

## SP LAM-50 Laser Distance Measuring Module

Precise - Robust - Reflectorless



Measures distances with millimetre accuracy.

Precisely defines positions.

Registers movements.

### Measuring system:

- The SP-Lam 50 provides an opto-electronic distance measuring module for industrial applications.
- The module works based on the non-contact principle of comparative phase measurement (amplitude modulation).
- Laser diode (cw operation) divergence of 0.6 mrad for measurement with pinpoint accuracy.
- Outputs measured result via RS 232 / RS 422 data interface (switchable).
- Digital switching output / analog output from 4 mA to 20 mA.
- Sensor alignment easily achieved with the help of a red pilot laser.

### Features:

- Laser class 2 for safe operation.
- Non-reflector measurement.
- Measures randomly selectable surface with millimetre accuracy.
- Can easily be mounted and made operational.
- Allows field bus integration.
- Meets IP 65 standards for industrial use.

### Application:

- Monitoring of conveyor / delivery systems and crane equipment.
- Distance and position measurement.
- Fill-level measurement.
- Security applications.
- Position monitoring for moving objects.

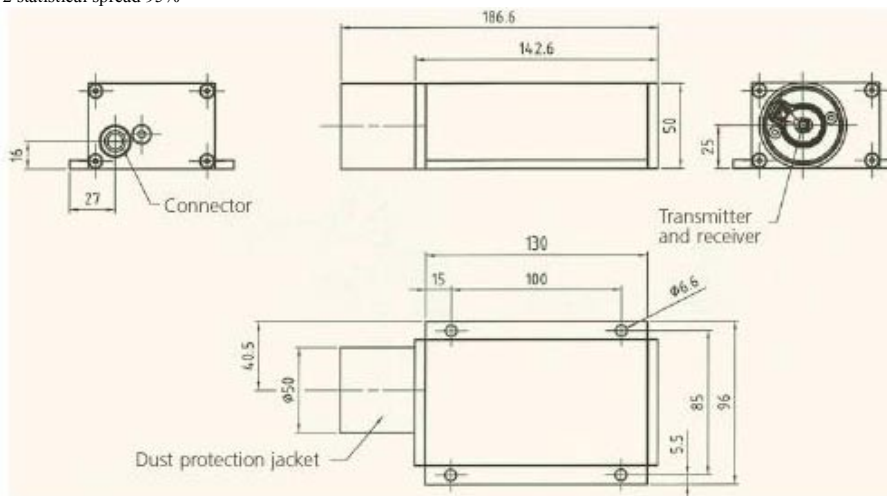
# SP LAM-50 Laser Distance Measuring Module

## Specifications

Measuring range*1:	Distances greater than 100 m are possible depending on surface reflectance, 0.2 to 30 m on any natural surface
Measuring accuracy*2:	$\pm 3$ mm
Measuring resolution:	0.1 mm
Measuring rate:	Typically 5 Hz (up to 10 Hz available)
Laser divergence:	0.6 mrad
Laser classification:	<1 mW under IEC 825-1, laser class 2
Wavelength:	650 nm
Interface:	RS 232 / RS 422 (switchable), baud rate 9600, format 8n1, selection of measuring functions, scaling, and measuring time via commands, output of measured values, inner temperature, error codes, single measurement mode available with external synchronisation on special request.
Switching output:	Programmable switching threshold and hysteresis, "high-side-switch" with 0.5 A load capacity.
Analog output:	programmable distance range limits, 4 mA to 20 mA
Operating temperature:	- 10 °C to + 50 °C
Supply voltage:	10 V to 30 V
Phys. dimensions (L × B × H):	(130 × 63 × 43) mm
Weight:	About 850 g
Internal protection class:	IP65

\*1 dependent on target reflectivity, stray light influences and atmospheric conditions

\*2 statistical spread 95%



*Product design and specifications to continuous ongoing development.  
We reserve the right to make changes in the interest of technical progress*