



DeviceNet Sensors

Achieving cost-effective solutions is easier than ever before with Cutler-Hammer's new full line of intelligent sensing devices for DeviceNet networks. Cutler-Hammer limit switches and photoelectric and proximity sensors incorporate communication, diagnostics, and decision-making capability to optimize system control flexibility and provide an unparalleled view of the application.

Designed for Faster Installation, Reduced Downtime and Improved Productivity

- Intelligent sensors provide advanced identification and diagnostics for faster repairs and adjustments; fast and accurate verification reduces commissioning time during installation and start-up.
- Preset configuration schemes can be downloaded to speed installation and start-up.
- Remote device access provides safer plant operation.
- Open device environment provides broader product choice, increased interoperability among devices, and improved operational flexibility.
- Intelligent devices make ISO 9000 Quality Standards compliance easier to document.



Cutler-Hammer's Prism series is a powerful line of miniature DeviceNet photoelectric sensors housed in an industry-standard .71" (18 mm) tubular body, implanted with CAN chip technology. They are available in three model lines:

- Reflex
- Polarized Reflex
- Diffuse Reflective

All optical elements, electronics and memory are self-contained in the compact housing, providing increased reliability. Prism attributes can be set and configured using NetView software. The threaded body with flat sides quickly mounts in a .75" (19.1 mm) hole or against any flat surface.

Advanced Features for Advanced Performance

- Designed to allow flexibility in mounting orientation
 - Standard forward viewing
 - Right-angle viewing
- Gain control allows software adjustment for peak performance in every application.
- DeviceNet diagnostics facilitate troubleshooting, providing significant cost savings during installation, as well as minimizing cost-of-ownership during on-going operation.
- Module Status/Network Status LEDs provide an additional view into the operating status of the device as well as the network.

Response Time

2 ms from detection event until data is available to DeviceNet

Light/Dark Operation

Configurable via DeviceNet

Operating Temperature

-25° to +55°C (-13° to +131°F)

Storage Temperature

-25° to +70°C (-13° to +158°F)

Material of Construction

Lens: Polycarbonate; Cable jacket: PVC; Body: Structural polyurethane foam (Do not expose to concentrated acids, alcohols or ketones)

Cable/Connector

6-foot cable, 4-wire with shield; or 2-foot cable with 5-pin male micro-connector

Vibration

30g over 10 Hz to 2 kHz

Shock

50g for 10 mS 1/2 sinewave pulse

Enclosure Ratings

NEMA 1, 2, 3, 4, 4X, 6, 6P, 12, and 13 (Our products conform to NEMA tests as indicated, however, some severe washdown applications can exceed these NEMA test specifications. If you have questions about a specific application, contact the Photoelectric Applications Department at 1-800-426-9184).

Approvals

Contact factory for the latest list of agency approvals.



*Right Angle Polarized
Reflex Sensor*

Specifications

- General specifications . . See **Page 8-2**
- Wiring diagrams See **Page 8-6**
- Light source . . . visible red LED
- Output indicator LEDs lights when power is "On" network/module status
- Sunlight immunity 1,000 foot-candles

The Prism series of photoelectric sensors includes both reflex and polarized reflex sensing modes. These sensors contain both a light source and detector in the same unit. Because of this configuration, reflex sensors do not require electrical wire to be run to both sides of the sensing area. Reflex sensors are used in applications requiring a long sensing range (up to 15 ft./4.6m) and ease of installation. A polarized reflex sensor is used in applications where shiny surfaces such as metal or shrink wrapped boxes may false trigger the control.

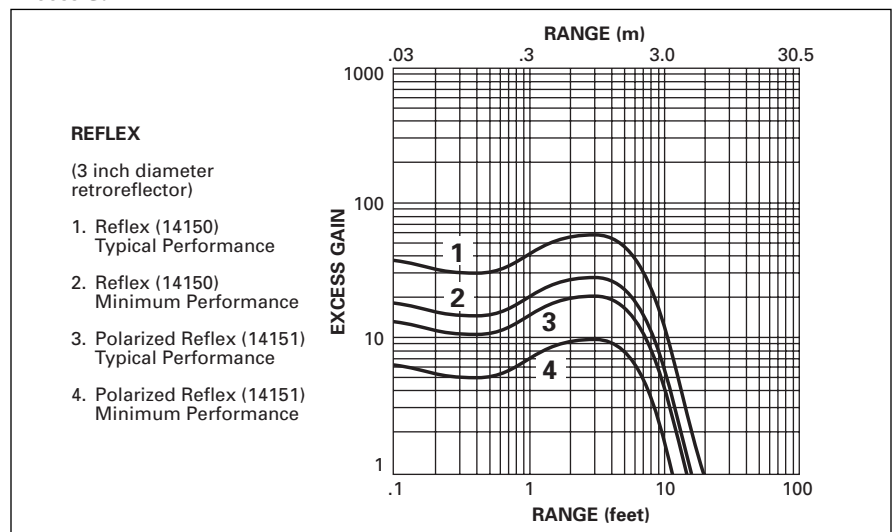
- Visible sensing beam for easy setup.
- Available in forward viewing or right-angle viewing with identical optical performance.

