



# **Operating Manual AZS01A/04A**

Analog edge detection sensors for web guiding

(optical)

Version 2.31 05/07 sd

This operation manual is also available in german, french and italian.  
Please contact your local representative.

Diese Bedienungsanleitung ist auch in deutsch, französisch und italienisch erhältlich.  
Bitte kontaktieren Sie die Vertretung im zuständigen Land.

# 1 Functional description AZS01A/04A

The AZS01A/04A is an optical edge sensor for the detection of all opaque materials. The measurement is made with a CCD line sensor, that detects the transition from light to dark. The sensor is insensitive to changes in the plane of the material thanks to the parallel light source.

## 2 Dimensions

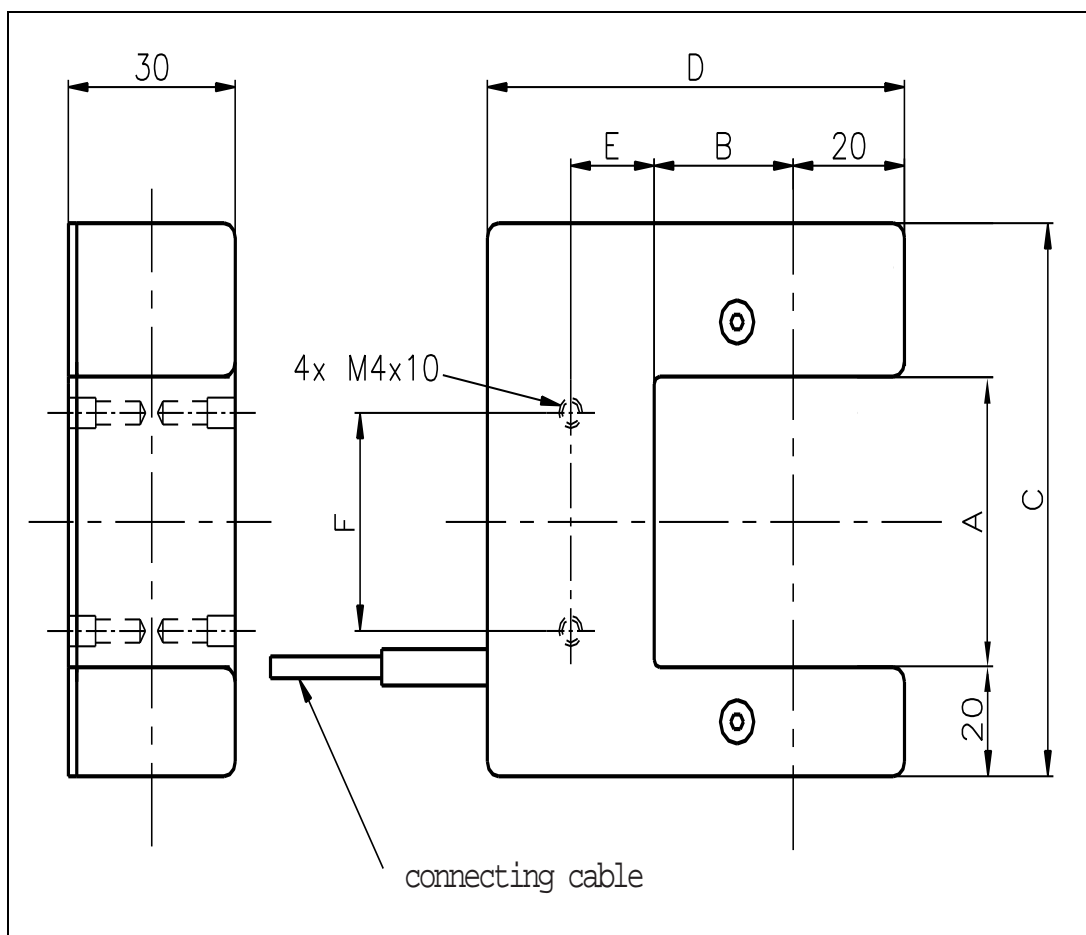


fig. 1: AZS01A/04A

K100206e

Sensor	AZS01A	AZS04A
Throat width (dim. A)	30	90
Throat depth (dim. B)	25	80
Sensor height (dim. C)	85	145
Sensor length (dim. D)	70	125
Dim. E	15	15
Dim. F	30	30

All value in mm

## 3 Installation

### 3.1 Mounting the sensor

The sensor will be mounted by 2 threads M4 to a bracket. The bracket will be fixed to the location rail (by using manual sensor adjustment) or to the flange of the linear unit (by using motorized sensor adjustment).

