

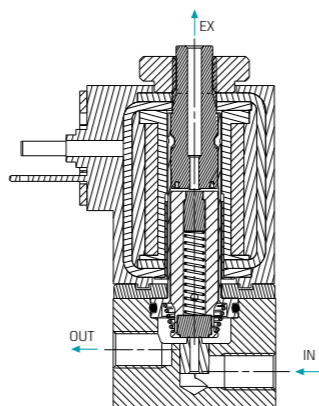
SOLENOID VALVES | General Purpose

Direct Operated | 3W

G65-A | 3 Way NC



Aluminium | 1.2 orifice



Technical Data

Function	3 Way NC
Ports size	M5, #10UNF
Orifice size	See table
Pressure range	See table
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Main Valve: Aluminium, Stainless Steel AISI 316, Brass Solenoid Operator Stainless Steel AISI 300 & 400 series, Brass Seals: NBR, FPM (Viton®), EPDM
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector

Max. Pressure (bar) 3W NC table

Coil Current/Power	Orifice (mm)		
	0.8	1.0	1.2
AC - 3.6VA	10	8.5	5.5
DC - 3W	10	8.5	5.5
Flow factor Kv(l/min)	0.4	0.5	0.65

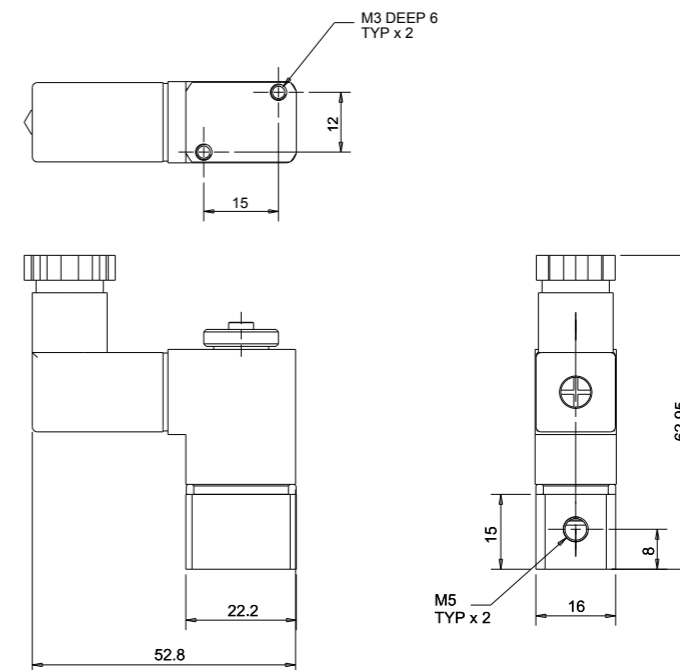
Voltage & Power Consumption

V	AC 50Hz		DC (W)
	3.2VA	3.6VA	3
12			•
24		•	•
110		•	
230	•		

• Available options

Direct Operated | 3W | G65 | NC

Dimensions



How to Order

G65-A	BODY ⁽¹⁾	PORT	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	VOLTAGE	POWER	CONNECTOR								
Aluminium	1	M5	00	3W NC	3	0.8	1	NBR	N	None	0	W/out coil	0	No coil	0	without	0
Brass	2	#10UNF	01			1.0	2	FPM (Viton®)	V			12	2	AC3.6VA ⁽²⁾ 50Hz	1	with	1
Stainless Steel	3					1.2	3	EPDM	E			24	3	DC3W	3	other	9
												110	5				
												230	7				

Example : G65-A-10032V0-310

G65 direct operated, aluminium, M5, 3W NC, 1mm orifice, FPM (Viton®), without manual override, 24V, AC 3.6VA 50Hz without connector.

G65-A - 1 00 3 2 V 0 - 3 1 0

(1) For Stainless Steel tube, add "s" : e.g. G65-A - Xs X X X X X X X X X

(2) When choosing 230V AC, the power is 3.2VA

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

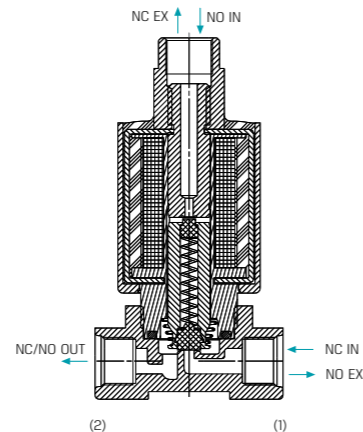
SOLENOID VALVES | General Purpose

Direct Operated | 3W

G75-A | 1/8", 1/4" 3 Way NC, NO



Brass | 1/4"



Technical Data

Function	3 Way NC, NO
Ports size	1/8" and 1/4" BSP & NPT
Orifice size	See table
Pressure range	See table
Temperature range	Fluid : 5°C to 50°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Manual override: Reinforced Nylon Main Valve: Brass Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: EPDM
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP66

• Available with brass adaptor upon request.

Max. Pressure (bar) table

Function	Orifice (mm)	AC	DC	DC Latch
3W NC	1	16	12	16
	1.2	11	9	11
	1.6	6	5	6
3W NO	1.0	16	16	16
	1.2	12	12	12
	1.6	10	10	10

Voltage & Power Consumption

	AC (W)	DC (W)
	50 Hz	
V	2	4.5
12	•	•
24	•	•

• Available options

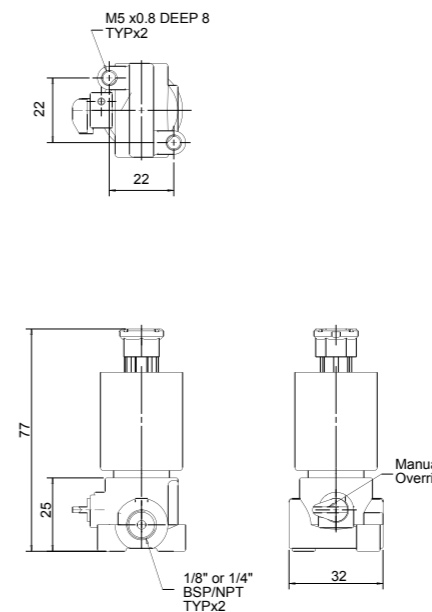
Voltage & Current table

Solenoid	Voltage	Inrush [A]	Holding [A]
2W 50 Hz	V +10% n-20%	0.3	0.19
2W 60 Hz		0.2	0.14
3W 50/60 Hz *		0.125	0.125
DC		4.5W	

