

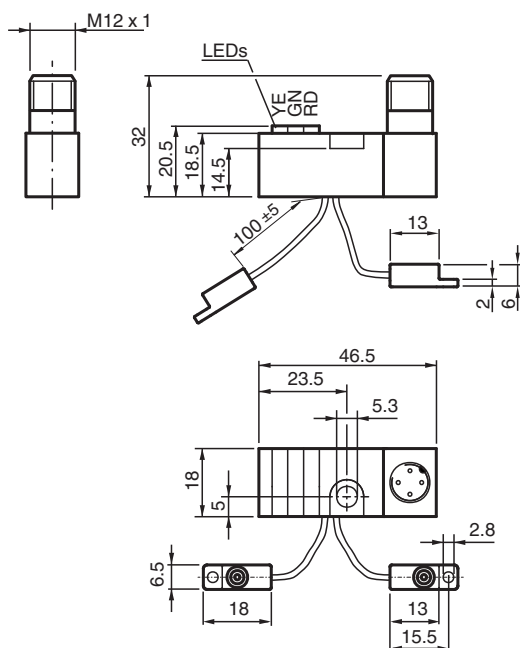
## Inductive power clamp sensor

### 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

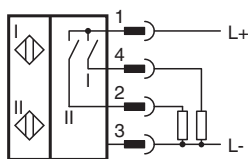
### General specifications

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 $r_{AI}$		0.35
Reduction factor $r_{Cu}$		0.35

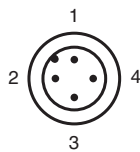
## Technical Data

Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.45
Output type		4-wire
<b>Nominal ratings</b>		
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	$U_d$	$\leq 3$ 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 $\mu$ 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 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<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
Protection class		II

## 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.

Accessories

	<b>V1-G-OR2M-POC</b>	Female cordset single-ended M12 A-coded 4-pin, TPE cable welding-bead resistant orange
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Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 297908\_eng.pdf