prosense

D80 Series Proximity Sensors Installation Instructions
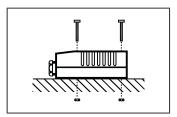
Part Numbers:

D80-0P-4T
D80-0P-4H

Function and Features

This sensor detects metals without contact and indicates their presence by providing a switched signal. Sensing range adjustable from 20 to 60mm [0.78 to 2.36 in] (values based on standard measurement with mild steel; a shorter sensing range for other metals). In the event of variations of the ambient temperature in the range from -25 to +80°C [-13 to 176°F] the set switch point may fluctuate by ± 10%.
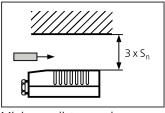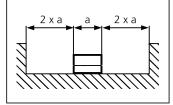
Installation

Screw the sensor to a firm base. If there is high mechanical stress, ensure that it cannot work loose.
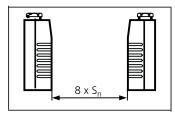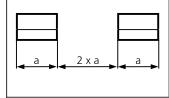
Non-flush installation:

Open space around the sensing face when mounted in metal:

Minimum distance when several sensors of the same type are mounted:
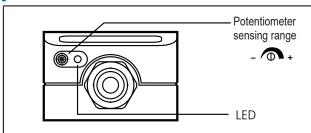

Electrical Connection

⚠ Disconnect power before connecting the sensor. Open the sensor; connect cable in accordance with the instructions on the label.

NOTE: Insert a miniature fuse according to the technical data sheet, if specified.

Recommendation: check the unit for reliable function after a short circuit.

Adjustment

Potentiometer sensing range

LED

	N.O.	*N.C*
1.	Place the target material in the safe sensing range.	
	→ LED is lit.	→ LED Goes off.
2.	Decrease the sensing range until LED goes off.	Decrease the sensing range until LED is lit
3.	Increase the sensing range until LED is lit.	Increase the sensing range until the LED goes off.

Sensing distance should not be increased beyond 60mm.

Operation

Check the safe functioning of the sensor. The LED is lit when the output is switched. The operation of the sensor is maintenance-free.

For perfect functioning make sure that:

- The sensing face and the open space are kept free of metal deposits and foreign bodies, particularly for installation with the sensing face facing upwards.
- EMC: The unit conforms to the requirements of EN 60947-5-2.

D80 Series Proximity Sensors Installation Instructions

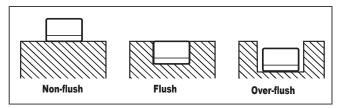**Part Numbers:**

D80-AP-3H
D80V-A0-3M
D80V0A0-3Q

Function and Features

This sensor detects metals without contact and indicates their presence by providing a switched signal. Nominal sensing range (S_N) 50mm [1.96 in], operating distance (Sa): 40mm [1.57 in] (flush and over- flush installation); 35mm [1.37 in] (non-flush installation).
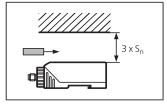
(Values based on standard measurement with mild steel; a shorter sensing range for other metals).
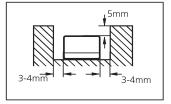
Installation

Mount the unit on a DIN rail or by means of a mounting fixture.

Three ways of mounting:

Non-flush   **Flush**   **Over-flush**

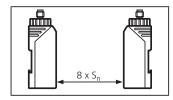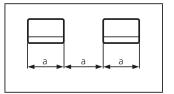Open space around the sensing face when mounted in metal:

For all ways of mounting   **In addition for over-flush mounting**

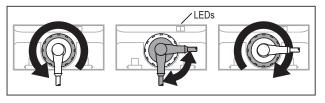Minimum distance when several sensors of the same type are mounted:

Electrical Connection

⚠ Disconnect power before connecting the sensor.

The plug adapter of units with plug and socket connection can be rotated (45° steps).

Loosen fastening nut   **Turn plug adapter**   **Tighten fastening nut**

NOTE: Insert a miniature fuse according to the technical data sheet, if specified.

Recommendation: check the unit for reliable function after a short circuit.

Operation

Check the safe functioning of the sensor.

The green LED is lit when the supply voltage is applied.

The yellow LED is lit when the output is switched.

The operation of the sensor is maintenance free. For perfect functioning make sure that:

- The sensing face and the open space are kept free of metal deposits and foreign bodies, particularly for installation with the sensing face facing upwards.
- EMC: The unit conforms to the requirements of EN 60947-5-2.