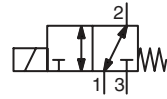




SOLENOID VALVES

direct operated, balanced poppet
high flow, flameproof enclosure
II 2G/D Ex d IIC T6..T4 Gb / Ex tb IIC Db IP66/IP67
1/4 - 1/2

U



3/2
Series
327

FEATURES

- Solenoid valves with explosionproof operators NF or WSNF type for use in potentially explosive atmospheres according to ATEX Directive 2014/34/EU
EU type examination certificate no.: **LCIE 00 ATEX 6008 X**
IECEx Certificate of Conformity no.: **IECEx LCI 07.0015X**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards EN-IEC 60079-0, EN-IEC 60079-1 and EN-IEC 60079-31
- The solenoid valves are recommended for pilot applications with high flow, wide pressure ranges and no minimum operating pressure
- Special execution for low ambient and fluid temperatures
- Manual Operators are optional including an under pressure removable type
- The valves are certified according to IEC 61508 Functional Safety data and have SIL-3 capability (TÜV & Exida certification)

GENERAL

Differential pressure

0 - 10 bar [1 bar = 100 kPa]

Maximum viscosity

65 cSt (mm²/s)

Response time

< 100 ms

fluids (*)		temperature range (TS)	seal materials (*)
5,7 mm	air, inert gas, water, oil	- 20°C to + 120°C	FPM (fluoroelastomer)
		- 40°C to + 40°C	VMQ (silicone)
		- 50°C to + 60°C	(F)VMQ ((fluoro)silicone)
12 mm	air, inert gas	- 25°C to + 60°C	NBR (nitrile)
		- 10°C to + 90°C	FPM (fluoroelastomer)
		- 50°C to + 60°C	(F)VMQ ((fluoro)silicone)

MATERIALS IN CONTACT WITH FLUID

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

Body

Brass or stainless steel AISI 316L

Stem, core tube

Stainless steel

Core and plugnut

Stainless steel

Springs

Stainless steel

Seals & poppets

Ø 5,7 mm: FPM or VMQ or (F)VMQ

Ø 12 mm: NBR or FPM or (F)VMQ

Rider ring

PTFE

OTHER MATERIALS

Solenoid enclosure

NF: Chromated aluminium, epoxy coated

WSNF: Stainless steel (AISI 316L)

NF: Steel (zinc plated)

WSNF: Stainless steel

Stainless steel

Stainless steel

Core tube

Core and plugnut

Stainless steel

ELECTRICAL CHARACTERISTICS

Coil insulation class

H (5,7 mm), F (12 mm) IECEx / Ex II 2 G Ex d IIC T6..T4

Coil connection

Screw terminals IECEx / Ex II 2 D Ex t IIC Db IP67 T85°C..T135°C

Electrical safety

IEC 335

Standard voltages

DC (=): 24V - 48V

(Other voltages and 60 Hz on request)

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

prefix option		inrush		holding		holding	temperature range (TS)	replacement coil		type (1)
		~	~	=	~	=				
		(VA)	(VA)	(W)	(W)	(C°) (3)		230 V/50 Hz	24 V DC	
NF WSNF	5,7	10	10	10	9 / 11,2	-60 to + 40/60	400915-017	400913-142	01-02	
		5,8	5,8	5,8	5,2 / 5,7	-60 to + 60/75/90	400921-297	400914-442	01-02	
		3,7	3,7	3,7	3,2 / 3,6	-60 to + 60	(2)	400914-242	01-02	
		1,85	1,85	1,85	1,5 / 1,8	-60 to + 55	(2)	400914-542	01-02	
	12	10	10	10	9 / 10	-60 to + 40/60	400921-197	400911-342	01-02	
		14,1	14,1	14,1	11 / 14	-60 to + 40/60/90	400921-697	400911-642	01-02	

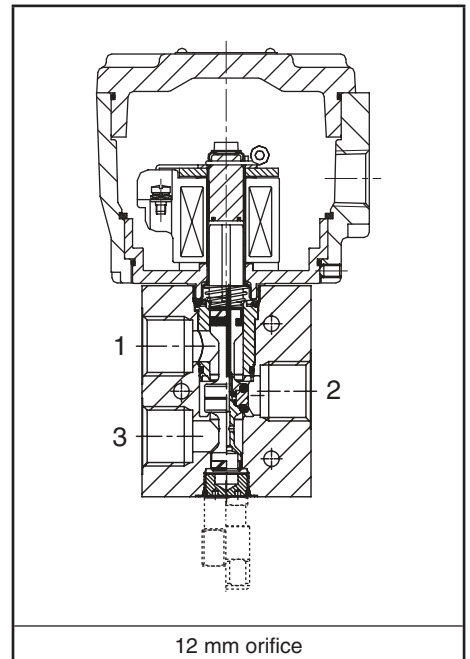
(1) Refer to the dimensional drawings on the following page. (3) Temperature range can be limited by sealings.

