

# LQ-500

## *Microwave Consistency Transmitter*

### **DECADE OF PROVEN INDUSTRY PERFORMANCE**

Patented technology based on Phase-difference measurement of microwave signal. The result is a highly accurate measurement (resolution, linearity and repeatability) over the full range of consistency.

### **ACCURATE, TOTAL CONSISTENCY MEASUREMENT**

Unlike other shear force technologies, the LQ500 is unaffected by variations in pulp species, fiber length and freeness. The LQ500 is also immune to changes in process conditions such as flow rate, pressure and temperature. The LQ500 measures fibers and fillers for excellent total consistency control and reduction in basis weight variability.

### **REMOTE DISPLAY UNIT**

Remote electronics offer large, easily visible display for a virtually unrestricted installation. Intuitive, menu-driven interface feature simple set-up, calibration and troubleshooting functions.

### **WIDE RANGE OF SIZES**

Flow-through available in sizes 50-300mm (2"-12")

### **HIGH RELIABILITY, EASY MAINTENANCE**

No moving parts and no in-line projections guarantee high reliability and minimal maintenance requirements. The absence of moving parts also greatly reduces costs for consumables like O-rings and bearings.



## FEATURES AND BENEFITS:

- Reliable – Excellent MTBF
- No moving parts, No regular maintenance
- Excellent repeatability, linearity and resolution
- Single point calibration
- Measures both fillers and fibers
- Responds linearly to Total Consistency
- Modular construction for easy maintenance and cost efficiency (HART protocol included)
- Unaffected by flow rate changes
- Measures accurately in turbulent flow
- Can be placed in pitch applications - turbulence helps clean sensors
- Averages over a greater cross sectional area of the pipe than other technologies
- Independent of fiber properties - varying pulp grade, wood type, fiber length, freeness, brightness, color, shives, and stock viscosity do not affect the accuracy of the measurement

## SPECIFICATIONS

<b>SENSOR TYPE</b>	Microwave Consistency Transmitter
<b>OUTPUT SIGNAL</b>	4 - 20 mA + HART
<b>BINARY INPUTS</b>	24 VDC, Externally synch input, Calibration input
<b>BINARY OUTPUT</b>	Consistency fault or Maintenance signal (Solid state contact)
<b>ANALOG INPUT</b>	Conductivity signal input, 0–10 mS/cm, 4-20 mA, Isolated
<b>Cs RANGE</b>	0-50 % Cs
<b>MINIMUM SPAN</b>	1 % Cs for 4" – 12" (100 – 300 mm) sizes
<b>REPEATABILITY</b>	2 % Cs for 2" (50 mm) size
<b>RESOLUTION</b>	0.01 % Cs for 4" – 12" (100 – 300 mm) sizes
<b>FLANGE</b>	DIN 16, ANSI 150, JIS 10K
<b>CONDUCTIVITY</b>	2" 3" 4" 6" 8" 10" 12"
<b>LIMITS mS/cm</b>	20 16 15 10 8 8 6
<b>PROCESS TEMP</b>	32-212 °F (0 - 100 °C)
<b>AMBIENT TEMP</b>	32-129 °F (0 - 50 °C)
<b>VELOCITY</b>	No effect
<b>WETTED MATERIALS</b>	316 SS; Applicator window: Polysulfone; Applicator window sealant: Fluoric rubber. Options: Hastelloy C pipe, PFA coating, HDPE window
<b>MTBF</b>	135.8 months under 77 °F (25 °C)
<b>APPROVALS</b>	FCC, CE, PED
<b>ENCLOSURE</b>	IP67
<b>POWER SUPPLY</b>	100 to 240 VAC, 50/60Hz; 23VA

