

# Configuration Data Sheet

00806-0100-4010, Rev FA

August 2012

# DP Flow CDS

## DP Flow Configuration Data Sheet

All sections are required on this form.

★ = Default Value

Select only one of the items provided

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.			
<p>Annubar®:</p> <p>3051SFA</p> <p><input type="radio"/> Fully Compensated</p> <p><input type="radio"/> Pressure Compensated</p> <p><input type="radio"/> Temperature Compensated</p> <p><input type="radio"/> DP Compensated<sup>(1)</sup></p> <p><input type="radio"/> DP Only</p> <p><input type="radio"/> 3095MFA</p> <p><input type="radio"/> 3051CFA</p> <p><input type="radio"/> 2051CFA</p> <p><input type="radio"/> 485</p> <p><input type="radio"/> 585</p> <p><i>Additional Information</i></p> <p>Sensor Size (if known): _____</p> <p>Connection Type:</p> <p>For 3051SFA, 3095MFA, 3051CFA, 2051CFA, 485</p> <p><input type="radio"/> Pak-Lok</p> <p><input type="radio"/> Flange w/ Opposite Side Support</p> <p>Flange Rating: _____</p> <p><input type="radio"/> Flange-Lok</p> <p>Flange Rating: _____</p> <p>Gear Drive Flo-Tap:</p> <p><input type="radio"/> Threaded</p> <p><input type="radio"/> Flanged</p> <p>Flange Rating: _____</p> <p>Manual Drive Flo-Tap:</p> <p><input type="radio"/> Threaded</p> <p><input type="radio"/> Flanged</p> <p>Flange Rating: _____</p> <p>For 585</p> <p><input type="radio"/> Flange w/ Opposite Side Support</p> <p>Flange Rating: _____</p> <p><input type="radio"/> Gear Drive Flo-Tap</p> <p>Flange Rating: _____</p> <p><input type="radio"/> Main Steam Annubar w/ Opposite Side Support</p>	<p>Compact:</p> <p>3051SFC</p> <p><input type="radio"/> Fully Compensated</p> <p><input type="radio"/> Pressure Compensated</p> <p><input type="radio"/> Temperature Compensated</p> <p><input type="radio"/> DP Compensated<sup>(1)</sup></p> <p><input type="radio"/> DP Only</p> <p><input type="radio"/> 3095MFC</p> <p><input type="radio"/> 3051CFC</p> <p><input type="radio"/> 2051CFC</p> <p><input type="radio"/> 405</p> <p><i>Additional Information</i></p> <p>Primary Element Technology:</p> <p><input type="radio"/> Conditioning (405C)</p> <p><input type="radio"/> Standard (405P)</p> <p>Beta Ratio (if known): _____</p> <p><input type="radio"/> Compact Annubar (405A)</p>	<p>Integral Orifice:</p> <p>3051SFP</p> <p><input type="radio"/> Fully Compensated</p> <p><input type="radio"/> Pressure Compensated</p> <p><input type="radio"/> Temperature Compensated</p> <p><input type="radio"/> DP Compensated<sup>(1)</sup></p> <p><input type="radio"/> DP Only</p> <p><input type="radio"/> 3095MFP</p> <p><input type="radio"/> 3051CFP</p> <p><input type="radio"/> 2051CFP</p> <p><input type="radio"/> 1195</p> <p><i>Additional Information</i></p> <p>Bore Size (if known): _____</p> <p>Connection Type:</p> <p>Pipe Ends</p> <p><input type="radio"/> Flanged</p> <p>Flange Rating: _____</p> <p><input type="radio"/> Beveled</p> <p><input type="radio"/> Threaded</p> <p>Body Only</p> <p><input type="radio"/> Threaded</p> <p><input type="radio"/> Socket-Weld</p>	<p>Orifice Plates:</p> <p><input type="radio"/> 1595 Conditioning Plate</p> <p><input type="radio"/> 1495 Standard Plate</p> <p>Concentric Square Edged</p> <p><input type="radio"/> ISO 5167-2 2003</p> <p><input type="radio"/> AGA Report #3 2003</p> <p><input type="radio"/> ASME MFC 3M 2004</p> <p><input type="radio"/> Drain/Vent (ISO TR 15377)</p> <p><input type="radio"/> Restriction Orifice</p> <p><input type="radio"/> Alt. Bore</p> <p>Type: _____</p> <p><i>Additional Information</i></p> <p>Bore Size (if known): _____</p> <p>or</p> <p>Beta Ratio (if known): _____</p> <p>Plate Type:</p> <p><input type="radio"/> Paddle★</p> <p><input type="radio"/> Paddle – Spiral Wound (1495 only)</p> <p><input type="radio"/> Universal for RTJ Type Flange</p> <p><input type="checkbox"/> With Plate Holder</p> <p>Tap Type:</p> <p><input type="radio"/> Flange</p> <p><input type="radio"/> Corner</p> <p><input type="radio"/> Pipe – D &amp; D/2</p> <p>Flange Rating: _____</p>
<input type="radio"/> Non-Rosemount Primary Element: _____			
<i>Note: Please submit Primary Element Manufacturer's Calculation Data Sheet.</i>			

