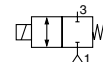




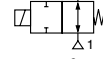
# SOLENOID VALVES

flapper mechanism, fluid isolation  
1/8 or pad mounting body  
size 22 mm

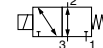
2/2 NC



2/2 NO



3/2 U



2/2  
3/2  
Series  
068

## FEATURES

- Solenoid valves for use with neutral or aggressive liquids and gases in analytical and medical systems
- Hermetic separation of control mechanism and fluid:
  - Prevents particulate contamination caused by friction of moving parts, assuring maximum purity of fluid
  - Ensures reliable operation in applications with highly aggressive fluids
- Reduced heat transfer between control mechanism and fluid
- Good self-draining capability and easy-to-flush internal cavity
- Low internal volume
- Specific flapper mechanism: no pump effect, no stick effect
- Possibility to adapt a power-save connector
- Electrical spade-plug or cable-end connection

## GENERAL

**Differential pressure** -0,9 to +5 bar (usable in 0,1 bar abs. vacuum) [1 bar =100 kPa]  
**Maximum viscosity** 20 cSt (mm<sup>2</sup>/s)  
**Response time** < 10 ms  
**Internal volume** < 0,48 ml (connections not included)

fluids (*)	temperature range (TS)	seal materials (*)
liquids or gases (filtered 50 µm)	+5°C to + 50°C	FFPM (perfluoroelastomer)
		FPM (fluoroelastomer)
		EPDM (ethylene-propylene)

## MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

**Body** PEEK  
**Diaphragm** FFPM (FPM and EPDM option)  
**Seals** FFPM (FPM and EPDM option)

## OTHER MATERIALS

**Internal parts** Stainless steel

## ELECTRICAL CHARACTERISTICS

**Coil insulation class** F  
**Connector** Spade plug (cable Ø 6-8 mm) or cable ends <sup>(2)</sup>  
**Connector specification** DIN 43650, 11 mm, industry standard B  
**Electrical safety** IEC 335 (cable ends: EN 60730)  
**Electrical enclosure protection** Moulded IP65 (EN 60529)  
**Standard voltages** DC (=) : 12V - 24V <sup>-5% / +10%</sup>

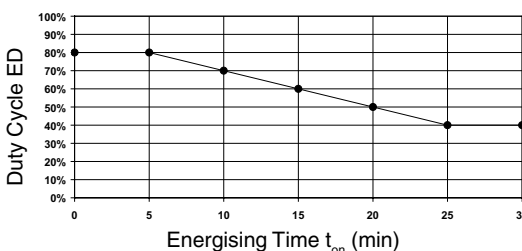
(Other voltages on request)

prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type <sup>(1)</sup>
	inrush ~ (VA)	holding ~ (VA)	(W)	<sup>(4)</sup> = (W)		12 V DC	24 V DC	
S1	-	-	-	9,6	+10 to + 50	400129-005	-	01
				10		-	400129-007	
L0	-	-	-	10	+10 to + 50	400119-011D	400119-008D	02

<sup>(1)</sup> Refer to the dimensional drawings on page 51.

<sup>(2)</sup> 0,45 m lead wires.

## RECOMMENDATION FOR MAXIMUM DUTY CYCLE

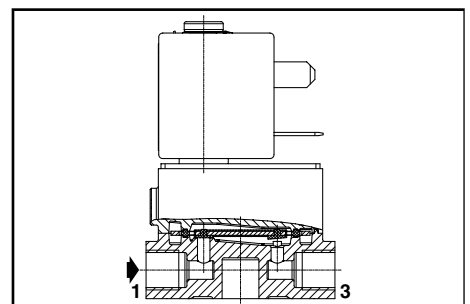


De-energising time:  $t_{off} = t_{on} \times (100\% / ED - 1)$

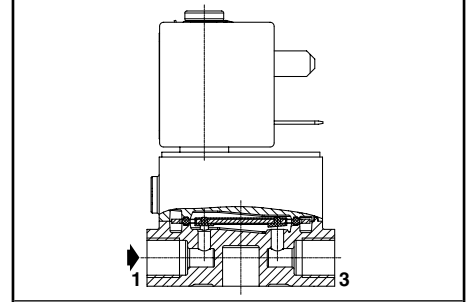
Example:

- Determine energising time in minutes ( $t_{on}$ ):  
 $t_{on} = 15$  min
- Find maximum duty cycle value in diagram:  
ED = 60%
- Calculate de-energising time:  
 $t_{off} = 15 \text{ min} \times (100\% / 60\% - 1) = 10$  min
- Complete cycle time:  
 $t_{cycle} = t_{on} + t_{off} = 15 \text{ min} + 10 \text{ min} = 25$  min

