0102

Model Number

NCB10-30GM40-N0-10M-OG

Features

- **10 mm flush**
- **Shielded PUR cable for oil and gas sector**

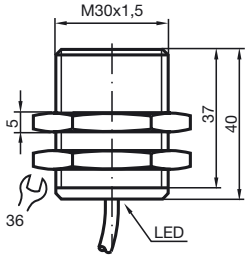
Accessories

BF 30
Mounting flange, 30 mm

Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	10 mm
Installation		flush
Assured operating distance	s_a	0 ... 8.1 mm
Actual operating distance	s_r	9 ... 11 mm typ.
Reduction factor r_{Al}		0.32
Reduction factor r_{Cu}		0.32
Reduction factor r_{304}		0.72
Output type		3-wire
Nominal ratings		
Nominal voltage	U_o	8 V
Switching frequency	f	0 ... 650 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Suitable for 2:1 technology		yes , Reverse polarity protection diode not required
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1870 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-25 ... 80 °C (-13 ... 176 °F)
Storage temperature		-40 ... 80 °C (-40 ... 176 °F)
Mechanical specifications		
Connection type		cable PUR (halogen-free) , 10 m , screened , Oil resistant , Flame-retardant as per IEC 60332-1
Core cross-section		2x 0.5 mm^2
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Cable		
Bending radius		> 7.5 x cable diameter
Note		The shield is not connected to the sensor.
General information		
Use in the hazardous area		see instruction manuals
Category		1G; 2G; 3G; 1D
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V

Dimensions



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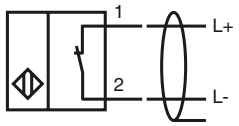
Electrical Connection



Equipment protection level Ga		
CE marking		CE 0102
ATEX marking		Ex II 1G Ex ia IIC T6…T1 Ga The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NCB10-30GM...-N0...
Effective internal capacitance	C_i	≤ 105 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 100 µH ; a cable length of 10 m is considered.
Ambient temperature		Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate. **Note:** Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.
Equipment protection level Gb		
CE marking		CE 0102
ATEX marking		Ex II 1G Ex ia IIC T6…T1 Ga The Ex-significant identification is on the enclosed adhesive label
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NCB10-30GM...-N0...
Effective internal capacitance	C_i	≤ 105 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 100 µH ; a cable length of 10 m is considered.
Maximum permissible ambient temperature	T_{amb}	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate.
Equipment protection level Gc (ic)		
Certificate		PF 13 CERT 2895 X
CE marking		CE
ATEX marking		Ex II 3G Ex ic IIC T6…T1 Gc The Ex-significant identification is on the enclosed adhesive label
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection category "ic" Use is restricted to the following stated conditions
Effective internal capacitance	C_i	≤ 105 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 100 µH ; A cable length of 10 m is considered.
Special conditions		
for Pi=34 mW, Ii=25 mA, T6		55 °C (131 °F)
for Pi=34 mW, Ii=25 mA, T5		55 °C (131 °F)
for Pi=34 mW, Ii=25 mA, T4-T1		55 °C (131 °F)
for Pi=64 mW, Ii=25 mA, T6		55 °C (131 °F)
for Pi=64 mW, Ii=25 mA, T5		55 °C (131 °F)
for Pi=64 mW, Ii=25 mA, T4-T1		55 °C (131 °F)
for Pi=169 mW, Ii=52 mA, T6		52 °C (125.6 °F)
for Pi=169 mW, Ii=52 mA, T5		52 °C (125.6 °F)
for Pi=169 mW, Ii=52 mA, T4-T1		52 °C (125.6 °F)
for Pi=242 mW, Ii=76 mA, T6		44 °C (111.2 °F)
for Pi=242 mW, Ii=76 mA, T5		44 °C (111.2 °F)
for Pi=242 mW, Ii=76 mA, T4-T1		44 °C (111.2 °F)
Equipment protection level Da		
CE marking		CE 0102
ATEX marking		Ex II 1D Ex ia IIIC T135°C Da The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NCB10-30GM...-N0...
Effective internal capacitance	C_i	≤ 105 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 100 µH ; a cable length of 10 m is considered.
Maximum permissible ambient temperature	T_{amb}	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the surface temperature, and the effective internal reactance values can be found on the EC-type-examination certificate. **The maximum permissible ambient temperature of the data sheet must be noted, in addition, the lower of the two values must be maintained.**

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