- All models feature a software adjustable gain control.
- Light/Dark operation is software controllable.

Polarized Reflex Prism

The polarizing filter conditions the light beam from the sensor so that only light reflected off the retroreflector is detected. This allows the sensor to reliably detect shiny targets that could falsely trigger a non-polarized sensor.

Excess Gain



Reflex — Retroreflector Not Included

Operating Voltage	Type	Sensing Distance		Response Time	Field of View	Connection Style	Catalog Number	
		Maximum Range ①	Optimum Range				Forward Viewing	Right-Angle Viewing
24V DeviceNet Bus Power	Reflex	15 feet (4.6m)	0.1 – 12 feet (.03 – 3.7m)	2 ms	3 inch (76 mm) Diameter at 12 feet (3.7m)	Cable — 1 ft. (.3m) Long	14150ADN18	14150RDN18
						Micro-Connector	14150ADN08	14150RDN08
	Polarized Reflex ①	10 feet (3m)	0.1 – 8 feet (.03 – 2.4m)			Cable — 1 ft. (.3m) Long	14151ADN18	14151RDN18
						Micro-Connector	14151ADN08	14151RDN08

① Based on 3-inch (76-mm) retroreflector.

② May not operate with retroreflective tape. Test selected tape before installation.



Prism Diffuse Reflective Sensor

Specifications

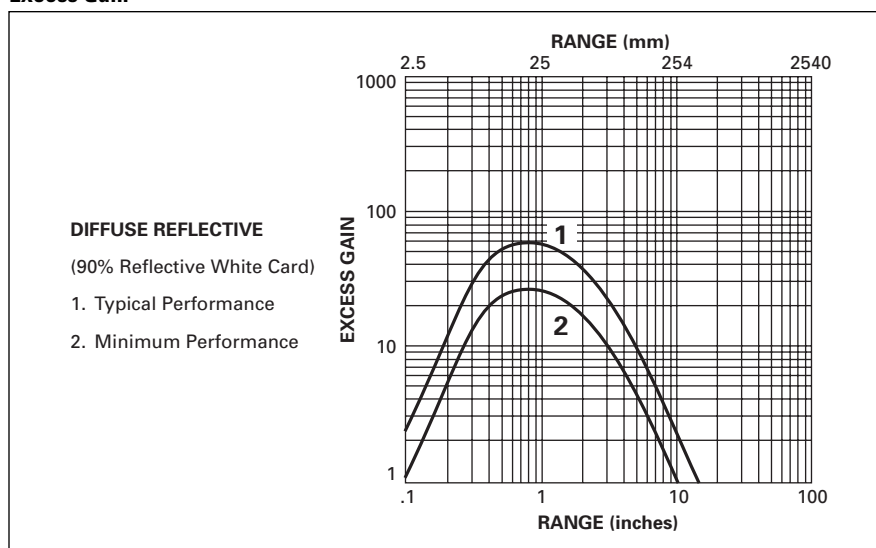
- General specifications . . . See **Page 8-2**
- Wiring diagrams, dimensions. . . . See **Page 8-6**
- Light source Infrared LED
- Output indicator
LEDs lights when output is "On" network/module status
- Sunlight immunity 1,000 foot-candles

The Prism series of photoelectric sensors includes a diffuse reflective sensing mode. Diffuse reflective sensors contain both a light source and

a detector in the same unit, facilitating installation since electrical wire is required on only one side of the sensing area. These sensors are ideal for applications requiring the detection of extremely small objects or the need to look into holes or cavities. Diffuse reflective sensors can detect differences in surface reflectivity and can be used in applications requiring a sensing range of up to 8 inches (203 mm).

- Available in forward viewing or right-angle viewing with identical optical performance.
- All models feature a software adjustable gain control.
- Light/Dark operation is software controllable.

Excess Gain



Diffuse Reflective

Operating Voltage	Sensing Distance		Response Time	Field of View	Connection Style	Catalog Number	
	Maximum Range ①	Optimum Range				Forward Viewing	Right-Angle Viewing
24V DeviceNet Bus Power	8 inches (203 mm)	0.1 – 5 inches (2.5 – 127 mm)	2 mS	18 inches (457 mm)	Cable — 1 ft. (.3m) Long	13150ADN18	13150RDN18
					Micro-Connector	13150ADN08	13150RDN08

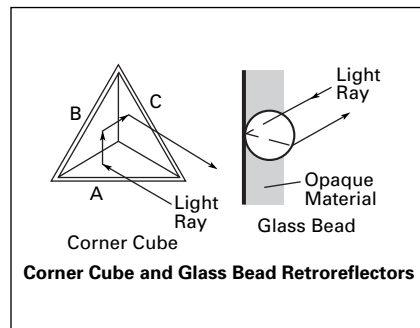
① Based on a 90% reflectance, 24 x 24 inch (610 x 610 mm) white test card.

Retroreflector Basics

Retroreflectors are used with reflex type sensors to reflect light beam back to the sensor. Two types of retroreflector target materials are available: corner cube and embedded glass bead reflectors.

