



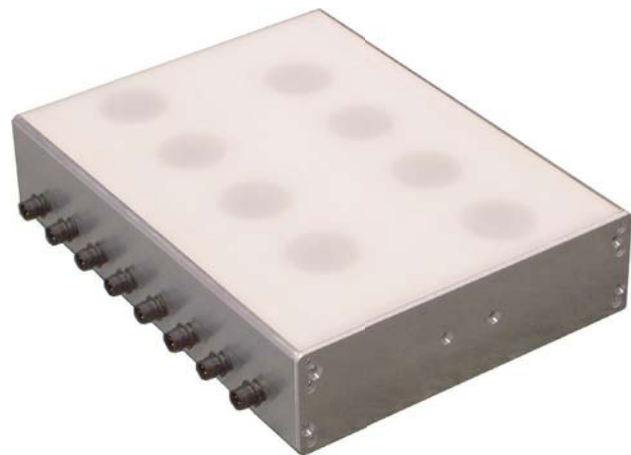
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Rev. 0801

## Flat sensor with spatial resolution MESEP®

# FS

### Application

These high-sensitivity flat sensors stand out for their localized resolution of smallest metallic pieces. This implies that metallic residua is not only detected but also localized in the sensor. Thus this detector type particularly is appropriate for the use in the recycling industry. It enables the user to separate metallic contamination precisely accurate from the material stream. Granulate or hackled material can be sorted easily. The sensor can be used in conveyor belts, slides or in free-fall applications.



MESEP® FS

### Function

The sensor has a dynamic working principle which means it only detects moving metallic pieces in the sensor range. If a non-moving metal piece is situated in the detection range, it does not excite a signal and therefore is not detected. Contrary to sensors with a static working principle this system allows operation with a much higher sensitivity. The sensor provides several channels which are arranged parallelly. Each of them is equipped with an own sensor coil and evaluation unit. By this the position of the metallic object can also be detected. Operation is realised via a separate control element or via pc. The control system can also be realised using a PLC.

### Specific characteristics

- different sensor widths available (80 mm - 3.000 mm)
- various resolutions (20 mm - 100 mm)
- sensor with max. 100 channels
- ejectors or flaps internally controlled
- no metal-free zones necessary
- stable and torsion-free aluminium housing
- easy mounting
- separate control element available
- interface for PC or PLC
- protection class IP65
- sensitivity adjustable via control electronics



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Type	MESEP® FS
<b>Mechanical data</b>	
Dimensions	L x W x H: Length x 210 x 60,5 mm
Number of channels	4 .. 100 pieces
Resolution (Width of each channel)	20 .. 120 mm
Length	(Number of channels + 1) x Resolution (max. 3.000 mm)
Housing	Aluminium - strand profil
Active surface	POM
<b>Electrical data</b>	
Supply voltage	20 .. 25 VDC
Power consumption	10 mA for each channel
Output	switching output for each channel; NPN / normally open ; 24 VDC; 50 mA
Interface	RS232 (for PC or PLC)
Connector <sup>1</sup>	switching output: Female connector M12; 4pins Power supply: Female connector with plug Control unit: Female connector M12; 4pins Interface: Female connector M12; 4pins
<b>Conditions of use</b>	
Storage temperature	-10°C .. 70°C
Operating temperature	-10°C .. 60°C
Protection class	IP65
Speed	5 .. 300 m/min (0,1 .. 5 m/s)

Ordering code:

Type	Resolution [mm]	Number of channels	
MESEP® FS	35	-	12 (z.B.: MESEP® FS 35-12)

When selecting the resolution and the number of channels please do not exceed the maximum sensor length of 3 m.

<sup>1</sup> Devices with cable or other jacks at request.



## Sensitivity

Type	FS 20 - 49	FS 50 - 120
Test piece		
Ferrous-ball Ø 4,5 mm	24 mm	30 mm
Ferrous-ball Ø 3,0 mm	15 mm	20 mm
Ferrous-ball Ø 2,5 mm	11 mm	14 mm
Ferrous-ball Ø 2,0 mm	7 mm	8 mm

The data refers to the clear distance between test object and the upper edge of the sensor. The values are valid for the entire temperature range and for speeds from 5 to 200m/min.

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## Accessories

Designation	Article number
Control unit with cable	MESEP® FS HMI
Connecting cable for PC & Software for Windows 2000 or XP	When ordering please specify
Connecting cable 2 m for connection to M12	44505125310
Connecting cable 5 m for connection to M12	44505125312
Connecting cable 2 m for connection to M12 (righth-angle plug)	44505123910
Connecting cable 5 m for connection to M12 (righth-angle plug)	44505123912

## Dimensions MESEP® FS

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