

# Microwave Moisture Measurement of Coal and other Minerals



## Advantages:

- **accurate**  
high selectivity on water
- **inline**  
contactless measurement directly at the existing conveyors without extensive mechanical sampling devices
- **representative**  
sensing of a large percentage of the material flow due to the transmission geometry.  
The whole volume, not only the surface is analyzed
- **no radio active source**  
alternatively an electro-mechanical belt weigher or ultrasonic distance sensor can be used to compensate the variation of the load



# Technical Specifications PMD 2450

<b>cabinet</b>	protection: IP 65	weight: 9.0 kg dimension: 30.5*24*37.5cm ( H * B * T )
<b>display</b>	touch screen: 114mm x 64mm graphical display: 128 x 256 Pixel	display back light with automatical shut down touch screen Matrix: 6 x 16
<b>power requirement</b>	90 - 260 Volt AC, 45 - 65 Hz	
<b>measuring principle</b>	microwave-transmission measurement: The measured material is transmitted with microwaves.	attenuation and phase shift caused by the material is determined.
<b>microwave</b>	frequency: 2.4 - 3.0 Ghz transmitted power: < 0,01 mW dynamic range: 50 dB	precision: < 0,2 dB, < 0,2° / GHz synchronisation with optional weight compensation.
<b>I/O</b>	microwave	2 N-connectors for input and output 2 N-connectors for reference cable
	counter: - area weight compensation - tachometer	max. 6 counters, 16 bit opto-decoupled, pulse width > 0,5 µs voltage: 4,5 V - 30 V
	digital input signals: - measurement (start/stop) - sampling (start/stop) - batch (start/stop) - belt signal (start/stop)	8 digital inputs, opto-decoupled
	digital output signals: - alarm outputs - general fault signal	4 digital outputs open collector opto-decoupled or relays
	analog input signals: - area weight compensation - temperature	2 x 0/4 - 20 mA or PT 100 analog input, 12 bit, in common potential-free
	analog output signals	4 x 0/4 - 20 mA analog out, 12 bit, in common potential-free
	serial interface	1 serial interface, alternatively RS 232 or RS 485
<b>sensor</b>	various antennas or measuring cells	

## Remote service

is available for all instruments via modem or internet. This saves time and money.

**This device is also available with explosion protection for Zone 1 and 2 as well as Zone 21 and 22.**

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