Model A6-223 Turbidity & Suspended Solids Trasmitter

Features

- Measures Turbidity and Suspended Solids in FNU, ppm, g/l, % or %SS
- 96 X 96 mm Panel Mount Enclosure Takes Up Less Panel Space
- Sensors are Factory Calibrated with Formazine Standard and Silicon Dioxide (SiO_2)
- "Live Check" Continuously Monitors Sensor Performance
- Up To Four Alarm Contacts Including Temperature
- Dedicated Fault Alarm
- NAMUR Fault Current Alarm
- PID Controller
- 2nd Current Output for Temperature



Applications

- Wastewater & Sewage Treatment Plants
- Surface Water in Ponds, Lakes and Rivers
- Drinking Water
- Effluent Monitoring & Water Recycle
- Filter Breakthrough Monitoring

Description

The Model 223 Turbidity and Suspended Solids Transmitter employs the nephelometric 90° scattered light method with a measuring frequency in the near-infrared light range of 880 nm according to ISO 7027 / EN 27027. The basic transmitter is available with either a 115 VAC or 24 Volt AC/DC power supply, linear isolated current output and one alarm. Features include the addition of a second output for temperature and up to four alarms which may be configured for on-off control functions, alarm limits, timer for cleaning or PID control functions. The TS version adds the diagnostic function Live Check as well as a non-linear programmable current output. Live Check signals an alarm when the sensor signal does not change over a defined period.

Base Transmitter (TU)	**Plus Package (TS)**
Measurement, display and calibration of the process variable (PV) and temperature. Isolated current output (Code 0) Temperature output (Code 1) One alarm (Code 05) • On – Off Dedicated fault alarm (Standard) NAMUR fault current (Standard) • 2.4 or 22.0 mA	Live Check sensor signal monitoring and alarm. Programmable non-linear current output.
Code 10	**Additional Features**
Two Alarm Contacts for PV and Temperature • On – Off • Timer for cleaning • P(ID) Controller	Concentration Measurement in Other Engineering Units Automatic Cleaning initiated by an internal alarm or limit violation
Code 16	**Additional Features**
Four Alarm Contacts for PV and Temperature • On – Off • Timer for cleaning • P(ID) Controller	Cleaning initiated externally or automatically by an internal alarm or limit violation

Cancoppas Limited 2595 Dunwin Dr. Unit #2 Mississauga, On, L5L 3N9 Phone: (905) 569-6246 (800) 595-0514 Fax (905) 569-6244
www.cancoppas.com controls@cancoppas.com

Model A6-223 Turbidity & Suspended Solids Trasmitter

Specifications

Turbidity Measurement with Sensor Model 31	
Measuring Range	0.0 to 9999 FNU, 0.00 to 3000 ppm, 0.0 to 3.0 g/l, 0.0 to 200%
Resolution	0.001 FNU, 0.01 ppm, 0.1 g/l, 0.1%
Repeatability	1.0% of Measured Value (0.02 FNU min.)
Deviation, Output / Input	1.0% of Current Output Range (0.02 FNU min.)
Maximum Cable Length Sensor to Transmitter	200 meters (656 feet)

Suspended Solids Measurement with Sensor Model 41	
Measuring Range	0.0 to 9999 FNU, 0.00 to 9999 ppm, 0.0 to 300 g/l, 0.0 to 200.0%
Resolution	0.01 FNU, 0.01 ppm, 0.1 g/l, 0.1%
Repeatability	1.0% of Measured Value (0.01 FNU min.)
Deviation, Output / Input	1.0% of Current Output Range (0.02 FNU min.)
Maximum Cable Length Sensor to Transmitter	200 meters (656 feet)

Temperature Measurement	
Temperature Sensor	NTC 30K @ 25°C (77°F)
Measuring Range	-5 to 70°C (23 to 158°F)
Resolution	0.1°C
Repeatability	1.0% of Measuring Range

Digital Inputs 1 and 2	
Voltage	10 to 50 V
Power Consumption	Maximum 10 mA

Current Output	
Range	Selectable 0 to 20 mA or 4 to 20 mA
NAMUR Fault Current	2.4 or 22.0 mA
Maximum Load	500 Ohms
Output Scale Expansion	10% to 100%
Output Isolation	Max. 350V_{rms} / 500Vdc
Over Voltage Protection	EN 61000-4-5:1995

