

# Flat sensor

## Type: FL – Digital2 / M-Pulse2 / M-Pulse3



### APPLICATION

Flat sensors are proper for applications where the test material is transported planely on a conveyor or belt or a chute. Products like fabric or foil can also be checked on metal without problems. Un-

like other flat sensors the FL's working principle is based on a balanced coil system which provides for highest sensitivities. In combination with our high-capacity operating electronics it

is possible to fade out product effects and other interferences. The robust, long-living stainless steel housing can be mounted easily.

### FUNCTION

The working principle of the FL allows a precise analysis of the signals. It is possible to draw conclusions on the signals' origin.

Signals can be distinguished into vibration, product or metal. This additional data allows a more sensible reaction on metallic re-

sidua. The sensors do not need calibration or maintenance.

### HANDLING

Depending on the operating electronics the handling is realised via a membrane keyboard and a LC-display. Thus all important

parameters can be viewed easily and fast and changed if necessary. The sensitivity of the detector also is adjustable this way. Detai-

led information you will find in the documentation of the electronics M-Pulse2, M-Pulse3 and Digital2.

# Type: FL

## MOUNTING

The sensing range of the sensor partially is situated above and under the opening of the detector. Big metal pieces can already be detected in this sector. In order to guarantee the accurate function-

ing of the sensor, these sectors must be kept free of metal. This so-called metal-free zones are divided into two types:

- Metal-free zones for movable pieces

- Metal-free zones for non movable pieces

The dimension of these zones are specified in the particular data sheets.

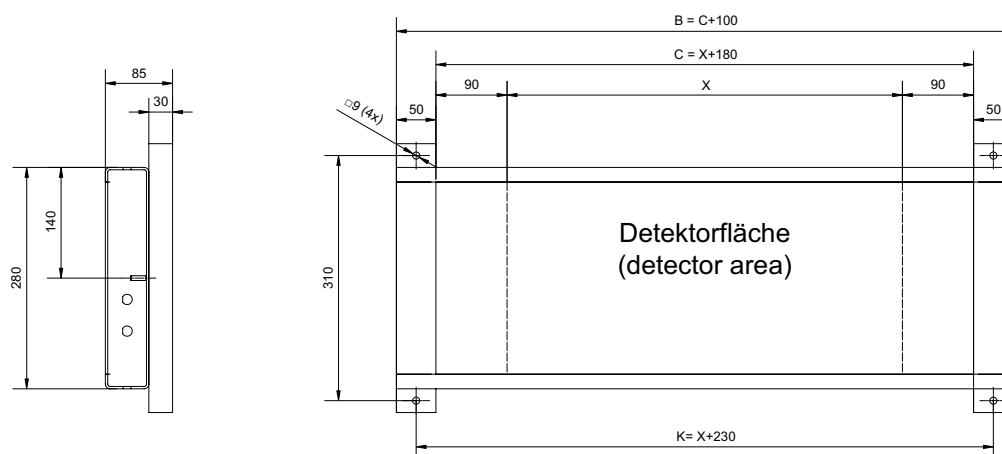
## TECHNICAL DATA

Type	FL 300 – FL 2500
<b>Mechanical data</b>	
Active sensor width X	300 – 2500 mm (100 mm steps)
Material	stainless steel (sensor surface epoxy)
Metal free zone for static parts	300 mm
Metal free zone for moving parts <sup>2</sup>	500 mm
<b>Conditions of use</b>	
Storage temperature	-10 – 50°C
Operating temperature	0 – 50°C
Protection class	IP54
Electrical connection	Supply via control unit (Attached with 3 m cable).

<b>Sensitivity<sup>1</sup></b>			
Detection width [mm]	ferrous-ball	stainless steel - ball	used sensor
400 mm	1,1	2,2	M-Pulse2 FL 400
500 mm	1,2	2,2	M-Pulse2 FL 500
600 mm	1,3	2,3	M-Pulse2 FL 600
1200 mm	1,5	2,5	M-Pulse2 FL 1200

**Order code (example):** Electronic: M-Pulse2    **Type of sensor:** FL    **Dimensions [mm]:** sensor width X    e.g.: M-Pulse2 FL 1400

## DIMENSIONS



- 1) The actual sensitivity depends on various factors. Unfavourable environmental conditions or vibrations can reduce the sensitivity. Conductive test material can also influence the sensitivity. For obliging information please contact our service or sales department. Our service includes product tests in our headquarters.
- 2) Large metallic pieces can cause faulty activation even from great distances. The data refers to smaller pieces like deviating pulleys etc.. For precise information please contact our service or sales department.

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