(2) 3,7 W: Limited to max. 115 V / 50 Hz

operator AC (~)				
Pn	max. ambient temp. °C			
	surface temperature			
	T6	T5	T4	
(W)	85°C	100°C	135°C	
insulation class F/H (155°C/180°C) 100% E.D.				
1,85 (4)	55	-	-	
3,7 (4)	60	-	-	
5,8 (4)	60	75	90	
10 (4)	40	60	-	
insulation class F (155°C) 100% E.D.				
14,1	40	60	90	

(4) AC rectified coil construction.

operator DC (=)				
Pn	max. ambient temp. °C			
	surface temperature			
	T6	T5	T4	
(W)	85°C	100°C	135°C	
insulation class F/H (155°C/180°C) 100% E.D.				
1,8	55	-	-	
3,6	60	-	-	
5,7	60	75	90	
10	40	60	-	
11,2	40	60	-	
insulation class F (155°C) 100% E.D.				
14	40	60	90	



H



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SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)					power coil (W)		catalogue number		options			
				min.	max. (PS)								maintained man. operator ⁽²⁾	impulse man. operator ⁽²⁾		
					air (*)		water (*)				brass	stainless steel				
NPT	(mm)	(m³/h)	(l/min)		~	=	~	=	~	=	~/=	~/=				
U - Universal, FPM seals and poppets																
1/4	5,7	0,45	7,5	0	10	10	10	10	10	11,2	NF8327B001	WSNF8327B002	MS ⁽¹⁾	MO	-	-
									5,8	5,7	NF8327B201	WSNF8327B202	MS ⁽¹⁾	MO	-	-
									3,7	3,6	NF8327B101	WSNF8327B102	MS ⁽¹⁾	MO	-	-
									1,85	1,8	NF8327B301	WSNF8327B302	MS ⁽¹⁾	MO	-	-
	12	1,5	25	0	10	10	-	-	14,1	14	NF8327A649	WSNF8327A650	MS ⁽¹⁾	MO	-	-
1/2	12	1,5	25	0	10	10	-	-	14,1	14	NF8327A609	WSNF8327A610	MS ⁽¹⁾	MO	-	-
U - Universal, NBR seals and poppets																
1/2	12	1,5	25	0	10	10	-	-	10	10	NF8327A607	WSNF8327A608	MS ⁽¹⁾	MO	-	-
U - Universal, VMQ seals and poppets																
1/4	5,7	0,45	7,5	0	10	10	10	10	10	11,2	NF8327B011	WSNF8327B012	MS ⁽¹⁾	MO	-	-
U - Universal, (F)VMQ seals and poppets																
1/4	5,7	0,45	7,5	0	10	10	10	10	5,8	5,7	NF8327B211	WSNF8327B212	MS ⁽¹⁾	MO	-	-
									3,7	3,6	NF8327B111	WSNF8327B112	MS ⁽¹⁾	MO	-	-
									1,85	1,8	NF8327B311	WSNF8327B312	MS ⁽¹⁾	MO	-	-
									10	10	NF8327A645	WSNF8327A646	MS ⁽¹⁾	MO	-	-
1/2	12	1,5	25	0	10	10	-	-	10	10	NF8327A605	WSNF8327A606	MS ⁽¹⁾	MO	-	-

⁽¹⁾ Functional Safety certification is not applicable with this feature.

