



**Model Number**

NBN2-F581-100S6-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 element function	PNP	Dual NO
Rated operating distance	$s_n$	2 mm
Installation		non-flush
Output polarity		switched high
Assured operating distance	$s_a$	0 ... 1.62 mm
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.75

**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	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	$\leq 10$ $\mu$ A
No-load supply current	$I_0$	$\leq 15$ mA
Constant magnetic field	$B$	100 mT
Alternating magnetic field	$B$	100 mT
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 %

**Standard conformity**

EMC in accordance with	IEC / EN 60947-5-2:2004
Standards	IEC / EN 60947-5-2:2004

**Ambient conditions**

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

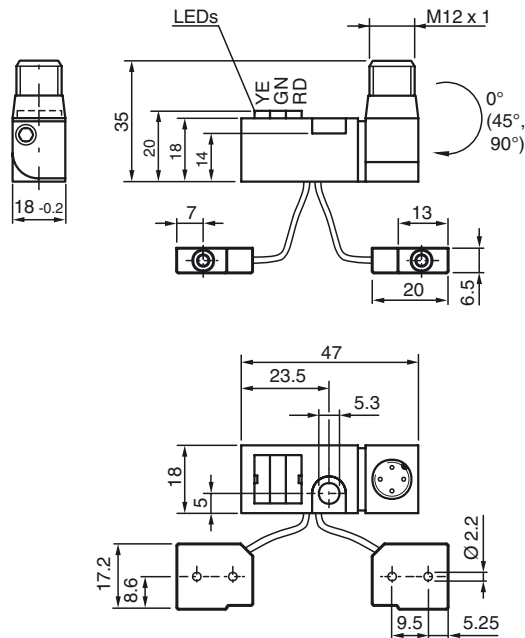
**Mechanical specifications**

Connection type	Connector M12 x 1, 4-pin
Flexible lead, housing-sensor	(100 ± 5) mm, PUR (halogen-free)
Housing material	amplifier; PBT, PA6 + GD-ZN AL4 oscillators; PBT
Protection degree	IP65

**Approvals and certificates**

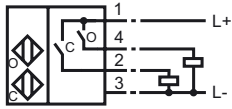
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

**Dimensions**



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**Electrical Connection**



**Pinout**



Wire colors in accordance with EN 60947-5-2

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