* Except 24V AC without Diode

Direct Operated | 3W | G75 | 1/8", 1/4" NC, NO

Dimensions



How to Order

G75-A	-	TYPE ⁽¹⁾	PORT	FUNCTION	MANUAL OVERRIDE	ORIFICE	-	VOLTAGE ⁽⁶⁾	WIRES						
		Brass	3	1/8" BSP	10	3W NC	3	None	0	1.0	1	24V AC	1	two	null
				1/8" NPT	11	3W NO	4	Plastic ⁽³⁾	1	1.2	2	24V AC w/out Diode ⁽⁵⁾	1R	three ⁽⁴⁾	a
				1/4" BSP	20					1.6	3	12V AC	3		
				1/4" NPT	21					2.0 ⁽²⁾	4	12V DC	4		
												24V DC	5		
												23Ω	6		
												4Ω	B		
												9Ω	C		
												12Ω	D		

Coil resistance vs input voltage range

Resistance [Ω]	Suitable input voltage range [V]
4	6 - 9
9	12 - 14
12	14 - 16
23	18 - 21

Example : G75-A-310302-1

G75 Brass, 1/8"BSP, 3W NC, no manual override, 1.2 orifice, 24V AC coil, two wires

G75-A - 3 10 3 0 2 - 1

- (1) G75-A valves are also available in plastic
- (2) For 2mm orifice : top orifice is 1.6mm
- (3) Recommended for AC and continuous DC only
- (4) For Latch only
- (5) 3W NO 1.6 mm : Max pressure is 8 bars
- (6) For Latch : Refer to coil resistance vs input voltage table

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

SOLENOID VALVES | General Purpose

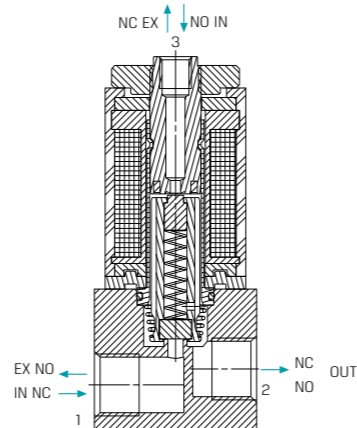
Direct Operated | 3W

G80-A | 3 Way NC, NO



Stainless Steel | 1/8"

Brass | plastic manual override



Technical Data

Function	3 Way NC, NO
Ports size	1/8" BSP, NPT, M5, #10UNF
Orifice size	See table
Pressure range	<ul style="list-style-type: none"> See table Valves for pressure higher than 12 bar cannot be supplied with manual override
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Manual override*: Plastic * Maximum pressure : 16 bar Main Valve: Aluminium, Stainless Steel AISI 316, Brass Solenoid Operator Stainless Steel AISI 300 & 400 series, Brass Seals: NBR, FPM (Viton®), EPDM
Media	Air, water, oil
Coil voltage	<ul style="list-style-type: none"> Voltage and power consumption - see table All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector

Max. Pressure (bar) 3W NC table

Coil Current/Power	Orifice (mm)		
	1.0	1.2	1.6
AC - 75W	15	12	10.5
AC - 4W	12	10	7
DC - 6.5W	15	12	10.5
DC - 3W	12	10	7
Flow factor Kv(l/min)	0.5	0.65	1

Max. Pressure (bar) 3W NO table

Coil Current/Power	Orifice(mm)	
	1.2	1.6
AC - 75W	12	8
AC - 4W	10	7
DC - 6.5W	12	8
DC - 3W	10	6
Flow factor Kv(l/min)	0.4	0.7

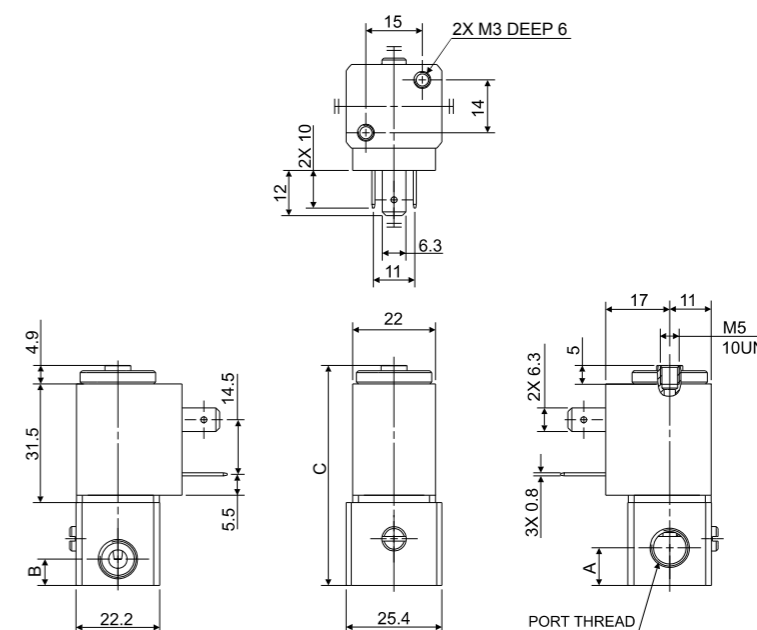
Voltage & Power Consumption

V	AC (W)				DC (W)	
	75	4	6	3	6.5	3
6					•	•
12	•	•	•	•	•	•
24	•	•	•	•	•	•
110	•	•	•	•		
230	•	•	•	•		

• Available options

Direct Operated | 3W | G80 | NC, NO

Dimensions



Port thread	A	B	C
M5/#10UNF	5.5	4	51.5
1/8"	10	7	58.5

How to Order

G80-A	BODY ⁽¹⁾	PORT	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE	* When ordering without coil, please define what current and pressure rating is needed (DC, AC)										
							VOLTAGE	POWER	CONNECTOR								
Aluminium	1	M5	00	3W NC	3	1.0	1	NBR	N	None	0	W/out coil	0	No coil	0	without	0
Brass	2	#10UNF	01	3W NO	4	1.2	2	FPM (Viton®)	V	Plastic ⁽²⁾	1	6	1	AC75W 50Hz	1	with	1
Stainless Steel	3	1/8" BSP	10			1.6	3	EPDM	E			12	2	AC6W 60Hz	2	with bi-color LED	2
		1/8" NPT	11									24	3	DC6.5W	3	surge protection with LED	3
												110	5	AC4W 50Hz	4	flying leads coil	4
												230	7	AC3W 60Hz	5	other	9
												other	9	DC3W	7	Latch ⁽³⁾	L

