

Completing CDS Worksheets

DP Flow

ROSEMOUNT[®]


EMERSON[™]
Process Management

What is a CDS?

- **CDS – Configuration Data Sheet**

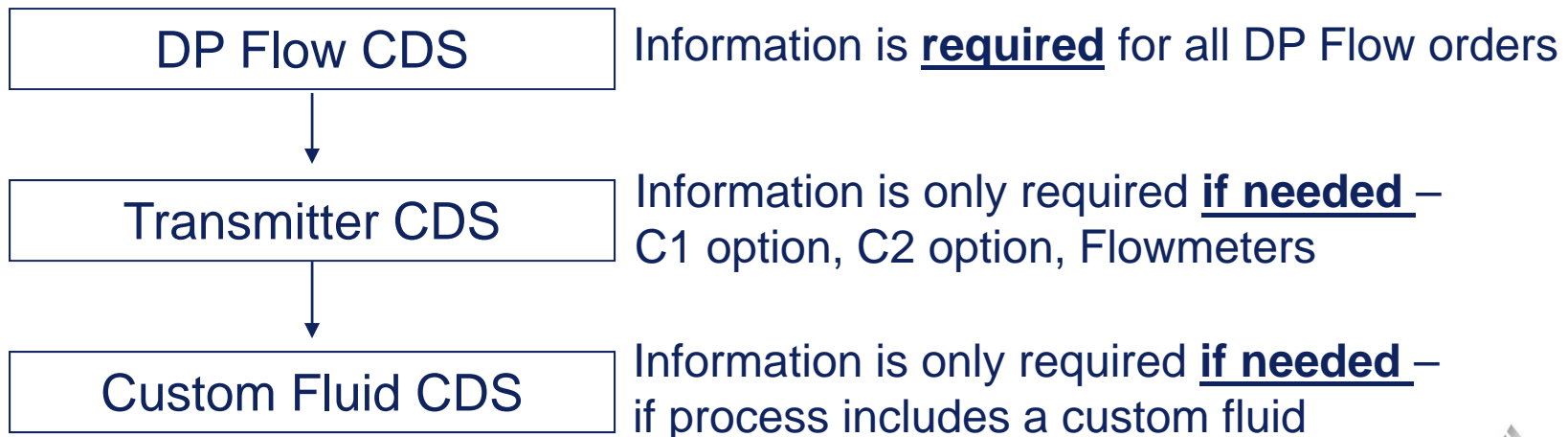
A Configuration Data Sheet is a form used to gather the necessary application/instrumentation information in order to properly configure the specified device.

- **NOTE:**

Configuration Data Sheets are NOT required. However, all of the information contained within the CDS IS required for proper configuration.

The DP Flow CDS Structure

- The DP Flow CDS has been broken into 3 sections:
 - DP Flow Section (primary element and process information)
 - Transmitter Section (transmitter or flowmeter information)
 - Custom Fluid Section (custom gas, custom liquid, or natural gas information)
- Only necessary CDS forms need to be completed



The DP Flow CDS Structure

DP Flow
CDS

Configuration Data Sheet
Rosemount 3051 Series
DP Flow CDS
DP Flow Configuration Data Sheet

This form is used for configuring DP flow transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

DP Flow

Transmitter /
Flowmeter
CDS

Configuration Data Sheet
Rosemount 3051SMV
Rosemount 3051S MultiVariable™ Configuration Data Sheet

This form is used for configuring Rosemount 3051SMV transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

3051SMV

Configuration Data Sheet
Rosemount 3051S Series
Rosemount 3051S HART® Configuration Data Sheet

This form is used for configuring Rosemount 3051S HART transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

3051S

Configuration Data Sheet
Rosemount 3051
Rosemount 3051 Configuration Data Sheet

This form is used for configuring Rosemount 3051 transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

3051C

Configuration Data Sheet
Rosemount 2051
Rosemount 2051 Configuration Data Sheet
For 4-20 mA HART Output Only

This form is used for configuring Rosemount 2051 transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

2051C

Configuration Data Sheet
Rosemount 3095
Rosemount 3095 MultiVariable™ Configuration Data Sheet

This form is used for configuring Rosemount 3095 transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

3095

Custom Fluid
CDS

Configuration Data Sheet
Rosemount Custom Gas Data Sheet

This form is used for configuring custom gas transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

Custom Gas

Configuration Data Sheet
Rosemount Custom Liquid Data Sheet

This form is used for configuring custom liquid transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

