

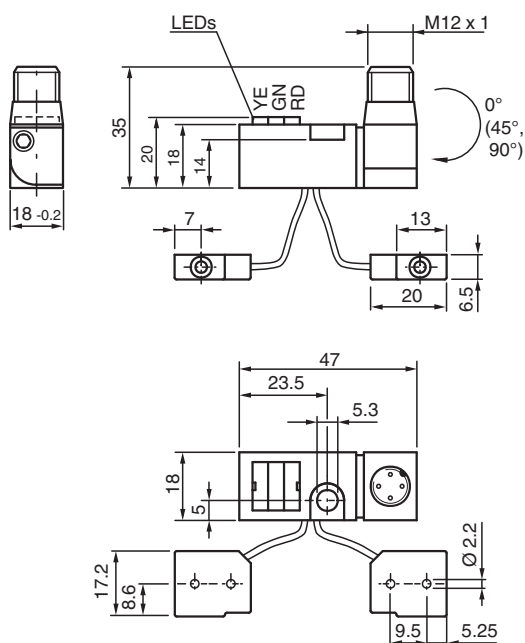
Inductive power clamp sensor

NBN2-F581-100S6-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
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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	≤ 3 V
Operating current	I _L	0 ... 100 mA
Off-state current	I _r	≤ 10 µA
No-load supply current	I ₀	≤ 15 mA
Constant magnetic field	B	100 mT
Alternating magnetic field	B	100 mT
Operating voltage indicator		LED green
Switching state indicator		Switching state "closed" = 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

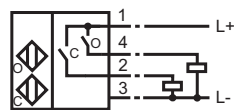
Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

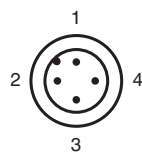
Mechanical specifications

Connection type	Connector plug M12 x 1 , 4-pin
Flexible lead, housing-sensor	(100 ± 5) mm, PUR (halogen-free)
Housing material	amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection	IP65

Connection



Connection Assignment



Release date: 2024-05-28 Date of issue: 2024-06-02 Filename: 904157_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)

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