

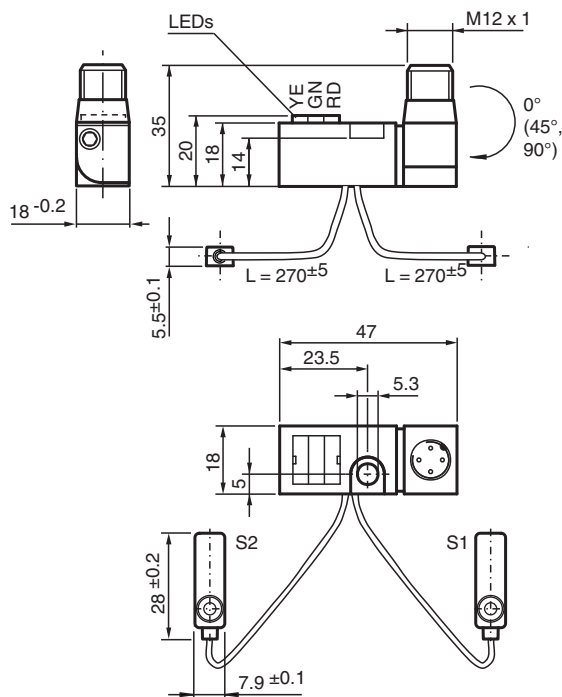
# Inductive power clamp sensor

## NBN2-F581-270S15-E8-V1

- Extremely bright triple luminous band indication
- M12 plug with safety screw assembly adjustable in 45° grid
- 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
Switching frequency	$f$	0 ... 100 Hz

Release date: 2022-06-22 Date of issue: 2022-06-22 Filename: 201455\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

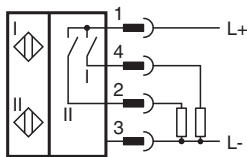
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PF** PEPPERL+FUCHS

## Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3\text{ V}$
Operating current	$I_L$	0 ... 100 mA
No-load supply current	$I_0$	$\leq 15\text{ mA}$
Constant magnetic field	B	100 mT
Alternating magnetic field	B	100 mT
Tuning-out		typically 1 s
Operating voltage indicator		LED green
Switching state indicator		Switching state "closed" = LED red (S2) switching state "open" = LED yellow (S1)
<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>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 $\leq 36\text{ V}$
<b>Ambient conditions</b>		
Ambient temperature		0 ... 50 °C (32 ... 122 °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		PUR (halogen-free)
Housing material		PBT/PA6 + GD-ZN AL4
Sensing face		PBT
Degree of protection		IP65

## Connection



## Connection Assignment




Release date: 2022-06-22 Date of issue: 2022-06-22 Filename: 201455\_eng.pdf

## 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>
---	-----------------------------	--

Release date: 2022-06-22 Date of issue: 2022-06-22 Filename: 201455\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".