Custom Liquid

Configuration Data Sheet
Natural Gas Data Sheet

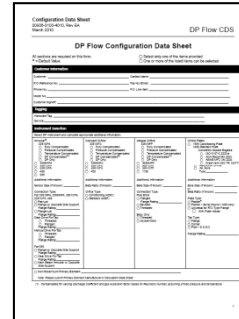
This form is used for configuring natural gas transmitters. It includes sections for:

- General Information: Product, Model, Revision, Date.
- Process Information: Fluid, Density, Viscosity, Temperature, Pressure, Flow Rate.
- Installation Information: Location, Orientation, Mounting.
- Configuration Parameters: Range, Units, Output, HART, etc.
- Notes and Comments.

Natural Gas

The DP Flow CDS Structure – DP Flow CDS

DP Flow
CDS



The image shows a 'DP Flow Configuration Data Sheet' form. It is a structured document with various sections for data entry, including fields for 'Configuration Data Sheet', 'DP Flow CDS', and 'DP Flow Configuration Data Sheet'. The form contains numerous input fields, checkboxes, and a table area for detailed configuration parameters.

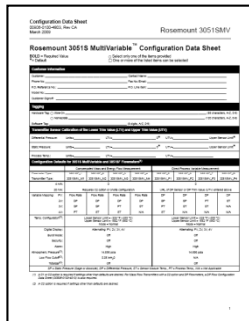
DP Flow

- Start with the DP Flow CDS. All DP Flow orders must be accompanied with this CDS
- The DP Flow CDS includes:
 - Primary element information
 - Information about the process / application

The DP Flow CDS Structure – Transmitter / Flowmeter CDS

- A Transmitter / Flowmeter CDS is only required if:
 - A transmitter is ordered with a C1 or C2 option
 - A flowmeter is ordered. Models include:
3051SFx, 3051CFx, 2051CFx, 3095MFx

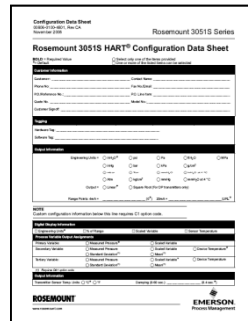
Transmitter /
Flowmeter
CDS



Configuration Data Sheet
Rosemount 3051SMV
Rosemount 3051 MultiVariable™ Configuration Data Sheet

Parameter	Value
Device ID	3051SMV
Device Name	
Device Location	
Device Description	
Device Type	
Device Model	
Device Part Number	
Device Serial Number	
Device Firmware	
Device Manufacturer	EMERSON

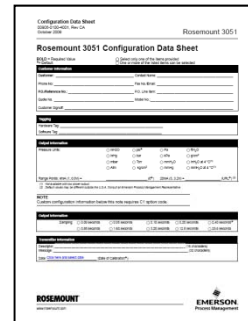
3051SMV



Configuration Data Sheet
Rosemount 3051S Series
Rosemount 3051 HART™ Configuration Data Sheet

Parameter	Value
Device ID	3051S
Device Name	
Device Location	
Device Description	
Device Type	
Device Model	
Device Part Number	
Device Serial Number	
Device Firmware	
Device Manufacturer	EMERSON

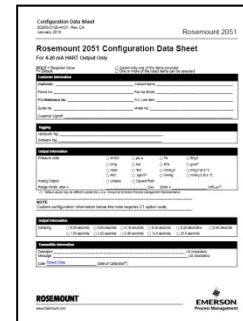
3051S



Configuration Data Sheet
Rosemount 3051
Rosemount 3051 Configuration Data Sheet

Parameter	Value
Device ID	3051C
Device Name	
Device Location	
Device Description	
Device Type	
Device Model	
Device Part Number	
Device Serial Number	
Device Firmware	
Device Manufacturer	EMERSON

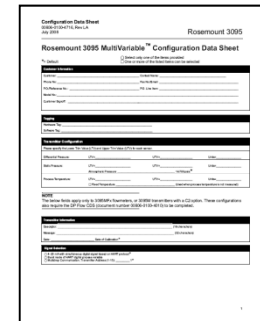
3051C



Configuration Data Sheet
Rosemount 2051
Rosemount 2051 Configuration Data Sheet
For 4-20 mA HART™ Output Only

Parameter	Value
Device ID	2051C
Device Name	
Device Location	
Device Description	
Device Type	
Device Model	
Device Part Number	
Device Serial Number	
Device Firmware	
Device Manufacturer	EMERSON

