

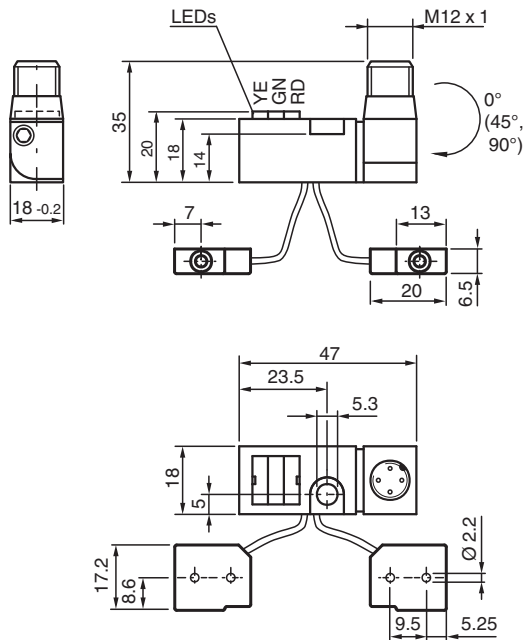
Inductive power clamp sensor

NBN2-F581-160S6-E10-V1

- Basic series
- 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		NPN
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}		0.35
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Output type		4-wire

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
-------------------	-------	----------------

Release date: 2022-07-13 Date of issue: 2022-07-13 Filename: 801314_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

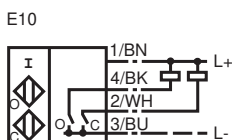
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS

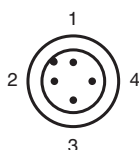
Technical Data

Switching frequency	f	0 ... 25 Hz
Hysteresis	H	3 ... 20 % 5 typ.
Reverse polarity protection		yes
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V DC
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	≤ 10 μ A
No-load supply current	I_0	≤ 35 mA
Constant magnetic field	B	100 mT
Alternating magnetic field	B	100 mT
Operating voltage indicator		LED green
Switching state indicator		switching state "close" = LED red (S2) switching state "open" = LED yellow (S1)
Functional safety related parameters		
MTTF _d		1445 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
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
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
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
Flexible lead, housing-sensor		160 mm \pm 5 mm , PUR (halogen-free)
Housing material		amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection		IP67

Connection



Connection Assignment



Connection Assignment

Wire colors in accordance with EN 60947-5-2

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