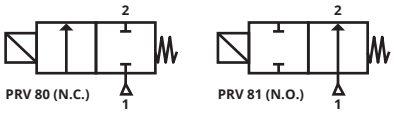






Size	A	B	C	D	E	F
3/8"	28	14	32.5	91.5	51.5	78.2
1/2"	28	14	32.5	91.5	51.5	78.2

TECHNICAL SPECIFICATIONS, DESCRIPTIONS and GENERAL FEATURES



Low Pressure Loss | Don't Require Differantial Pressure | Coil Rotatable 360° | Large Orifice

Low Weight | Patented Enclosing Tube Design | Fast Opening and Closing | Long Life

* **Fluids:** Valves are suitable for water, low viscosity oils etc... non-aggressive liquids and Air, Inert Gas etc... gaseous but is not suitable for hazardous fluids
* **Switching Function:** Normally Closed (N.C., Closed when de-energised) [PRV 80 Series] and Normally Open (N.O., Open when de-energised) [PRV 81 Series]
* **Principle of Operation:** Direct Operated
* **Way Number:** 2/2 (Ports / Positions)
* **Connection and Port Sizes:** G3/4" and G1"
* **Connection Type:** Thread (Female), G (BSPP / ISO 228-1)
* **Pressure Range:** 0-7 Bar (PRV 80 Series), 0-10 Bar (PRV 81 Series)
* **Fluid Temperature:** -10 °C to max 80 °C
* **Ambient Temperature:** -20 °C to max 70 °C
* **Opening Time:** 25 ms
* **Closing Time:** 25 ms
* **Max. Viscosity:** 38 cSt or mm2/s
* **Max. Allowable Pressure or Design Pressure:** 10 bar (PRV 80 Series) , 15 bar (PRV 81 Series)
* Don't require differantial pressure, internal exhaust system (for PRV 81 Series)
* Valve ha ssealing o-rings
* Sutiable AC and DC voltage, high voltage tolerance
* Coil interchangeable without dismantling the valve (don't matter AC or DC)
* Low flow loss, low power loss
* Various flow rate options, wide range of pressure ratings, wide range of orifice options
* Mounting position, optional any position but preferably solenoid coil vertical on top
* The fluid passing through the valve must be filtered
* According 97/23/EC Pressure Equipment Directive (PED), 2006/95/EEC Low Voltage Directive (LVD) and 2004/108/EC Electromagnetic Compatibility Directive (EMC)
* Flow rate (Q) can be usually calculated as a function of pressure, density and flow coefficient

Model No	Position	Connection and Port Size	Orifice Size	Flow Factor / Coefficient Kv		Operating Pressure Differantial				Fluid Temperature		Seal	Approximate Weight
						Min. (For AC)	Min. (For DC)	Max. (For AC)	Max. (For DC)	Min.	Max.		
PRV		G	mm	L/m	m3/h	Bar	Bar	Bar	Bar	°C	°C		Kg
PRV 80.04.050	N.C.	3/4"	5	9.5	0.57	0	0	7	7	-10	+80	NBR	0.70
PRV 80.04.060	N.C.	3/4"	6	11.5	0.69	0	0	6	6	-10	+80	NBR	0.70
PRV 80.04.070	N.C.	3/4"	7	12.5	0.75	0	0	5	5	-10	+80	NBR	0.70
PRV 80.04.080	N.C.	3/4"	8	14	0.84	0	0	3	3	-10	+80	NBR	0.70
PRV 80.04.090	N.C.	3/4"	9	19	1.14	0	0	2	2	-10	+80	NBR	0.70
PRV 80.04.100	N.C.	3/4"	10	20	1.20	0	0	1	1	-10	+80	NBR	0.70
PRV 80.05.050	N.C.	1"	5	9.5	0.57	0	0	7	7	-10	+80	NBR	0.65
PRV 80.05.060	N.C.	1"	6	11.5	0.69	0	0	6	6	-10	+80	NBR	0.65
PRV 80.05.070	N.C.	1"	7	12.5	0.75	0	0	5	5	-10	+80	NBR	0.65
PRV 80.05.080	N.C.	1"	8	14	0.84	0	0	3	3	-10	+80	NBR	0.65
PRV 80.05.090	N.C.	1"	9	19	1.14	0	0	2	2	-10	+80	NBR	0.65
PRV 80.05.100	N.C.	1"	10	20	1.20	0	0	1	1	-10	+80	NBR	0.65
PRV 81.04.025	N.O.	3/4"	2.5	3.3	0.19	0	0	10	10	-10	+80	NBR	0.73
PRV 81.05.025	N.O.	1"	2.5	3.3	0.19	0	0	10	10	-10	+80	NBR	0.68

GENERAL PURPOSE SOLENOID VALVES

PRV 80-81

DIRECT OPERATED , N.C. AND N.O. , 2/2 WAY , G3/4" UP TO G1", 0 TO 10 BAR

OPTIONS

* Custom options can be performed for customer's special requests.

