Foxboro® Vortex Flowmeters

model 84C - temperature compensated

The Model 84C flanged vortex flowmeter is an addition to the Foxboro family of intelligent, high performance vortex flowmeters. It transmits a 4 to 20 mA or digital multidrop, and a pulse output signal, as applicable using the HART® communication protocol for remote configuration, calibration and monitoring. It is equipped with integral temperature compensation for flow measurement of saturated steam. An on-board LCD indicator with pushbuttons is also offered for local configuration.

OFFERING AT A GLANCE

- Wide variety of applications
- Compliance with European Union Directives
- *DirectSense* Technology ensures best performance and reliability
- On-Board temperature measurement
- Simplified start up
- ActiveTuning Algorithm
- Compact, efficient, and durable design
- Usable in hazardous area locations
- Measurement integration
- Remote mounted electronics housing
- Local digital indicator/configurator
- FlowExpertPro™ program

The Foxboro brand Model 84C sets the example for industry standards whether the application requires accuracy for totalizing and batching; utility metering of fluids in the process industries; fuel, air, steam, or gas metering for the measurement of energy in any high use application; or stability and repeatability for process control.

The Low Power version of the Vortex Flowmeters differ from other 84 Series Vortex flowmeters in that the supply current is fixed at a constant to 10 mA, and remain in operation down to a minimum voltage of 10 V dc. They are intended for use with battery power with any form of recharging technology such as solar arrays or alternators.

Features:

- Liquid, gas or steam applications
- Compensation for mass flow of saturated steam
- Best-in-class accuracy:
  - Volumetric flow: 0.5% of reading for liquids, 1.0% of reading for gases
  - Mass flow of saturated steam: 1.4% of reading
  - Process temperature accuracy of +/-1°F (0.56°C) for saturated steam
- User defined liquid with temperature compensation
- Flanged body design: 3/4 to 12 in (DN15 to DN300)
- High pressure options up to Class 1500 and PN160
- Widest rangeability in class
- Low power versions available for use in battery or solar power applications
- An integrated RTD allows the transmitter to measure process temperature
- ActiveTuning™ algorithm
- Pulse output provides raw, frequency, or pulse (total) modes

Foxboro®
by Schneider Electric

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Specifications

Communication Protocol:	HART 7
Outputs:	Analog (4 to 20 mA) and digital, with or without pulse output
Remote Communications:	Direct digital with HART Multidrop
Configuration:	Can be configured from LCD indicator, HART communicator, or PC-based configurator
Accuracy:	0.5% of reading in liquids, 1.0% of reading in gases, 1.4% of reading for saturated steam
Internal Flow Totalizer:	Standard
Sensor:	Replaceable without meter recalibration required
EMI and RFI:	Meets the EMI and RFI requirements for EN 61326-1
Voltage Supply:	2-wire 24 V dc loop powered
Power Supply:	10 to 42 V dc
Supply Current:	10 mA dc nominal
Mounting:	Electronics to accommodate integral or remote mounting
Electronics Housing:	Aluminum housing with epoxy finish Remote or integrally mounted to flowtube With remote mount, interconnecting cable up to 50 ft (15 m) required
Electronics:	Enclosed in a NEMA 4X/IP66 rated housing sealed with O-rings for protection against moisture or other contaminants, optional integral LCD indicator with on-board configuration pushputtons
Body and Shedder Bar Materials:	316 or 304 stainless steel, nickel alloy CX2MW[a] or Duplex SS
Flowmeter Sizing:	Sizing tools with free website access at www.FlowExpertPro.com
Electrical Classification:	Refer to Electrical Safety Specifications table
Model Code:	I/A Series Model 84C Series Vortex Flowmeters or equivalent

[a]Equivalent to Hastelloy® C-22.

Electrical Safety Specifications

Agency, Types of Protection, and Area Classifications:	ATEX, Intrinsically Safe and Flameproof CSA, Intrinsically Safe and Explosionproof with Intrinsically Safe Sensor Connectons FM, Intrinsically Safe and Explosionproof with Intrinsically Safe Sensor Connections

Optional Selections and Accessories

Cable Assembly to Remote Electronics Housing
Cleaning for Oxygen or Chlorine Gas Service
Gold Plated Sensor
Foxboro Certificates of Conformance and Compliance
Certified Calibration Certificate
Welding Certificates - with Flanged Body Flowtubes Only
Cable Connector - Hawke-Type Cable Gland
Cable Connector - PG11 Cable Gland
Conduit Fitting
Stainless Steel Customer Tag Accessory

QR Code for FlowExpertPro.com

See also other Foxboro Vortex solutions at www.FieldDevices.Foxboro.com

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