

High Current Output Sensors

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High Current Output Sensors

Product Description

Now there is an alternative to limit switches for position sensing on industrial vehicles. High Current Output Sensors feature a continuous output current rating from 2 to 8A. These sensors from Eaton's electrical sector are ideally suited to handle high current loads found on such industrial vehicles as aerial lift trucks, fork lifts, refuse trucks, cement mixers, dump trucks, hook and ladder trucks, front end loaders, farm equipment and hundreds of other vehicles that are constantly subjected to mechanical (shock, vibration, collisions) and environmental (dirt, grease, ice, rain) abuse that create havoc with mechanical devices.

Features

- Solid-state output can handle up to 8A continuous
- Ideal for vehicle use to replace mechanical limit switches, typically required to handle high currents
- Wide voltage and temperature range covers most vehicle power supplies and operating environments
- Normally Open and Normally Closed isolated outputs
- SJO cable is available in custom lengths
- Dual colored 360° LED indicating light, green as power ON and red as output

DANGER

THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.

For the most current information on this product, visit our Web site: www.eaton.com

For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578. For Application Assistance in the U.S. and Canada call 1-800-426-9184.

Product Selection

High Current Output Sensors

30 mm

Four-Wire Sensors



Operating Voltage	Sensing Range	Shielding	Output Type	Output Rating		Connection Type ^①	Catalog Number
				Continuous	<100 ms Pulse		
30 mm Diameter							
10–55 Vdc	10 mm	Shielded	NO and NC (PNP)	3.5A	20A	2-meter cable	E57-30JS10-H

30 mm

Six-Wire Sensors ^②



Operating Voltage	Sensing Range	Shielding	Output Type	Output Rating		Connection Type ^①	Catalog Number
				Continuous	<100 ms Pulse		
30 mm Diameter							
10–30 Vdc	10 mm	Shielded	NO and NO, or NC and NC (NPN or PNP)	8A	50A	2-meter cable	E57-30HS10-K

Accessories

High Current Output Sensors

Description	Reference
Mounting brackets	See Tab 8, section 8.2
Replacement mounting nuts and other accessories	See Tab 8, section 8.3

Notes

- ① For additional cable length other than 2-meter, add desired length in meters to listed catalog number. Example: For an E57-30JS10-H with a 5-meter cable, order E57-30JS10-H5.
- ② 50 Amp surge, 12 Amp at 50% duty cycle and 8 Amp continuous.

3.8

Inductive Proximity Sensors

High Current Output Sensors

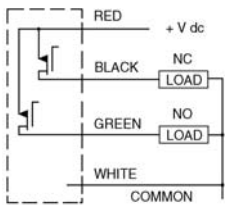
Technical Data and Specifications

High Current Output Sensors

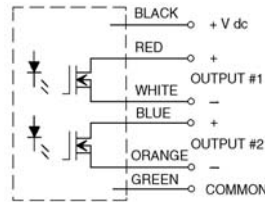
Description	Four-Wire Sensors	Six-Wire Sensors
Operating voltage	10 to 55 Vdc	10 to 30 Vdc
Switching rate	250 Hz	100 Hz
Off-state current	100 A μ maximum	100 A μ maximum
Voltage drop	1.2V	2.0V
Burden current	10 mA at 55 volts	30 mA at 30 volts
Time delay before availability	<100 ms	<100 ms
Output indicator LED	360° visibility	360° visibility
Output type	Solid-state	Solid-state, isolated
Protection	Transient and power on false pulse	Transient and power on false pulse
Enclosure ratings	NEMA 4, 4X, 6, 6P, 12 and 13 (IEC IP67)	NEMA 4, 4X, 6, 6P, 12 and 13 (IEC IP67)
Ambient temperature range	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)
Barrel material	303 stainless steel	303 stainless steel
Cable	2m standard SJO water resistive (18 AWG)	2m standard SJO water resistive (18 AWG)
Shock	30g sine wave, 11 ms	30g sine wave, 11 ms
Vibration	10 to 55 Hz, 2 mm amplitude in all 3 planes	10 to 55 Hz, 2 mm amplitude in all 3 planes

Wiring Diagrams

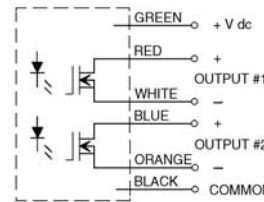
Four-Wire—PNP



Six-Wire—NO/NO Output Configuration



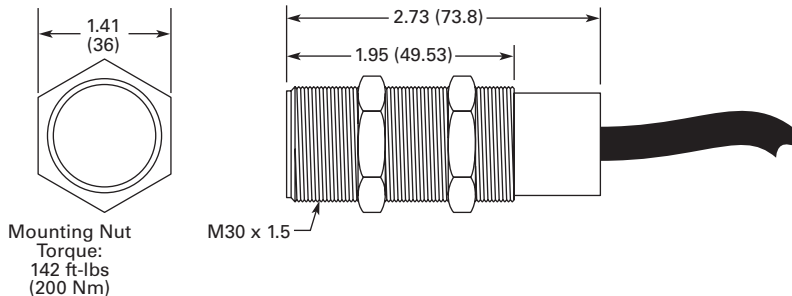
Six-Wire—NC/NC Output Configuration



Dimensions

Approximate Dimensions in Inches (mm)

High Current Output Sensors



Mounting Nut
Torque:
142 ft-lbs
(200 Nm)