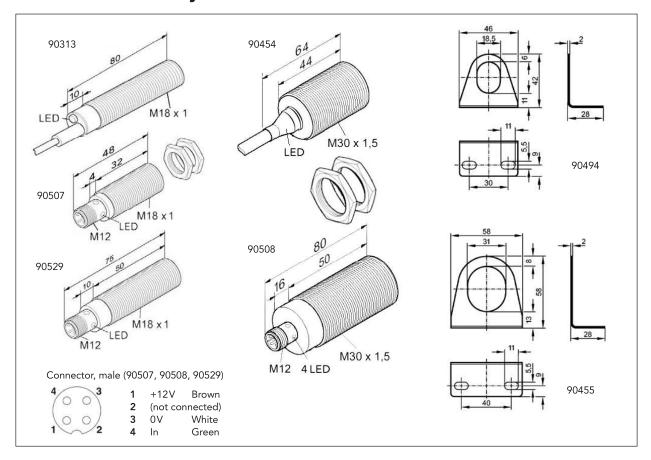
## **Inductive Proximity Switches**



The inductive proximity switches have integrated amplifiers and LED indicators for easy operation and adjustment. They are available with integrated cable 2m or with connector.

The angle brackets 90455 and 90456 are made of galvanized steel. Cables, connectors and accessories for inductive proximity switches are described on TD-384.

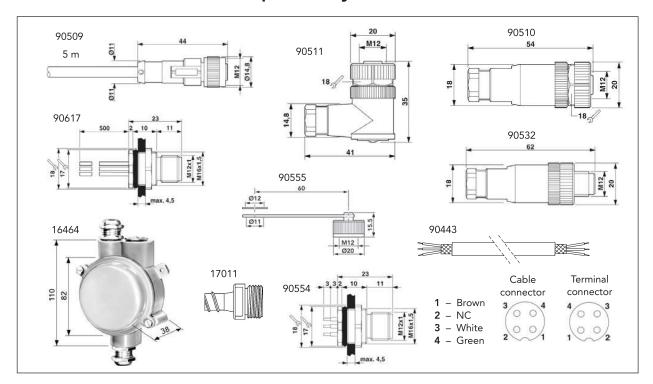
## Technical specifications

| Housing material: nickel  | plated brass                       | Max. load current: | max. 200 mA   |  |
|---|------------------------------------|--------------------|---|--|
| Material active face:   | PBT                                | Leakage current:   | <0,01 mA  |  |
| Switching distance, Sn  |                                    | No load current:   | < 15 mA   |  |
| 90313, 90507, 90529:  | 8 mm, shielded                     | Output function:   | NPN, N.O.   |  |
| 90454:<br>90508:  | 15 mm, shielded<br>22 mm, shielded | Connection:        | plug M12 alt.<br>integrated cable, PVC, 2 m                       |  |
| Switching frequency<br>90313, 90507, 90529:<br>90454:<br>90508: | 500 Hz<br>250 Hz<br>300 Hz         | Dant assets and    | 90313; 3 x 0.34 mm <sup>2</sup><br>90454; 3 x 0.5 mm <sup>2</sup> |  |
| Switching hysteresis:   | <15% (Sr)                          | Part numbers       |   |  |
| Operating temperature:  | –25 °C to +70 °C                   |                    | Proximity Switch M18 with integrated without connector            |  |
| Protection category:  | IP 67                              | 90454 Inductive    | Proximity Switch M30 with integrated                              |  |
| Function control:   | LED                                | cable 2m           | cable 2m without connector  |  |
| Operating voltage:  | 10 to 30 V DC                      | 90507 Inductive    | Inductive Proximity Switch M18 with connector                     |  |
| Ripple:   | < 10%                              | 90529 Inductive    | Proximity Switch M18 with connector                               |  |
| Voltage drop<br>90507:  | < 2.0 V                            | 90508 Inductive    | Proximity Switch M30 with connector                               |  |
| 90313, 90508:   | < 1.5 V                            | 90494 Angle bra    | Angle bracket M18   |  |
| 90454, 90529:   | < 2.5 V                            | 90455 Angle bra    | acket M30   |  |
|   |                                    |                    |   |  |





## Accessories for inductive proximity switches



**90509** is a PUR halogen-free sensor cable with a straight M12 connector intended for use with the inductive proximity switches 90507 and 90508.

Rated voltage: 250 V Rated current at 40 °C: 4 A

Insulation resistance,

connector:  $\geq 100 \text{ M}\Omega$ 

Conductors: 4 x 0.34 mm<sup>2</sup>, AWG 22

Cable diameter: 4.7 mm Insulation resistance, cable:  $\geq$  1 G $\Omega$ /km

Conductor resistance: max. 58  $\Omega$ /km (at 20 °C)

Nom. voltage, conductor:  $\leq 300 \text{ V}$ Length of cable: 5 m

Ambient temperature: -25 to +80 °C

Degree of protection: IP68

**90510** (straight) and **90511** (angled) are 4-position female connectors for the inductive proximity switches 90507 and 90508. They are A-coded and have screw connection Pq7.

Rated current at 40°C: 4 A
Rated voltage: 250 V
Insulation resistance:  $≥ 100 \text{ M}\Omega$ Ambient temperature: -40 to +85 °C

Degree of protection: IP67
External cable diameter: 4 to 6 mm

**90532** is a straight 4-position male connector with the same specifications as the connectors 90510 and 90511.

**90554** is a 4-position terminal connector for rear/screw mounting with M16 thread, with straight solder connection.

**90617** is a 4-position terminal connector for rear/screw mounting with M16 thread, with 0.5 m TPE litz wire,  $4 \times 0.34$  mm<sup>2</sup>.



**90443** is a PUR cable with 3 conductors and shield. It has a wide temperature range and good resistance to mineral oils.

Ambient temperature:  $-40 \text{ to } +80 \,^{\circ}\text{C}$ Conductors:  $0.25 \,\text{mm}^2$ , AWG 23

Rated voltage: 250 V
Test voltage: 1500 V
Diameter: 4.7 mm
Bend radius: min. 71 mm

**16464** is a junction box produced in gray alloy and has three cable inlets. It is supplied with terminal block with 4 mantle clamps, grounding screw and 3 cable inlets with thread Pg18.6 plus 2 cable inlets of type Pg11 and 1 blind plug.

Terminal wire range: up to 3 x 2.5 mm<sup>2</sup>

Rated voltage: 500 V
Inner depth: 23 mm
Inner diameter: 76 mm
Degree of protection: IP67
Cable diameter, Pg18.6: 8 to 12 mm
Cable diameter, Pg11: 3 to 8.5 mm

## Part numbers

90509 Sensor cable, 5 m, with connector M12
90510 Connector M12 straight, female, IP67
90511 Connector M12 angled, female, IP67
90532 Connector M12 straight, male, IP67
90554 Terminal connector M12, IP67

90555 Sealing cap for 90554 made of plastic with fixing

band with 12 mm fastening eye

90443 Cable PUR, -40 to +80 °C

90617 Terminal connector M12, IP67, with 0.5 m litz wire

16464 Junction box, IP67

17011 Protection tube end for 90510/90511/90532

Inductive proximity switches are described in TD-383.