Example : G80-A-11032V1-331

G80 direct operated, aluminium base, 1/8" BSP, 3W NC, 1.2 orifice, FPM (Viton®), plastic manual override, 24V DC 6.5W with connector

G80-A - 1 10 3 2 V 1 - 3 3 1

(1) For Stainless Steel tube add "s" : e.g. G80-A-Xs-X-X-X-X-X-X-X-X-X-X

(2) Maximum pressure : 16 bar

(3) When ordering a latch valve, please contact our technical sales department

* 1/8" adaptor available

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

SOLENOID VALVES | General Purpose

Direct Operated | 3W



* Available on selected models only

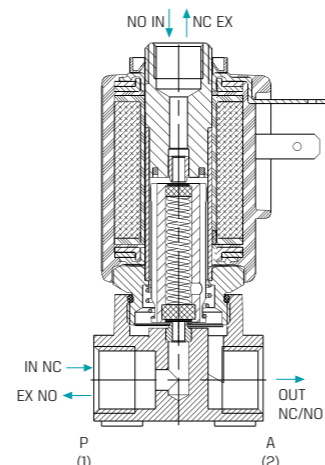
GEM-A | 1/8", 1/4" 3 Way NC, NO



Stainless Steel | slot manual override



Brass | slot manual override

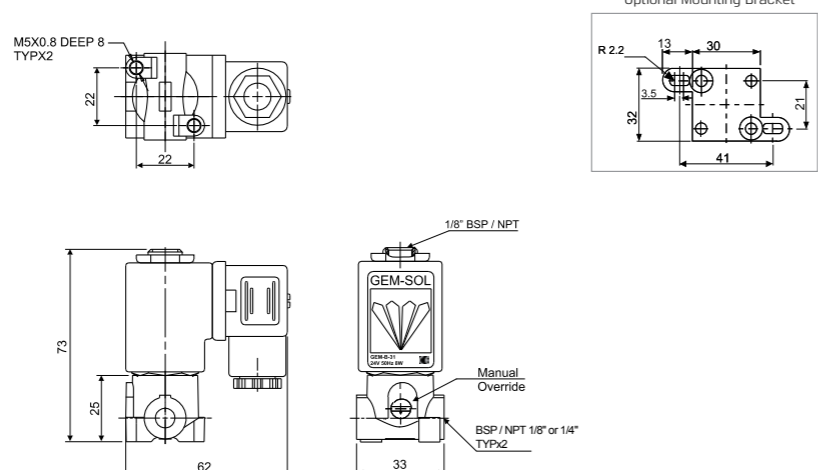


Technical Data

Function	3 Way NC, NO
Ports size	1/8" and 1/4" BSP & NPT
Orifice size	See table
Pressure range	• See table • Valves for pressure higher than 25 bar cannot be supplied with manual override
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Manual override: Plastic, Brass screw or Brass finger knob, Stainless Steel for Stainless Steel valves (1) Plastic manual override : Maximum pressure : 16 bar (2) Manual override is unavailable in 3W NO through base applications Main Valve: Brass or Stainless Steel AISI 316 Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR, FPM (Viton®), EPDM, FFKM (Kalrez®), PTFE
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard / Certification	• UL 429 * Available on selected models only. Contact our technical sales department for details.
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

• Latch valves are available upon request.

Dimensions



Max. Pressure (bar) 3W NC table

Coil Current/Power	Orifice (mm)					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC *	23	20	15	10	8	5.5
AC8W, DC10W	35	30	17	14	10	6
AC5.5W	23	20	15	10	8	5.5
AC2.5W DC5.5W DC3.5W	20	16	10	9	5	4
Flow factor Kv(l/min)	0.6	1.1	1.7	2.5	3.5	4.5

Max. Pressure (bar) 3W NO table

Coil Current/Power	Orifice (mm)					
	0.8	1.2	1.6	2.0	2.4	3.0
ADC *	25	20	15	11	8	6
AC/8W DC/10W	30	22	17	12	10	7
AC/5.5W,DC/5.5W	25	20	15	11	8	6
AC/2.5W,DC/3.5W	20	18	12	8	6	4
Flow factor Kv(l/min)	0.6	1	1.4	2.2	3.0	3.5

* ADC valves are only suitable for use with AC8W or DC10W coils.

Direct Operated | 3W | GEM-SOL | 1/8", 1/4" NC, NO

Three Product Ordering Categories available

- STANDARD** | Reduced lead times, No MOQ
- SEMI-STANDARD** | Normal lead times, No MOQ
- SPECIAL** | Extended lead times, Non-stock items, MOQ may be applicable

