

## Model Number

**NBN2-F581-160S6-E8-V1**

## Features

- Extremely bright triple luminous band indication
- M12 plug can be rotated 0°, 45°, or 90°
- For use in direct- and alternating-field welding systems
- Completely halogen and silicon free

## Accessories

### V1-G-OR2M-POC

Female cordset, M12, 4-pin, TPE cable, welding-bead resistant

### V1-G-2M-PUR-H/S

Female cordset, M12, 4-pin, irradiated PUR cable

### V1-W-2M-PUR-H/S

Female cordset, M12, 4-pin, irradiated PUR cable

## 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 $r_{AI}$		0.45
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
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 $\mu$ A

No-load supply current  $I_0$  ≤ 15 mA

Constant magnetic field  $B$  100 mT

Alternating magnetic field  $B$  100 mT

### Functional safety related parameters

MTTF <sub>d</sub>	1445 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Indicators/operating means

LED POWER	LED, green
Switching state	"Closed" = LED red (S02)/C "Open" = LED yellow (S01)/O

### 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	(160 ± 5) mm, PUR (halogen-free)
Housing material	amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection	IP65

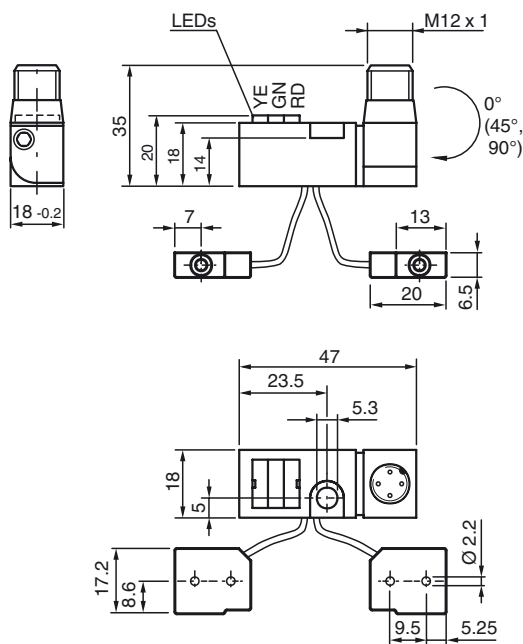
### Compliance with standards and directives

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

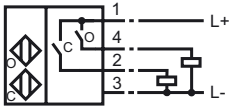
### Approvals and certificates

UL approval	UL Recognized
CCC approval	CCC approval / marking not required for products rated ≤36 V

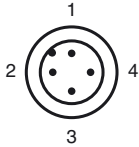
## Dimensions



**Electrical Connection**



**Pinout**



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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