⁽²⁾ Under pressure removable execution (Consult our catalogue «Pilot Valves for the Process Industry» at: www.asco.com)

OPTIONS

- Waterproof enclosure with embedded screw terminal coil according to protection class IP67, CEE-10
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section)
- Electrical enclosures according to "NEMA" standards are available
- Compliance with "UL", "CSA" and other local approvals available on request
- 3/8" pipe thread executions are available on request
- Stainless steel exhaust protector for valves certified to IEC 61508 Functional Safety, catalogue number: **34600419** (G1/4) or **34600479** (G1/2)
- Other pipe connections are available on request
- Any ATEX approved cable entry device can be fitted in the 1/2" NPT threaded entry hole (M20 x 1.5 in option), refer to the nameplate for identification of the maximum cable temperature

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valves have 2 or 3 mounting holes in body
- Pipe connection identifier is 8 = NPT (ANSI 1.20.3)
- Installation/maintenance instructions are included with each valve

SPARE PARTS KIT

catalogue number	spare parts kit no.
	~/=
(WS)NF8327B001/002	C123670
(WS)NF8327B011/012	C131237
(WS)NF8327B101/102/201/202	C132251
(WS)NF8327B111/112/211/212	C132253
(WS)NF8327B301/302	C133441
(WS)NF8327B311/312	C133442
(WS)NF8327A605/606/645/646	C117638
(WS)NF8327A607/608	C117640
(WS)NF8327A609/610/649/650	C117640V

ORDERING EXAMPLES:

NF	8	327	B	001	230V / 50 Hz
WSNF	8	327	B	202	MS 115V / 50 Hz
NF	8	327	A	607	MO 24V / DC
NF	8	327	A	606	230V / 50 Hz
prefix					
pipe thread					
basic number					voltage
					suffix

ORDERING EXAMPLES KITS:

C123670	
C131237	
C117640	V
basic number	suffix

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01-02

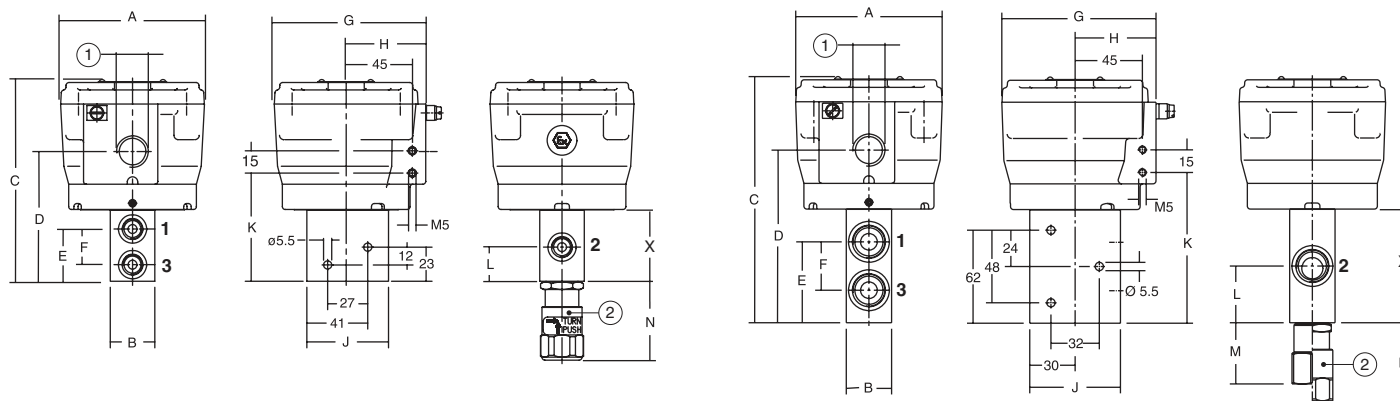
Prefix "NF", "WSNF" Solenoid
Aluminium, stainless steel
EN-IEC 60079-1 and EN-IEC 60079-31
II 2G Ex d IIC Gb, II 2D Ex tb IIC Db IP66/67

Type 01: NF8327B001/011/101/111/201/211/301/311

Type 02: WSNF8327B002/012/102/112/202/212/302/312

Type 01: NF8327A605/607/609/645/649

Type 02: WSNF8327A606/608/610/646/650



① 1/2 NPT

② Manual operator location (Type MO/MS)

type	prefix option	catalogue number	A	B	C	D	E	F	G	H	J	K	L	M	N	X	weight ⁽⁶⁾
01	NF	NF8327B001/011/101/201	97	30	136	87	35	24	102	54	55	73	23	-	54	48	2,6
		NF8327A605/607/609/649	97	30	165	115	54	32	102	54	60	100	38	40	54	76	2,4
02	WSNF	WSNF8327B002/012/102/202	97	30	136	87	35	24	102	54	55	73	23	-	54	48	2,6
		WSNF8327A606/608/610/650	97	30	165	115	54	32	102	54	60	100	38	40	54	76	3,8

⁽⁶⁾ including coil.



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