

# Moisture Measurement Solutions

## intelscan - iScan Pipe -



The iScan pipe is for liquid products flowing inside a pipe or a tube. The microwave transmission sensor is simply mounted inside the pipe, into the process for direct moisture - or dry substance - measurement in real time.

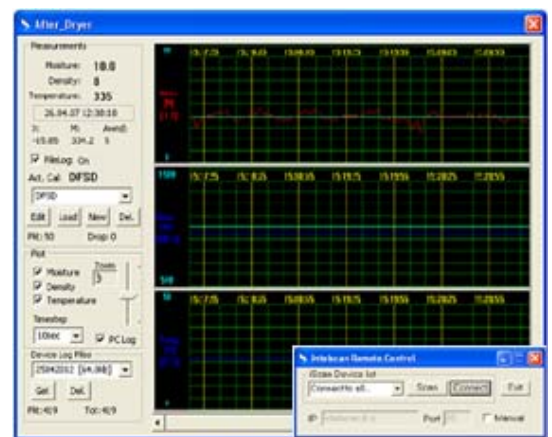


- ⊕ Improved quality: Enhanced monitoring of the process even the moisture fluctuations
- ⊕ More accurate and consistent analytical results of moisture and dry material, eliminating human error.
- ⊕ Better use of raw materials
- ⊕ Cost beneficial solution, compared to the price of water and the end product
- ⊕ Easy to operate: In many cases only 1 calibration for many different types of product types, irrespective of recipe, color or density variance
- ⊕ Safety in operation: No moving parts
- ⊕ Savings in man-power since no more need for 15 minute - 24 hour samplings

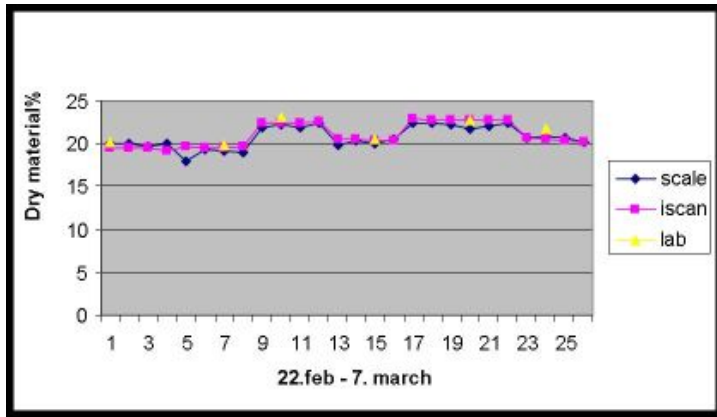
The iScan pipe system measures microwave attenuation, and microwave phase change in material compared to air. The main display screen immediately shows moisture content, or dry substance, in percentage.



Main display of the iScan



Ethernet remote control and data storage



### Example

The Water content of quark inside a 2-4" pipe at 8-10 bar was measured for moisture.

The graph shows the correlation between off-line "weigh and dry" measurement, laboratory measurement and the measurement performed by the iScan pipe, on-line microwave system.

## Specifications

<b>Accuracy</b>	+/- 0.5% (or better) compared to standard dry oven reference
<b>Measuring range</b>	0 – 90% moisture content
<b>Measuring update</b>	1 – 30 seconds (adjustable)
<b>Calibration settings stored</b>	Unlimited
<b>Network</b>	Ethernet connectivity
<b>Measurement output</b>	Industry standard 4-20mA and 0-5V outputs for moisture temperature or density
<b>Digital IO</b>	Multiple in- and outputs
<b>Data Storage</b>	Locally with a Removable Flash Disk, anywhere remotely with a network connection
<b>Tested to safety standard</b>	IEC 61010-1
<b>Dimensions</b>	
<i>Sensor</i>	145 x 105 x 75 mm
<i>Display unit</i>	240 x 240 x 150 mm
<b>Material</b>	Stainless steel
<b>IP protection</b>	Sensor – IP65 / Display unit – IP64
<b>Power consumption</b>	
<i>Sensor unit</i>	<7 W
<i>Display unit</i>	<12 W
<b>Electrical</b>	
<i>Power</i>	110-240V, single phase 2A supply
<b>Frequency</b>	
<i>Microwave output power</i>	<200 mW
<i>Microwave field strength</i>	At 8GHz: <0.056V/m

## Artec Testnology

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