

LPA58 LASER PROFILE ANALYSIS

For Strip and Seal Inspection



For Integration on Automatic Wire Processing Machines

Non-Contact

- Dynamic optical sensor inspects for wire strip and/or seal defects
- High resolution image profile captured, analyzed and compared to learned reference

Seal Insert Inspection

- Detects common seal insertion defects – missing/ reversed/pierced seal, and seal position



Seal Position Error



Pierced Seal Error

Traceability

- Data logging feature for 100% data traceability

Machine Integration

- Designed for integration onto existing and new wire processing equipment

Strip Inspection

- Detects common strip defects – high/low insulation shoulder, pulled or splayed strands, and conductor mass



Pulled Strand Error

Applications

- Automated wire processing applications requiring 100% assurance of wire strip and seal insertion quality

Multi Wire Capability

- Configurable to up to 3 wire independent inspections

WireScan 3 Software

- Operator interface software for production, configuration and setup, and data logging

Patents
 US 6,496,271 B1
 US 6,885,463 B2
 US 7,719,695 B2

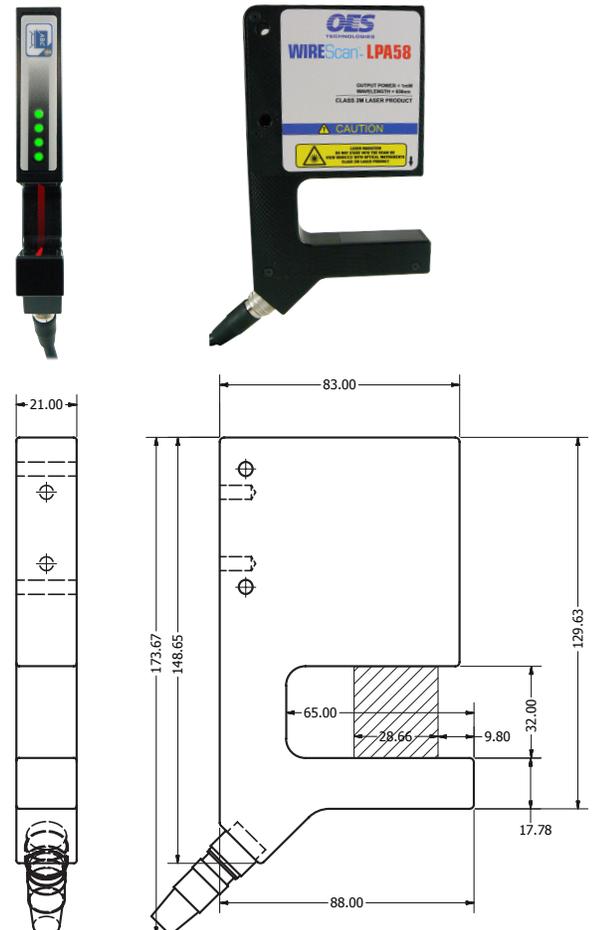
Quick Facts

MODEL	APPLICATION
LPA58	Automatic Machine
TECHNICAL SPECIFICATIONS	
Voltage Supply	24VDC @ 200 mA +/- 10%
Digital Inputs	2 @ 24VDC
Discrete Output	2 @ 24 VDC / 0.5A
Serial Communication	RS232
LASER	
Wavelength	658 nm
Class	2M
DYNAMIC PERFORMANCE	
Inspection Window Length	28 mm (1.10")
Number of Pixels	1024
Pixel Resolution	0.028 mm
Line Scans (Per Second)	55k
WIRE & SEAL SIZE	
Typical Wire Size	16.8 mm ² - 0.05 mm ² (5 - 30 AWG)
Seal Diameter Range	2-12 mm (0.079" - 0.472")
PHYSICAL	
Dimensions	21 x 88 x 143mm 0.827" x 3.46" x 5.63"
Window Opening Dimensions	20 x 65mm 1.18" x 2.56"

WireScan LPA58

The WireScan Series Laser Profile Analyzer is a compact optical sensor for strip and seal inspection. The unit projects a 28mm sensing window. As the wire passes through the sensing window, an image of the wire is captured with a resolution of 0.028mm.

Using OES's proven algorithms, the image profile of each wire sample is compared with the "learned" standard profile image and a determination is made if the part is a "success" or "fail".



About OES Technologies

OES Technologies products and technologies are developed specifically for the wire processing industry to monitor and inspect 100% of parts produced during the manufacturing process, and prevent part defects from entering the supply chain. OES's dedication to innovation enables them to deliver a steady stream of cutting-edge technologies that meet the exacting demands of this ever-changing market.