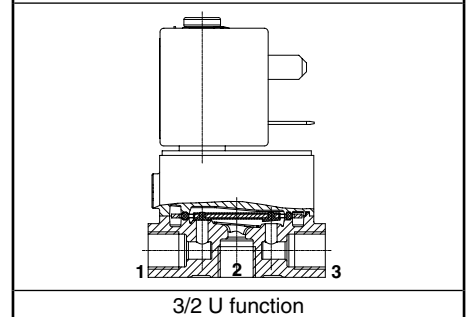
Note: 100% duty cycle possible when using the power-save connector (catalogue number [24 V DC]: **88100934**, catalogue number [12 V DC]: **833-150063**)



2/2 NC function



2/2 NO function

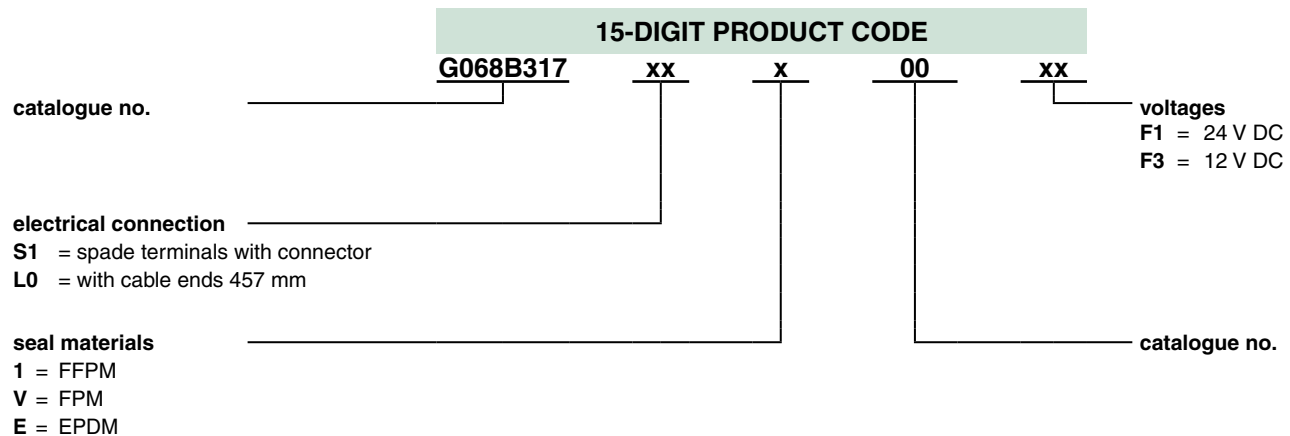


3/2 U function

**SPECIFICATIONS**

pipe size	orifice size (mm)	flow coefficient Kv (m <sup>3</sup> /h) (l/min)		operating pressure differential (bar)		power coil (W)	catalogue number	
				min.	max. (PS)		body PEEK	x : see "HOW TO ORDER"
					gases liquids (*)			
				=	=			
<b>2/2 NC - Normally closed</b>								
G 1/8	2	0,10	1,66	-0,9	5	10	G068B317xxx00xx	
	3	0,16	2,66	-0,9	3	10	G068A318xxx00xx	
	4	0,3	4,99	-0,9	1,5	10	G068A319xxx00xx	
pad mounting <sup>(1)</sup>	2	0,10	1,66	-0,9	5	10	R068B317xxx00xx	
	3	0,16	2,66	-0,9	3	10	R068A318xxx00xx	
	4	0,3	4,99	-0,9	1,5	10	R068A319xxx00xx	
<b>2/2 NO - Normally open</b>								
G 1/8	2	0,10	1,66	-0,9	5	10	G068A327xxx00xx	
	3	0,16	2,66	-0,9	2	10	G068A328xxx00xx	
	4	0,3	4,99	-0,9	1	10	G068A329xxx00xx	
pad mounting <sup>(1)</sup>	2	0,10	1,66	-0,9	5	10	R068A327xxx00xx	
	3	0,16	2,66	-0,9	2	10	R068A328xxx00xx	
	4	0,3	4,99	-0,9	1	10	R068A329xxx00xx	
<b>3/2 U - Universal</b>								
G 1/8	2	0,10	1,66	-0,9	5	10	G068A337xxx00xx	
	3	0,16	2,66	-0,9	2	10	G068A338xxx00xx	
	4	0,3	4,99	-0,9	1	10	G068A339xxx00xx	
pad mounting <sup>(1)</sup>	2	0,10	1,66	-0,9	5	10	R068A337xxx00xx	
	3	0,16	2,66	-0,9	2	10	R068A338xxx00xx	
	4	0,3	4,99	-0,9	1	10	R068A339xxx00xx	

<sup>(1)</sup> 4 hexagon socket head cap mounting screws M3 x 8 mm, stainless steel, ISO 4762 supplied.

