

US 01B/US 04B Series Ultrasonic Edge Sensor

**Temperature compensated,
microprocessor based Ultrasonic Sensor**
Highly linear and insensitive to planarity
variations in the material

2 ms cycle time
Suitable for high speed applications

24 V power supply and 0...10V output
Industry standard

Material position indicator via LED
Fast and precise alignment of material edge



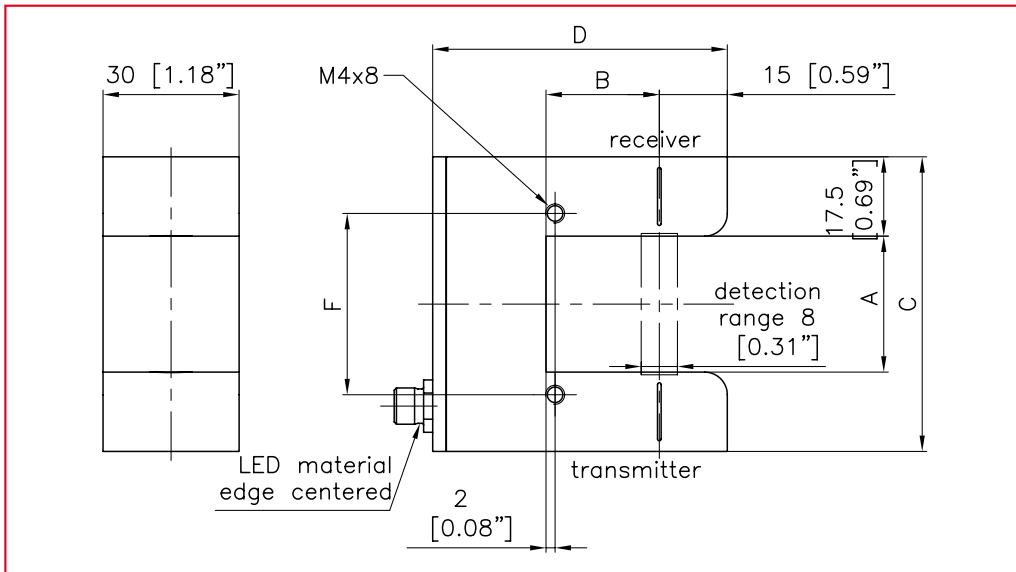
● US 01B/US 04B

The Ultrasonic Sensor Series US 01B/US 04B is used in many web guiding applications where the material edge needs to be detected fast and accurately. The sensors are suitable for all sound-reflecting materials. They are characterized by their reliable and trouble-free detection of transparent films and reflective materials. The sensors are highly insensitive to plain changes and are not affected by ambient ultrasonic noises or dust. They are factory set and don't need any adjustments or calibration. With the two different mechanical sizes a wide web range can be covered. The US 01B/US 04B sensors are compatible with the full line of FMS web guide controllers and steering frames.

● Functional Description

The US 01B/US 04B Sensors work with a highly linear ultrasonic transceiver system of cutting edge technology. Signal generation and signal processing is microcontroller based using sophisticated software algorithm. All controlling tasks are fully digitized, resulting in a fast 2 millisecond cycle time and thus the ability to succeed in applications where higher web speeds prevail. The sensor is easily and accurately positioned to the material edge with a LED which indicates the centre of detection range. Power supply and analogue output (0...10 VDC) are standardized for the converting industry.

US 01B / 04B Ultrasonic sensor • Dimensions in mm or [in]



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Sensor Type	A	B	C	D	F
US 01B	30 [1.18]	25 [0.98]	65 [2.56]	65 [2.48]	40 [1.57]
US 04B	90 [3.54]	80 [3.15]	125 [4.92]	120 [4.72]	100 [3.94]

Scope of Supply

- US 01B or US 04B Sensor
- Installation and Operation Manual

Accessories (not in scope of supply)

- Sensor cable (BKS-SENSORCABLE.M8)
- Mounting bracket (BKS.W.V.20x20.US0XB.AZSOXA)

US 01B / US 04B • Technical Specification

Sensing Width	8 mm [0.31"]
Resolution	0.2 mm [0.008"]
Measuring Rate	2 ms
Linearity	±5% @ 0...60 °C
Output Signal	0...10V
Power Supply	24VDC (18...30VDC)
Temperature Range	0...60 °C [32...140 °F]
Protection Class	IP 67

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