

OC - OPTICAL CONSISTENCY TRANSMITTERS



KPM acquired Cerlic optical consistency transmitters

KPM offers full range of optical consistency transmitters for In-Line and By-Pass installations. Optical consistency transmitters are best choice for range 0-2%Cs. The sensor measures fibers and particles that are greater than 0.88 microns, such as stock from 0.001% (10ppm) to 5%, (depending on type of stock).

The measuring principle is based on the ability of suspended particles to absorb and reflect / transmit NIR-light (near infrared), which is pulsed at 880 nm.

Robust design in SS316 steel

The OC sensors are constructed of 316SS with sapphire glass lenses, to withstand the most aggressive media. Sensor Pressure class in PN25 for by pass sensors and PN16 for In-Line sensors.

OC In-line Sensors

The OC 20/70 can be installed directly to process pipe similar way like blade type consistency transmitters.

OC By-Pass sensors

The by-pass Consistency Sensors are developed to measure fiber consistency in liquids from 0,001 – 2%. The OC-P03/20 has polarizing measurement making it suitable for paper machine retention measurement, where is variation in ash content. The sensors have a 20 mm (P03/20 3 mm) gap between the lenses, which produces a self-cleaning effect due to the increased velocity. and 20/25-LC for Mill effluents.

Remote Display unit for easy set up

The sensors are pre-calibrated for quick and easy start up. After installation, one-point adjustment is performed against a laboratory test.

The Display unit has four selectable calibration curves for applications with varying furnishes.

SPECIFICATIONS

SENSOR TYPE	Optical Consistency Transmitter
OUTPUT SIGNAL	Analog Outputs 4 - 20 mA
BINARY INPUTS	24 VDC, Process Stop, Grade Change (2) and Sampler Input
BINARY OUTPUT	2 x Closing or opening contact max. 250 VAC, 2A; 220VDC, 2 A For Alarm and flushing control

MEASUREMENT RANGE & PROCESS TEMPERATURE & MINIMUM FLOW VELOCITY & PRESSURE CLASS PROCESS CONNECTION

OC 20/25	OC 20/25-K	OC 20/25-LC	OC 20/50	OC P3/25	OC IL 20/70	OC IL 20/70-SE	OC IL 20/38-HP
0 – 2%	0-5%	0 – 0,02%	0 – 5%	0 – 1,5 %	0 – 5%	0 – 5%	0 – 5%
90 °C	90 °C	50 °C	90 °C	60 °C	90 °C	90 °C	100 °C
20 l / min	20 l / min	20 l / min	60 l / min	10 l / min	Cs<1% 1m/s Cs>1% 1.5m/s	Cs<1% 1m/s Cs>1% 1.5m/s	Cs<1% 1m/s Cs>1% 1.5m/s
PN25	PN25	PN25	PN25	PN25	PN16	PN16	PN16
By-pass line 25mm	By-pass line 25mm	By-pass line 25mm	By-pass line 50mm	By-pass line 25mm	NS70 saddle	NS70 saddle	DN50 Ball valve and weld stud

APPLICATIONS OC 20/xx models only clean pulps

MINIMUM CONSISTENCY 0.001 %, 10 ppm

PROCESS PRESSURE Minimum 1 bar (15 psi);

AMBIENT TEMPERATURE Sensor, 0 - 60°C (32 - 140°F); Display Unit = - 10 - 60°C (-14...140°F)

CABLING 10 m interconnect cable from Sensor to Display Unit

WETTED MATERIALS AISI316

WEIGHT

Display Unit	OC 20/25	OC 20/25-K	OC 20/25-LC	OC 20/50	OC P3/25	OC IL 20/70	OC IL20/70-SE	OC IL20/38-HP
2.3 kg 5.1 lbs	3.0 kg 6.6 lbs	3.0 kg 6.6 lbs	3.0 kg 6.6 lbs	3.7 kg 8.2 lbs	3.7 kg 8.2 lbs	3.7 kg 8.2 lbs	1.5 kg 3.3 lbs	7.0 kg 15.4 lbs

CONFORMANCE 73/23/EEC, 89/336/EEC, EN 61000-6-4:2001, EN 61000-6-2:2001, EN 61010-1:2001

ENCLOSURE CLASS IP65, Nema 4X

POWER SUPPLY 86 to 264 VAC, 47 - 63Hz; 20VA

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The OC products are manufactured by
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