2051C



Configuration Data Sheet
Rosemount 3095
Rosemount 3095 MultiVariable™ Configuration Data Sheet

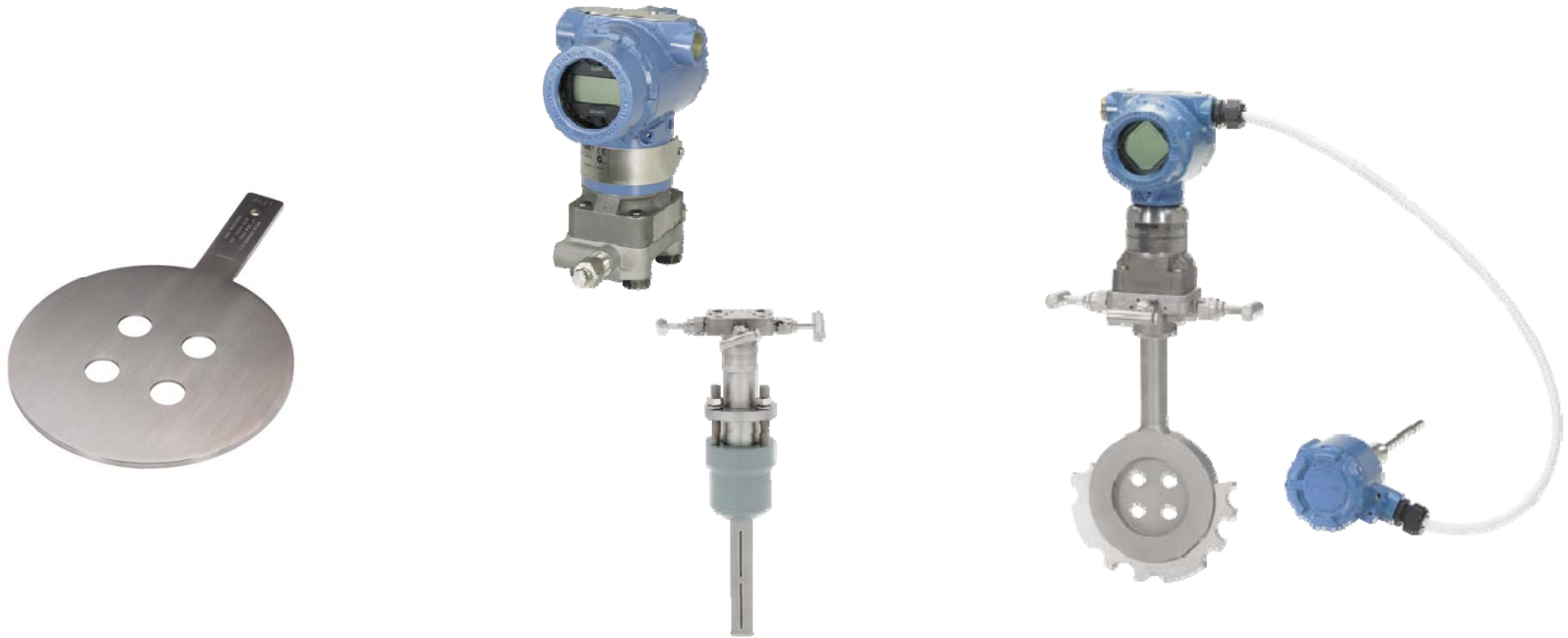
Parameter	Value
Device ID	3095
Device Name	
Device Location	
Device Description	
Device Type	
Device Model	
Device Part Number	
Device Serial Number	
Device Firmware	
Device Manufacturer	EMERSON

3095

- The Transmitter / Flowmeter CDS includes:
 - Information about the desired configuration for the transmitter / flowmeter

DP Flow CDS Examples

- The following pages contain examples of the proper CDS worksheets to fill out for different DP Flow applications



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DP Flow CDS Examples

- Conditioning Orifice Plate in a water application
 - Only a DP Flow CDS is needed



Configuration Data Sheet
00806-0100-4010, Rev DA
March 2009

DP Flow CDS

DP Flow Configuration Data Sheet

All sections are required on this form. Select only one of the items provided.
* = Default Value One or more of the listed items can be selected

Customer Information

Customer: _____ Contact Name: _____
 P.O./Reference No.: _____ Fax No./Email: _____
 Phone No.: _____ P.O. Line Item: _____
 Model No.: _____
 Customer Sig/pt: _____

Tagging

Hardware Tag: _____
 Service: _____

Instrument Section

Select DP instrument and complete appropriate additional information.

