



Description

The 45LPT is an optical label sensor designed exclusively for the detection of standard or opaque labels on a high speed web. The 45LPT provides a solution for the packaging industry. Applications include label counting, web detection, “double sheet” detection, and mark detection on a translucent film.

Using transmitted beam technology the 45LPT senses the leading edge of a label sending a discrete NPN or PNP output within 50 microseconds which is compatible with most control circuits found in factory automation systems. Other features include “One Touch” teachable capabilities using either the teach button on the sensor or remotely with a pushbutton switch. For easy installation and versatility this sensor is equipped with a 4-pin pico connector.

The 45LPT label sensor maintains all ratings that are necessary for all applicable industries today: IP65, CE, cULus.

General Specifications

Approvals	UL, cUL and CE marked for all applicable directives
Sensing Beam	Nonpulsed IR
Sensing Gap	3mm (0.12in)
Supply Voltage	10-30V DC
Current Consumption	40mA maximum
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
User Configuration	Local and remote teach
Output Rating	100mA (NPN or PNP)
Response Time	50 microseconds
Adjustments	Sensitivity (teach button)
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)
Leakage Current	12V Supply: 0.78mA @ 10mA load, 6.9mA @ 100mA load 24V Supply: 0.30mA @ 10mA load, 3.0mA @ 100mA load
Power-on Delay	350ms

Features

- “One Touch” local and remote teach capability
- 10 to 30V DC operation
- Fast 50µsec response time
- NPN/PNP output
- User interface lockout feature
- IP65 Housing
- Industrial anodized aluminum housing
- cULus listed and CE marked for all applicable directives

General Information

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Dimensions page 1–154

Accessories

Quick-Disconnect Cables . . . page 7–1
Mounting Brackets page 1–375
Reflectors page 1–386

Allen-Bradley Replacements

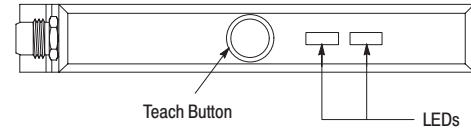
45LPT

Optical Label Sensor

User Interface

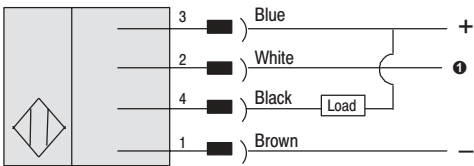
Red LED = Interface Lockout
 Green LED = Power ON / Free light path
 Red LED blinks = Standard label teach
 Green LED blinks = Fine teach –

translucent label teach
 Red & Green LED blink = Short circuit mode or label too translucent or web too opaque

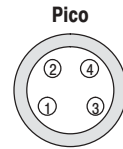
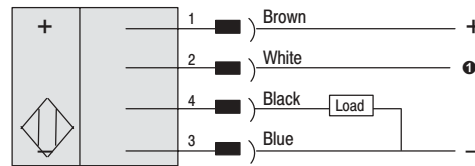


Wiring Diagrams

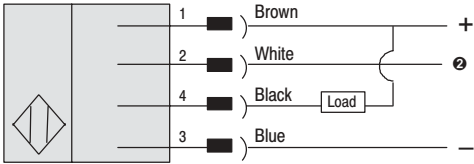
NPN (Light Operate)



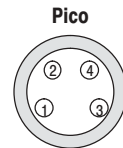
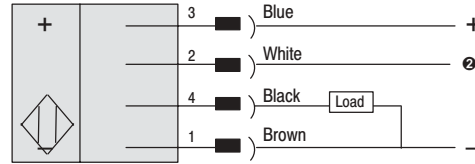
PNP (Light Operate)



NPN (Dark Operate)



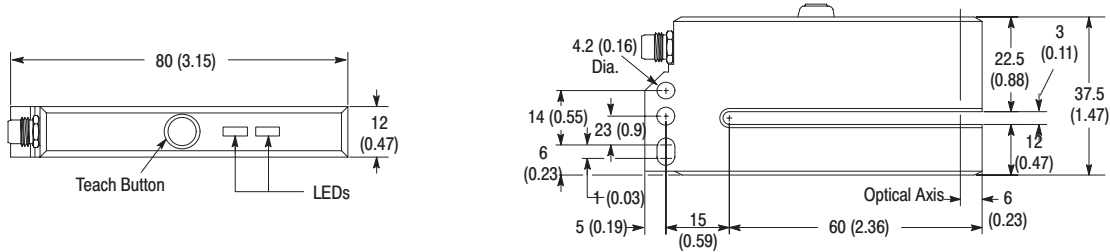
PNP (Dark Operate)



① Remote teach = Tie **White Wire** to (+) positive terminal.
 ② Remote teach = Tie **White Wire** to (-) negative terminal.
Note: If remote teach (white wire) is not used, tie it to (-) negative terminal.
Note: In the event of power failure, the sensor remembers the last threshold taught-in.

Important: For Label detection use Dark operate. For Web detection use Light operate.

Dimensions—mm (inches)



Product Selection

Operating Voltage	Sensing Gap—mm (inches)	Output Energized	Output Type	Response Time	Connection Type	Catalog Number
10-30 DC	3 (0.12)	L.O./D.O. Selectable	NPN or PNP Selectable	50µsec	4-pin Pico	45LPT-1LEB1-P4
2m (6.5ft) pico QD Cordset						889P-F4AB-2