



### Model Number

NBN2-F581-80S3-E8-V1

### Features

- Extremely bright triple luminous band indication
- M12 plug with safety screw assembly adjustable in 45° grid
- 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
Switching frequency	$f$	0 ... 100 Hz
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 100 mA
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)

### Functional safety related parameters

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

### Ambient conditions

Ambient temperature	0 ... 50 °C (32 ... 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	80 mm, PUR (halogen-free); Outlet position - 1
Housing material	amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Degree of protection	IP65

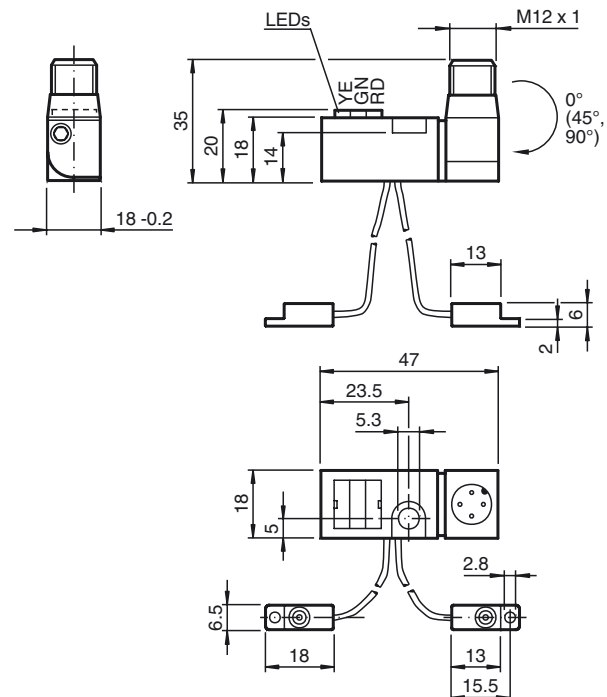
### Compliance with standards and directives

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

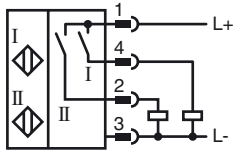
### Approvals and certificates

UL approval	UL Recognized
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

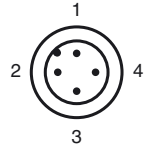
## Dimensions



**Electrical Connection**



**Pinout**



Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
2		WH	(white)
3		BU	(blue)
4		BK	(black)