Ordering Chart

STANDARD ITEMS | Reduced lead times, No MOQ
ADC operator only

MODEL	PORT	FUNCTION	ORIFICE (mm)	SEAL MATERIAL	MANUAL OVERRIDE	CONNECTOR	MOPD (bar)	PART NO. PER VOLTAGE & POWER			
								24VDC 10W	24VAC 8W 50Hz	110VAC 8W 60Hz	230VAC 8W 50Hz
GEM-A BRASS	1/8" BSP	3W NC	1.6	NBR	Slot	with	15	1253088030 GEM-A-21033N2-331 ADC	1253088201 GEM-A-21033N2-311 ADC	1253088202 GEM-A-21033N2-521 ADC	1253088203 GEM-A-21033N2-711 ADC
			10				1253090201 GEM-A-21034N2-331 ADC	1253090202 GEM-A-21034N2-311 ADC	1253090203 GEM-A-21034N2-521 ADC	1253090204 GEM-A-21034N2-711 ADC	
			8				1253093201 GEM-A-21035N2-331 ADC	1253093202 GEM-A-21035N2-311 ADC	1253093203 GEM-A-21035N2-521 ADC	1253093204 GEM-A-21035N2-711 ADC	
			15				1253088204 GEM-A-21133N2-331 ADC	1253088205 GEM-A-21133N2-311 ADC	1253088206 GEM-A-21133N2-521 ADC	1253088207 GEM-A-21133N2-711 ADC	
			10				1253090205 GEM-A-21134N2-331 ADC	1253090206 GEM-A-21134N2-311 ADC	1253090632 GEM-A-21134N2-521 ADC	1253090207 GEM-A-21134N2-711 ADC	
			8				1253093205 GEM-A-21135N2-331 ADC	1253093206 GEM-A-21135N2-311 ADC	1253093207 GEM-A-21135N2-521 ADC	1253093208 GEM-A-21135N2-711 ADC	
	1/8" NPT	3W NO	1.6	15	1253127251 GEM-A-21043N2-331 ADC	1253127536 GEM-A-21043N2-311 ADC	1253127252 GEM-A-21043N2-521 ADC	1253127587 GEM-A-21043N2-711 ADC			
			2.0	11	1253130201 GEM-A-21044N2-331 ADC	1253130202 GEM-A-21044N2-311 ADC	1253130203 GEM-A-21044N2-521 ADC	1253130204 GEM-A-21044N2-711 ADC			
			2.4	8	1253138201 GEM-A-21045N2-331 ADC	1253138202 GEM-A-21045N2-311 ADC	1253138203 GEM-A-21045N2-521 ADC	1253138204 GEM-A-21045N2-711 ADC			
			1.6	15	1253127253 GEM-A-21143N2-331 ADC	1253127254 GEM-A-21143N2-311 ADC	1253127556 GEM-A-21143N2-521 ADC	1253127255 GEM-A-21143N2-711 ADC			
			2.0	11	1253130205 GEM-A-21144N2-331 ADC	1253130206 GEM-A-21144N2-311 ADC	1253130207 GEM-A-21144N2-521 ADC	1253130208 GEM-A-21044N2-711 ADC			
			2.4	8	1253138042 GEM-A-21145N2-331 ADC	1253138205 GEM-A-21145N2-311 ADC	1253138206 GEM-A-21145N2-521 ADC	1253138207 GEM-A-21145N2-711 ADC			
	1/4" BSP	3W NC	1.6	15	1255088333 GEM-A-22033N2-331 ADC	1255088202 GEM-A-22033N2-311 ADC	1255088203 GEM-A-22033N2-521 ADC	1255088204 GEM-A-22033N2-711 ADC			
			2.0	10	1255091030 GEM-A-22034N2-331 ADC	1255091202 GEM-A-22034N2-311 ADC	1255091203 GEM-A-22034N2-521 ADC	1255091204 GEM-A-22034N2-711 ADC			
			2.4	8	1255093030 GEM-A-22035N2-331 ADC	1255093202 GEM-A-22035N2-311 ADC	1255093203 GEM-A-22035N2-521 ADC	1255093204 GEM-A-22035N2-711 ADC			
			1.6	15	1255088032 GEM-A-22133N2-331 ADC	1255088352 GEM-A-22133N2-311 ADC	1255088205 GEM-A-22133N2-521 ADC	1255088382 GEM-A-22133N2-711 ADC			
			2.0	10	1255091205 GEM-A-22134N2-331 ADC	1255091206 GEM-A-22134N2-311 ADC	1255091207 GEM-A-22134N2-521 ADC	1255091208 GEM-A-22134N2-711 ADC			
			2.4	8	1255093205 GEM-A-22135N2-331 ADC	1255093206 GEM-A-22135N2-311 ADC	1255093207 GEM-A-22135N2-521 ADC	1255093208 GEM-A-22135N2-711 ADC			
	1/4" NPT	3W NO	1.6	15	1255127201 GEM-A-22043N2-331 ADC	1255127530 GEM-A-22043N2-311 ADC	1255127203 GEM-A-22043N2-521 ADC	1255127580 GEM-A-22043N2-711 ADC			
			2.0	11	1255130030 GEM-A-22044N2-331 ADC	1255130530 GEM-A-22044N2-311 ADC	1255130203 GEM-A-22044N2-521 ADC	1255130581 GEM-A-22044N2-711 ADC			
			2.4	8	1255138201 GEM-A-22045N2-331 ADC	1255138202 GEM-A-22045N2-311 ADC	1255138203 GEM-A-22045N2-521 ADC	1255138204 GEM-A-22045N2-711 ADC			
			1.6	15	1255127032 GEM-A-22143N2-331 ADC	1255127534 GEM-A-22143N2-311 ADC	1255127207 GEM-A-22143N2-521 ADC	1255127584 GEM-A-22143N2-711 ADC			
			2.0	11	1255130205 GEM-A-22144N2-331 ADC	1255130533 GEM-A-22144N2-311 ADC	1255130207 GEM-A-22144N2-521 ADC	1255130208 GEM-A-22144N2-711 ADC			
			2.4	8	1255138205 GEM-A-22145N2-331 ADC	1255138206 GEM-A-22145N2-311 ADC	1255138207 GEM-A-22145N2-521 ADC	1255138208 GEM-A-22145N2-711 ADC			

(continued on next page)