Corner Cube Retroreflectors

This type provides the highest signal return to the sensor. Cube style reflectors exhibit 2000 to 3000 times the reflectivity of white paper. Three adjoining sides are arranged at right angles to each other. When a ray of light strikes one of these sides (A), it is reflected to the second (B), then the third (C), and then back to the source in a direction parallel to its original course. Thousands of these cube shapes are molded into a rugged plastic reflector or vinyl material.



Glass Bead Retroreflectors

Glass bead retroreflectors are available in tape form with an adhesive back. The bead style surface is typically rated at 200 to 900 times the reflectivity of white paper — much lower than corner cube reflectors.

Retroreflector Size

The size of the retroreflective target has a major effect on the excess gain and range of a reflex sensor. At a point where the sensor's beam is larger than 3 inches, a 3-inch diameter retroreflector will return about 36 times more light than a 1/2-inch diameter retroreflector. Several retroreflectors can be grouped together to provide a larger reflective area. Larger retroreflectors can also simplify sensor alignment by providing a larger target to aim the sensor at.

Using Retroreflectors with Polarized Reflex Sensors

Only corner cube retroreflectors can be used with polarized reflex sensors. When polarized light strikes a corner cube retroreflector, it is returned to the sensor in a depolarized state. It is this that allows a polarized sensor to operate. Glass bead retroreflectors do not depolarize light and will not work with polarized reflex sensors.

Retroreflectors

Description	Catalog Number
Retroreflectors	
3 inch (76.2 mm) diameter, with mounting hole, two per package Bulk packaged version of above (ordered quantity will be bulk packaged)	6200A-6501 6200AS6501
3 inch (76.2 mm) diameter, with mounting hole, one per package	E51KR84
3 inch (76.2 mm) diameter, metal backed, with mounting hole, one per package	6200A-6506
2.18 inch (55.4 mm) diameter, with mounting hole, one per package	6200A-6505
1.25 inch (31.8 mm) diameter, adhesive backed, one per package Bulk packaged version of above (ordered quantity will be sent bulk packaged)	6200A-6504 6200AS6504
1.25 inch (31.8 mm) diameter, adhesive backed, one per package	E51KR32
.5 inch (12.7 mm) diameter, adhesive backed, two per package	6200A-6503

Retroreflective Tape — Corner Cube Style ^①

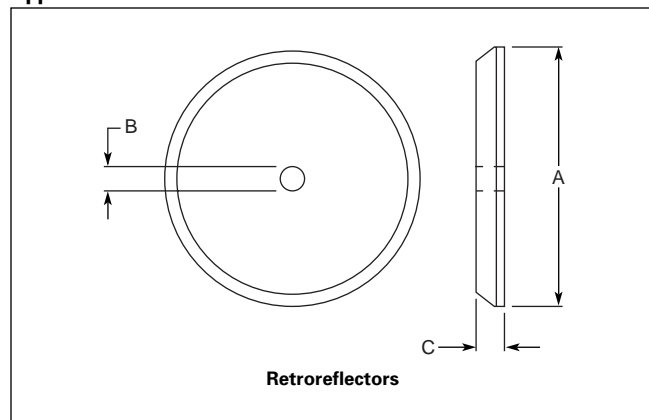
2 inch (50.8 mm) wide, quantity is length in feet (1 piece)	6201A-XXXX
3 inch (76.2 mm) wide, quantity is length in feet (1 piece)	6203A-XXXX

Retroreflective Tape — Glass Bead Style (Not for Use with Polarized Reflex Sensors)

1 inch (25.4 mm) wide, quantity is length in feet (1 piece)	6200A-XXXX
2 inch (50.8 mm) wide, quantity is length in feet (1 piece)	6202A-XXXX

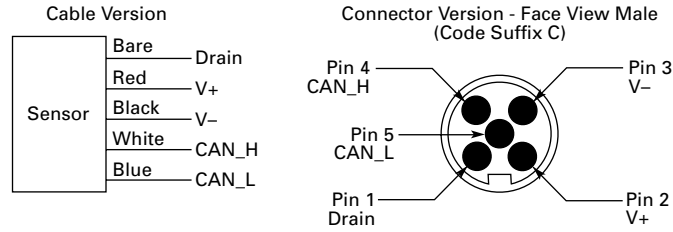
^① Although corner cube tape works with polarized reflex sensors, we recommend testing sensor and tape prior to installation.