<p>Annubar®</p> <input type="checkbox"/> 3051SPA <input type="checkbox"/> Fully Compensated <input type="checkbox"/> Pressure Compensated <input type="checkbox"/> Temperature Compensated <input type="checkbox"/> DP Compensated ⁽¹⁾ <input type="checkbox"/> DP Only <input type="checkbox"/> 3051MFA <input type="checkbox"/> 485 <input type="checkbox"/> 885 <p>Additional information</p> <p>Sensor Size (if known): _____ Correction Type: For 3051SPA, 3051MFA, 485 <input type="checkbox"/> Flange-Loc <input type="checkbox"/> Flange w/ Opposite Side Support <input type="checkbox"/> Flange-Rating: _____ <input type="checkbox"/> Flange-Loc <input type="checkbox"/> Flange-Rating: _____ Gear Drive Flange: <input type="checkbox"/> Flange <input type="checkbox"/> Flange-Rating: _____ Match Drive Flange: <input type="checkbox"/> Flange <input type="checkbox"/> Flange-Rating: _____ For 885 <input type="checkbox"/> Flange w/ Opposite Side Support <input type="checkbox"/> Flange-Rating: _____ <input type="checkbox"/> Gear Drive Flange <input type="checkbox"/> Flange-Rating: _____ <input type="checkbox"/> Main Steam Annubar w/ Opposite Side Support For 485 <input type="checkbox"/> Flange-Loc <input type="checkbox"/> Dual Mount Plate <input type="checkbox"/> Dual Mount Plate + Compensation Ring</p> <p><input type="checkbox"/> Non-Rosemount Primary Element</p>	<p>Coriolis Corifier</p> <input type="checkbox"/> 3051SFC <input type="checkbox"/> RIG Compensated <input type="checkbox"/> Pressure Compensated <input type="checkbox"/> Temperature Compensated <input type="checkbox"/> DP Compensated ⁽¹⁾ <input type="checkbox"/> DP Only <input type="checkbox"/> 3051SFC <input type="checkbox"/> 425 <p>Additional information</p> <p>Beta Ratio (if known): _____ Corifier Type: <input type="checkbox"/> Conditioning (405C) <input type="checkbox"/> Standard (425P)</p>	<p>Integral Orifice</p> <input type="checkbox"/> 3051SIP <input type="checkbox"/> Fully Compensated <input type="checkbox"/> Pressure Compensated <input type="checkbox"/> Temperature Compensated <input type="checkbox"/> DP Compensated ⁽¹⁾ <input type="checkbox"/> DP Only <input type="checkbox"/> 3051SIP <input type="checkbox"/> 1185 <p>Additional information</p> <p>Bore Size (if known): _____ Connection Type: <input type="checkbox"/> Pipe Ends <input type="checkbox"/> Flange <input type="checkbox"/> Flange Rating: _____ <input type="checkbox"/> Boreless <input type="checkbox"/> Threads Body Only: <input type="checkbox"/> Triangles <input type="checkbox"/> Socket/Weld</p>	<p>Orifice Plates</p> <input type="checkbox"/> 1554 Conditioning Plate <input type="checkbox"/> 1499 Standard Plate <input type="checkbox"/> Concentric Inverse Square <input type="checkbox"/> ISO 15173:2004 <input type="checkbox"/> AGA Report #3 2003 <input type="checkbox"/> ANSI/ISA 20.20.04 <input type="checkbox"/> Draft Vent (ISO TR 15277) <input type="checkbox"/> Restriction Orifice <input type="checkbox"/> All Bore <input type="checkbox"/> Type _____ <p>Additional information</p> <p>Bore Size (if known): _____ Beta Ratio (if known): _____ Plate Type: <input type="checkbox"/> Paddle® <input type="checkbox"/> Round - Square (4485 only) <input type="checkbox"/> Universal for RTU Type Flange <input type="checkbox"/> 1000 Plate Holder Tag Type: <input type="checkbox"/> Flange <input type="checkbox"/> Corner <input type="checkbox"/> Pipe - D & D2 Flange Rating: _____</p>
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Note: Please submit Primary Element Manufacturer's Calculation Data Sheet.
 (1) Compensates for varying discharge coefficient and gas expansion factor based on Reynold's Number, assuming a fixed pressure and temperature.

