



OPERATORS

for potentially explosive atmospheres
flameproof enclosure,
II 2 G/D Ex d IIC T6..T4 Gb / Ex tb IIIC Db IP66/67
aluminium, stainless steel

Series

NF
WSNF

FEATURES

- Explosion proof operator, intended for use in potentially explosive atmospheres, according to Directive ATEX 2014/34/EU
- EC type examination certificate (LCIE 00 ATEX 6008 X) and IECEx certificate (IECEx LCI 07.0015X) are in compliance with the European Standards EN-IEC 60079-0, EN-IEC 60079-1 and EN-IEC 60079-31
- Easy electrical installation by means of a screw terminal coil
- Enclosure provided with a 1/2 NPT or M20 x 1,5 threaded entry hole for a broad range of cable glands
- Ingress protection degree IP66/67
- The operator is available as both a push or pull type solenoid and can be supplied on a wide range of valves with ASCO interface

CONSTRUCTION

Solenoid enclosure	NF	Chromated aluminium, epoxy coated
	WSNF	Stainless steel (AISI 316L SS)
Bonnet	NF	Steel (zinc plated)
	WSNF	Stainless steel (nickel plated)
Core, tube, springs & plugnut	all	Stainless steel
Shading coil	all	Copper or silver
Nameplate	NF	Stainless steel
	WSNF	Stainless steel
Coil connection	all	Embedded screws terminals
Fasteners & screws	all	Stainless steel

ELECTRICAL CHARACTERISTICS

Standard voltages:

DC (=): 24V - 48V

AC (~): 24V - 48V - 115V - 230V / 50 Hz

(Other voltages and 60 Hz on request)

SAFETY CODE

II 2G Ex d IIC T6..T4 Gb (gas)

II 2D Ex tb IIIC 85°C to 135°C Db IP66/67 (dust)

TEMPERATURE CLASSIFICATION TABLES

The minimum allowable ambient temperature is -60°C for the operator.

Select the requested "T" classification from the temperature classification tables

(AC or DC), respecting the maximum ambient temperature and cold (20°C)

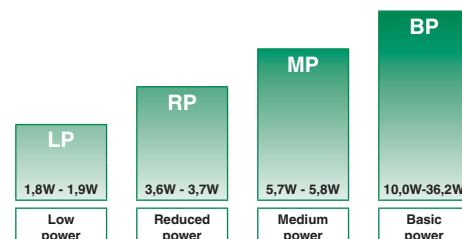
electrical holding power values.

AC (~) Solenoids

power level (watt)	insulation class	maximum ambient ⁽¹⁾ temp. "T" classification		
		T6 (G) 85°C (D)	T5 (G) 100°C (D)	T4 (G) 135°C (D)
Low power (LP)				
1,85 ⁽²⁾	F/H	75°C	80°C	-
Reduced power (RP)				
3,7 ⁽²⁾	F/H	60°C	75°C	100°C
Medium power (MP)				
5,8 ⁽²⁾	F/H	60°C	75°C	100°C
Basic power (BP)				
10,0 ⁽²⁾	F/H	40°C	60°C	75°C
10,0 ⁽²⁾	F/H	40°C	60°C	100°C
10,5	F/H	25°C	40°C	60°C
13,4 ⁽²⁾	F/H	40°C	60°C	75°C
14,1 ⁽²⁾	F/H	40°C	60°C	90°C
15,4	F/H	25°C	40°C	60°C
16,5	F/H	40°C	60°C	75°C
16,7	F/H	-	25°C	40°C
20,0	F/H	-	25°C	40°C
20,5	F/H	-	-	25°C
28,0	F/H	-	-	25°C

DC (=) Solenoids

power level (watt)	insulation class	maximum ambient ⁽¹⁾ temp. "T" classification		
		T6 (G) 85°C (D)	T5 (G) 100°C (D)	T4 (G) 135°C (D)
Low power (LP)				
1,8	F/H	75°C	80°C	-
Reduced power (RP)				
3,6	F/H	60°C	75°C	100°C
Medium power (MP)				
5,7	F/H	60°C	75°C	100°C
Basic power (BP)				
10,0	F/H	40°C	60°C	100°C
11,2	F/H	40°C	60°C	75°C
14,0	F/H	40°C	60°C	90°C
16,8	F/H	40°C	60°C	75°C
17,4	F/H	25°C	40°C	60°C
19,7	F/H	25°C	40°C	60°C
23,0	F/H	25°C	40°C	60°C
26,6	F/H	25°C	40°C	60°C
29,5	F/H	-	25°C	40°C
36,2	F/H	-	25°C	40°C



POWER LEVELS - cold electrical holding values (watt)

⁽¹⁾ Make sure that the selected ambient temperature does not exceed the allowable valve temperature characteristics as specified on the appropriate valve catalogue sheets.

