Dresser ROOTS 10C25 DI Meter
with Digital Instrument Index

Small Meter
Big Impact

The Dresser ROOTS 10C25 rotary meter delivers advanced features in a small package. Sized for applications typically reserved for large diaphragm meters, the 10C25 DI allows for ease of installation and aesthetics while also providing measurement capabilities typically reserved for larger sized rotary meters.

Dresser Digital Instrument Indexes

In addition to an oil free rotary meter body based on legacy Dresser ROOTS meter products, the 10C25 also features the Dresser Digital Instrument (DI) index. The index is simple to configure, allows for multiple pulse output options and provides 150+ days of hourly data stored in non-volatile memory. For applications requiring meter immersion, the IP68 rated Dresser Digital Instrument (DI-V) Vault Version is available.

Meter Accuracy

Dresser ROOTS meters are synonymous with reliable long-term accuracy. The Dresser 10C25 meter continues this legacy with a proven oil free design based on a successful track record of nearly two decades. With a start rate of only 0.35 acfh, the 10C25 rapidly climbs to an accuracy of 99% at only 10 acfh (1% Rangeability of 95:1) which makes this meter an excellent tool for accurately capturing gas loads ranging from pilot flows to full capacity.

Quick Proving

Accuracy testing is quick and simple due to the Dresser DI indexes. Utilizing a one cable interface, the proving time is less than 5 minutes. No special software or computer programs are required for testing. An inexpensive fixture to hold the meter is also available for ease of testing on common cabinet type sonic nozzle test systems.

Meter Set Flexibility

The DI index easily transitions from horizontal to vertical mounting configurations. And the bidirectional flow capability allows for maximum installation versatility and material saving meter set designs.

Simple AMR Mounting

Mounting of Automated Meter Reading (AMR) devices is also made simple with a cable concealing base and a quick mount bracket. The base conceals and protects the cable connection while also allowing for the slip-on installation of the AMR device. As an option, tamper indicating devices can be installed on the mounting platform for additional data security. The AMR mounting platform is compatible with common AMR system provider endpoints.

Size is a Factor

At 10 pounds, the 10C25 not only reduces the potential for weight related injuries during material handling and installation, the impact is felt in the warehouse as well. With a box size of only 0.77 cubic feet (including a mounted AMR device), storage space is reduced by 70% as compared to a typical 1000 class diaphragm meter. Also, the 80% reduction in weight in conjunction with the 70% reduction in meter size directly translates to a notable reduction in transportation cost as well.
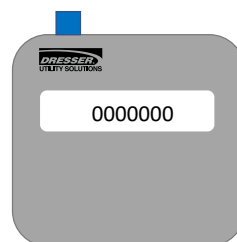
Common Software Platform

Dresser MeterWare combines several measurement indexes into one, easy to use interface which automatically recognizes and displays the connected product. Along with the Dresser DI index, the software is also used for the Dresser D800 and D1000 meters and the Dresser ES3 (Electronic compensating index with mechanical back-up) and the Dresser ETC (Electronic Temperature Compensator).

Multiple Volume Pulse Output Options

A variety of pulse output options are available to meet application needs. To go along with the patent pending instrument housing developed specifically to protect the system electronics from the elements, both the housing and connectors are designed to meet either IP68 or IP67 dust and moisture ingress protection depending on connector selection. The most common pulse output configuration, used primarily for AMR endpoint installation, is rated to IP68 (suitable for immersion in water).

Specifications

CRITERIA	SPECIFICATIONS
Capacity	1000 CFH
Maximum Allowable Operating Pressure (MAOP)	25 psig
Net Weight	9.5 lb
Connections	30 LT/45 LT/#3, #4 Sprague, 1 1/2"FNPT
Operating Temperature Range	-40°F to 140°F (40°C to 60°C)

TEMPERATURE MEASUREMENT SYSTEM (ELECTRONIC INDEX)	
Type	Extremely Stable Class A, PT 1000 RTD
Total Ambient Temperature Effect	Less than 0.1°F (0.05°C) over entire temperature range
Pressure Compensation	Programmable Fixed Factor
Computational Accuracy	+/- 0.25% of compensated volume reading
Data Logged	150 days of hourly logs

POWER	
Battery Pack	Lithium Thionyl Chloride Pack with protective circuitry
Nominal Battery Life	20 years
Battery Access	Field replaceable
Information Retention	Flash memory for permanent information retention without power

COMMUNICATION	
Pulse Type	Two (2) user-selectable Form A Outputs
Dedicated Fault Output	Form B (500 ms pulse duration)
Output Representation	• Compensated • Non-compensated • Fault • Disabled
Maximum Loop Voltage	8.2V

ALARMS	
Alarm Notifications	• High/low temperature • High flow • Low battery

REGULATORY STANDARDS	
Regulatory Standards	• ANSI B109.3 Rotary Meter Standard • EN 61000-6.1, 2, 3, 4 electromagnetic compatibility • UN 38.3 Lithium Battery Testing • 060247-001 certificate of compliance
Safety Approvals	• CSA C22.2 No. 213 Class 1 Div 1 Group A, B, C, D • T3C
Dust/Moisture Ingress Protection	IP66 to IP68 dependent upon connector configurations

TEMPERATURE READING ACCURACY	
-40°F to 140°F: +/- 0.9°F (-40°C to 60°C: +/- 0.5°C)	

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