



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.us

General Data

Rated operating distance	2 mm
Installation	flush in aluminum, non-flush in steel
Operating voltage	10 ... 30 V DC
Reverse polarity protection	✓
Load current	0 ... 100 mA
Short-circuit protection	✓, self checking
Constant magnetic field	100 mT
Alternating magnetic field	100 mT
Operating voltage display	LED green
Switching state indication	switching state "close" = LED red (S2) switching state "open" = LED yellow (S1)
Material	amplifier: PBT, PA6 + GD-ZN AL4 oscillators: PBT
Connection type	Connector M12 x 1, 4-pin



Properties

- Compact F58 housing
- 2 mm sensing range in aluminum
- DC, 3-wire switching outputs
- Adjustable connector version

Benefits

- Flexible mounting due to adjustable plug in 45° grid
- Models with different cable length
- High visibility multi-band LED

Model Number

Output type	PNP Dual NO	PNP Dual NO	NBN2-F583-100S3-E8-V1	NBN2-F581-100S6-E10-V1	NBN2-F581-100S6-E8-V1	NBN2-F581-120S6-E8-V1	NBN2-F581-140S6-E8-V1	NBN2-F581-160S6-E8-V1	NBN2-F581-200S6-E8-V1	NBN2-F581-50S6-E8-V1	NBN2-F581-80S3-E8-V1
No-load supply current	≤ 15 mA	≤ 35 mA	●	●	●	●	●	●	●	●	●
Switching frequency	0 ... 100 Hz	0 ... 25 Hz	●	●	●	●	●	●	●	●	●
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)	0 ... 50 °C (32 ... 122 °F)	●	●	●	●	●	●	●	●	●
Protection degree	IP65	IP67	●	●	●	●	●	●	●	●	●

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●	●	●	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●	●	●	●	●	●	●
CCC approval	CCC approval / marking not required for sensors rated ≤36 V	●	●	●	●	●	●	●	●	●	●

Dimensions

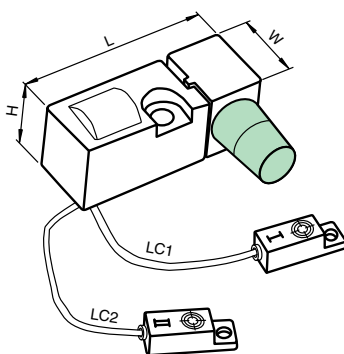
Length L [mm]	47
Width W [mm]	18
Height H [mm]	18
Cable length LC1 [mm]	100 100 100 120 140 160 200 50 80
Cable length LC2 [mm]	100 100 100 120 140 160 200 50 80

Accessories

These and more accessories can be found in chapter 10

See pages from 970 ... for cordsets See pages 1066 ... for mounting accessories

V1-G-OR2M-POC	Female cordset, M12, 4-pin, TPE cable, welding-bead resistant, straight
V1-G-BK2M-PUR-U H/S	Female cordset, M12, 4-pin, irradiated PUR cable, straight
V1-W-BK2M-PUR-U H/S	Female cordset, M12, 4-pin, irradiated PUR cable, angled

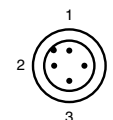
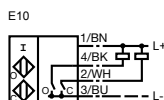
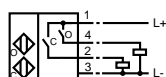


Electrical Connection



NBN2-F581-100S6-E8-V1
NBN2-F581-120S6-E8-V1
NBN2-F581-140S6-E8-V1
NBN2-F581-160S6-E8-V1
NBN2-F581-200S6-E8-V1
NBN2-F581-50S6-E8-V1
NBN2-F581-80S3-E8-V1
NBN2-F583-100S3-E8-V1

NBN2-F581-100S6-E10-V1



Wire colors in accordance with EN 60947-5-2

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

Note: oscillator I is assigned to O (yellow LED), oscillator II is assigned to C (red LED)