

Technical data

Litronic FMS planar sensor P78-HR



Features

- capacitive measuring method
- contactless measuring possible
- temperature compensation
- direct digital measurement value determination
- digital measurement recording and transfer
- up to 4 sensors per electronic module (FMSIII)
- up to 16 sensors per electronic module (FMSII)
- stainless steel housing

Technical data planar sensor P78-HR (High Resolution)

Physical principle	capacity determination with high-frequency stray field
Frequency	20 MHz
Sensor location	1) paper-, cardboard-, plastic film-, nonwoven-, fabric webs 2) plastic drying plants or comparable
Measuring range	1) 0 - 100% moisture content (measuring window adjustable) basis weight determination 5 ... 25.000 ... 50.000 g/m ² , resolution 0.5 g/m ² ^{1.)} coating thickness measurement 5 µm ... 25 mm ... 50 mm, resolution 0.5µm ^{1.)} 2) 0 - 100 % moisture content (measuring window adjustable)
Update cycle	32.64 ms
Sampling rate	16 - 25 10 ⁶
Measurement value transfer	digital: RS-485, multiprocessor protocol, streaming
Max. number of sensors on bus	16/4
Max. bus length	1200 m
Power supply	8...30 V, 0.4 VA
Material temperature	max. +80 °C
Temperature measuring range	-10 - +80 °C
Temperature measurement accuracy	+/- 0.5 °C
Operating ambient temperature	+5 - +72 °C
Operating temperature electronics	-20 - +80 °C
Storage temperature	-25 - +80 °C
Protection class	IP68
Wear protection	zircon oxide (ZrO ₂ Al ₂ O ₃)
Connection cable type / length	LAPP UNITRONIC® ROBUST C 7x0.14 shielded / 6 m
Housing/flange material	1.4305
Dimensions: Ø / height / height with cable connection	78 mm / 53 mm / 73 mm
Weight without cable	0.900 kg
Weight clamping flange	0.300 kg

1.) depending on material

Dimensional drawing:

