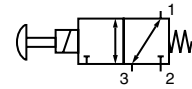




SOLENOID VALVES

no voltage release manual reset type
 II 2 G/D Ex d IIC / Ex t IIIC / IP66
 cast iron or stainless steel flameproof enclosure
 1/4 to 1/2

ATEX
 U



3/2
 Series
307

FEATURES

- Three way solenoid valves with orifice and pipe connections in valve body
- Valves do not require a minimum operating pressure
- Brass and stainless steel balanced poppet valves with full flow capacity (Ø 9mm)
- The solenoids conform to the International and European Standards IEC and EN: 60079-0, 60079-1 and 61241-1, with direct cable entry M20 x 1.5 mm
- The solenoid valves satisfy all relevant EC Directives

GENERAL

Differential pressure 0 - 10 bar [1 bar = 100kPa]
Maximum viscosity 65 cSt (mm²/s)
Response times 75 - 100 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, water, oil	-38 to +50°C	NBR (nitrile)

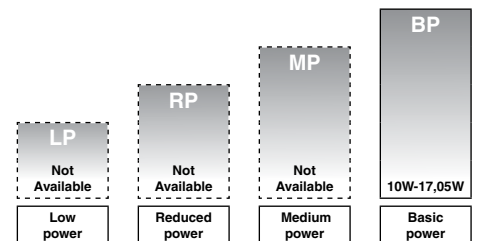
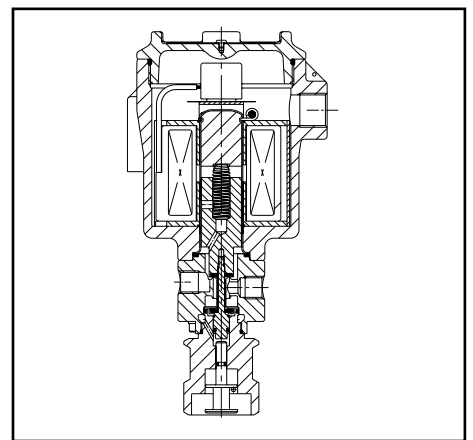
MATERIALS IN CONTACT WITH FLUID

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

	Brass body	Stainless steel body
Body and seat	Brass	AISI 316
Core tube	Stainless steel	Stainless steel
Core and plugnut	Stainless steel	Stainless steel
Springs	Stainless steel	Stainless steel
Poppet Stem	Stainless steel	Stainless steel
Sealings and poppets	NBR	NBR

OTHER MATERIALS

Electrical enclosure	Cast iron (NB)	Cast iron (NB) or Stainless steel (NA)
-----------------------------	----------------	---



POWER LEVELS - cold electrical holding values (watt)

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			power level BP	prefix optional solenoids					basic catalogue number			
				min.	max. (PS)			NEMA 7&9	ATEX / IECEx						IP65	
					air/water (*)	~			=	EF	NA	NB				PV
NPT	(mm)	(m ³ /h)	(l/m)				~/=								brass	stainless st.
U - Universal																
1/4	9	0,68	14,0	0	10	10	14,2 ⁽¹⁾ /10	-	●	●	-	-	-	-	B307C019 U	B307C009 U
3/8	9	0,68	14,0	0	10	10	14,2 ⁽¹⁾ /10	-	●	●	-	-	-	-	B307C049 U	B307C039 U
1/2	9	0,68	14,0	0	10	10	14,2 ⁽¹⁾ /10	-	●	●	-	-	-	-	B307C079 U	B307C069 U

● Available feature - Not available ⁽¹⁾ Rectified Coil

PREFIX TABLE

prefix							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
N	A	E	T				Threaded conduit/hole (M20 x 1,5)	-	-	-	●
N	B						Flameproof - 316 SS (EN/IEC 60079-1, 61241-1)*	-	-	-	●
							Flameproof - Cast Iron (EN/IEC 60079-1, 61241-1)*	-	-	-	●
						X	Other special constructions	-	-	-	●

* ATEX solenoid valves are also approved according to EN 13463-1 (non electrical valves)

SUFFIX TABLE

suffix					description	power level			
1	2	3	4	5		LP	RP	MP	BP
V					FPM (fluoroelastomer)	-	-	-	●
	C	O			Epoxy coating on all external surfaces	-	-	-	●
	M	B			Mounting bracket	-	-	-	●

- Available feature
- Not available

PRODUCT SELECTION GUIDE

STEP 1

Select basic catalogue number, including pipe thread identification letter. Refer to the specifications table on page 1.