Approximate Dimensions



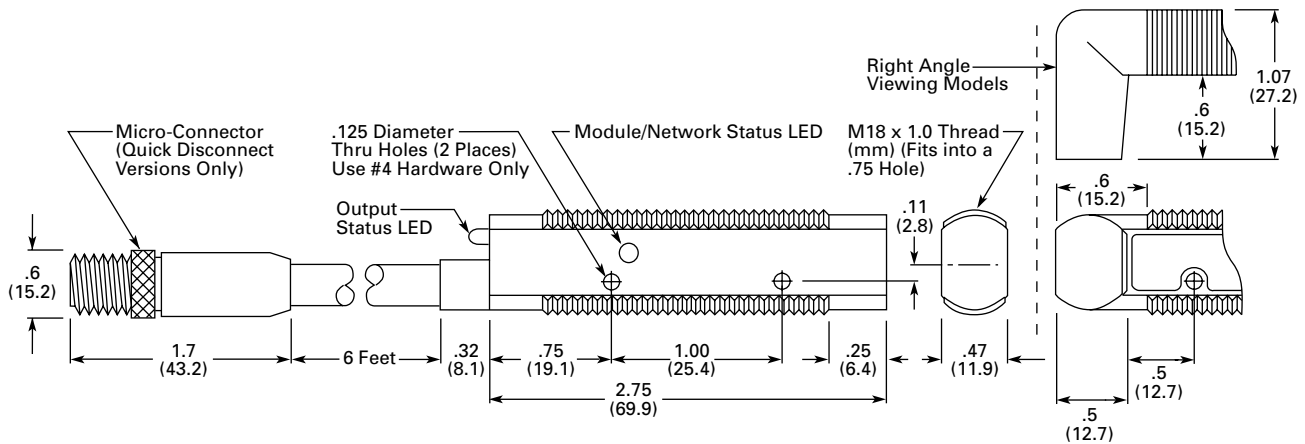
Dimensions in Inches (mm)			Catalog Number
A — Diameter	B — Hole Size	C — Thickness	
3.30 (84)	.20 (5)	.35 (9)	6200A-6501
3.30 (84)	.20 (5)	.35 (9)	E51KR84
3.30 (84)	.20 (5)	.30 (7.5)	6200A-6506
2.40 (61)	.25 (6)	.30 (7.5)	6200A-6505
1.30 (33)	None	.25 (6)	6200A-6504
1.25 (32)	None	.35 (9)	E51KR32
.60 (15)	None	.20 (5)	6200A-6503

Wiring Diagrams

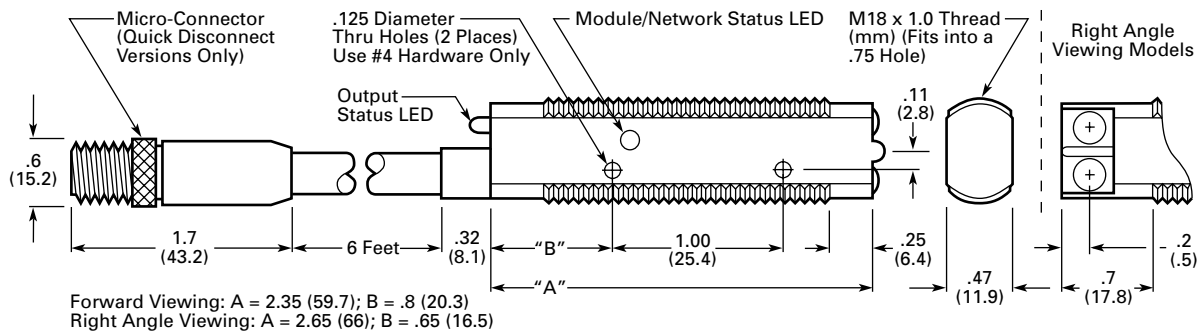


Approximate Dimensions in Inches (mm) except as noted

Reflex



Diffuse Reflective





DeviceNet 6P+ Unitized Type
Photoelectric Sensor

The modularity of the E51 line of DeviceNet intelligent sensors enables either a photoelectric or proximity sensing head to be attached to a single limit switch-style sensor body. This interchangeability of the heads on all E51 sensor bodies provides substantial inventory reduction. These devices are sealed against the adverse effects of dust and grit and have immersible capabilities, enabling their use in a wide range of rugged applications.

Rugged Flexibility

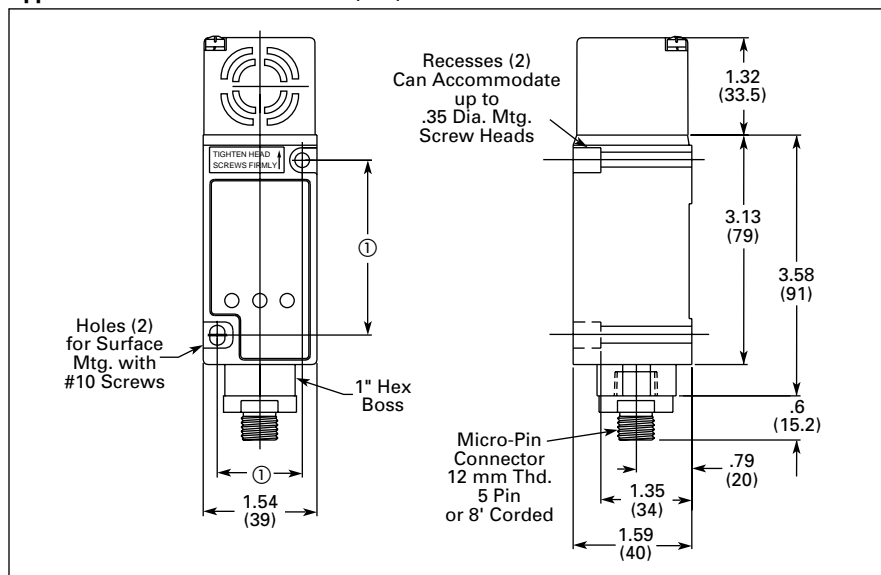
- Broad selection of photoelectric sensing heads available, including:
 - Thru-beam: 300 feet (91.4m)
 - Reflex: 35 feet (10.7m)
 - Diffuse Reflective: 40 inches (1016 mm)
 - Fiber Optic: range varies with fiber length and lens attachments
- Top sensing and side sensing proximity heads available, including:
 - Shielded with sensing distance of .51 inch (13 mm)
 - Unshielded with sensing distance of .94 inch (24 mm)
- Side sensing head can be unfastened and rotated to any of 4 positions.
- Cast metal enclosure.
- Can be used with standard photoelectric and inductive proximity sensor heads.

