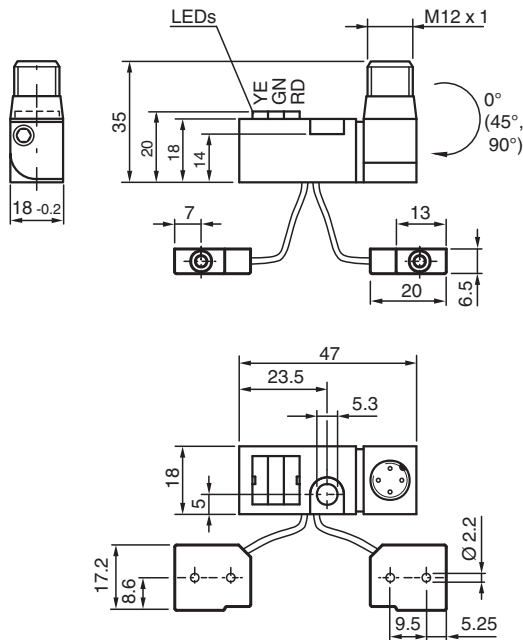


# Inductive power clamp sensor NBN2-F581-120S6-E8-V1

- Extremely bright triple luminous band indication
- M12 plug can be rotated 0°, 45°, or 90°
- For use in direct- and alternating-field welding systems
- Completely halogen and silicon free



## Dimensions



## Technical Data

### General specifications

Switching function		2 x normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	2 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 1.62 mm
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.75
Output type		4-wire

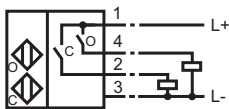
### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC
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## Technical Data

Switching frequency	f	0 ... 25 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	$I_r$	$\leq 10$ $\mu$ A
No-load supply current	$I_0$	$\leq 15$ mA
Constant magnetic field	B	100 mT
Alternating magnetic field	B	100 mT
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1445 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
LED POWER		LED, green
Switching state		"Closed" = LED red (S02)/C "Open" = LED yellow (S01)/O
<b>Compliance with standards and directives</b>		
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
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
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)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug M12 x 1 , 4-pin
Flexible lead, housing-sensor		(120 $\pm$ 5) mm, PUR (halogen-free)
Housing material		amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection		IP65

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

## Accessories

	<p><b>V1-G-OR2M-POC</b></p>	<p>Female cordset single-ended M12 straight A-coded, 4-pin, POC cable welding-bead resistant orange, suitable for robotic applications, torsion resistant, oil resistant, molecularly cross-linked</p>
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