Example: B307C009

STEP 2

Select prefix (combination). Refer to the specifications table on page 1 and the prefix table on page 2, respect the indicated power level.

Example: NBET

STEP 3

Select suffix (combination) if required. Refer to the suffix table on page 2, respect the indicated power level.

Example: MB

STEP 4

Select voltage. Refer to standard voltages on page 3.

Example: 115/50

STEP 5

Final catalogue / ordering number.

Example:

NBETB307C009MB 115/50

OPTIONS & ACCESSORIES

catalogue number	spare part kit no. ⁽²⁾		mounting bracket no.
	~	=	
NB B307C019	C118260	C118260	115065 ⁽¹⁾
NB B307C049	C118260	C118260	115065 ⁽¹⁾
NB B307C079	C118260	C118260	115065 ⁽¹⁾
NA B307C009	C118260	C118260	115065 ⁽¹⁾
NA B307C039	C118260	C118260	115065 ⁽¹⁾
NA B307C069	C118260	C118260	115065 ⁽¹⁾
NB B307C019V	C129207	C129207	115065 ⁽¹⁾
NB B307C049V	C129207	C129207	115065 ⁽¹⁾
NB B307C079V	C129207	C129207	115065 ⁽¹⁾
NA B307C009V	C129207	C129207	115065 ⁽¹⁾
NA B307C039V	C129207	C129207	115065 ⁽¹⁾
NA B307C069V	C129207	C129207	115065 ⁽¹⁾

⁽¹⁾ Mounting holes in enclosure

⁽²⁾ Standard prefixes/suffixes are also applicable to kits

ORDERING EXAMPLES VALVES:

NA	ET	B	307C009	24V / 50 Hz
NB	ET	B	307C019	MB 230V / 50 Hz
NA	ET	B	307C039	V 230V / 50 Hz
NB	ET	B	307C049	CO 230V / 50 Hz

Diagram labels: prefix (NA, NB), pipe thread (ET), basic number (B, 307C...), voltage (24V, 230V), suffix (MB, V, CO)

ORDERING EXAMPLES KITS:

C	118260
C	129207

Diagram labels: prefix (C), basic number (118260, 129207)

EXPLANATION OF TEMPERATURE RANGES OF SOLENOID VALVES

Valve temperature range	The valve temperature range (TS) is determined by the selected seal material, the temperature range for proper operation of the valve and sometimes by the fluid (e.g. steam)
Operator ambient temperature range	The operator ambient temperature range is determined by the selected power level and the safety code
Total temperature range	The temperature range of the complete solenoid valve is determined by the limitations of both temperature ranges above

ELECTRICAL CHARACTERISTICS

Coil insulation class F
 Electrical safety IEC 335

Standard voltages: DC (=) 24V - 48V
 AC (~) 24V - 48V - 115V - 230V/50Hz; Other voltages and 60Hz are available on request

prefix option	power ratings				operator ambient temperature range (TS) (C°) ⁽¹⁾	safety code	electrical enclosure protection (EN 60529)	replacement coil / kit		type ⁽³⁾
	inrush ~ (VA)	holding ~ (VA) (W)		hot/cold = (W)				~ 230V/50 Hz	= 24V/DC	
Basic Power (BP)										
NB	-	-	-	8,2/10	-38 to +50	II2G Ex d IIC T5, II2D Ex t IIIC	IP66 cast iron	-	108429-001	01/02/03
NB	17,05	17,05	17,05 ⁽²⁾	-	-38 to +50	II2G Ex d IIC T4, II2D Ex t IIIC	IP66 cast iron	118227-007	-	01/02/03
NA	-	-	-	8,2/10	-38 to +50	II2G Ex d IIC T4, II2D Ex t IIIC	IP66 st. steel	-	108429-001	01/02/03
NA	17,05	17,05	17,05 ⁽²⁾	-	-38 to +50	II2G Ex d IIC T3, II2D Ex t IIIC	IP66 st. steel	129243-007	-	01/02/03