- DeviceNet diagnostics facilitate troubleshooting, thus providing significant cost savings during installation as well as minimizing cost-of-ownership during on-going operation.
- Network address LED provides a readily identifiable means of confirming network configuration, assisting troubleshooting efforts.
- Module/Network Status provides an additional view into the operating status of the device as well as the network.

Specifications

- Operating voltage 24V DC as supplied by DeviceNet network
- Switching rate . . . 50 operations per second
- Ambient temperature range -25° to 70°C (-13° to 158°F)
(NOTE: Temperature range may change based on head selection.)
- Gasket material (head to base) . . . Viton
- Termination 5-pin cable micro quick disconnect
- Enclosure Ratings NEMA 3, 3S, 4, 4X, 6, 6P, 13; IEC IP68
- Approvals UL and CSA pending

Approximate Dimensions in Inches (mm)



Ordering Information — Sensor Body E51DNA, 24V DC DeviceNet Standard

Switch Body
E51DNA

Sensor Head Type	Component Catalog Number	Sensing Distance in Inches (mm)	Frequency	Composite Catalog Number ①
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Inductive Proximity — Top Sensor

	Shielded	E51DT1	.51 (13)	Std.	E51DNAT1
	Shielded	E51DT2	.51 (13)	Alt.	E51DNAT2
	Unshielded	E51DT5	.94 (24)	Std.	E51DNAT5
	Unshielded	E51DT6	.94 (24)	Alt.	E51DNAT6

Inductive Proximity — Side Sensor

	Shielded	E51DS1	.51 (13)	Std.	E51DNAS1
	Shielded	E51DS2	.51 (13)	Alt.	E51DNAS2
	Unshielded	E51DS5	.94 (24)	Std.	E51DNAS5
	Unshielded	E51DS6	.94 (24)	Alt.	E51DNAS6

Photoelectric

Sensor Head	Component Catalog Number	Composite Catalog Number ①
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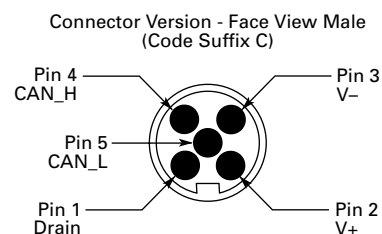
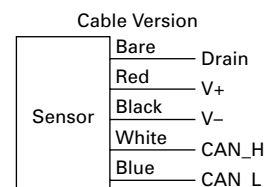
Reflex — Retroreflectors Not Included

	Standard Range Up to 18 Feet (5.5m)	E51DP1	E51DNAP1
	Standard Range Fast Response	E51DP11	E51DNAP11
	Extended Range Up to 35 feet (10.7m)	E51DP3	E51DNAP3
	Polarized Lens Up to 15 feet (4.6m)	E51DP5	E51DNAP5
	Diffuse Reflective		
	Standard Range Up to 8 inches (203 mm)	E51DP2	E51DNAP2
	Standard Range Fast Response	E51DP22	E51DNAP22
	High Gain Up to 18 inches (457 mm)	E51DP6	E51DNAP6
	Extended Range Up to 40 inches (1016 mm)	E51DP4	E51DNAP4
	Thru-Beam		
	Up to 300 feet (91.4m)	E51DC1	E51DNAC1
	Fiber Optic		
	High Power	E51DF3	E51DNAF3
	Fast Response	E51DF33	E51DNAF33

① Includes E51DNA Switch Body.

