• D-100 FLOW DISPLAY •
WITH NETWORK INTERFACE

ONICON
Flow and Energy Measurement



FEATURES

Works With Virtually Any Flow Meter

The standard flow input of the D-100 accepts active or passive 4-20 mA, active or passive pulse and contact closure flow signals.

Serial Communications

Optional communications card provides all rate and total data to the control system through a single network connection, reducing installation costs.

Supports a Wide Variety of Communications Protocols

The D-100 can be provided with any of the following network interface options:

- BACnet/IP
- BACnet MS/TP
- MODBUS RTU-RS485
- MODBUS RTU-TCP/IP
- Johnson Controls Metasys N2
- Siemens Apogee P1
- DualNet Serial Communications, IP and RS485

Suitable for Bi-directional Applications

The D-100 accumulates separate totals for flow in each direction. The totals may be read locally on the display or remotely via an optional network interface.

Simple Installation and Commissioning

The D-100 is factory programmed and ready for use upon delivery. All programming functions are accessible via front panel display and keypad.

DESCRIPTION

The D-100 is a totalizing display module that provides a local indication of liquid or steam flow rate and total data. The flexible design can also be configured with an optional network interface to communicate flow data to the building control network. It is housed in a steel wall mounted enclosure with a built-in user interface/display. The standard flow input accepts 4-20 mA, pulse or contact closure flow signals. The versatile D-100 can also function as a network interface for 2 additional analog rate inputs and one additional totalizing pulse input. It can also be configured with up to 4 optional analog outputs.

APPLICATIONS

- HVAC chilled water, condenser water and hot water
- Hot and cold domestic water
- Gray water and irrigation water
- Saturated or superheated steam
- Process monitoring

GENERAL SPECIFICATIONS

Accuracy

Analog inputs: 0.1% of full scale
Analog outputs: 0.1% of full scale

Mechanical

Electronics Enclosure:
Standard: Steel NEMA 13 wall mount 10” x 8” x 4”
Optional: Steel NEMA 4 wall mount 10” x 8” x 4”

Electrical

Input power:
Standard: 24 VAC 50/60 Hz, 500 mA max
Optional: 120 VAC 60 Hz, 250 mA max
Optional: 230 VAC 50 Hz, 125 mA max

Internal power supply

Provides 24 VDC, 250 mA maximum to electronics and sensors

Display

Standard: 2-line Alphanumeric LCD displays flow rate and flow total
Alpha: 16 character, 0.2” high, Numeric 7 digit, 0.4” high

UL US LISTED
PROCESS CONTROL EQUIPMENT
3GF5

GENERAL SPECIFICATIONS (con't)

Programming
Factory programmed for specific application
Field programmable via front panel interface

Memory
Non-volatile EEPROM memory retains all program parameters and totalized values in the event of power loss.

Output Signals
Pulse Outputs:
- Two (2) isolated contact closure outputs for separately totalizing forward and reverse flow from the standard input
- Isolated contact closure output for indicating flow direction

Contact rating: 100 mA, 50 V
Contact duration: 0.5, 1, 2, or 6 sec
Analog Output Options:
- Single isolated analog output
  4-20 mA, 0-10 V or 0-5 V outputs
- Multiple (4) isolated analog outputs
  4-20 mA, 0-10 V or 0-5 V outputs

Serial Communications Options:
- MODBUS RTU RS485
- MODBUS RTU TCP/IP
- BACnet MS/TP
- BACnet UDP/IP
- Johnson Controls Metasys N2
- Siemens P1 FLN
- DualNet Serial Communications, IP and RS485

Input Signals
Standard: One (1) totalizing flow input 4-20 mA, contact closure or pulse
One (1) contact closure input for flow direction
Optional: Two (2) auxiliary analog rate inputs 4-20mA

Ambient Temperature Range
-20°F to 140°F

Note: Specifications are subject to change without notice.

METER ORDERING INFORMATION
Meter Model Number Coding = D-100 -ABCD-EFG(-SPC)

D-100= Display Module and Gateway

A = Electronics Enclosure

1	NEMA 13 enclosure with display and keypad
2	NEMA 4 enclosure with display and keypad

B =Input Power

1	24 VAC, 12 VA
2	120 VAC, 15 VA
3	240 VAC, 17.5 VA

C = Serial Communications

0	No serial communications provided
1	RS485, BACnet MS/TP
2	RS485, MODBUS RTU
3	BACnet IP
4	MODBUS TCP/IP
5	DualNet serial communications, IP and RS485
6	JCI N2
7	Siemens P1

D= Analog Output

0	No analog output
1	Single (1) isolated analog output
2	Four (4) isolated analop outputs

E = Main Flow Meter Input Configuration

0	Non configured
1	Active pulse (frequency) input *(for F-1000 & F-3500 series)*
2	Passive pulse (frequency) input *(for F-3000 series)*
3	Active 4-20 mA input *(for F-1500, F-2000 & F-5000 series)*
4	Passive (Loop) 4-20mA input *(for F-1500, F-2000 & F-5000 series)*

F = Aux Flow Meter Input Configuration

0	Non configured
1	Active 4-20mA input
2	Passive (Loop) 4-20mA input

G = Pulse Input Configuration

0	Directional pulse input only
1	Directional pulse and aux pulse input *(Note: requires serial communications option C = 1, 2, 3,4)*

SPC = Special Configuration