Model Number

NJ10-30GM50-E2-V1-3G-3D

Features

- **10 mm flush**
- **ATEX-approval for zone 2 and zone 22**

Accessories

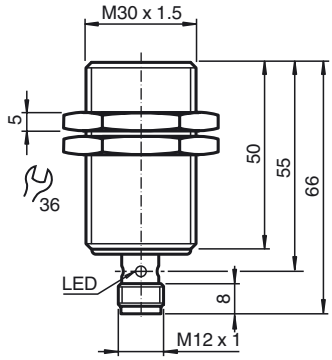
BF 30
Mounting flange, 30 mm

EXG-30
Quick mounting bracket with dead stop

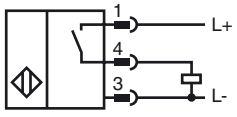
Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	10 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 8.1 mm
Actual operating distance	s_r	9 ... 11 mm typ. 10 mm
Reduction factor r_{Al}		0.32
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.66
Reduction factor r_{Brass}		0.4
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1300 Hz
Hysteresis	H	3 ... 15 typ. 6 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Voltage drop at I_L		
Voltage drop I_L = 200 mA, switching element on U_d		1 ... 2 V typ. 1.5 V
Design data		
Operating current	I_L	≤ 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.01 mA
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 100 ms
Switching state indicator		LED, yellow
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67
General information		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates		
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤36 V

Dimensions



Electrical Connection



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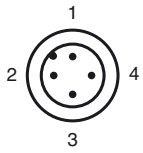
Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

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Data for application in connection with hazardous areas	
Equipment protection level	Gc (nA) , Dc
Equipment protection level Gc (nA)	
Type of protection	"n"
CE marking	CE
Certificates	
ATEX certificate	PF15CERT3754X
ATEX marking	Ex II 3G Ex nA IIC T6 Gc
Standards	EN 60079-0:2012+A11:2013 , EN 60079-15:2010
Surge protection	The protection against transient overvoltage with amplitude U is realized. U = 500 V at 1.2/50 µs, 500 Ω
Possible characteristics	maximum operating voltage U_{Bmax} , maximum load current I_{Lmax} , minimum series resistance R_V , maximum analog output voltage U_{Amax} , maximum analog output current I_{Amax}
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at U_{Bmax} = 30 V , I_L = 200 mA : 57 °C (134.6 °F) at U_{Bmax} = 30 V , I_L = 100 mA : 60 °C (140 °F) at U_{Bmax} = 30 V , I_L = 50 mA : 60 °C (140 °F)
Equipment protection level Dc	
Type of protection	Protection by enclosure "tc"
CE marking	CE
Certificates	
ATEX certificate	PF15CERT3774X
ATEX marking	Ex II 3D Ex tc IIIC T80°C Dc
Standards	EN 60079-0:2012+A11:2013 , EN 60079-31:2014
Possible characteristics	maximum operating voltage U_{Bmax} , maximum load current I_{Lmax} , minimum series resistance R_V , maximum analog output current I_{Amax} , maximum analog output voltage U_{Amax}
Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. at U_{Bmax} = 30 V , I_L = 200 mA : 57 °C (134.6 °F) at U_{Bmax} = 30 V , I_L = 100 mA : 60 °C (140 °F) at U_{Bmax} = 30 V , I_L = 50 mA : 60 °C (140 °F)

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