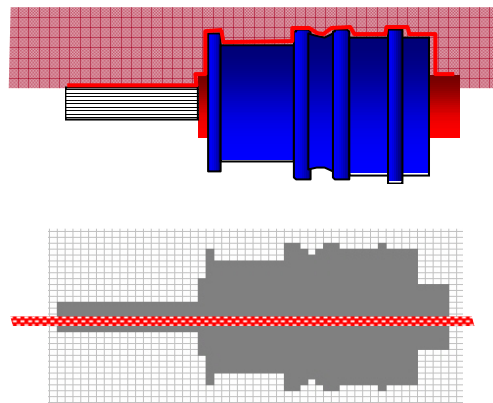
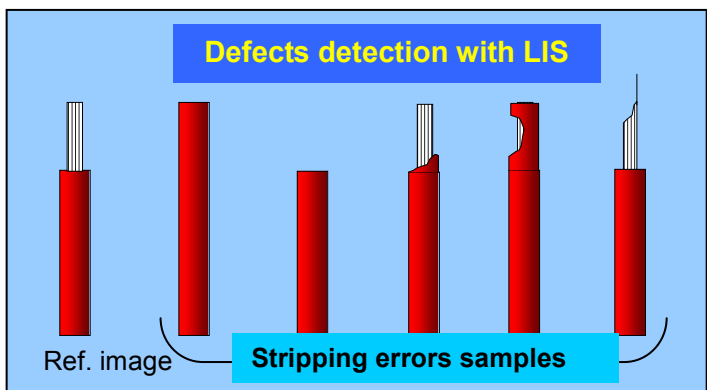


Laser Image Sensor LIS for stripping error detection

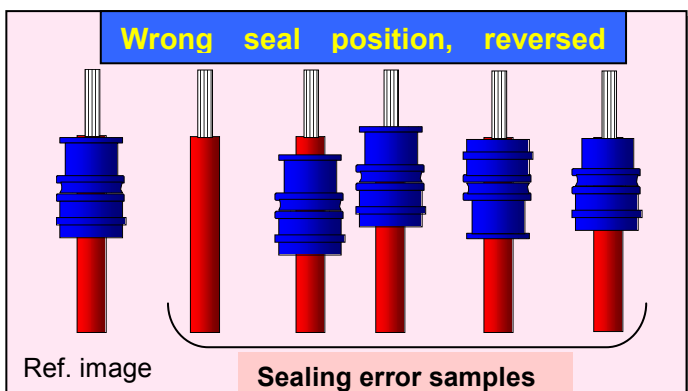
The laser line sensor projects a beam curtain to capture the stripped wire image when it passes through it at very high speed. LIS detects wire-stripping errors, strands cutouts, seal position shifts and seal reverse insertions.



High speed passing wires down to AWG#30 at 2 m / sec can be captured for image creation with our unique software. Data image is compared with the teach-in reference image for control.



LIS 16 (16mm beam curtain) and LIS25 (25mm beam curtain) are compact and mount easily on almost all machines. They can detect non-stripping, strands cut, strands top spray and long strip etc.



Water protection seals insertion errors; for example, non-insertion, insertion position error, reversed insertion and seal torn etc. can be detected with LIS16 and LIS25 units.

Features

Automatic trigger for measurement

No external timing signal is required. Our unique and epochal making image capture technology discriminates defects in high speed feed.

Easy installation

LIS units are designed for both swing and linear feeders that pass the beam curtain. Therefore, the machine type does not affect the LIS. It also compensates for wire orientation; even bent wires can be monitored accurately.

Only one sample is needed for teach-in.

At every setup of a new item, the LIS will learn a "good" sample to form a reference image and its internal measuring algorithm.

Data and image monitor on PC.

LIS has an I/O port and a RS232C port. Install the provided software and you can monitor a visual image in real time mode on a PC. They are also stored in memory for a statistical report.

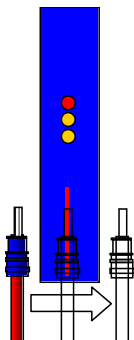
Compact and small design

Small and thin design of 150mm(W) x 79mm(H) x 16mm(D) allows easy mounting for all machines in the market.

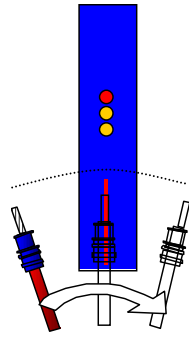
To meet feed motions

Linear and Swing passing

Linear pass



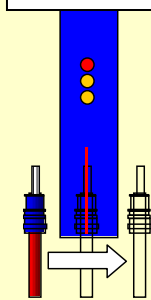
Swing pass



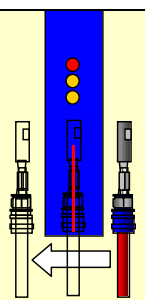
Our unique algorithm maintains detection accuracy for both linear and swing passing over the sensor element. Therefore, it can adapt to all the automatic machines on the market.

