
PULP AND PAPER

KPM KC7 Microwave Consistency Transmitter

KPM Products | Process Measurements



Accurate consistency measurement

The KC/7 is unaffected by variations in pulp species, fiber length, freeness and in process conditions, unlike optical and shear force technologies.

The KC/7 measures fibers and fillers for total consistency, making it ideal to measure mixed pulps. KC/7 has single point calibration.

Remote display unit

Remote electronics offers large display for easy operation and set-up. Intuitive, menu-driven interface features simple set-up, calibration and troubleshooting functions.

True-phase method measurement

The KC/7 has reliable and well tested True-phase measurement technology of microwave signal utilizing phase vector modulation with a microwave wide band sweep. Therefore KC/7 has the highest measurement accuracy on the market today.

The antennas have been designed to avoid microwave reflections in pipe and cause additional pressure in measurement point.

Two versions for wide range of installation options

Flow-through version is available in sizes 50-300mm (2"-12"). Insertion style KC/7 fits pipe size 250mm (10") and larger.

No maintenance

The KC/7 does not need preventive maintenance; it has no wearing or moving parts at all. The Flow through models do not have measurement parts inside the pipe to be hit by foreign particles.



Specifications

| | |
|----------------------|--|
| Sensor type | Microwave Consistency Transmitter |
| Output signal | 2 x Analog outputs 4 - 20 mA + HART Foundation Fieldbus and Profibus PA with optional converter |
| Binary inputs | 24 VDC, Process Stop, Grade Change (2) and Sampler Input |
| Binary output | 12 – 48 VDC max 10mA, Dry Contact |
| Serial communication | USB PC-Interface, HART |
| Measurement range in | 0 - 16 % Cs |
| Repeatability | 0.01 % |
| Resolution | 0.001 % for sizes 50 – 300 mm (3" – 12") and insertion type (IT) |
| Installation | Wafer type between flanges or Sandvik NS65 mm Insertion type, Sandvik coupling |
| Length | 100 mm (4") for all FT models |

Conductivity limits

| 50mm (2") | 80mm (3") | 100mm (4") | 150mm (6") | 200mm (8") | 250mm (10") | 300mm (12") | Insertion Type |
|--------------|--------------|---------------|---------------|---------------|----------------|----------------|-------------------|
| 25mS/cm | 25mS/cm | 20mS/cm | 20mS/cm | 15mS/cm | 15mS/cm | 15mS/cm | 25mS/cm |



| | |
|---------------------|--|
| Process temperature | 0 - 100 °C (32 - 212 °F) |
| Process pressure | Pressure class PN25, Recommendation >1,5 Bar (>22 psi), no air |
| Process pH | 2,5 – 11,5 pH |
| Ambient temperature | Sensor -20...60 °C (-4 ...140 °F), Display unit -10...60 °C (-14 ...140 °F), |
| Flow velocity | No effect, Insertion type max flow 5m/s (16.4 ft/s) |
| Materials | Sensor: SS 316L; Window: Ceramic, Display: Polycarbonate |
| Approvals | EMC, CE, PED (Directive 2014/68/EU, Article 13,1,(b) substances and mixtures |
| Enclosure class | Sensor IP66 (Nema 4x), Display Unit IP65 (Nema 4) |
| Power supply | 86 to 264 VAC, 47 - 63Hz; 20VA |

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