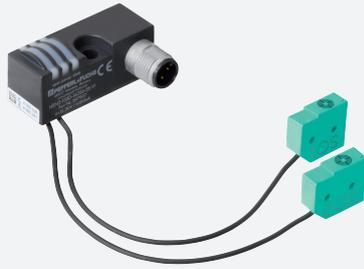


# Inductive power clamp sensor

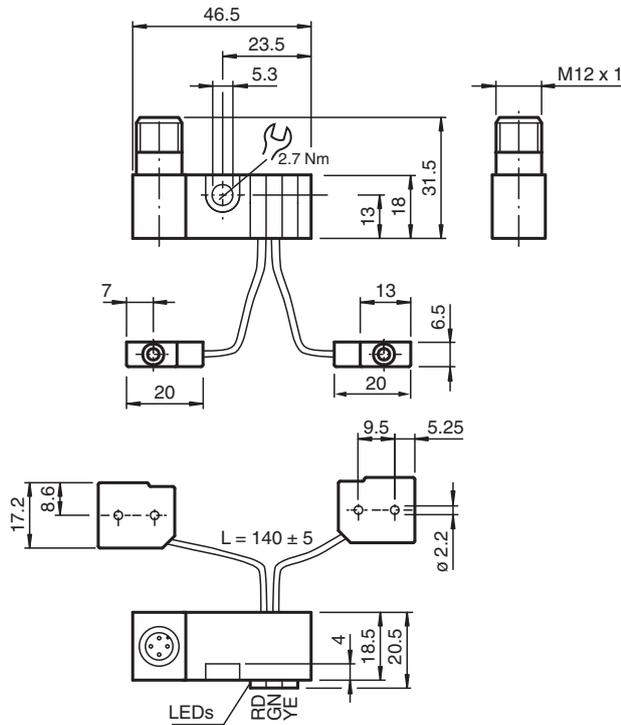
## NBN2-F58D-140S6-E8-V1



- 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

Release date: 2024-05-27 Date of issue: 2024-05-28 Filename: 297907\_eng.pdf

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

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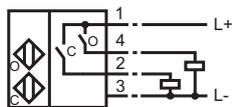
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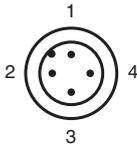
## Technical Data

Reduction factor $r_{\text{Brass}}$		0.45
Output type		4-wire
<b>Nominal ratings</b>		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 100 Hz
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Rated insulation voltage	$U_{\text{BIS}}$	60 V
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 15$ 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)
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1445 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 50 °C (-13 ... 122 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
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
<b>Dimensions</b>		
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)