

# Inductive sensor

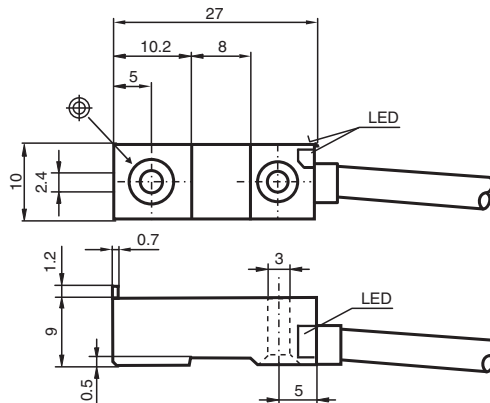
## NBN4-F29A-E2-C



- 4 mm non-flush
- 3-wire DC
- For use in direct- and alternating-field welding systems



### Dimensions



### Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	4 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.3
Reduction factor $r_{304}$		0.7
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 1000 Hz
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C

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## Technical Data

No-load supply current	$I_0$	$\leq 10$ mA
Time delay before availability	$t_v$	$\leq 5$ ms
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1680 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 100 mA
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		cable PUR, irradiated , 2 m
Core cross section		0.14 mm <sup>2</sup>
Housing material		PPS
Sensing face		PPS
Degree of protection		IP67
Dimensions		
Height		10 mm
Width		27 mm
Length		9 mm

## Connection Assignment