⁽²⁾ AC (~) rectified coil construction



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PREFIX TABLE

prefix							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
N	F	E	T				Threaded conduit/hole (M20 x 1,5)	●	●	●	●
W	S	N	F				Flameproof - Aluminium (EN/IEC 60079-1, 60079-31)*	●	●	●	●
				H	C		Flameproof - 316L SS (EN/IEC 60079-1, 60079-31)*	●	●	●	●
				H	T		Class H - Battery charging circuit	●	●	●	●
						X	Class H - High temperature	●	●	●	●
							Other special constructions	●	●	●	●

● Available feature

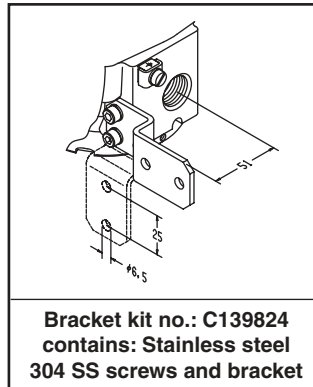
* ATEX solenoids are also approved according to EN 13463-1 (non electrical valves)

ORDERING EXAMPLES VALVES:

NF	8	327B001	230V / 50/60 Hz
NFET	G	327B001 V	230V / 50/60 Hz
NFETHC	B	320A192 MO	24V / DC
WSNF	B	320A184 E	24V / DC
NFHT	B	316A054 V	230V / 50 Hz
WSNFHT	B	316B076	CO240V / 60 Hz

prefix _____ voltage
 pipe thread _____ suffix
 basic number _____

MOUNTING BRACKET



PRODUCT SELECTION GUIDE

(The selection can only be made in conjunction with the appropriate valve catalogue sheet)

STEP 1

Select basic valve catalogue number, including pipe thread identification letter from one of the specification tables on the separate catalogue pages.

Example: 8327B002

STEP 2

Select voltage. Refer to standard voltages on page 1.

Example: 230V / 50/60Hz

STEP 3

Select solenoid prefix (combination). Refer to the prefix table on this page and respect the indicated power level, cold electrical holding values and "T" classification mentioned on page 1.

NOTE: Make sure that the ambient temperature does not exceed the allowable valve temperature characteristics.

Example:

WSNF

60°C ambient

Basic Power (BP) 10W

II 2G Ex d IIC T5 Gb

II 2D Ex tb IIIC T100°C Db IP66/67

STEP 4

Final catalogue / ordering number.

Example:

WSNF 8327B002 230V / 50/60 Hz

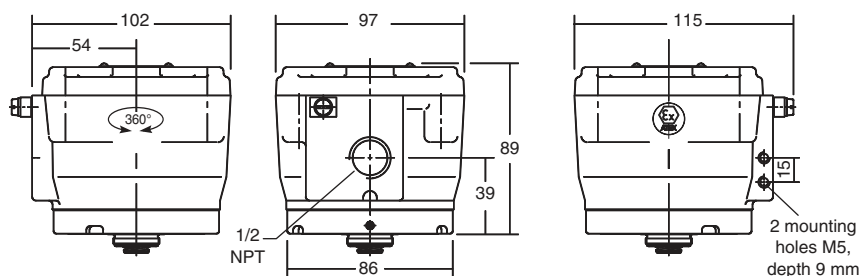
ADDITIONAL OPTIONS

- Special moulded-in solid state components for peak voltage suppression and/or AC (~) rectification
- Cable glands (Flameproof cable entry devices for cable 8,5-16 mm or 9-12 mm) refer to section 14

INSTALLATION

- Multi language installation/maintenance instructions are included with each valve
- The solenoid operators can be mounted in any position without affecting operation
- Any Ex d IIC approved cable entry device can be fitted in the 1/2" NPT (M20 x 1,5 as an option) threaded entry hole, refer to the nameplate for identification of the maximum cable temperature
- Internal and external earthing connection
- The operator can be rotated 360° to select the most favourable position for cable entry

DIMENSIONS (mm), WEIGHT (kg)



prefix	weight
NF	1,4 kg
WSNF	2,7 kg