**HOW TO ORDER**


**Ordering example:** R068A317S1E00F1 = 2-way NC (normally closed), orifice size 2 mm, pad-mounting body width 22 mm, with spade terminals with connector, EPDM seals, 24 V DC

**OPTIONS**

- Other subbases, contact us
- Power-save connector (2,5 W after 140 ms of operation), catalogue number of 24 V DC version: **88100934**, catalogue number of 12 V DC version: **833-150063**
- Impulse manual operator

**INSTALLATION**

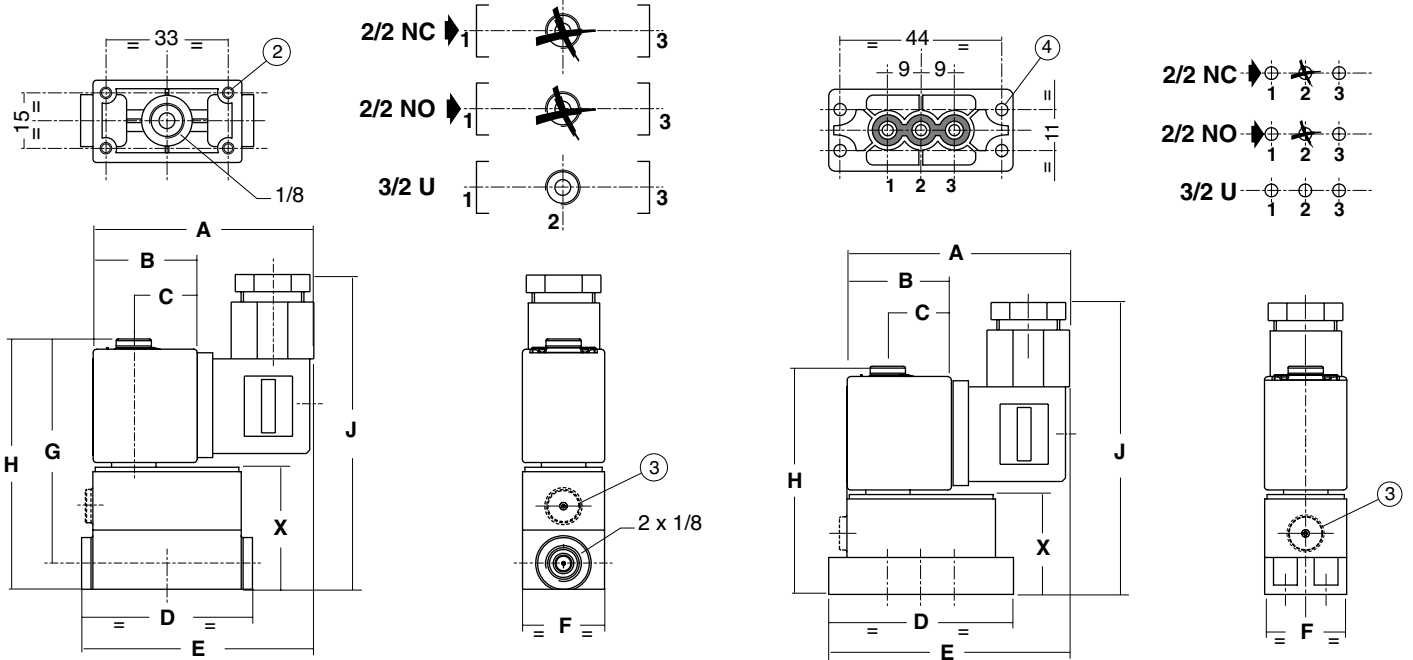
- The solenoid valves can be mounted in any position without affecting operation
- Pad-mounting solenoid valve supplied with seal
- Pipe connections 1/8 have standard thread according to ISO 228/1