The bracket varies depending on system configuration (steering frame size, manual or motorized sensor adjustment, etc.). It must be ordered separately.

### 3.2 Wiring

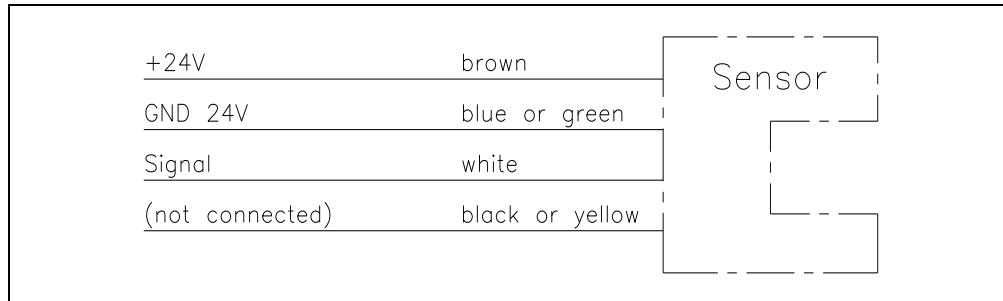


fig. 2: Connections

K100102e

If the sensor is used with a built-in web guide controller in the steering frame FMS-webMASTER 020, the sensor is full wired with 300mm wire 4x0.14mm<sup>2</sup> and a screw-in plug M8x1. The plug will be fixed directly to the complementary plug in the steering frame.

If the sensor is used with another steering frame or with another web guide controller it is equipped with wire 3x0.14mm<sup>2</sup>. The length is 5m or 10m (give specification when ordering). The connection has to be done refer to fig. 2.

## 4 Operating

### Sensor adjustment

- Move material to sensor or sensor to material until the material edge is between the light transmitter and receiver in the middle of the measuring range (center of sensor window; refer to fig. 3).
- No additional adjustments are needed. The sensor is ready to operation.

### LED's from AZS

- Four green LED's indicate the line edge position.

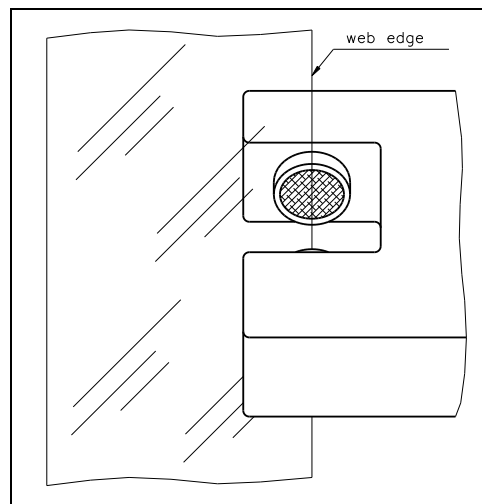


fig. 3: Aligning of the sensor axis to the web edge

K100004e

## 5 Trouble shooting

If malfunction of the sensor is detected check that:

- 1) No contamination or dirt is on the light transmitter and receiver
- 2) 24V supply voltage is present
- 3) the measuring signal is 0V if the sensor is fully covered
- 4) the measuring signal is 10V if the sensor is fully uncovered (no material between the sensor).

## 6 Technical data

	<b>AZS01A / 04A</b>
Measuring width	16mm
Resolution	6/100mm
Measuring rate	2ms
Output signal 0...10V	0V when the web fully covers the sensor 10V when the web doesn't cover the sensor
Power supply	24VDC (18...36VDC)
Connecting cable	3x0.14mm <sup>2</sup> , length 5m
Temperature range	0 .. 45°C
Protection class	IP 50



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