Pin Connector Options — 8 Foot Cable Length Is Standard

Description	Code Suffix
5-Pin DeviceNet Micro-Connector	C



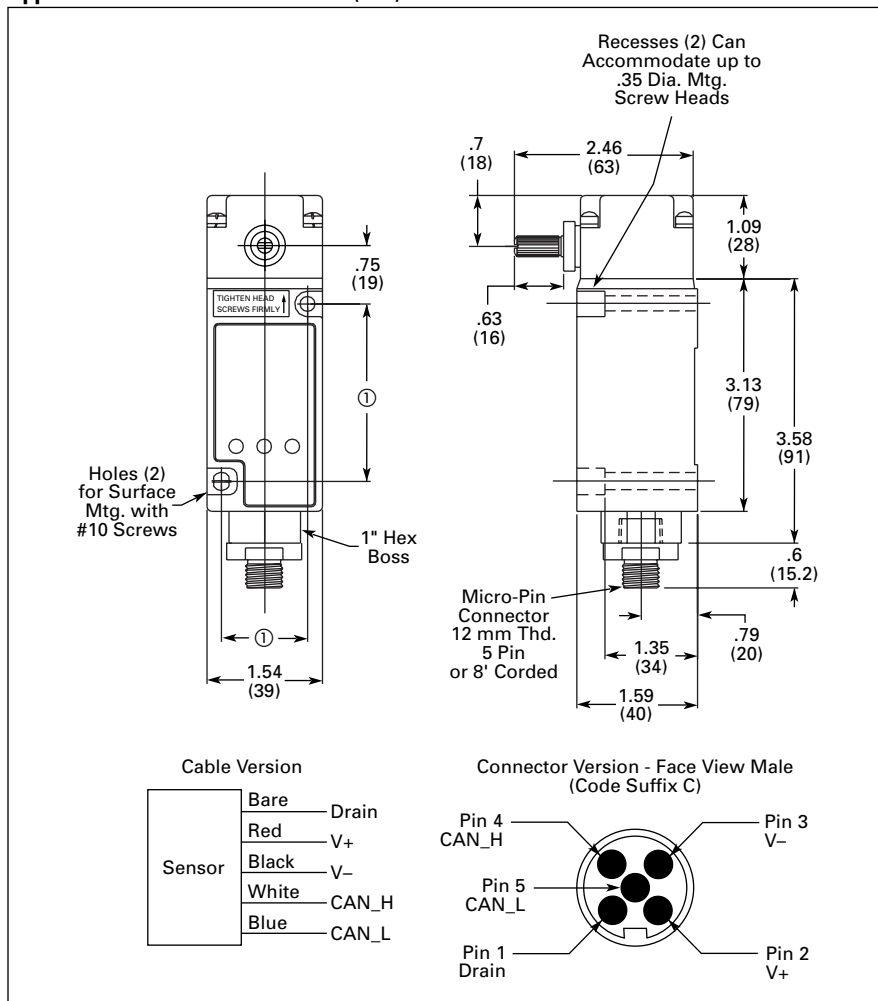


The Cutler-Hammer E50 DeviceNet limit switch is designed specifically to withstand the penetrating properties of new cutting fluids (coolants), acid or caustic washes, salt spray, severe vibration, shock and temperature fluctuations, grit and debris. The one-piece switch body is factory sealed to simplify installation and ensure integrity of seal.

The Industry Standard










- Network address LED provides a readily identifiable means of confirming network configuration, assisting troubleshooting efforts.
- Module/Network Status provides an additional view into the operating status of the device as well as the network.
- NO/NC programmability via DeviceNet network.
- UL, CE and CSA approved.
- Utilizes a newly developed solid-state actuator. There are no mechanical contacts to wear out, become dirty or corrode. Contact bounce is eliminated, and RFI is minimized.
- Utilizes E50 modular operating heads to provide increased flexibility and reduced inventory requirements.
- Tamperproof, one-piece epoxy-filled switch body provides improved reliability.
- Special V-seal; on switch body/head connection provides hermetic barrier against fluid ingress resulting in superior environmental performance.
- Zinc die cast base enclosure.
- DeviceNet diagnostics facilitate troubleshooting, thus providing significant cost savings during installation as well as minimizing cost-of-ownership during on-going operation.

Approximate Dimensions in Inches (mm)



① Can accommodate both U.S., 1.16 (2.94) x 2.34 (59.5), and DIN, 1.18 (30) x 2.36 (60), mounting dimensions.

Ordering Information

Switch Body E50DNA 			
Operating Head Type		Component Catalog Number	Composite ^③ Catalog Number
Side Rotary 	Standard ^① Spring Return	E50DR1	E50DNAR1
	Low Force ^① Spring Return	E50DL1	E50DNAL1
	Maintained	E50DM1	E50DNAM1
Side Push    	Pushbutton Spring Return	E50DS1	E50DNAS1
	Pushbutton Adjustable Spring Return	E50DS2	E50DNAS2
	Push Roller ^② Spring Return	E50DS3	E50DNAS3
	Pushbutton Maintained	E50DH1	E50DNAH1
Top Push  	Pushbutton Spring Return	E50DT1	E50DNAT1
	Pushbutton Adjustable Spring Return	E50DT2	E50DNAT2
Wobble Head 	Standard Duty — Spring Return	E50DW1	E50DNAW1
	Heavy Duty — Spring Return	E50DW2	E50DNAW2

① CW and CCW operation, easily convertible to CW only or CCW only.


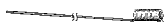

② Roller on the job convertible between horizontal and vertical.

③ Includes E50DNA Switch Body.


Pin Connector Options — 8 Foot Cable Length Is Standard

Description	Code Suffix
5-Pin DeviceNet Micro-Connector	C

Wobble Head Operators

Operator	Description	Length Inch (mm)	Diameter Inch (mm)	Catalog Number
	Nylon Rod	4.9 (124.5)	Rod — .25 (6.4)	E50KW2
	Stainless Steel Rod	13.64 (346.5)	Rod — .06 (1.5)	E50KW3
	Coil Spring	5.76 (146.3)	Spring — .34 (8.6)	E50KW4

