

공정용 인라인 수분계

시스템 기능

개요

M-Sens3은 흐름 감지 및 공정 온도 측정 기능이 있는 건조 벌크 고체/분말의 지속적인 수분 측정을 위한 Microwave 센서입니다.

광범위한 응용 분야를 포괄하며 두 가지 유형의 센서 기술(흐름, 온도, 수분)을 측정합니다.

- 측정 정확도 0.1%
- 온라인 수분 측정 (0 - 65%)
- 마모에 높은 내성 (Ceramic surface)
- 통합 온도 측정 (0 - 120°C) (Option ver. 190°C)
- 흐름 감지 기능

설치가 쉽고 정확한 측정을 제공합니다. 먼지, 과립, 목재 칩 및 기타 벌크 제품의 온라인 수분 측정 센서입니다.



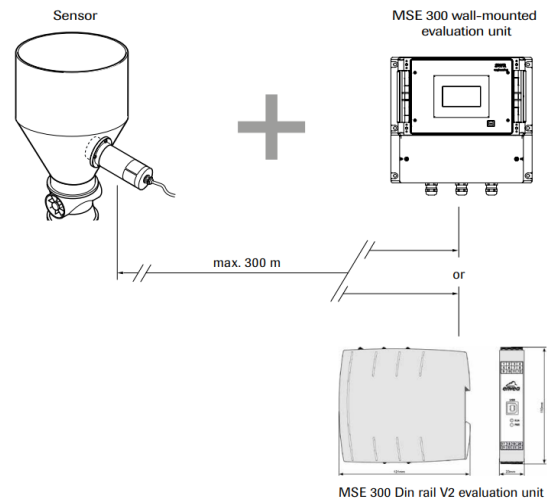
Model : M-Sens3

분체/고체 수분 및 온도 흐름 감지
컨베이어 / 스크류 피더 / 호퍼 싸일로

시스템 구성

구성요소

- DIN Rail TR 또는 Field housing 평가 장치 컨버팅 디스플레이 유닛.
- 파이프 용접용 센서 소켓 (고온용 Ceramic fitted Option)
- 센서(M-Sens3) with special cable
- 설치 지침서
- C1-box 또는 C3-box(Option)

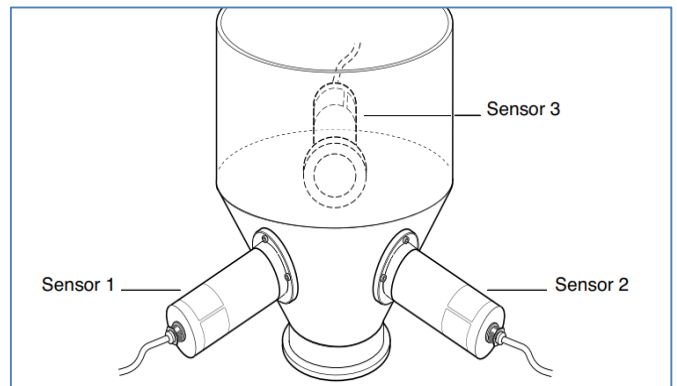
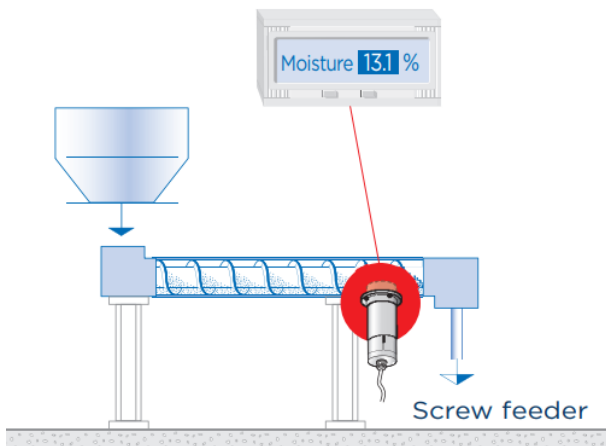
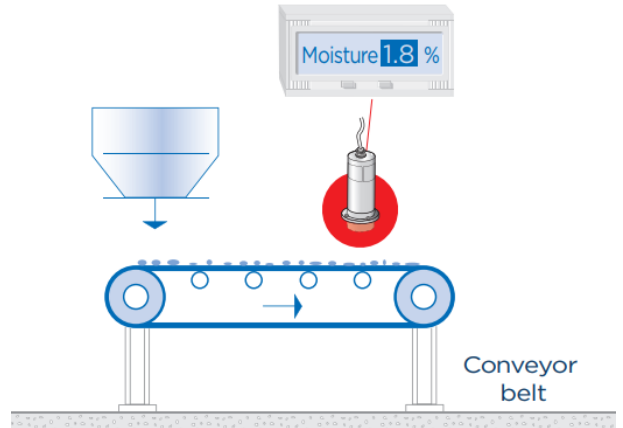
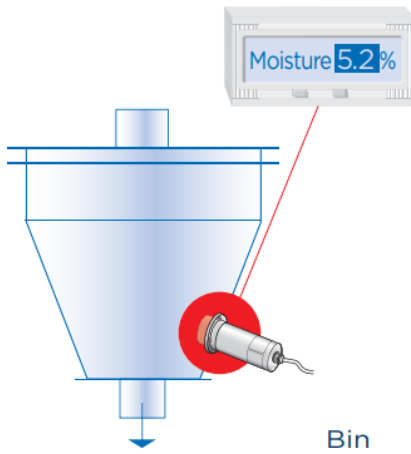
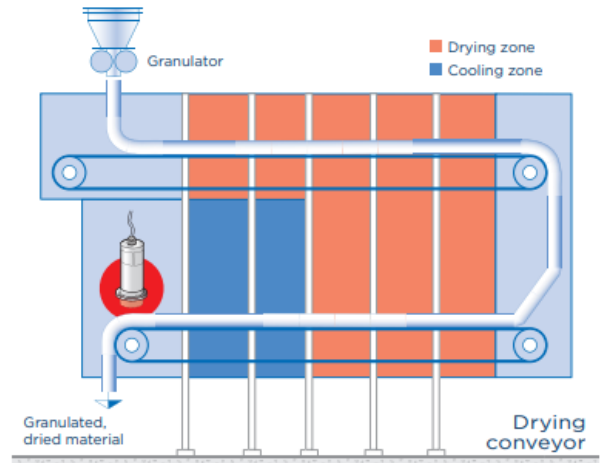


