

## Ultrasonic edge sensor FX 42..

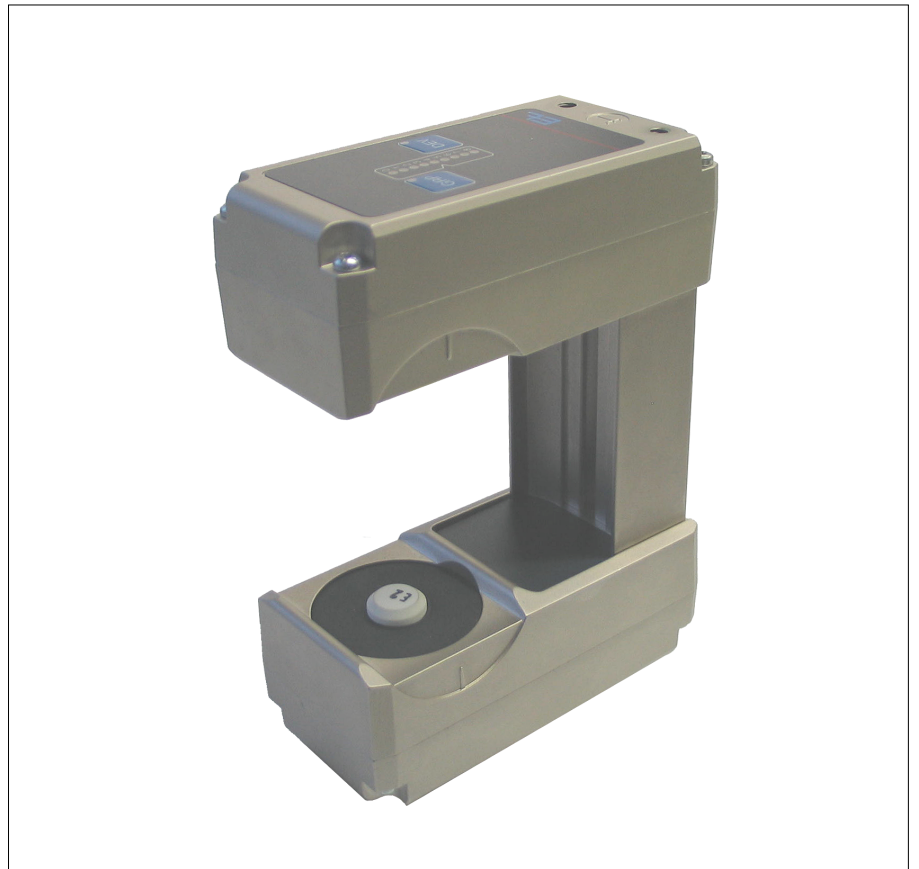
The ultrasonic edge sensor is specially designed for the detection of the edges of material impermeable to sound, e.g. paper, foil or film.

Due to the scanning principle using ultrasonics, a difference in the transparency will not have any effect on the measuring signal. As a consequence reliable detection of the web edge is ensured.

### Design

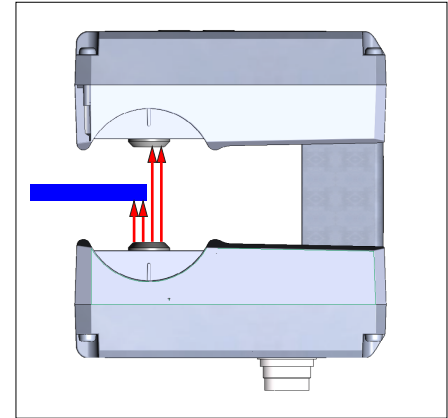
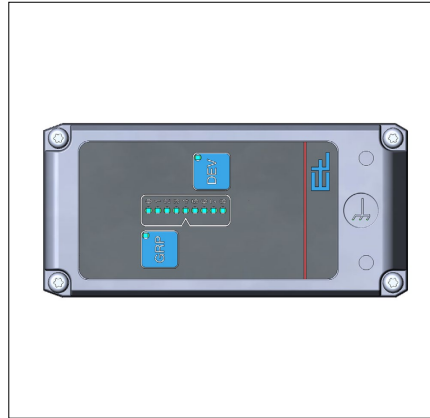
The compact design ensures optimal installation in pivoting frames for narrow webs. Due to the integration of the complete electronics, the sensor has a CAN bus connection and is therefore fully compatible with the Digital Control System DCS.

In particular the LED indicator bar integrated into the receiver provides the user with a clear aid during the manual positioning of the sensor. The display can be simply switched off for use on materials sensitive to light.



### Function

The sensor contains a transmitter element and receiver element; these elements cover a measuring range of  $\pm 3$  mm. The transmitter generates ultrasonic waves that generate an amplitude of varying size in the receiver depending on how much the receiver is covered by the edge of the web. The analog voltage is digitized in the AD converter. The resulting value is processed by a microprocessor and, after corresponding analysis, sent to the controller and all other bus users via the CAN bus.



### Versions

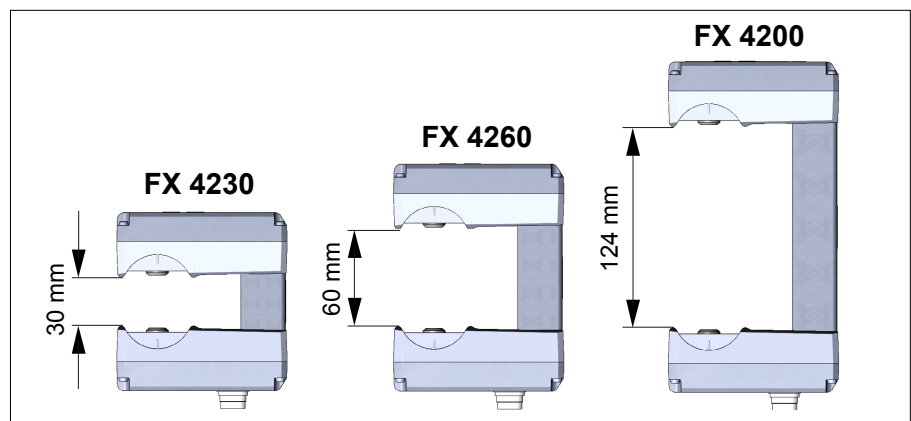
The following three sensors are available:

FX 4230 = fork width 30 mm

FX 4260 = fork width 60 mm

FX 4200 = fork width 124 mm

The sensors only differ in the fork width.



### Technical data

Measuring range	$\pm 3$ mm
Linearity deviation (measuring range 10 to 90 %)	$\pm 1$ %
Operating voltage Nominal value	24 V DC
Nominal range (ripple included)	20 to 30 V DC
Current consumption	Max. 80 mA DC
Transmit pulse frequency	1 kHz
Ambient temperature	+10 °C to +50 °C
Storage temperature	-25 °C to +80 °C
Temperature drift (typical) at relative atmospheric humidity of 60 %	Approx. 0.025 mm/K
Scanning rate	200 Hz
Cable length	Max. 10 m
Protection class	IP 54
Installation altitude	0 to 3000 m above sea level
Weight	0.7 kg
Dimensions (L x W x H)	
FX 4230	105 x 50 x 121 mm
FX 4260	105 x 50 x 151 mm
FX 4200	105 x 50 x 215 mm

Subject to technical change without notice