⁽¹⁾ Temperature range can be limited by sealings
⁽²⁾ Rectified Coil
⁽³⁾ Refer to the dimensional drawings on page 4

ADDITIONAL OPTIONS

- 1/2" NPT and M20 x 1,5 (prefix "ET") conduit entry available for both housings
- Voltage suppressors are available on DC constructions

INSTALLATION

- Multi language installation/maintenance instructions are included with each valve
- The solenoid valves can be mounted in any position without affecting operation
- Threaded pipe connection identifier is B = NPT (ANSI 1.20.3)
- Declarations of conformity are available on request

DIMENSIONS (mm), WEIGHT (kg)



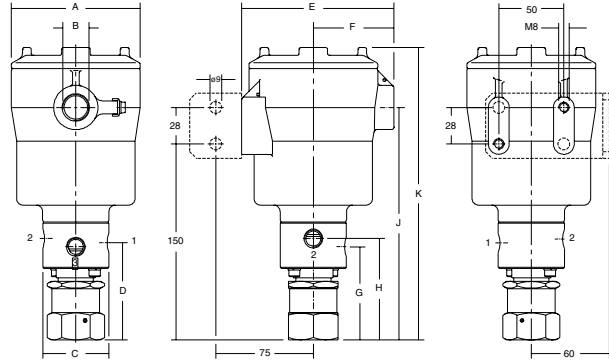
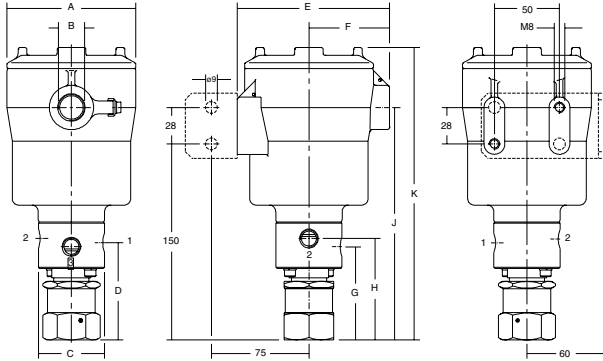
TYPE 01:
Stainless steel / Cast Iron
NA / NB: EN/IEC 60079-1, 61241-1

B307C008/C018



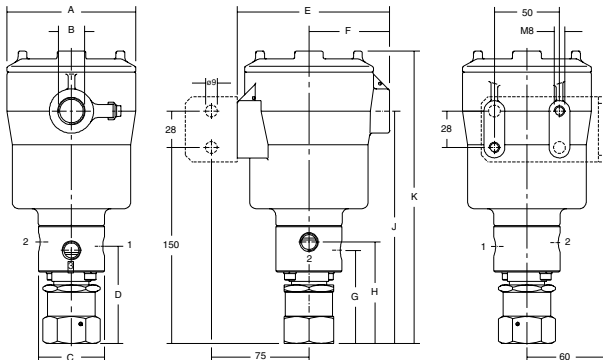
TYPE 02:
Stainless steel / Cast Iron
NA / NB: EN/IEC 60079-1, 61241-1

B307C038/C048



TYPE 03:
Stainless steel / Cast Iron
NA / NB: EN/IEC 60079-1, 61241-1

B307C068/C078



type	prefix/option	power level	A	B		C	D	E	F	G	H	J	K	weight	
				NA, NB	NAET, NBET									NA	NB
01	NA, NB	BP	99	1/2 NPT	M20 x 1,5	51	33	117	55	30	37	137	185	4,90 kg	4,50 kg
02	NA, NB	BP	99	1/2 NPT	M20 x 1,5	51	33	117	55	39	37	137	185	4,90 kg	4,50 kg
03	NA, NB	BP	99	1/2 NPT	M20 x 1,5	64	33	117	55	33	33	137	185	4,90 kg	4,50 kg

MOUNTING BRACKET