* On request; NPT (ANSI 1.20.3), R (BSPT / ISO 7-1), W (BSW /Whitworth), M (Metric) etc...

* On request; diaphragm or sealing or o-rings can be FPM (VITON) (-10 °C to 160 °C) , EPDM (-10 °C to 140 °C)

* On request; various body surface coating, nickel plated body, different body materials, internal parts stainless steel (for PRV 81), seat can be stainless steel, filter, other pipe connections, 2 or 4 mounting sub-base holes at the bottom of the body.

* On request; other special supply voltages, frequencies (60 Hz), other power, coil insulation class : F (155 °C), coil duty latching model

* On request; with electronic timer , Explosion-Proof coil for use in zones 1/21-2/22 (Eex em II T4/T5), coil encapsulation material can be fiber glass reinforced (V0 or V1)

* On request; connector with LED or without connector, connector with visual indication and peak voltage suppression, connector with cable length of 2m, Spade plug (Cable Ø8-10mm), connector non-flammable

* On request; other versions

ELECTRICAL CHARACTERISTICS

* **Protection Range:** IP 65 (EN 60529) (with connector)

* **Plug Connection:** DIN 46340-3 poles connectors (DIN 43650)

* **Connector Specification:** ISO 4400 / EN 175301-803 Form A, Spade plug (Cable Ø 6-8 mm)

* **Electrical Safety:** IEC 335, EN 60335-1, EN 60204-1

* **Coil Insulation Class:** H (180 °C)

* **Coil Impregnation:** Polyester Fiber-Resin Glass

* **Coil Encapsulation Material:** Fiber Glass Reinforced (V2)

* **Supply Voltages:** For AC (~) : 12V , 24V , 48V , 110V , 230V
For DC (=) : 12V , 24V , 48V , 110V , 230V

* **Voltage Tolerances:** For AC (~) or DC (=) %-10 ; %+10

* **Frequency:** 50 Hz

* **Coil Duty Cycle:** %100 ED, Continously Rated

* Design according to DIN VDE 0580

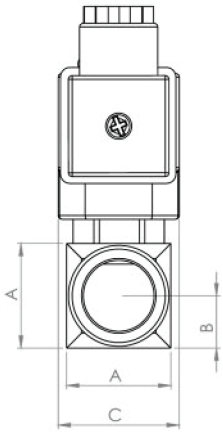
POWER CONSUMPTION

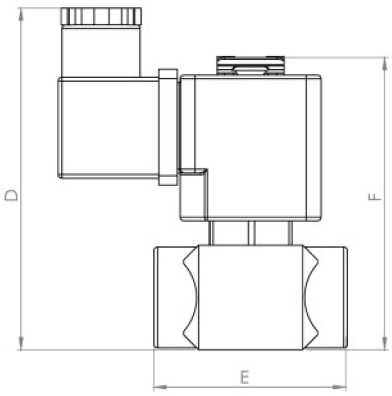
Power Consumption							
Alternating Current (AC)				Direct Current (DC)			
Model No	Voltage	Inrush (VA)	Holding (VA)	Model No	Voltage	Cold (W)	Hot (W)
PRB-1000-12 VAC	12V	30	18	PRB-1000-12 VDC	12V	16	12
PRB-1000-24 VAC	24V	30	18	PRB-1000-24 VDC	24V	16	12
PRB-1000-48 VAC	48V	30	18	PRB-1000-48 VDC	48V	16	12
PRB-1000-110 VAC	110V	30	18	PRB-1000-110 VDC	110V	16	12
PRB-1000-220 VAC	220V	30	18	PRB-1000-220 VDC	220V	16	12

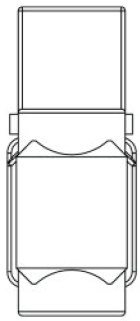
MATERIALS

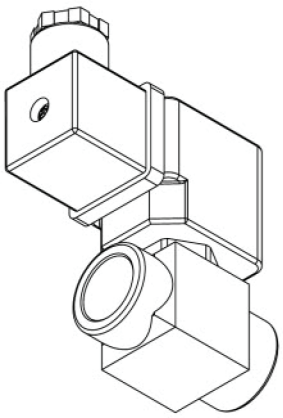
* **Body:** Brass
* **Plunger Seal:** NBR
* **Enclosing Tube:** Stainless Steel (AISI 430FR and AISI304) for PRV 80 Series , Stainless Steel (AISI430 FR and AISI304) and Brass for PRV 81 Series
* **Plunger:** Stainless Steel (AISI 430FR)
* **Springs:** Stainless Steel (AISI 302)
* **Shading Ring:** Copper
* **Seat:** Brass
* **O-rings:** NBR
* **Internal Metal Parts:** Stainless Steel and Brass

DIMENSIONS (mm)









Size	A	B	C	D	E	F
3/4"	32	16	32.5	95.5	52	82
1"	40	20	32.5	103.5	60	90