

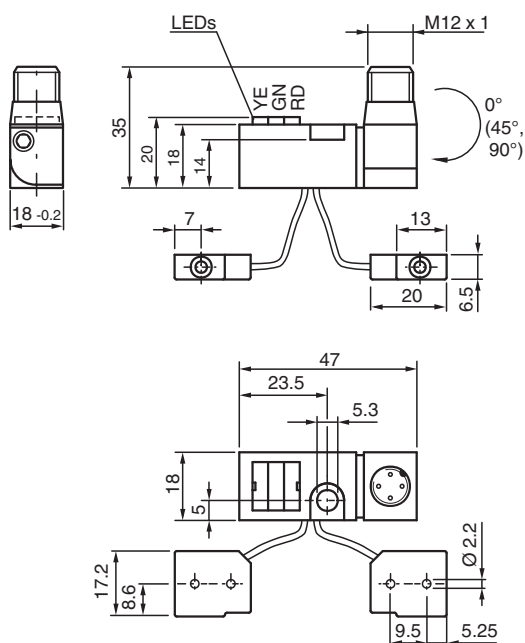
Inductive power clamp sensor

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_{AI}		0.35
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Output type		4-wire

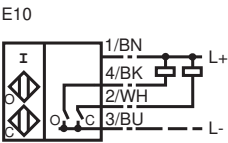
Nominal ratings

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

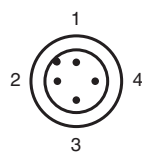
Technical Data

Switching frequency	f	0 ... 25 Hz
Hysteresis	H	3 ... 20 % typ. 5 %
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 µA
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 IEC 60947-5-2
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
Flexible lead, housing-sensor		160 mm ± 5 mm , PUR (halogen-free)
Housing material		amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		4
Dimensions		
Height		18 mm
Width		18 mm
Length		47 mm

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Release date: 2024-12-10 Date of issue: 2024-12-10 Filename: 801314_eng.pdf