SOLENOID VALVES | General Purpose

Direct Operated | 3W

GEM-A | 1/8", 1/4" 3 Way NC, NO

Ordering Chart

STANDARD ITEMS | Reduced lead times, No MOQ
ADC operator only

MODEL	PORT	FUNCTION	ORIFICE (mm)	SEAL MATERIAL	MANUAL OVERRIDE	CONNECTOR	MOPD (bar)	PART NO. PER VOLTAGE & POWER				
								24VDC 10W	24VAC 8W 50Hz	110VAC 8W 60Hz	230VAC 8W 50Hz	
GEM-A	1/4" BSP	3W NC	1.6	FPM (Viton®)	Slot	with	15	1255088211 GEM-A-32033V2-331 ADC	1255088212 GEM-A-32033V2-311 ADC	1255088213 GEM-A-32033V2-521 ADC	1255088214 GEM-A-32033V2-711 ADC	
			2.0				10	1255091211 GEM-A-32034V2-331 ADC	1255091212 GEM-A-32034V2-311 ADC	1255091213 GEM-A-32034V2-521 ADC	1255091214 GEM-A-32034V2-711 ADC	
			2.4				8	1255093211 GEM-A-32035V2-331 ADC	1255093212 GEM-A-32035V2-311 ADC	1255093213 GEM-A-32035V2-521 ADC	1255093214 GEM-A-32035V2-711 ADC	
			1.6				15	1255088215 GEM-A-32133V2-331 ADC	1255088216 GEM-A-32133V2-311 ADC	1255088217 GEM-A-32133V2-521 ADC	1255088218 GEM-A-32033V2-711 ADC	
			2.0				10	1255091215 GEM-A-32034V2-331 ADC	1255091216 GEM-A-32134V2-311 ADC	1255091217 GEM-A-32134V2-521 ADC	1255091218 GEM-A-32134V2-711 ADC	
			2.4				8	1255093215 GEM-A-32135V2-331 ADC	1255093216 GEM-A-32135V2-311 ADC	1255093217 GEM-A-32135V2-521 ADC	1255093218 GEM-A-32135V2-711 ADC	
	SST	1/4" BSP	3W NO	1.6	FPM (Viton®)	Slot	with	15	1255127211 GEM-A-32043V2-331 ADC	1255127074 GEM-A-32043V2-311 ADC	1255127213 GEM-A-32043V2-521 ADC	1255127214 GEM-A-32043V2-711 ADC
				2.0				11	1255130211 GEM-A-32044V2-331 ADC	1255130212 GEM-A-32044V2-311 ADC	1255130213 GEM-A-32044V2-521 ADC	1255130214 GEM-A-32044V2-711 ADC
				2.4				8	1255138049 GEM-A-32045V2-331 ADC	1255138212 GEM-A-32045V2-311 ADC	1255138213 GEM-A-32045V2-521 ADC	1255138214 GEM-A-32045V2-711 ADC
				1.6				15	1255127149 GEM-A-32143V2-331 ADC	1255127215 GEM-A-32143V2-311 ADC	1255127216 GEM-A-32143V2-521 ADC	1255127217 GEM-A-32143V2-711 ADC
				2.0				11	1255130215 GEM-A-32144V2-331 ADC	1255130216 GEM-A-32144V2-311 ADC	1255130217 GEM-A-32144V2-521 ADC	1255130218 GEM-A-32144V2-711 ADC
				2.4				8	1255138215 GEM-A-32145V2-331 ADC	1255138216 GEM-A-32145V2-311 ADC	1255138217 GEM-A-32145V2-521 ADC	1255138218 GEM-A-32145V2-711 ADC

PART NO. PER VOLTAGE & POWER

*Standard coils are not vacuum impregnated

Direct Operated | 3W | GEM-SOL | 1/8", 1/4" NC, NO

Model Selection

- STANDARD** | Reduced lead times, No MOQ. Please refer to **Standard Items Ordering Chart**
- SEMI-STANDARD** | Normal lead times, No MOQ
- SPECIAL** | Extended lead times, Non-stock items, MOQ may be applicable. For a quote, please contact our sales department

GEM-A	BODY	PORT	FUNCTION	ORIFICE	SEALS	MANUAL OVERRIDE					
Brass	2	1/8" BSP	10	3W NC	3	0.8 1	NBR	N	None	0	
			11	3W NO	4	1.2 2	FPM(Viton®)	V	Plastic (3)	1	
			20	3WNO (1) through base	4a	1.6 3	EPDM	E	Slot	2	
		1/4" NPT	21	2.0 4	FFKM(Kalrez®)(2)	K	Knob	3			
			2.4 5	PTFE	T						
			3.0 6								
	SST	3	1/8" BSP	10	3W NC	3	0.8 1	NBR	N	None	0
				11	3W NO	4	1.2 2	FPM(Viton®)	V	Plastic (3)	1
				20	3WNO (1) through base	4a	1.6 3	EPDM	E	Slot	2
		1/4" NPT	21	2.0 4	FFKM(Kalrez®)(2)	K	Knob	3			
			2.4 5	PTFE	T						
			3.0 6								

* For available options, please refer to **VOLTAGE & POWER CONSUMPTION** table below

VOLTAGE	POWER	CONNECTOR
No coil	0	None
6	1	AC8W 50Hz
12	2	AC8W 60Hz
24	3	DC10W
48	4	AC5.5W50Hz
110	5	AC5.5W60Hz
120	6	AC2.5W 50/60Hz
220	7A	DC5.5W
230	7	DC3.5W
240	8	
Latch/other(4)	9	

Voltage & Power Consumption

V	AC (W)						DC (W)		
	50 Hz			60 Hz			10	5.5	3.5
6							●	●	●
12	●			●			●	●	●
24	▲	●	●	●	●	●	▲		
48	●			●			●		
110	●			▲	●		●		
120	●			●			●		
220	●	●	●	●			●		
230	▲	●							
240	●			●			●		

Available options :
 ▲ STANDARD
 ● SEMI-STANDARD
 ■ SPECIAL

Example : GEM-A-21035N2-311

GEM-SOL direct operated brass, 1/8"BSP, 3W NC, 2.4 orifice, NBR, slot manual override, 24V AC8W 50Hz with connector

GEM-A - 2 10 3 5 N 2 - 3 1 1

- Option 4a : manual override is not available
- FFKM (Kalrez®) O-ring is available only upon request. When ordering FFKM (Kalrez®) seals, please consult with our technical sales department about O-ring compound
- Maximum pressure : 16 bar
- For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table

* Note: When ordering without coil, please define what current and pressure rating is needed (DC, AC or ADC), otherwise an ADC valve will be supplied

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

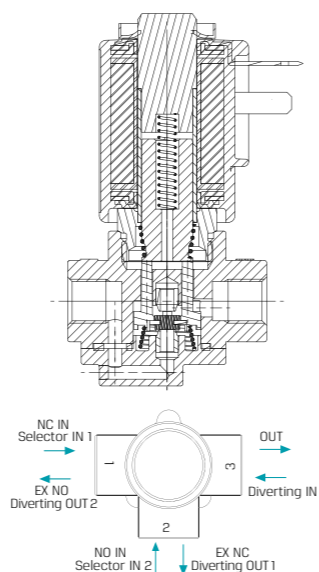
SOLENOID VALVES | General Purpose

Direct Operated | 3W

GEM-U | Universal 1/8", 1/4"



General purpose | 1/8"



Technical Data

Function	3 Way NC, NO selecting & diverting
Ports size	1/8", 1/4" BSP & NPT
Orifice size	See table
Pressure range	See table
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Main Valve: Brass Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR, FPM (Viton®), EPDM
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

- ADC valves are only suitable for use with AC8W or DC10W coils.
- Latch valves are available upon request.

