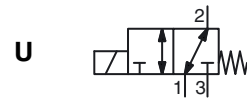




SOLENOID VALVES

direct operated, balanced poppet
high flow, flameproof enclosure
II 2 G Ex d IIC T6..T4, II 2D Ex tD A21 IP67
1/4 - 1/2



3/2
Series
327

FEATURES

- Solenoid valves with explosionproof operators NF or WSNF type for use in potentially explosive atmospheres according to ATEX Directive 94/9/EC
EC 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, EN-IEC 61241-0 and EN-IEC 61241-1
- 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
- The valves are certified according to IEC 61508 Functional Safety data and have SIL-4 capability (TÜV approval) and SIL-3 capability (EXIDA approval)

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

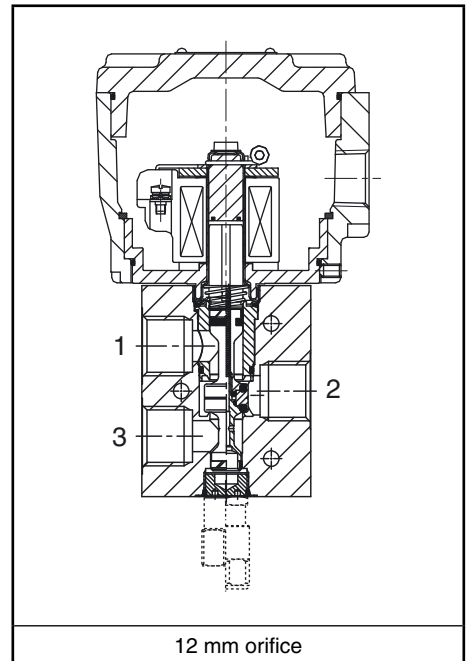
Solenoid enclosure NF: Chromated aluminium, epoxy coated
WSNF: Stainless steel (AISI 316L)
Bonnet, cover screws NF: Steel (zinc plated)
WSNF: Stainless steel
Core tube Stainless steel
Core and plugnut Stainless steel

ELECTRICAL CHARACTERISTICS

Coil insulation class H (5,7 mm), F (12 mm)
Coil connection Screw terminals
Electrical safety IEC 335
Standard voltages DC (=): 24V - 48V
(Other voltages and 60 Hz on request) AC (~): 24V - 48V - 115V - 230V / 50 Hz

SAFETY CODE

IECEX / II 2 G Ex d IIC T6..T4
IECEX / II 2 D Ex tD A21 IP67 T85°C..T135°C



prefix option	power ratings				operator ambient temperature range (TS) (C°) ⁽³⁾	replacement coil		type ⁽¹⁾	
	inrush ~	holding ~		hot/cold =		~	=		
		(VA)	(VA)						(W)
NF	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
	WSNF	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

Pn (W)	operator AC (~)			
	max. ambient temp. °C surface temperature			
	T6 85°C	T5 100°C	T4 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.

Pn (W)	operator DC (=)			
	max. ambient temp. °C surface temperature			
	T6 85°C	T5 100°C	T4 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	-

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H

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)				power coil (W)		catalogue number		options				
				min.	max. (PS)		brass			stainless steel	maintained man. operator	impulse man. operator				
					air (*)	water (*)									~	=
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	-	-
	12	1,5	25	0	10	10	-	-	10	10	NF8327A605	WSNF8327A606	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.

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 94/9/EC (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

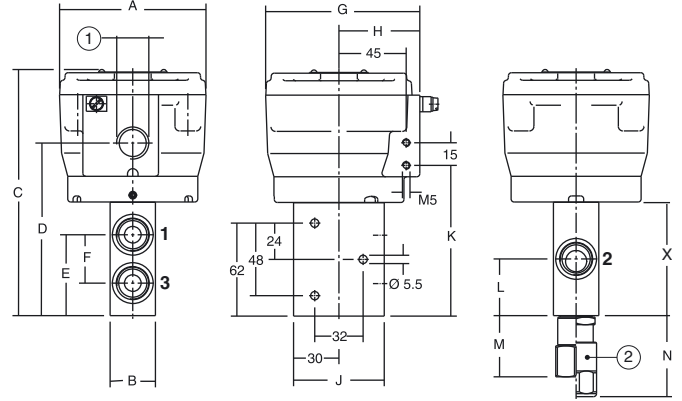
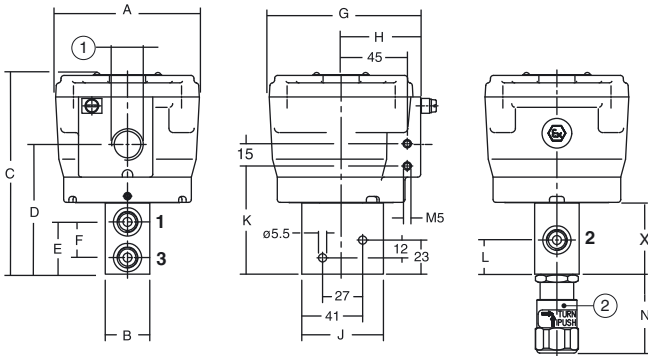
Prefix "NF", "WSNF" Solenoid
Aluminium, stainless steel
EN-IEC 60079-1 and EN-IEC 61241-1
II 2 G Ex d IIC - II 2D Ex tD A21 IP67

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.

