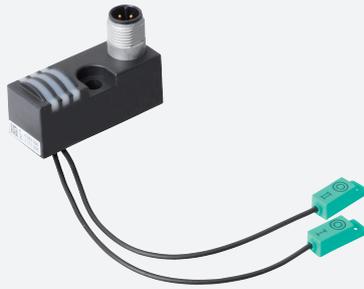


Inductive power clamp sensor

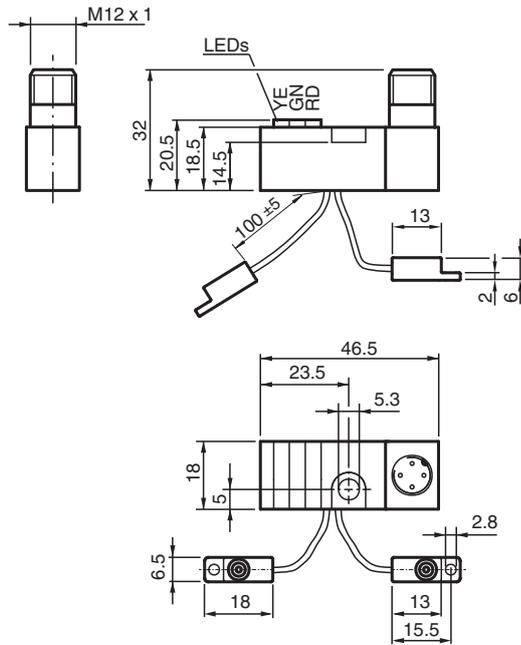
NBN2-F58E-100S3-E8-V1



- Extremely bright triple luminous band indication
- 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}		0.35
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.45
Output type		4-wire

Release date: 2024-05-27 Date of issue: 2024-05-28 Filename: 297908_eng.pdf

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

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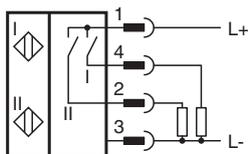
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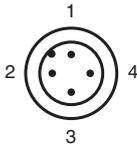
Technical Data

Nominal ratings		
Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 100 Hz
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Rated insulation voltage	U_{BIS}	60 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 15 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)
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 ... 50 °C (-13 ... 122 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1, 4-pin
Flexible lead, housing-sensor		PUR (halogen-free)
Housing material		amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection		IP65
Protection class		II
Dimensions		
Height		18.5 mm
Width		18 mm
Length		46.5 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)

Additional Information

Safety instructions

Laws and/or regulations and standards governing the use or intended usage goal must be observed.

No changes can be made to the device.
Repairs are not possible.

Protection class II (protective isolation) is only reached under the stated mounting conditions.