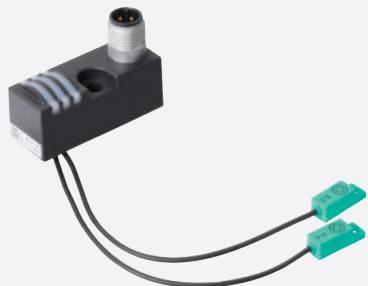


Inductive power clamp sensor

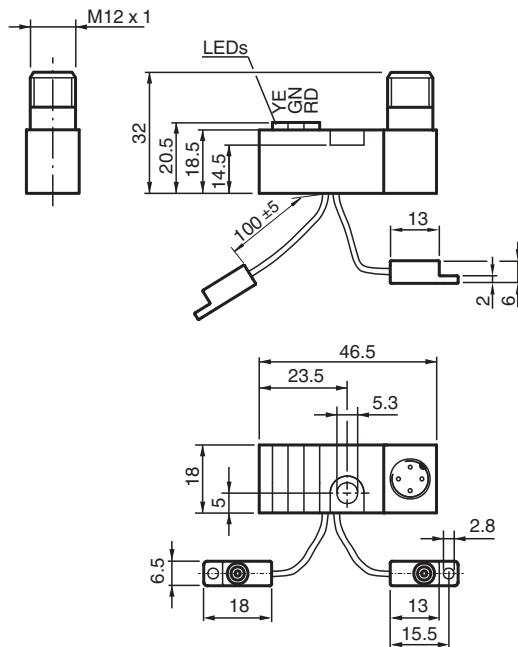
NBN2-F58E-100S3-E8-V1



- Extremely bright triple luminous band indication
- For use in direct- and alternating-field welding systems
- Completely halogen and silicon free



Dimensions



Technical Data

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

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_{AI}	0.35	
Reduction factor r_{Cu}	0.35	
Reduction factor r_{304}	0.7	
Reduction factor r_{Brass}	0.45	
Output type	4-wire	

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

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 PEPPERL+FUCHS

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

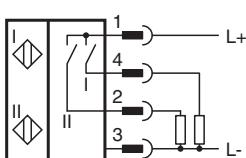
Ambient conditions

Ambient temperature	-25 ... 50 °C (-13 ... 122 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

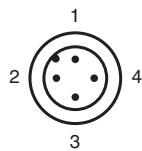
Mechanical specifications

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.