Auxiliary Voltage Output	
Output Voltage	15 V
Output Current	Max. 30mA

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Specifications

Alarms	
Programmable	Turbidity, Suspended Solids, Temperature
Alarm Delay	0 to 2000 sec
Contacts	Dry, SPDT, NO / NC
Resistive Load, Current Rating	2.0 Amps
Inductive Load, Current Rating	2.0 Amps
Voltage Rating	250 VAC, 30 VDC
Resistive Load, Power Rating	1250 VA AC, 150 Watts DC
Inductive Load, Power Rating	500 VA AC, 90 Watts DC

Controller	
Pulse Length	Solenoid Valves
Pulse Frequency	Solenoid Operated Metering Pumps
Control Functions	P, PI, PD, PID
Proportional Band (P)	0.1 to 10.00
Integral (I)	0.0 to 999.0 min
Derivative (D)	0.0 to 999.0 min
Period for Pulse Length Controller	0.5 to 999.9 sec
Frequency for Pulse Frequency Controller	60 to 180 min^{-1}

Physical Specifications	
Dimensions (H X W X L)	96 X 96 X 145 mm (3.8 X 3.8 X 5.7 in.)
Mounting Depth	165 mm (6.5 in.)
Weight	0.7kg (1.54 lb.)
Housing	Polycarbonate
Front Panel	Polyester, UV resistant

Operating Conditions	
Temperature	-10 to 55°C
Storage and Transport	-25 to 65°C
Relative Humidity	10 to 95%, non-condensing
Enclosure Rating	IP54 (front panel), IP30 (housing)
EMI / RFI	EN 61326-1:1997

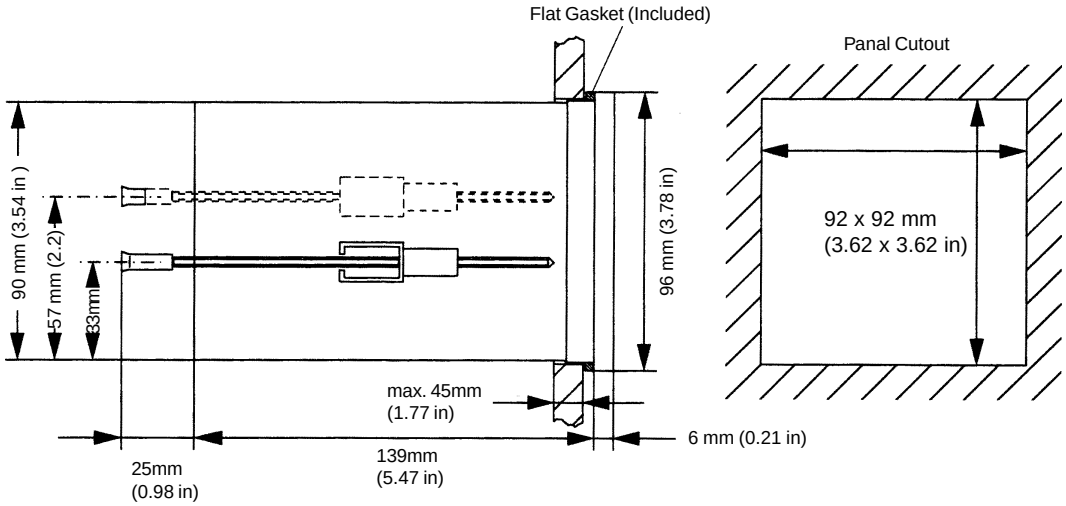
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Ordering Information

Model	Description
M – 223 – TU	Turbidity / Suspended Solids Transmitter
M – 223 – TS	Turbidity / Suspended Solids Transmitter with Plus Package
Code	**Description**
1	115 VAC, 50/60 Hz Power
8	24 VAC or VDC Power
Code	**Description**
0	Turbidity / Suspended Solids Current Output
1	Turbidity / Suspended Solids and Temperature Output
Code	**Description**
05	One Alarm
10	Two Alarms
16	Four Alarms
M - 223 - TU - 1 - 1 - 10	**Order Number Example**

Outline and Mounting Dimensions



mm
inch

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