

M-SENS 2

ONLINE MOISTURE MEASUREMENT FOR SOLIDS



M-Sens 2 is designed for continuous moisture measurement of all types of dust, powder, granulates and other bulk solids during batching

FEATURES AND BENEFITS

- Moisture ranges 0 ... 65% (depending on material)
- Measurement accuracy 0.1%
- Online moisture measurement
- Independent of the material colour
- Temperature-resistant up to 120°C
- ATEX-certified
- Recording of surface moisture and capillary moisture



certified to ATEX

TECHNICAL SPECIFICATIONS

Sensor (M-Sens 2)	
Housing material	Stainless steel 1.4571
Sensor surface	Ceramic
Ex-protection (optional)	Zone 20 (Dust), Zone 0 (Gas)
Protection category	IP 67 according to EN 60529
Material ambient temperature	0 ... +80°C, optional 120°C
Working pressure	Max. 10 bar
Power consumption	0.6 W
Responsive time	0.1 sec.
Weight	1.3 kg
Measuring range	0 ... 65% residual moisture (depending on material)
Accuracy	0.1% absolutely in the calibrated measuring range
Connection cable	Shielded cable 4-wired, 0.25 mm ²

Evaluation unit (DIN Rail)	
Power supply	24 V DC $\pm$ 10%
Power consumption	20 W / 24 VA
Protection type	IP40 to EN 60 529
Ambient operating temperature	-10 ... +45°C
Dimensions	23 x 90 x 118 mm (W x H x D)
Weight	Approx. 172 g
DIN rail fastening	DIN 60715 TH35
Connection terminals cable cross-section	0.2 - 2.5 mm ² [AWG 24-14]
Current output	1 x 4 ... 20 mA (0 ... 20 mA), load < 500 Ω (Active)
Interface	ModBus RTU (RS 485) / USB
Pulse output	Open Collector - max. 30 V, 20 mA
Relay contact	Max. rated load: 250 V AC Max. peak current: 6 A Max. rated load 230 V AC: 250 VA Max. breaking capacity DC1: 3/110/220 V: 3/0.35/0.2 A Min. switching load: 500 mW (10 V / 5 mA)
Data backup	Flash memory

Evaluation unit (field housing)	
Power supply	110 / 230 V AC 50 Hz (optional 24 V DC)
Power consumption	20 W / 24 VA
Protection type	IP 65 to EN 60 52910.91
Ambient operating temperature	-10 ... +45°C
Dimensions	258 x 237 x 174 mm (W x H x D)
Weight	Approx. 2.5 kg
Interface	RS 485 (ModBus RTU) / USB
Cable screw connectors	3 x M20 (4.5 - 13 mm $\varnothing$)
Connection terminals cable cross-section	0.2 - 2.5 mm ² [AWG 24-14]
Current output	3 x 4 ... 20 mA (0 ... 20 mA), load < 500 Ω (Active)
Pulse output	Open Collector - max. 30 V, 20 mA
Relay contact	Max. rated load: 250 V AC Max. peak current: 6 A Max. rated load 230 V AC: 250 VA Max. breaking capacity DC1: 3/110/220 V: 3/0.35/0.2 A Min. switching load: 500 mW (10 V / 5 mA)
Data backup	Flash memory