Operators for Rotary Head Switches

Operator	Length ① Inch (mm)	Roller			Min. Req'd. ⑤ Return Torque (Inch-Ozs.)	Catalog Number	
		Type	Diameter Inch (mm)	Face (Width) Inch (mm)		Stainless Steel	Cast Aluminum
Roller Levers							
 Standard Lever	.88 (22.4)	Metal	.75 (19.1)	.31 (7.9)	.62	—	E50KL39
	1.38 (35.1)	Metal	.75 (19.1)	.31 (7.9)	.95	—	E50KL40
	1.50 (38.1)	Nylatron	.75 (19.1)	.31 (7.9)	.53	—	E50KL200
		Nylatron	.75 (19.1)	1.00 (25.4)	.96	—	KL377
		Metal	.75 (19.1)	.31 (7.9)	1.10	—	KL355
		Ball Bearing	.69 (17.5)	.25 (6.4)	.77	—	KL531
		Without Roller	—	—	.32	—	KL32
	2.00 (50.8)	Nylatron	.75 (19.1)	.31 (7.9)	.71	—	E50KL546
		Nylatron	.75 (19.1)	1.00 (25.4)	1.45	—	KL572
		Metal	.75 (19.1)	.31 (7.9)	1.50	—	KL549
Ball Bearing		.69 (17.5)	.25 (6.4)	1.10	—	KL552	
2.50 (63.5)	Nylatron	.75 (19.1)	.31 (7.9)	1.00	—	E50KL547	
	Nylatron	.75 (19.1)	1.00 (25.4)	1.80	—	KL573	
	Nylatron	1.50 (38.1)	.28 (7.1)	1.40	—	KL575	
	Metal	.75 (19.1)	.31 (7.9)	2.00	—	KL550	
	Ball Bearing	.69 (17.5)	.25 (6.4)	1.50	—	KL553	
	3.00 (76.2)	Nylatron	.75 (19.1)	.31 (7.9)	1.30	—	E50KL548
		Nylatron	.75 (19.1)	1.00 (25.4)	2.30	—	KL574
Nylatron		1.50 (38.1)	.28 (7.1)	1.80	—	KL576	
Metal		.75 (19.1)	.31 (7.9)	2.50	—	KL551	
Ball Bearing	.69 (17.5)	.25 (6.4)	1.80	—	KL554		
Silicon Bronze Bar Lever	1.50 (38.1)	Nylatron	.75 (19.1)	.31 (7.9)	1.45	—	10316H2209
Roller on Reverse Side — Cast Aluminum	1.50 (38.1)	Nylatron	.75 (19.1)	.31 (7.9)	.53	—	E50KL310
		Nylatron	1.50 (38.1)	.28 (7.1)	.96	—	KL536
		Metal	.75 (19.1)	.31 (7.9)	1.10	—	KL579
		Ball Bearing	.69 (17.5)	.25 (6.4)	.77	—	KL580
Offset Lever (Inboard Roller Shown) — Stainless Steel	1.50 (38.1) Inboard Roller	Nylatron	.75 (19.1)	.31 (7.9)	.65	E50KL24	—
		Metal	.75 (19.1)	.31 (7.9)	1.20	KL25	—
		Ball Bearing	.69 (17.5)	.25 (6.4)	.90	KL26	—
	1.50 (38.1) Outboard Roller	Nylatron	.75 (19.1)	.31 (7.9)	.65	E50KL27	—
		Metal	.75 (19.1)	.31 (7.9)	1.20	KL28	—
		Ball Bearing	.69 (17.5)	.25 (6.4)	.90	KL29	—
Nylatron	.75 (19.1)	1.00 (25.4)	1.10	KL30	—	—	
							Catalog Number
Bantam Lever	.69 (17.5)	Metal	.88 (22.4)	.19 (4.8)	.45	E50KL532	
Precision Adjustment	1.50 (38.1) ②	Nylatron	.75 (19.1)	.31 (7.9)	.65	E50KL340	
		Metal	.75 (19.1)	.31 (7.9)	1.20	KL465	
		Ball Bearing	.69 (17.5)	.25 (6.4)	.90	KL535	
Adjustable Roller — Stainless Steel	1 – 3.75 (25.4 – 95.3) ③	Nylatron	.75 (19.1)	.31 (7.9)	1.90 ④	E50KL201	
	1 – 3.75 (25.4 – 95.3) ③	Nylatron	.75 (19.1)	.50 (12.7)	1.90 ④	KL599	
	1 – 3.75 (25.4 – 95.3) ③	Nylatron	.75 (19.1)	1.00 (25.4)	3.10 ④	KL537	
	1.63 – 3.75 (41.4 – 95.3) ③	Nylatron	1.50 (38.1)	.28 (7.1)	2.50 ④	KL443	
	.50 – 3.25 (12.7 – 82.6)	Large Nylatron	4.00 (101.6)	.11 (2.8)	4.50 ④	KL598	
	1 – 3.75 (25.4 – 95.3) ③	Metal	.75 (19.1)	.31 (7.9)	3.40 ④	KL538	
	1 – 3.75 (25.4 – 95.3) ③	Ball Bearing	.69 (17.5)	.25 (6.4)	2.50 ④	KL539	
	1.50 – 3.75 (12.7 – 95.3)	Without Roller	—	—	1.20 ④	KL31	
Fork Lever — Both Rollers One Side	1.50 (38.1)	Nylatron	.75 (19.1)	.31 (7.9)	—	E50KL204	
		Nylatron	.75 (19.1)	1.00 (25.4)	—	KL543	
		Metal	.75 (19.1)	.31 (7.9)	—	KL544	
		Ball Bearing	.69 (17.5)	.25 (6.4)	—	KL545	
Fork Lever — One Roller Outside, One Inside	1.50 (38.1)	Nylatron	.75 (19.1)	.31 (7.9)	—	E50KL203	
		Metal	.75 (19.1)	.31 (7.9)	—	KL541	
		Ball Bearing	.69 (17.5)	.25 (6.4)	—	KL542	

① Length from the operating shaft axle to the roller axis.

