

# SOLENOID VALVES | GEM-SOL® | Special Purpose Proportional

## GEM-SOL® | PR32 (GEM-PR)

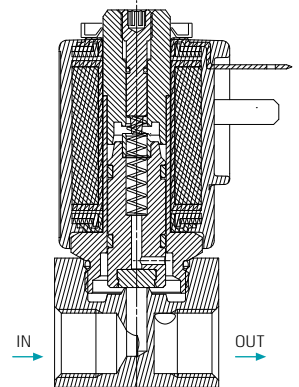
### Proportional 2 Way NC

#### Technical Data

Function	2 Way NC
Ports size	1/8", 1/4" BSP & NPT
Orifice size	See table
Pressure range	See table
Kv (l/min)	See table
Temperature range	<b>Fluid</b> : -10°C to 80°C (no freezing) <b>Ambient</b> : -10°C to 55°C
Materials in contact with media	<b>Main Valve:</b> Brass, Stainless Steel AISI 316 <b>Solenoid Operator:</b> Stainless Steel AISI 300 & 400 series <b>Seals:</b> NBR, FKM, EPDM, Polyurethane, PTFE <b>Guide rings:</b> PTFE
Media	Neutral gases, water, oil Max. viscosity 2lmm²/s
The control parameter is the current in the coil.	
Operating current	100-500[mA] standard voltage 24V DC(=)
Electrical connection	Per DIN 43650-a, or 2 flying leads 18AWG (0.75mm²) 300 mm length
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

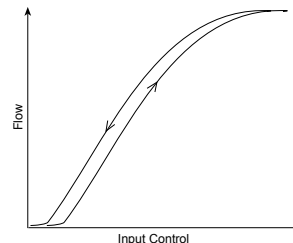


Stainless Steel



#### Guidelines for selection

1. The pressure drop ( $\Delta P$ ) on the valve should be 30-50% or higher, of the total pressure drop in the system.
2. Special consideration should be taken in choosing the right Kv of the valve as this factor determines the flow and pressure drop of the valve.
3. To achieve better regulation performance when working without a control unit, the maximum pressure should be 1.1 times the working pressure. The maximum pressure can be adjusted using the upper screw.
4. Inlet pressure should be kept constant during operation.



#### Standard calibration pressure (bar)

	Orifice size (mm)						
	0.8	1.2	1.6	2.0	2.4	3.0	4.0
Pressure rating(bar) <sup>(1)</sup>	16	12	10	8	6	3.5	2
Flow factor Kv(l/min)	0.6	1.1	1.7	2.5	3.5	4.5	5

- (1) From technical vacuum to max. rating  
(2) Other calibration pressures on request

#### Flow regulation :

With control unit PWM 500[Hz] measured at constant  $\Delta P$  (delta P).

Hysteresis	<5% of FS
Repeatability	<3% of FS
Sensitivity	<2% of FS

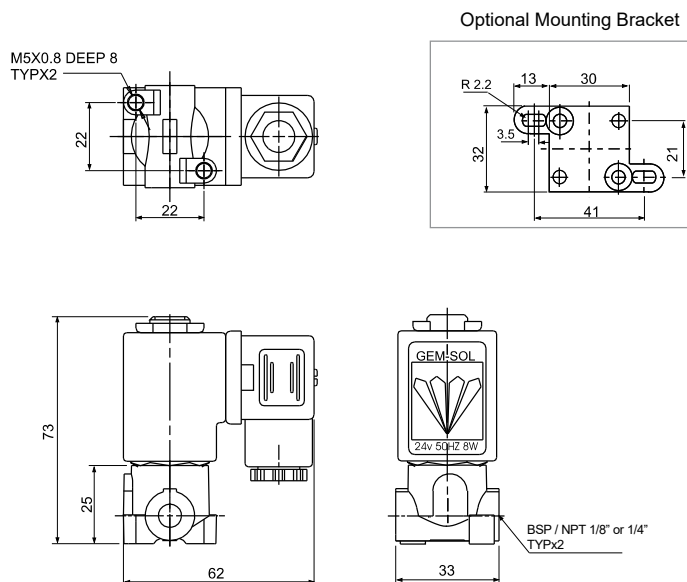
#### Voltage & Power Consumption

V	DC (W)		
	10	5.5	3.5
6			
12	•		
24	•		
48			
110			
120			
220			
230			
240			

• Available options

# GEM-SOL® | PR32 (GEM-PR) | Proportional 2 Way NC

## Dimensions



## How to Order

GEM-PR	BODY	PORT	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	CONNECTOR							
	Brass	2	1/8" BSP	10	2W NC	1	0.8	1	NBR	N	None	0	with	1
	Stainless Steel	3	1/8" NPT	11			1.2	2	FKM	V			<b>flying leads coil *</b>	4
			1/4" BSP	20			1.6	3	EPDM	E			with 1/2" Hub	5
			1/4" NPT	21			2.0	4	<b>Polyurethane *</b>	<b>P</b>			connector with moulded cable	7
							2.4	5	<b>PTFE *</b>	<b>T</b>				
							3.0	6						
						4.0	7							

\* **SPECIAL OPTIONS** | Extended lead times, Non-stock items, MOQ may be applicable

### Example : GEM-PR-21015N0-1

GEM-SOL® PR32 (GEM-PR) Proportional, Brass, 1/8" BSP, 2W NC, 2.4 orifice, NBR, without manual override, with connector.

\* Please specify the working pressure range when placing an order

\* To order valves manufactured according to your specific requirements, please contact our technical sales department.