

Technical data

Litronic FMS planar sensor P30-S



Features

- capacitive measuring method
- sensor replacement without re-calibration
- sensitivity adjustable in three levels
- integrated microprocessor with mean value calculator
- material flow identification
- temperature compensation
- limit value check
- digital measurement recording and transfer
- stainless steel housing

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Physical principle	capacity determination with high-frequency stray field
Frequency	20 MHz
Sensor location	small installation place, pipe, screw conveyor, dryers...
Measuring range	0 – 100 % moisture content (measuring window adjustable)
Capacity resolution	3 fF
Update cycle	32.64 ms
Sampling rate mean value counter	16 – 22 10 ⁶
Max. measuring accuracy	+/- 0.05 % moisture content ^{1.)}
Data interface	RS-485 EIA-485
Max. bus length	1200 m
Measurement value transfer	half-duplex
Bus arbitration	master / slave
Data format	9600 bit/s 9 data, 1 stop
Protocol	proprietary multiprocessor protocol
Max. Number of sensors on bus	16
Measured value streaming	simplex
Bus arbitration	automatically
Data format	19200 bit/s, 8 data, 1 stop, no parity
Output	binary 2 temperatures and raw value
Output cycle	33 Hz
Max. number of sensors on bus:	4
Power supply	8...30 V, 0.4 VA
Temperature measuring range	-10 – 90 °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
Connecting cable type	UNITRONIC®ROBUST C 7x0.14 shielded

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Connecting cable length	6 m
Wear protection	PEEK
Housing/flange material	V4A (1.4404)
Dimensions: Ø / height / height with cable connection	30 mm / 80 mm /100 mm
Weight without cable	0.500 kg

- 1.) representative according to the batch or the period of continuous operation with the corresponding evaluation unit Litronic FMS II, depending on material, ideal material flow and proper calibration

Dimensional drawing:

