

Dencytee RS485 120

Specification Sheet (Part/REF # 10064919-11)



Total cell density (TCD) measurement by the Dencytee Arc sensor is based on the optical density or turbidity derived from a transmission and reflection signal at NIR wavelengths. The signal can be correlated with off-line measurements to achieve higher accuracy.

Product Specifications

Sensor Family	Dencytee Arc
a-length	120 mm
Parameter	Total Cell Density
Electrical Connector	VP8
Sensor Output	Arc: Modbus
Measurement Principle	Transmission and Reflection (including temperature compensation, daylight filter and subtraction)
Wavelength	860 nm
Measuring Range	e.g. 0-200g/l cell dry weight yeast 0-4 AU 0-30'000 NTU
Accuracy at 25 °C	Resolution: 0.05 g/l (0-10 g/l); 0.5 % (> 10 g/l) cell dry weight yeast Reproducibility: ± 1 % Linearity: $< \pm 1\%$ of respective measuring range (specific to application with off-line correlation)
Temperature Sensor	NTC 22 kOhm
Configurable Values	TCD: PCV, AU, arb. Unit, NTU, g/l, CFU, e6 cells/ml, OD Temperature: K, °C, °F
Diameter	12 mm
Process Connection	PG13,5
Wetted Parts	Stainless Steel 1.4435 Sapphire glass EPDM (Ethylene propylene elastomer) See compliance details in Material Specification document
Surface Quality of Steel	Ra < 0.4 μm (N5)
Digital Interface	RS485 Modbus (max. 31 addresses)
Baud Rate	4800, 9600, 19200, 38400, 57600, 115200 Bd
Operating Voltage	+10 to +27 VDC
Optical Path Length	5 mm
Serial Number	Yes
Certificate	Yes, in water and at 10'000 NTU Standard
ATEX Approval	No
IECEx Approval	No
Autoclavable	Yes
CIP	Yes

Steam Sterilizable	Yes, max. Temperature 140 °C
Storage Conditions	-20 °C to 45 °C
Operating Temperature Range	0 to 140 °C; the sensor provides no TCD reading above 80 °C.
Pressure Range bar g	0 to 12 bar
Protection Rating	IP 68