Max. Pressure (bar) universal function

Coil Current/Power	Orifice (mm)			
	1.6	2.0	2.4	3.0
AC8W	14	9	6.5	3
AC5.5W	11	8	5.5	3
DC10W	10	8	5.5	3
Flow factor Kv(l/min)	1.7	2.5	3.5	4.5

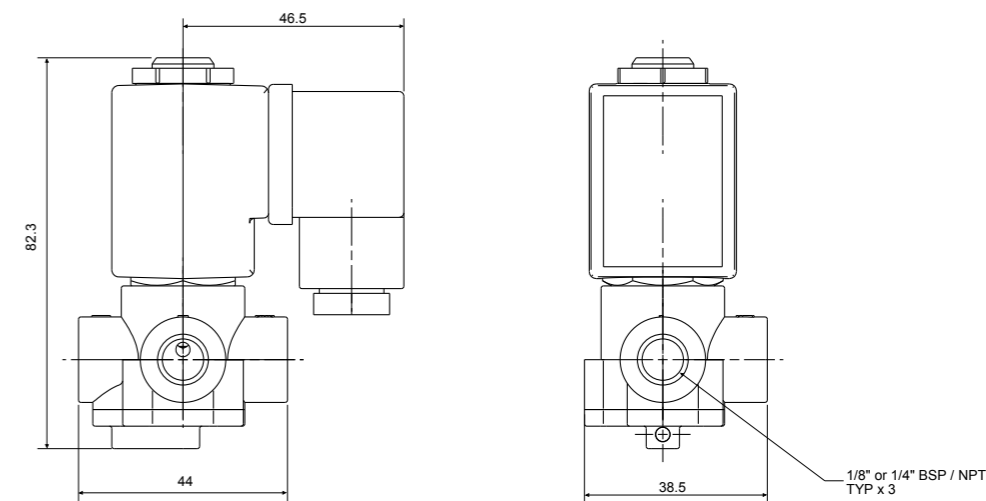
Voltage & Power Consumption

V	AC (W)						DC (W)		
	50 Hz			60 Hz			10	5.5	3.5
	8	5.5	2.5	8	5.5	2.5			
6							•		
12	•			•			•		
24	•	•		•	•		•		
48	•			•			•		
110	•			•	•		•		
120	•			•					
220	•	•		•			•		
230	•	•							
240	•			•			•		

• Available options

Direct Operated | 3W | GEM-SOL | Universal 1/8", 1/4"

Dimensions



How to Order

GEM-U	BODY	PORT	FUNCTION	ORIFICE	SEALS	VOLTAGE	POWER	CONNECTOR								
	Brass	2	1/8" BSP	10	diverter ⁽¹⁾	5	1.6	3	NBR	N	W/out coil	0	No coil	0	without	0
			1/8" NPT	11	general purpose	9	2.0	4	FPM (Viton®)	V	6	1	AC8W 50Hz	1	with	1
			1/4" BSP	20			2.4	5	EPDM	E	12	2	AC8W 60Hz	2	with LED	2
			1/4" NPT	21			3.0	6			24	3	DC10W	3	with bi-color LED	3
											48	4	AC5.5W 50Hz	4	flying leads coil	4
											110	5	AC5.5W 60Hz	5	with 1/2" Hub	5
											120	6			connector with moulded cable	7
											220	7A				
											230	7				
											240	8				
											Latch/other ⁽²⁾	9				

Example : GEM-U-21095N-311

GEM-SOL direct operated, brass, 1/8" BSP, universal function, 2.4 orifice, NBR, 24V AC 8W 50Hz with connector.

GEM-U - 2 10 9 5 N - 3 1 1

(1) Use only for DC

(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

* Note: When ordering without coil, please define what current and pressure rating is needed (DC, AC or ADC), otherwise an ADC valve will be supplied.

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

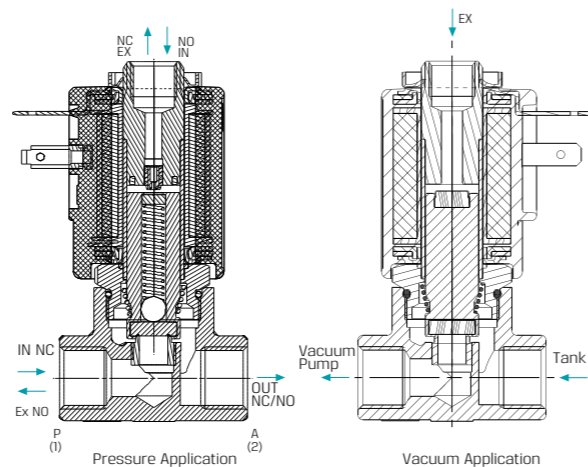
SOLENOID VALVES | General Purpose

Direct Operated | 3W

GEM-A | Large orifice 1/4" 3 Way NC, NO (pressure & vacuum)



Brass | pressure | 6mm orifice



Technical Data

Function	3 Way NC, NO
Ports size	1/4" BSP & NPT
Orifice size	Bottom orifice : 8.0mm, 6.0mm, 4.5mm Top orifice : 3mm, 4.5mm, 5mm (see table)
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Main Valve: Brass or Stainless Steel AISI 316 Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: FPM (Viton®), EPDM, FFKM (Kalrez®)
Media	Air, water
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

• These valves have been especially designed for electronic automatic vacuum milking systems.