### DIMENSIONS (mm), WEIGHT (kg)



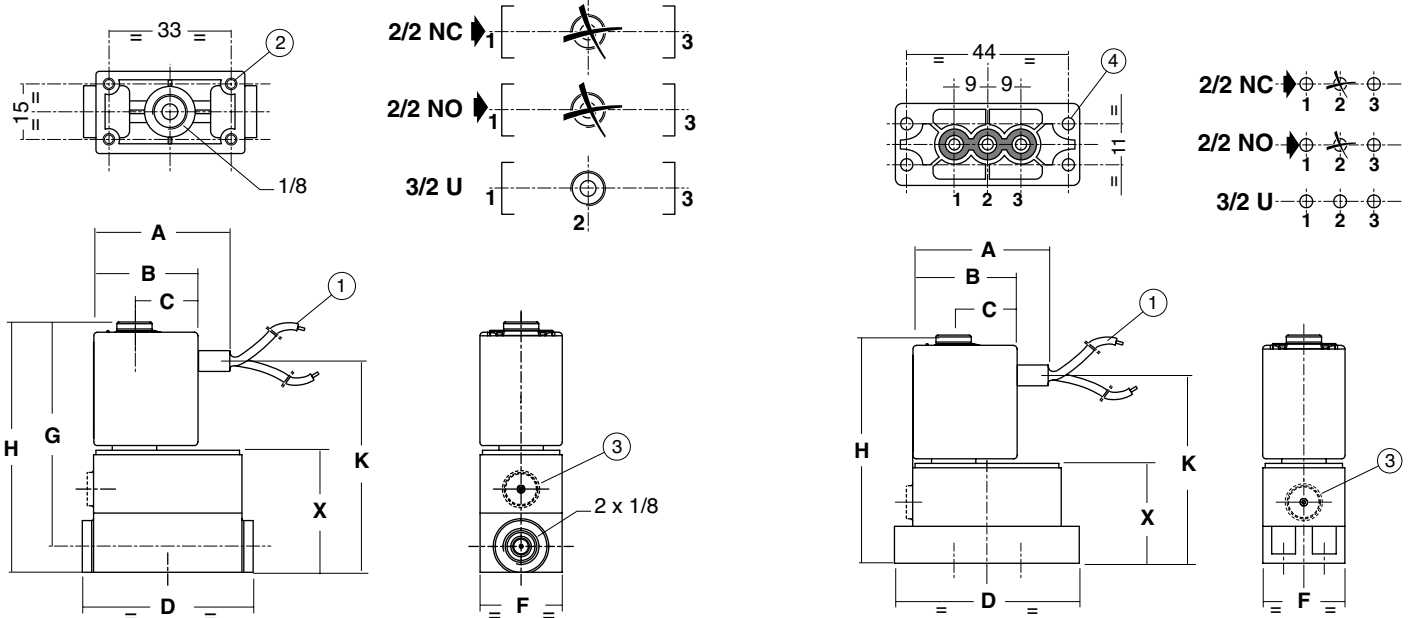
**TYPE 01**  
Solenoid with spade plug connector (S1)  
Epoxy moulded  
IEC 335 / DIN 43650  
IP65

R068A200..214



**TYPE 02**  
Solenoid with cable ends (L0)  
IEC 335 / cable ends, length 0,45 m  
IP40

G068A200..214

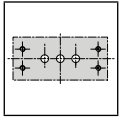


type	prefix option	catalogue number	A	B	C	D	E	F	G	H	J	K	X	weight <sup>(1)</sup>
01	S1	G068A...S1..	60	28,5	17,5	46,2	62,5	22,3	60,8	67,8	82	-	33	0,130
		R068A...S1..	60	28,5	17,5	50	65	22,3	-	61,8	76	-	27	0,124
02	L0	G068A...L0..	35	28,5	17,5	46,2	-	22,3	60,8	67,8	-	56,5	33	0,124
		R068A...L0..	35	28,5	17,5	50	-	22,3	-	61,8	-	50,5	27	0,120

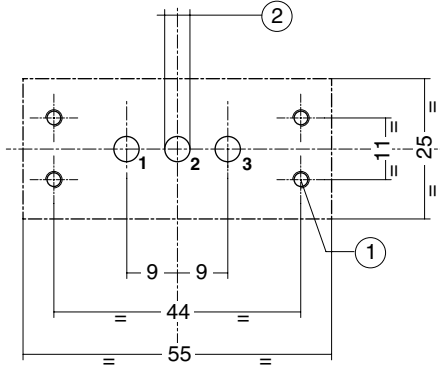
- ① 2 wires, length 0,45 m
- ② 4 mounting holes, max. depth 7 mm, for self-tapping screw (type EJOT PT, K30)
- ③ Manual operator location
- ④ 4 mounting holes Ø 3,2 mm (4 hexagon socket head cap mounting screws M3 x 8 mm, stainless steel, ISO 4762 supplied.)

<sup>(1)</sup> Type 01: Incl. coil(s) and connector(s).  
Type 02: with 0,45 m cable ends

**DIMENSIONS (mm), WEIGHT (kg)**



**SUBBASE MOUNTING PATTERN**



- ① 4 mounting holes Ø 3,2 mm
- ② Max. diameter 4,5 mm (3 x)