적용 어플리케이션

발전소	시멘트	화학/배터리	아스팔트
식품	유리	곡물 / 커피	미네랄
제철소	건축자재	바이오매스	재활용



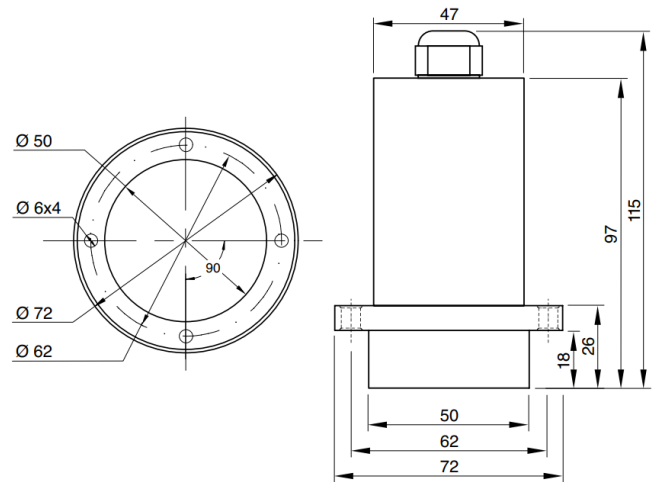
적용 가능 어플리케이션



Specification

Sensor

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
Ambient temperature	0 to 80 °C, Optional 120 °C
Working pressure	Max. 10bar
Power consumption	0.6 W
Response time	0.1Sec
Weight	Approx. 1000g
Measuring range	0 to 65% residual moisture (depending on material)
Temperature measurement	0 ... +120 °C ± 0,6 °C (typical) betw. 0 and +120 °C ± 1 °C (Max.) betw. 0 and +70 °C ± 2 °C (Max.) betw. 0 and +120 °C
Flow detection alarm	YES
Accuracy	0.1% absolutely in the calibrated measuring range
Connection cable	Shielded cable 4-wire, 0.25mm ²



Evaluation unit (DIN Rail)

Power supply	24 VDC ±10%
Power consumption	20W / 24VA
Protection type	IP40 to EN 60 529
Ambient operating Temperature	-10 ~ +45 °C
Dimensions	23 x 110 x 121 mm (W x H x D)
Weight	Approx. 190g
DIN rail fastening	DIN 60715 TH35
Connection terminals Cable cross-section	0.2-2.5mm ² [AWG 24-14]
Current output	2 x 4 ~ 20mA (0 ~ 20mA) Load < 500Ω (Active)
Interface	Modbus RTU (RS-485) / USB
Pulse output	Open Collector - max. 30V, 20mA
Relay contact	Max. rated load : 250VAC Max. peak current : 6A Max. rated load 230VAC : 250VA Max. breaking capacity DC1: 3/110/220 V : 3/0.35/0.2A Min. switching load: 500mW (10V / 5mA)
Data backup	Flash Memory

Evaluation unit (Field housing)

Power supply	110 / 230 VAC 60-50Hz (Optional 24VDC)
Power consumption	20 W / 24VA
Protection type	IP65 to EN60 52910.91
Ambient operating Temperature	-10 ~ +45 °C
Dimensions	258 x 237 x 174 mm (W x H x D)
Weight	Approx. 2.5kg
Interface	RS 485 (Modbus RTU) / USB
Cable screw connectors	3 x M20 (4.5 - 13mmØ)
Connection terminals cable cross-section	0.2 - 2.5mm ² [AWG 24-14]
Current output	3 x 4~20mA (0~20mA) Load < 500Ω (Active)
Pulse output	Open Collector - max. 30V, 20mA
Relay contact	Max. rated load : 250VAC Max. peak current : 6A Max. rated load 230VAC : 250VA Max. breaking capacity DC1: 3/110/220 V : 3/0.35/0.2A Min. switching load: 500mW (10V / 5mA)
Data backup	Flash Memory