DP Flow CDS Examples

- 3051 Transmitter with Annubar primary element in an air application
 - DP Flow CDS and 3051 CDS are needed



Configuration Data Sheet
00908-0100-4010, Rev DA
March 2009

DP Flow CDS

DP Flow Configuration Data Sheet

All sections are required on this form. Select only one of the items provided
* = Default Value One or more of the listed items can be selected

Customer Information

Customer: _____ Contact Name: _____
 P.O./Reference No.: _____ Fax No./Email: _____
 Phone No.: _____ P.O. Line Item: _____
 Model No.: _____
 Customer Signoff: _____

Tagging

Hardware Tag: _____
 Service: _____

Instrument Selection

Select DP instrument and complete appropriate additional information.

Annubar⁽¹⁾ <input type="radio"/> 3051 SFA <input type="radio"/> Fully Compensated <input type="radio"/> Pressure Compensated <input type="radio"/> Temperature Compensated <input type="radio"/> DP Compensated ⁽¹⁾ <input type="radio"/> DP Only <input type="radio"/> 3051 SFA <input type="radio"/> 485 <input type="radio"/> 285 Additional information Sensor Size (if known): _____ Connection Type: For 3051 SFA, 3051 SFA, 485 <input type="radio"/> Flange <input type="radio"/> Flange w/ Opposite Side Support Flange Rating: _____ <input type="radio"/> Flange-Loc Flange Rating: _____ Gear Drive Flange: <input type="radio"/> Flange Flange Rating: _____ Manual Drive Flange: <input type="radio"/> Threaded <input type="radio"/> Flange Flange Rating: _____ For 285: <input type="radio"/> Flange w/ Opposite Side Support Flange Rating: _____ <input type="radio"/> Gear Drive Flange Flange Rating: _____ <input type="radio"/> Man. Drive: Annubar w/ Opposite Side Support For 485: <input type="radio"/> Flange-Loc <input type="radio"/> Dual Mount Flange <input type="radio"/> Dual Mount Flange + Compensator Ring Non-Rosemount Primary Element: _____	Coriolis⁽¹⁾ <input type="radio"/> 3051 SFC <input type="radio"/> Fully Compensated <input type="radio"/> Pressure Compensated <input type="radio"/> Temperature Compensated <input type="radio"/> DP Compensated ⁽¹⁾ <input type="radio"/> DP Only <input type="radio"/> 3051 SFC <input type="radio"/> 485 Additional information Sensor Size (if known): _____ Coriolis Type: <input type="radio"/> Conditioning (ISO)C <input type="radio"/> Remote (ASPI)	Integral Orifice⁽¹⁾ <input type="radio"/> 3051 SFI <input type="radio"/> Fully Compensated <input type="radio"/> Pressure Compensated <input type="radio"/> Temperature Compensated <input type="radio"/> DP Compensated ⁽¹⁾ <input type="radio"/> DP Only <input type="radio"/> 3051 SFI <input type="radio"/> 1195 Additional information Sensor Size (if known): _____ or _____ Connection Type: <input type="radio"/> Flange <input type="radio"/> Flange Rating: _____ <input type="radio"/> Beveled <input type="radio"/> Threaded Body Only: <input type="radio"/> Threaded <input type="radio"/> Socket-Head Flange Rating: _____	Orifice Plate⁽¹⁾ <input type="radio"/> 1585 <input type="radio"/> 1585 Coriolis Plate <input type="radio"/> 1585 Standard Plate Concentric Square Edge <input type="radio"/> ISO 5175:2004 #4 <input type="radio"/> ISA Report #3 2003 <input type="radio"/> ANSI B1.91-104 <input type="radio"/> Draftment (ISO TR 15277) <input type="radio"/> RTU Type: _____ Additional information Sensor Size (if known): _____ or _____ Sensor Size (if known): _____ Pipe Type: <input type="radio"/> Flange <input type="radio"/> Flange - Spigot (485 only) <input type="radio"/> Universal for RTU Type Flange <input type="checkbox"/> With Flange Washer Flange Rating: _____ Flange Rating: _____ Flange Rating: _____
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Note: Please submit Primary Element Manufacturer's Calculation Data Sheet.
 (1) Compensates for varying discharge coefficient and gas expansion factor based on Reynolds' Number, assuming a fixed pressure and temperature.