Individual checks on the 1st pass for stripping and on the 2nd pass for crimping

Stripping

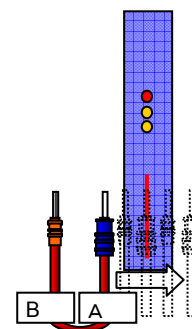


Crimping



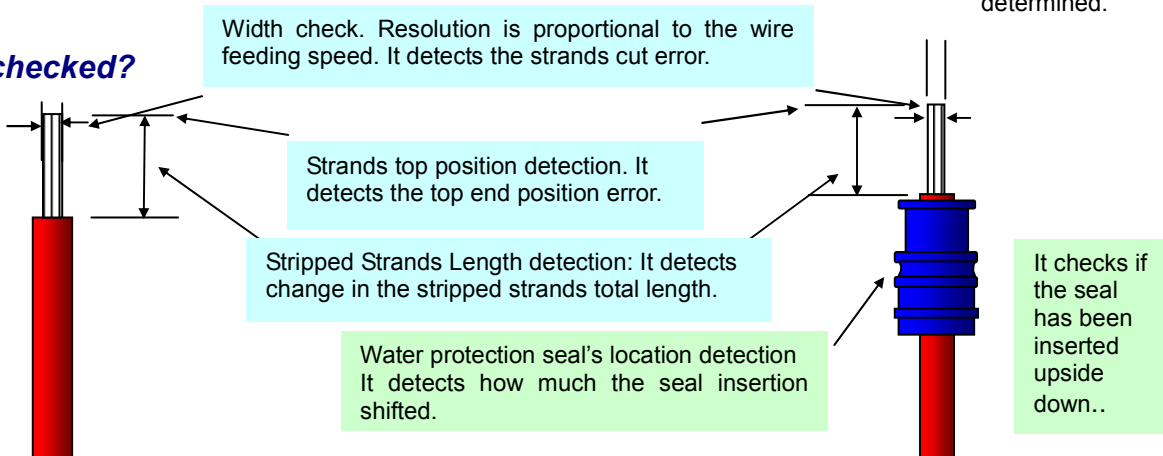
For specially No.1 press, on the 1st pass it checks for stripping errors and on the 2nd pass it checks for crimping errors (terminal yes/no).

A&B checks on U-shaped pass

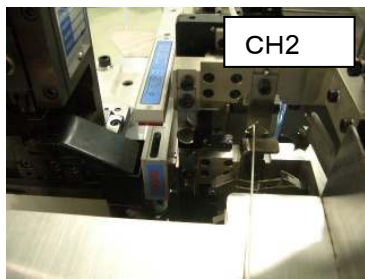
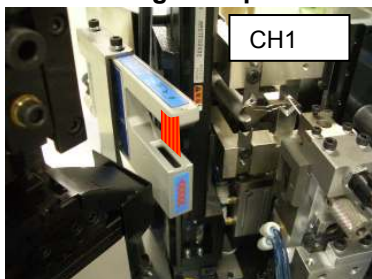


For wire U-shaped passing, both A & B end patterns are memorized and A and B crimps are individually determined.

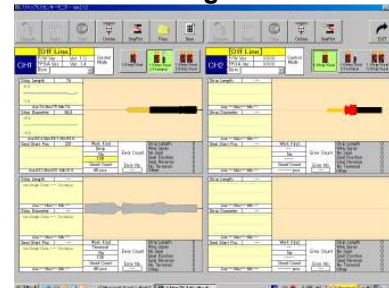
What is checked?



Mounting example



PC image screen



Specifications	LIS-16	LIS-16H	LIS-25
Light source	Semiconductor LASER of 10mW or less		
Wave length	670nm visible light (Class2)		
Light beam output	1mW max.		
Line length	16mm		25mm
Resolution	Vertical direction 0.12mm (for one bit)		Horizontal direction 0.064mm
	Scan speed is 8MHz line CCD		
Environment	Temperature 10°C~40°C / Humidity 40%~80%RH		
Wire sizes to be targeted	AWG30~5Sq		0.13sq~5sq
Seal sizes to be targeted	Max. Diameter 10mm		Max. Diameter 10 mm x 10 mm
Max. affordable passing speed	2 meter / sec.		
Dimensions (W·H·D)	155 × 78 × 16	89 × 165 × 16	155 × 78 × 16
Power source	DC24V		