



General Specifications

Sensing Beam	Pulsed (modulated) or nonpulsed (continuous) IR
Sensing Gap	2mm (0.08in) to 225mm (8.86in)
Supply Voltage	10-30V DC
Current Consumption	30mA maximum (45LST-1LEB1-P4 = 40mA)
Circuitry Protection	Reverse polarity, transient, overload, short circuit protection
Output Configuration	NPN (current sinking) or PNP (current sourcing) Light Operate: Normally open circuits that conduct with target present Dark Operate: Normally closed circuits that conduct with target absent
Output Rating	100mA (NPN or PNP)
Leakage Current	12V Supply: 0.78mA @ 10mA load, 6.9mA @ 100mA load 24V Supply: 0.30mA @ 10mA load, 3.0mA @ 100mA load
Response Time	30 microseconds or 1 millisecond
Adjustments	Sensitivity (25 turn adjustable screw)
Housing Material	Anodized aluminum
Environmental Ratings	IP65
Connections	4-pin DC pico (M8) connector
Operating Temperature	-20°C to +60°C (-4°F to 140°F)
Power-on Delay	129ms
Approvals	cULus and CE marked for all applicable directives

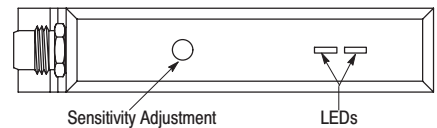
Features

- 10 to 30V DC operation
- Fast 30µsec response time for selected models
- NPN/PNP output
- IP65 Housing
- Industrial aluminum housing
- cULus listed and CE marked for all applicable directives

User Interface

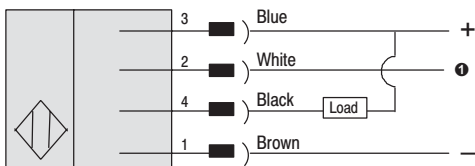
Green LED = Power ON /
 Unblocked light path

Red & Green LED blink =
 Short circuit mode
 Red LED = Output energized

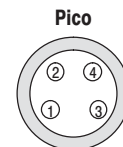
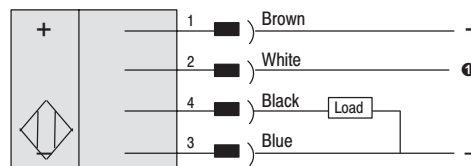


Wiring Diagrams

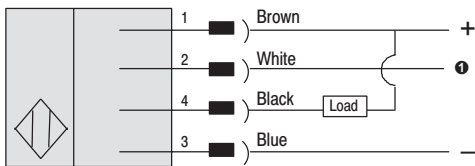
NPN (Light Operate)



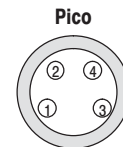
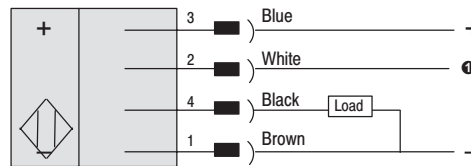
PNP (Light Operate)



NPN (Dark Operate)



PNP (Dark Operate)

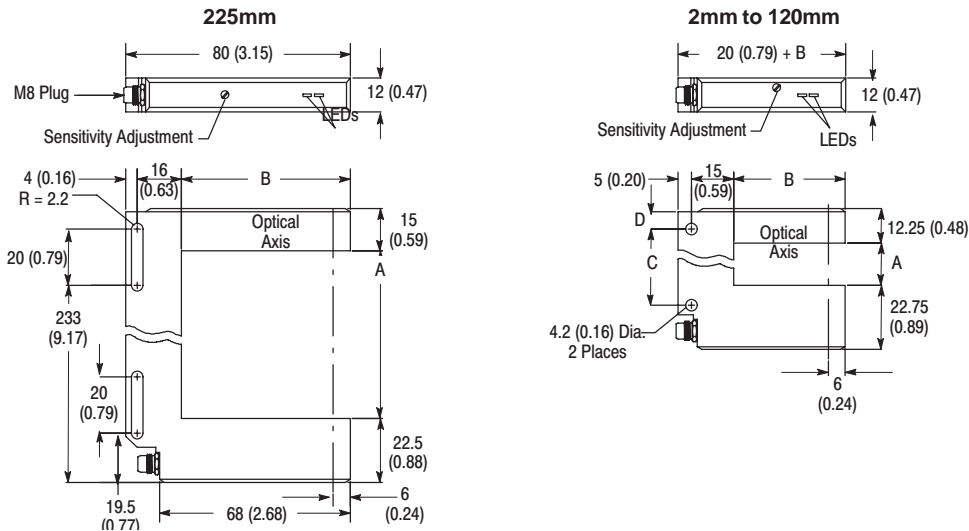


ⓘ White Wire not used.

45LST

Optical Fork Sensor

Dimensions—mm (inches)



Dimensions—mm (inches)

Fork Size	A	B	C	D
2 to 120 (0.08 to 4.72)	2 (0.08)	40 (1.57)	14 (0.55)	6.25 (0.25)
	15 (0.59)	40 (1.57)	27 (1.06)	6.25 (0.25)
	30 (1.18)	40 (1.57)	42 (1.65)	6.25 (0.25)
	50 (1.97)	57 (2.24)	40 (1.57)	17.25 (0.68)
	80 (3.15)	57 (2.24)	70 (2.75)	17.25 (0.68)
	120 (4.72)	57 (2.24)	110 (4.33)	17.25 (0.68)
225 (8.86)	225 (8.86)	60 (2.36)	—	—

Product Selection

Operating Voltage	Sensing Gap—mm (inches)	Output Energized	Output Type	Light Source Emission	Response Time	Connection Type	Catalog Number
10-30 DC	2 (0.08)	LO/DO Selectable	NPN or PNP Selectable	Continuous	30μsec	4-pin pico	45LST-1LEA1-P4
	15 (0.59)			45LST-1LEA2-P4			
	30 (1.18)			45LST-1LEA3-P4			
	50 (1.96)			45LST-1LEA4-P4			
	80 (3.15)			45LST-1LEA5-P4			
	120 (4.72)			45LST-1LEA6-P4			
	225 (8.86)			45LST-1LEA7-P4			
2m (6.5ft) pico QD Cordset							889P-F4AB-2