
# Sensors for device-level networks for industrial automation

- *Available for both analog and proximity sensors*
- *Ability to set many different Perameters, such as averaging, loss-of-echo, and alarm limits*
- *Allows user to use products from a variety of manufacturers*

## DeviceNet™ sensors are compatible with the world's leading device-level network for industrial automation

Hyde Park offers sensors that are compatible with DeviceNet. Both analog and proximity versions of the SM650/SM656 flat-profile and the SM950-SM956 1,2, and 8 meter range sensors are available.

These sensors can communicate at either 125k, 250k, or 500k baud rates and can be set to any MAC ID address from 1 to 63. Both the communication rate and the MAC ID address can be changed by the user.

The DeviceNet sensors have two multicolor LEDs to show the sensing and network status. The sensing status multicolor LED indicates distance to the object relative to the span limits. The module/network multicolor LED indicates the status of the sensor with the Device-Net network. The sensors are provided with EDS files with which a program, such as RSN-etwork, can configure the operation of the sensor.

## Analog DeviceNet sensor

The analog version of the DeviceNet sensor reports anumeric value which is proportional between the analog span limits. The near and far analog span limits can be configured along with the numerical value that should be reported at each limit. The minimum and maximum numerical value can be set at either analog span limit. Many parameters can be specified, such as averaging, loss-of-echo operation, and alarm limits.

## Proximity DeviceNet sensor

The proximity version of the DeviceNet sensor reports the value of two independent outputs. The near and far limits can be configured along with the action of the two independent outputs. The outputs can be configured to function as a proximity sensor, dual-level high/low, dual-level alarm, or dual-level setpoint. The loss-of-echo operation can be set independently for both outputs. Also, the on and off delays for the 2 outputs can be set independently.

These sensors are provided with micro connector male connectors that conform to the DeviceNet point specification. The sensors operate over the full range of the valid DeviceNet voltage specifications (+11 to 25 volts)

## *Model Reference Guide - DeviceNet Series*

Use the guide below to ensure the correct model number is specified for the application. Please note that not all sensor model combinations are available.

**EXAMPLE MODEL:** **SM9 5 6DN-152 9 1 1 -**

**SUPERPROX® Product Series**
SM6...Flat-profile sensor
SM9…30mm threaded barrel

**Power/Connection Type**
5...12 to 24 VDC / connector style

**Sensing Type**
0DN-153...Discrete
6DN-152…Analog

**Housing**
6…Flat-profile sensor
9…30mm threaded barrel

**Measurement Units**
1…English
2…Metric

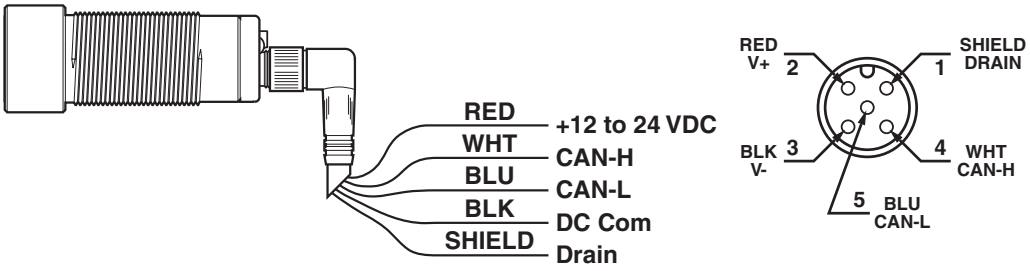
**Sensing Range**
SM6 Flat-profile
0…31.8 mm to 254 mm (1.25" to 10")
SM9 30mm barrel
1...51 mm to 1 m (2" to 39")
4...120 mm to 2 m (4.7" to 79")
6…120 mm to 1 m (4.7" to 39") - FS option [only valid range]
7…120 mm to 1 m (4.7" to 39") - ST option [only valid range]
8…203mm to 8 m (8" to 26')

**Options**
...No designator indicates no options
ST...Stainless transducer (must specify stainless housing)
Available in SM9-1m range only
FS...Fluorosilicone transducer face
Available in SM6 or SM9 (120 mm to 1 m range only)

**Housing Types**
SM6 Flat-profile
FP…Flat-profile - Must be specified
SM9 30mm barrel
...No designator indicates standard ULTEM®* plastic housing
1nn..125K
2nn..250K
5nn..500K
S...SS303 stainless steel

* ULTEM is a registered trademark of The General Electric Company.

## *Wiring Connections*




## *Wiring Guidelines*

| MAXIMUM LENGTHS | 125KBPS | 250KBPS | 500KBPS |
|---|---|---|---|
| Thick Trunk | 500m (1640ft) | 250m (820ft) | 100m (328ft) |
| Thin Trunk | 100m (328ft) | 100m (328ft) | 100m (328ft) |
| Single Drop | 6m (20ft) | 6m (20ft) | 6m (20ft) |
| Cumulative of all Drops | 156m (512ft) | 78m (256ft) | 39m (128ft) |