② Maximum dimensions, precision adjustable to lesser dimensions.

③ By re-assembling lever minimum can be reduced another .5 inch (12.7 mm).

④ Applies when lever extended to maximum dimension.

⑤ **Caution** — When selecting lever, the minimum required return torque of lever should not exceed minimum return torque available in operating head as given in Operating Data on **Page N-17** of Cutler-Hammer Industrial Sensor Catalog.



Cutler-Hammer's Sensor Adapter Module further expands the number of products able to communicate on a DeviceNet network. With embedded DeviceNet CAN technology, the Sensor Adapter Module offers a cost-effective way of connecting a wide variety of 10-30V DC non-DeviceNet sensing products to the network.

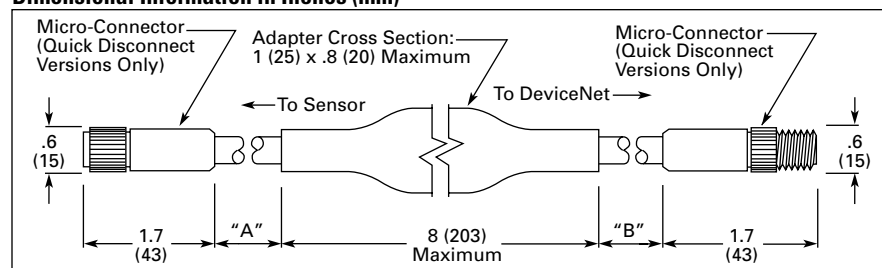
Make Any Sensor an Intelligent Device

- Embedded CAN technology allows non-DeviceNet products to be accessed over the network.
- Acts as a slave device to a master iPC or PLC.
- Sensor side includes a 2-meter cable that terminates with either tinned leads or 4-pin micro-connector. DeviceNet side includes a 2-meter cable terminating in a 5-pin micro-connector.
- Designed to be plug-compatible with 4-pin micro-connector (or 3-wire or 4-wire non-connector sensors) 10-30V DC sensor.
- Adapter Module automatically determines whether sensor is NPN or PNP, light or dark operation, NO or NC.
- Cabled version can be wired to accept generic contact, sinking or sourcing input devices such as pushbuttons, relays, etc.
- Adapter module provides visual input indicator, displaying green for sourcing input and red for a sinking input.
- Meets all ODVA compliance requirements.

Specifications

- Response Time 2 mS from detection event until data is available to DeviceNet
- Output Power. 100 mA available to input device (derate to 40 mA when power supplied by DeviceNet to adapter falls below 12V DC). CAUTION: Devices utilizing power supplied by adapter must be rated to 30V DC.
- Logic Levels NPN (sinking) inputs detected below 1V DC PNP (sourcing) inputs detected above 5V DC
- Temperature Range. Operating: -25° to +70°C (-13° to +158°F) Storage: -25° to +85°C (-13° to +185°F)
- Cable/Connector DeviceNet Connection: 6-ft cable (2m), 4-wire with shield or 6-ft cable (2m) with 5-pin micro-connector (DC key); Input Device Connection: 6-ft cable (2m), 3-wire or 1-ft cable (1/3 m) with 4-pin micro-connector (DC key)
- Material of Construction . . . Body: Polyolefin shrink tubing over a polycarbonate housing; Cable jacket: PVC
- Vibration. 30 g over 10 Hz to 2 kHz
- Shock 50 g for 10 mS 1/2 sinewave pulse
- Enclosure Ratings NEMA 1, 2, 3, 4, 4X, 6, 6P, 12 and 13 (Our products conform to NEMA tests as indicated, however, some severe washdown applications can exceed these NEMA test specifications. If you have questions about a specific application, contact the Sensor Applications Department at 1-800-426-9184.)
- Approvals. Contact factory for the latest list of agency approvals

Dimensional Information in Inches (mm)



Cable Lengths

"A"	"B"	Catalog Number
6 feet (2m)	6 feet (2m)	E60-DNSAM-S
6 feet (2m)	6 feet (2m)	E60-DNSAMP-S
1 foot (1/3 m)	6 feet (2m)	E60-DNSAMP-SP

Ordering Information

Product	Sensor to Adapter	Adapter to Network	Catalog Number
Adapter Module	2 Meter DeviceNet Cable	2 Meter Sensor Cable	E60-DNSAM-S
	DeviceNet Micro-Connector	2 Meter Sensor Cable	E60-DNSAMP-S
	DeviceNet Micro-Connector	Sensor Micro-Connector	E60-DNSAMP-SP