

## MMR-9

### *Infrared Moisture Measurement System*

- Contactfree Measurement
- Excellent Accuracy
- Insensitiv against Grade or Color Changes

**METHOD** : Water shows in infrared region strong resonance bands wenn infrared radiation passes through material. The power attenuation at these resonance bands is directly proportional to moisture content (gr/m<sup>2</sup>) in the material.

**META`s MMR-9** gauge makes use of this physical feature to establish a very reliable and high accurate measuring method for continuous on-line measurement of moisture content. The use of enhanced infrared technology such as high quality light source, temperature compensated photodetector and multi channel narrow band filter makes the MMR-9 gauge insensitiv against disturbances caused by changes in grades or color or presence of carbon in the material , a feature particularly important in the mill daily processing routine.

**APPLICATIONS:** Pulp-, Paper-, Cardboards-, Wood-, Food and Mineral-Industries, Gas processing etc.

#### **COMPONENT PARTS:**

The measurement heads placed upper and lower of the web/product or in one side in case the reflection method is applied can be used as stand-alone



measuring system providing an analogue output in range of 0-10 VDC resp. 0/4-20mA or they can be integrated into the META versatile QMS-9000 quality control system. Scanners or C-frames are available for fix-position or cross-scanning measurements and controls.

#### **TECHNICAL SPECIFICATIONS:**

**Dimensions** (h x w x d) [ mm] :  
Transmitter/receiver: 250x300X210

**Weight** ≈ 12 Kg

**Measuring Range** : 0-150% abs.

**Transmitter/Receiver Clearance** :  
100 mm ± 10 mm

**Measuring Spot** : Ø 18-50 mm

**Measurement Options** :

Transmission or reflection

**Uncertainty** : Reproducibility

2σ ≤ 0.1% on 1 sec basis

Correlativity to lab

2σ ≤ 0.1% on 1 sec basis

**Outputs** : 0-10 V-0/4-20 mA

**Power Supply:** 24 VDC (Option  
230/110 VAC, 50/60 Hz)

**Enviromental Conditions:**Up to 40  
oC (no cooling ),0-95%r.H.

**Electronic Unit** : (option), LCD-  
display, alphanummeric keypad.