Vacuum Application (bar)

Function	Orifice (mm)		
	4.5	6.0	8.0
3W NC	-1	-1	-1
3W NO	-1 to 1	-1 to 0.5	NA
Flow factor Kv(l/min)	5	6	10

Pressure Application (bar)

Function	Orifice (mm)		
	4.5	6.0	8.0
3W NC	2.8	1.6	0.5
3W NO (for 3mm top orifice)	4	1.5	NA
Flow factor Kv(l/min)	5	6	10

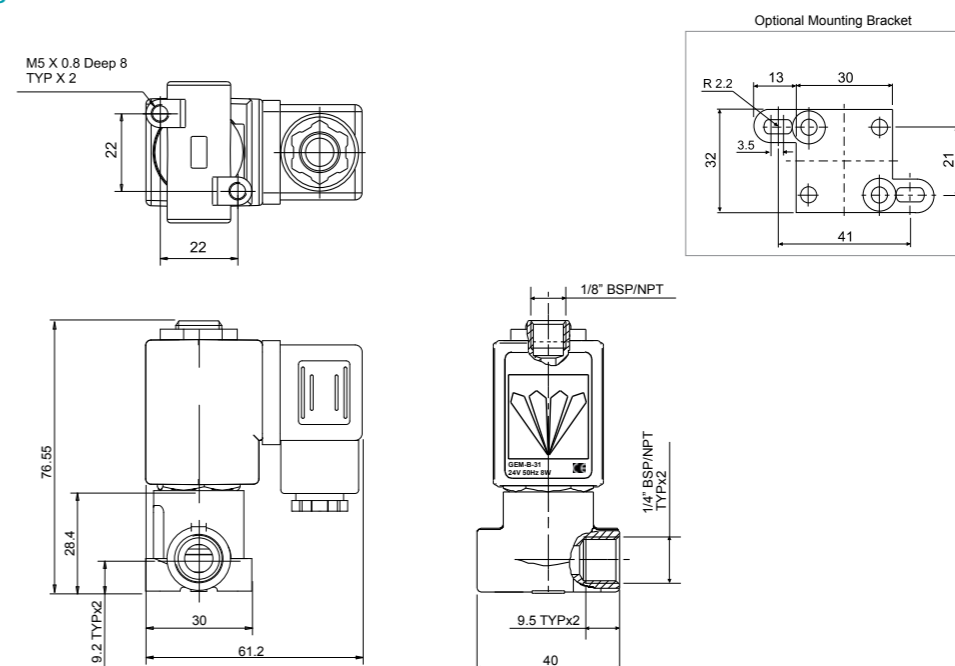
Voltage & Power Consumption

V	AC (W)						DC (W)		
	50 Hz			60 Hz			10	5.5	3.5
	8	5.5	2.5	8	5.5	2.5			
6							•		
12	•			•			•		
24	•			•			•		
48	•			•			•		
110	•			•			•		
120	•			•			•		
220	•			•			•		
230	•			•			•		
240	•			•			•		

• Available options

Direct Operated | 3W | GEM-SOL | Large orifice 1/4" NC, NO

Dimensions



How to Order

GEM-A	BODY	PORT	FUNCTION	PRESSURE	ORIFICE (1)	SEALS	VOLTAGE	POWER	CONNECTOR									
	Brass	2	1/4" BSP	20	3W NC	3	Pressure	1	6.0	8	FPM (Viton®)	V	W/out coil	0	No coil	0	without	0
	Stainless Steel	3	1/4" NPT	21	3W NO	4	Vacuum	2	4.5	9	EPDM	E	6	1	ACBW 50Hz	1	with	1
									8.0 (2)	a	FFKM (Kalrez®)	K	12	2	ACBW 60Hz	2	with LED	2
													24	3	DC10W	3	with bi-color LED	3
													48	4			flying leads coil	4
													110	5			with 1/2" Hub	5
													120	6			surge protection with LED	6
													220	7A			connector with moulded cable	7
													230	7			other	9
													240	8				
													Latch/other (3)	9				

Orifice Table (mm)

Current	Bottom	Top
DC	4.5	4.5
DC	6	5
DC	8	5
AC	4.5 / 6	3

Example : GEM-A-220318V-331

GEM-SOL direct operated brass, 1/4" BSP, 3W NC, pressure, 6.0 orifice, FPM (Viton®) seals, 24V DC 10W with connector.

GEM-A - 2 20 3 1 8 V - 3 3 1

(1) See Orifice table

(2) Not available in NO valve

(3) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

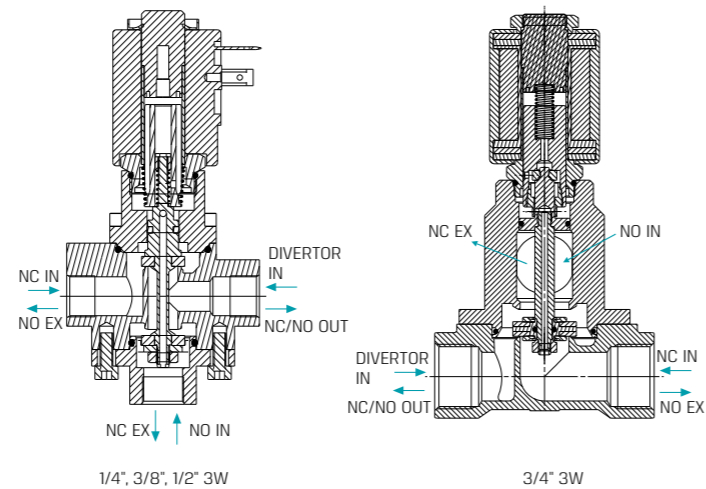
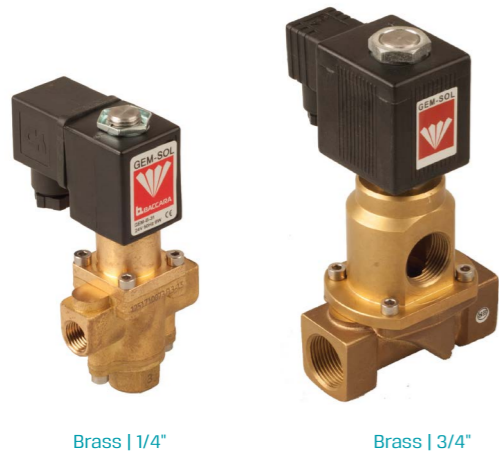
* Note: When ordering without coil, please define what current and pressure rating is needed (DC, AC or ADC), otherwise an ADC valve will be supplied.