Configuration Data Sheet
00908-0100-4001, Rev CA
October 2009

Rosemount 3051

Rosemount 3051 Configuration Data Sheet

BOLD = Required Value Select only one of the items provided
* = Default One or more of the listed items can be selected

Customer Information

Customer: _____ Contact Name: _____
 Phone No.: _____ Fax No./Email: _____
 P.O./Reference No.: _____ P.O. Line Item: _____
 Quote No.: _____ Model No.: _____
 Customer Signoff: _____

Tagging

Hardware Tag: _____
 Service Tag: _____

Output Information

Pressure Units: mH₂O psi* Pa mH₂O
 mmHg bar kPa g/cm²
 mmBar Torr mmH₂O mmH₂O at 4 °C⁽¹⁾
 Atm kg/cm² mmHg mmH₂O at 4 °C⁽¹⁾

Range Points: 4mA (1, 0.0V) = _____ (psi*) 20mA (5, 3.2V) = _____ (URL*)⁽²⁾

(1) Not available with low power output
 (2) Default values may be different outside the U.S.A. Consult an Emerson Process Management Representative.

NOTE
 Custom configuration information below this note requires C1 option code.

Output Information

Damping: 0.00 seconds 0.05 seconds 0.10 seconds 0.20 seconds 0.40 seconds*
 0.80 seconds 1.60 seconds 3.20 seconds 12.8 seconds 25.6 seconds

Transmitter Information

Description: _____ (15 characters)
 Message: _____ (32 characters)
 Date: [Click here and select date](#) _____ (Date of Calibration*)

ROSEMOUNT
www.rosemount.com

EMERSON
Process Management

Webpage Helps Guide You Through the Process

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PLANTWEB BRANDS INDUSTRIES PRODUCTS & SERVICES NEWS / EVENTS DOCUMENTATION

Rosemount > Flow > Flow Product Selection and Configuration Assistance

PRODUCTS

The best flow solution for your application

Flow Product Selection and Configuration Assistance
The tool below contains forms that will help you configure Rosemount Flow products. Choose your preferred Flow device or base model and the engine will highlight all of the forms for that device type.

Choose the flow technology that you wish to order

Select One

Differential Pressure

How to use Click here to view a quick tutorial on filling out Differential Pressure Configuration Data Sheets

1) **DP Flow Configuration Data Sheet (Required):** The information on this form is required for ordering all DP Flowmeters.

2) **Transmitter Configuration Data Sheet (If Needed):** The information on these forms is only required if you are getting a transmitter and want settings other than the default factory settings (custom configuration).

3) **Custom Fluid Data Sheets (If Needed):** The information on these forms is only required if you have a custom liquid, custom gas, or natural gas application.

Magmeter

There is 1 form available to order a Magmeter Flowmeter:

1) **8700 Series Configuration Data Sheet:** The information on this form is required to order any Magmeter.

2) **Custom Liquid Data Sheet:** This form can be used to specify a custom liquid.

Vortex

There is 1 form available to order a Vortex Flowmeter:

1) **8800D Configuration Data Sheet:** The information on this form is required to order a Vortex flowmeter. All sections on this form must be filled out.

2) **Custom Fluid Data Sheets:** The forms below can be used to specify a custom liquid or gas.

ROSEMOUNT

Tired of Forms? Try out Instrument Toolkit for all of your Instrument sizing and selection needs!

3051SMV CDS
3051S CDS
3051C CDS
2051C CDS
3095 CDS
Custom Liquid Data Sheet

8700 Series CDS
Custom Liquid Data Sheet

8800D CDS
Custom Liquid Data Sheet
Custom Gas Data Sheet
Natural Gas Data Sheet

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PLANTWEB BRANDS INDUSTRIES PRODUCTS & SERVICES NEWS / EVENTS DOCUMENTATION

Rosemount > Flow > Flow Product Selection and Configuration Assistance

PRESSURE
TEMPERATURE
FLOW
DP Flow Products
Magnetic Flowmeters
Vortex Flowmeters
Annubar Installation DVD
Vortex & Magmeter DVD
Flow Product Selection and Configuration Assistance
LEVEL
WIRELESS
FIELDBUS
ACCESSORIES
SAFETY PRODUCTS
DOCUMENTATION AND DRAWINGS
ORDER STATUS
CAREERS
CONTACT US
ROSEMOUNT SITE MAP
ROSEMOUNT MEASUREMENT DIVISION

List of DP Flow CDS Document Numbers

CDS Title	Document Number
DP Flow CDS	00806-0100-4010
3051SMV CDS	00806-0100-4803
3051S CDS	00806-0100-4801
3051C CDS	00806-0100-4001
2051C CDS	00806-0100-4101
3095M CDS	00806-0100-4716
Custom Gas CDS	00806-0200-4716
Custom Liquid CDS	00806-0300-4716
Natural Gas CDS	00806-0300-4803