

DIGITAL INFRARED LIGHT SENSOR



The DSE-11 digital infrared sensor is the smallest infrared sensor available from Fife. Because of its compact size, light weight, and insensitivity to ambient light, it is ideal for many applications where accurate web guiding is required and space is limited.

The DSE-11 Infrared Sensor measures the lateral position of the guided material photo electrically. The control range (proportional band) allows significant guide point adjustment. The DSE-11 is often used in pairs for centre guiding when web width variations are limited. Its excellent technical specifications allow it to also be used with a Fife processor to guide clear film. Normally the DSE-11 is used for guiding opaque materials.

It is possible to operate the DSE-11 with either a supply voltage of 12V or 24V. The output signal would automatically be switched over in that case.

In 12V supply mode the sensor provides an output signal from 0 to 10 mA and can be connected to all available Fife web guide processors.

In 24V supply mode the sensor supplies an output signal between 4 and 20 mA and can be easily connected to a PLC as well.

The DSE-11 has a built-in LED display, visible from both sides, and shows directly on the sensor information about the operating status like for instance the existence of the supply voltage, position of the edge of the web inside the field of view or error messages.

An optional digital production data acquisition to Fife D-MAXE controller extends the range of applications for the DSE-11 inside the digital network environment. Additional sensor data can be provided to other hardware equipment if the Fife D-MAXE is linked appropriately to the network.

GENERAL SPECIFICATIONS

Proportional band

10 mm

Light source

Modulated infrared light
Wavelength: 875 nm

Weight

200 g

Operating temperature

5° - 60°C

Protection class

IP54

Power supply

10 - 28V

Output signal

0 - 10 mA
4 - 20 mA optional
digital data exchange RS-485

Linearity

5% maximum error (at 20% to 80% of signal)

Plane change

5% maximum error (at 20% to 80% of gap width)

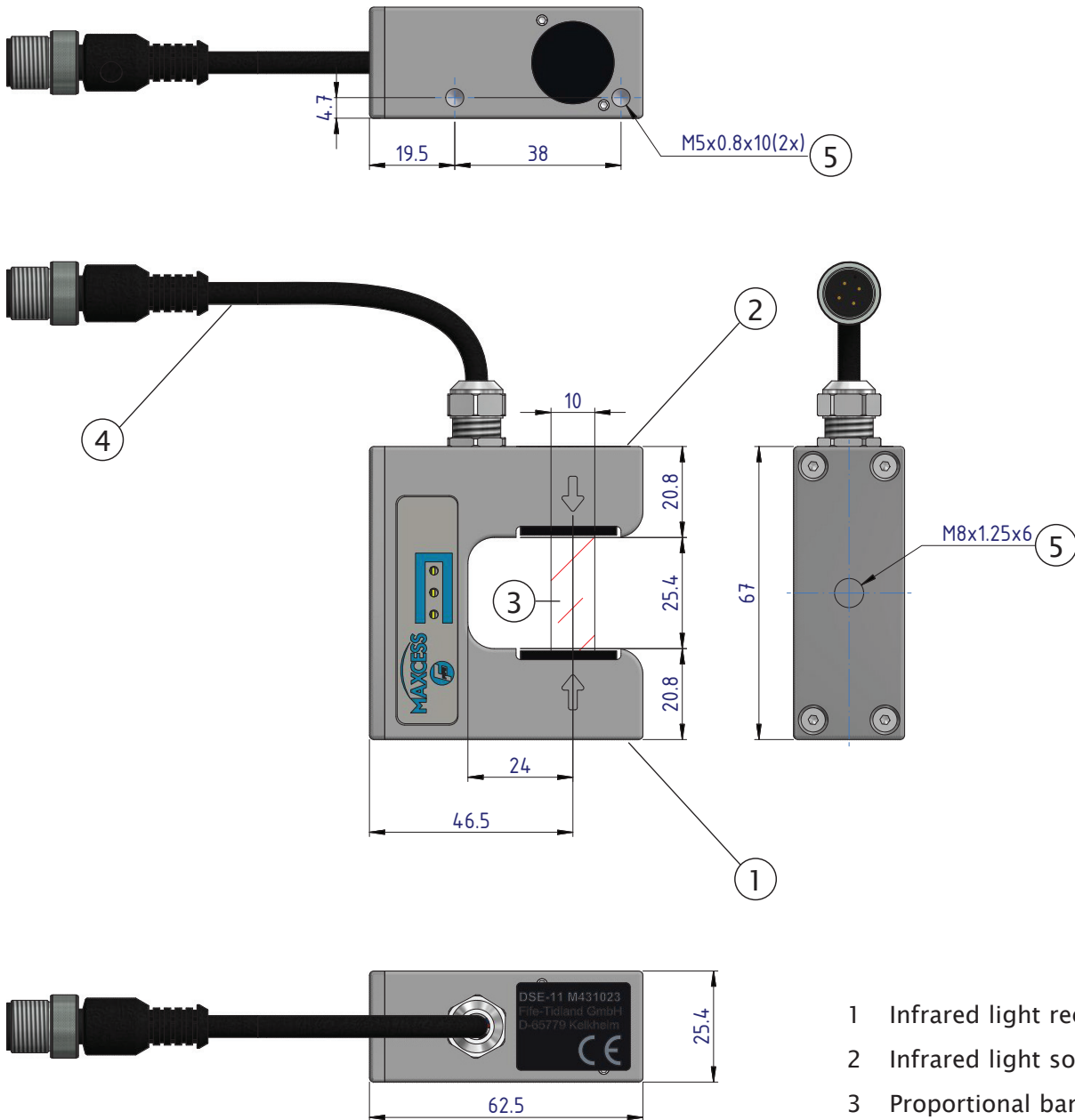
Temperature drift

5% maximum error (at 10°C to 50°C)

KEY FEATURES

- Insensitive to ambient light
- Insensitive to electrostatic discharge
- Temperature stabilized
- Low power consumption
- Can be used for new guiding systems as well as for an upgrade of existing systems
- Fast, easy and robust mounting due to multiple mounting brackets and sensor positioners
- Can be connected to all available Fife web guide processors

DIMENSIONS



- 1 Infrared light receiver
- 2 Infrared light source
- 3 Proportional band
- 4 Connection cable
- 5 Threading for sensor bracket

Dimension shown in mm.



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