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

SOLENOID VALVES | General Purpose

Direct Operated | 3W

GEM-X | General purpose 1/4" - 3/4" 3 Way



Technical Data

Function	3 Way General purpose
Ports size	1/4", 3/8", 1/2", 3/4" BSP & NPT
Pressure range	See table
Kv (l/min)	See table
Temperature range	Fluid : -10°C to 80°C (no freezing) Ambient : -10°C to 50°C
Materials in contact with media	Main Valve: Brass Solenoid Operator: Stainless Steel AISI 300 & 400 series Seals: NBR, EPDM
Media	Air, water, oil
Coil voltage	• Voltage and power consumption - see table • All Baccara coil voltages are ± 10% of nominal
Standard protection class	IP65 with connector * Option : IP68 (please refer to GEM-BP Coil)

Pressure (bar) & Flow table NC, NO & diverter

Size	Orifice(mm)	Pressure (bar)	Kv(L/min)
1/4"	8	-1 to 3	12
3/8"	12	-1 to 5	16
1/2"	12	-1 to 5	35
3/4"	19	-1 to 3	130

Voltage & Power Consumption 1/4" valves

V	AC						DC (W)		
	50 Hz			60 Hz			10	5.5	3.5
6	•			•			•		
12	•			•			•		
24	•			•			•		
48	•			•			•		
110	•			•			•		
120	•			•			•		
220	•			•			•		
230	•			•			•		
240	•			•			•		

• Available options

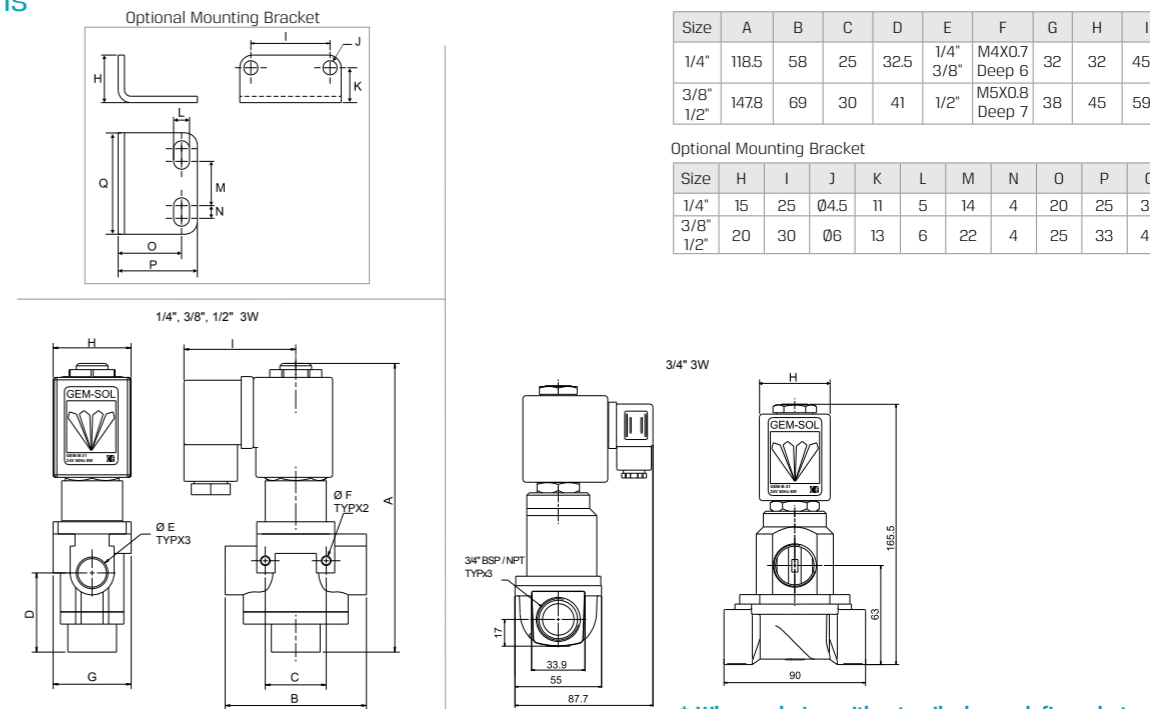
Voltage & Power Consumption 3/8", 1/2", 3/4" valves

V	AC (W)			DC (W)
	50 Hz	60 Hz	38	
12				•
24	•			•
120		•		•
230	•			•

• Available options

Direct Operated | 3W | GEM-SOL | General purpose 1/4" - 3/4"

Dimensions



Size	A	B	C	D	E	F	G	H	I
1/4"	118.5	58	25	32.5	1/4" 3/8"	M4X0.7 Deep 6	32	32	45.9
3/8" 1/2"	147.8	69	30	41	1/2"	M5X0.8 Deep 7	38	45	59.7

Size	H	I	J	K	L	M	N	O	P	Q
1/4"	15	25	Ø4.5	11	5	14	4	20	25	32
3/8" 1/2"	20	30	Ø6	13	6	22	4	25	33	40

How to Order

GEM-X	BODY	PORT	FUNCTION	SEALS	BRACKET (1)	VOLTAGE	POWER (3)	CONNECTOR								
	Brass	2	1/4" BSP	20	general purpose	9	NBR	N	without	0	W/out coil	0	No coil	0	without	0
			1/4" NPT	21			EPDM	E	with	1	6	1	AC8W 50Hz	1	with	1
			3/8" BSP	30							12	2	AC8W 60Hz	2	with LED	2
			3/8" NPT	31							24	3	DC10W	3	with bi-color LED	3
			1/2" BSP	40							48	4	AC38W 50Hz	E	flying leads coil (4)	4
			1/2" NPT	41							110	5	AC38W 60Hz	F	with 1/2" Hub	5
			3/4" BSP	50							120	6	DC38W	J	surge protection with LED connector with LED	6
			3/4" NPT	51							220	7A			connector with moulded cable	7
											230	7			other	9
											240	8				
											Latch/ other (2)	9				

* When ordering without coil, please define what current and pressure rating is needed (DC, AC)

Example : GEM-X-2209N0-331

GEM-SOL general purpose direct operated, brass, 1/4" BSP, 3W general purpose, NBR, without bracket, 24V DC 10W with connector.

GEM-X - 2 20 9 N 0 - 3 3 1

(1) Bracket not available in 3/4"

(2) For specifying Latch type coil, please refer to GEM-A3P valve - How to Order table.

(3) 1/4" port : coils available in all voltages

For 3/8" to 3/4" ports : coils available in DC 12, 24, 38W and in AC 24, 230 AC 36W 50Hz

(4) Flying leads available only for AC8W and DC10W coils

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