

## Water Content Monitor WCM411



Water content monitor WCM411 is an outstanding optical moisture sensor designed for detecting moisture content of concrete aggregates. The sensor embeds a micro-processor and uses LED's as light sources. Moisture content is determined as percentage of water by weight of dry aggregate. The sensor is most optimal when used above conveyors or silo feeders to detect moisture content in moving samples. A non-contacting remote measurement guarantees stable performance and long life time of the sensor.

WCM411 has been extensively tested in concrete plants with different grades of stone material. By proper calibration the accuracy of measuring water content outperforms hand made reference measurements in the case of a limited number of samples and a large variation of moisture in a given batch.

WCM411 has been upgraded to current loop output and to a wider power supply voltage range as compared to previous versions.

### **Features and Benefits:**

- Remote Optical Measurement of Moisture Content
- Solid State Design
  - no moving nor wearing parts
- High Accuracy and Resolution
- Fast Response
- Low Noise
- Stable LED Light Sources
- Temperature Compensated
- Easy to install and calibrate
- Output:
  - serial interface
  - current loop 4-20 mA
- Power Supply 9-30 VDC



WCM411 installed over a conveyor belt on the left and on a silo feeder on the right to measure water content in aggregates.

### **WCM411 Specifications:**

Sensor type:	Water Content Monitor WCM411
Measures:	length 100 mm, diameter 75 mm, weight 750 g
Cable:	M12 connector, 5 leads and shield, 10 m length
Power supply:	9 ... 30 VDC
Power consumption:	< 5 W
Temperature range:	0 ... 40 °C
Resolution:	0.1 %
Accuracy:	0.3 % by weight (short time, homogenous sample) 0.6 % by weight (long time, homogenous sample)
Measuring range:	1 ... 10 % (stone aggregates) 1 ... 20 % (very fine materials)
Response time:	0.2 ... 10 s, parameter adjustable
Noise level:	< 0.03 % with 1 s response time
Measuring distance:	0.6 ... 1.6 m
Output:	RS-232 serial interface, max. speed 115.2 kbit/s 4 ... 20 mA per 0 ... 16 % by weight
Installation:	installed optimally at a constant distance over a moving sample and the sensor window dust protected

### **Distributor:**

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