

Proximity Sensors

MODELS

48770-400	8mm Proximity Sensor
48770-401	12mm Proximity Sensor
48770-402	18mm Proximity Sensor
48770-403	30mm Proximity Sensor



These Inductive Proximity Sensors are self-contained, solid-state devices. They are available in models with four sizes of sensing surfaces - 8 mm, 12 mm, 18 mm and 30 mm diameter. All four sensors are shielded, feature a NO output configuration, and have a two-meter-long cable connected. The Proximity Sensors are compatible with all Durant Electronic Series totalizers and controls. The housings are made of stainless steel. All tubular proximity sensors feature NPN output transistors and a three wire connection to draw power from controls and totalizers or from a DC line.

Sensors are protected against voltage transients and exceed NEMA 1500 V showering arc specifications. The devices are also protected against accidental reverse polarity connection. An LED indicator is standard on all models except 8 mm. Protective caps are optionally available and recommended where the sensor face is subject to physical abuse. Protective caps are threaded over the face of the sensor. No cap is available for the 8 mm sensor. A mounting bracket is also optionally available. The bracket permits flexible location of sensor with simple lateral adjustment of the sensor via slotted mounting holes on the bracket.

Specifications

Power Requirements:

50 VDC.

Operating Temperature:

-25°C (-13°F) to 70°C (158°F).

Solid-State Design:

No moving parts.

Construction:

All four proximities are made of stainless steel. The 12mm, 18mm and 30mm sensors have a strain relief feature designed for hose clamp connection of watertight conduit.

Continuous Duty Cycle:

Rated for continuous operation.

One-Hole Mounting:

Sensor is threaded from sensor face to shank and supplied with two mounting nuts for simple mounting.

Maximum Variation of Nominal Switching Distance:

±10%.

Ripple on DC Supply:

Maximum 10%.

Switching Rate:

All models: 1000 counts/sec.

Burden Current:

17 mA.

Output Resistance:

4.7 kΩ.

Residual Value at a Load Resistance of 10 kΩ (Switch Closed):

0.8 V.

Voltage Drop (Switch Open):

1 V.

Hysteresis:

≤15% Maximum.

Maximum Output Load Current:

Between 100 mA and 400 mA depending on switch type.

Maximum Duty Cycle:

100%.

Shock:

48770 Series sensors have successfully withstood the following shocks per IEC 68-2-76: 30 g sine wave for 11 mS, three shocks in both directions along each of three planes.

Vibration:

48770 Series sensors have successfully withstood the following vibrations per IEC 68-2-6: 10 to 55 Hz, 2 in. total amplitude sine wave, 30 minutes in each of three planes.

Enclosure Ratings:

8mm: NEMA 3, 3S, 4, 4X, 6, 6P, 12 & 13.
12, 18 & 30mm: NEMA 3, 3S, 4, 4X, 6, 6P, 11, 12 & 13.

Approvals:

UL Listed, File #1230
CSA Certified, LR 353

ORDERING INFORMATION

Model Number	Product Description
48770-400	Proximity Sensor, 8mm
48770-401	Proximity Sensor, 12mm
48770-402	Proximity Sensor, 18mm
48770-403	Proximity Sensor, 30mm
48770-450	Mounting Bracket, 8mm
48770-451	Mounting Bracket, 12mm
48770-452	Mounting Bracket, 18mm
48770-453	Mounting Bracket, 30mm
48770-460	Conduit Adapter, 8mm
48770-461	Conduit Adapter, 12mm
48770-462	Conduit Adapter, 18mm
48770-463	Conduit Adapter, 30mm
48770-471	Cap, 12mm
48770-472	Cap, 18mm
48770-473	Cap, 30mm