(1) Compensates for varying discharge coefficient and gas expansion factor based on Reynold's Number, assuming a fixed pressure and temperature.

**Configuration Data Sheet**

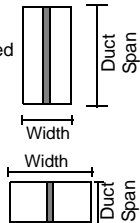
00806-0100-4010, Rev FA

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**DP Flow CDS**

Fluid Selection			
Steam:	<input type="radio"/> Superheated	<input type="radio"/> Saturated - Pressure Based	<input type="radio"/> Saturated - Temperature Based
Liquid:	<input type="radio"/> Water <input type="radio"/> Ammonia	<input type="radio"/> Methanol <input type="radio"/> Other Database Liquid _____ (see page 4)	<input type="radio"/> Ethanol
Gas:	<input type="radio"/> Air <input type="radio"/> Oxygen	<input type="radio"/> Nitrogen <input type="radio"/> Other Database Gas _____ (see page 4)	<input type="radio"/> Hydrogen
Natural Gas:	<input type="radio"/> Please complete Natural Gas Data Sheet (document number 00806-0300-4803) or submit gas analysis report.		
Custom <sup>(1)</sup> :	Name _____		
	Specific Gravity / Molecular Weight _____	Viscosity _____	
<input type="radio"/> Gas	Density / Compressibility @ Flowing Conditions _____	@ Base Conditions _____	
	Isentropic exponent _____		
<input type="radio"/> Liquid	Density @ Flowing Conditions _____	@ Base Conditions _____	
	Vapor Pressure _____		

(1) Please provide data at normal flowing conditions. For MultiVariable flowmeter configuration, a Custom Gas Data Sheet (document number 00806-0200-4716) or a Custom Liquid Data Sheet (document number 00806-0300-4716) is required.

Application Data	
Line Size: _____ <input type="radio"/> in. <input type="radio"/> mm Sch: _____  <b>OR</b> Pipe I.D. _____ <input type="radio"/> in. <input type="radio"/> mm Wall Thickness _____ <input type="radio"/> in. <input type="radio"/> mm	<p><b>For Duct Mount Only</b></p> <p><u>Circular</u> Duct ID _____ <input type="radio"/> in. <input type="radio"/> mm Wall Thickness _____ <input type="radio"/> in. <input type="radio"/> mm</p> <p><u>Square or Rectangular</u> Duct Span<sup>(1)</sup> _____ <input type="radio"/> in. <input type="radio"/> mm Duct Width _____ <input type="radio"/> in. <input type="radio"/> mm Wall Thickness _____ <input type="radio"/> in. <input type="radio"/> mm</p> <p>Recommended </p>
Primary Element Material: _____ (316 SST*)	Pipe/duct Material: _____ (CS*)
Pipe Orientation:	<input type="radio"/> Horizontal* <input type="radio"/> Vertical - Flow Up <input type="radio"/> Vertical - Flow Down

(1) Duct Span denotes the dimension that the Annubar primary element will span.

Process Information (Gray boxes are required values)					
	Units	Minimum	Normal	Maximum	Full Scale / Design
Flow Rate:					
Pressure:					
Process Temp:					

Atmospheric Pressure: \_\_\_\_\_ (14.696 psia\*) (used to convert gage pressure to absolute pressure or absolute pressure to gage pressure)

**Base Conditions** (Required only if base volumetric flow rate units are used)

<input type="radio"/> Standard*	<input type="radio"/> Normal (ISO Standard)	<input type="radio"/> Standard - Natural Gas (AGA)	<input type="radio"/> User Defined
P = 14.696 psia/ 101.325 kPaa	P = 14.696 psia/ 101.325 kPaa	P = 14.73 psia/ 101.53 kPaa	P = _____
T = 60 °F/ 15.56 °C	T = 32 °F/ 0 °C	T = 60 °F/ 15.56 °C	T = _____ °F °C

**MultiVariable Flowmeter Calibration**

For MultiVariable flowmeters, please specify each sensor's Lower Trim Value (LTV) and Upper Trim Value (UTV).<sup>(1)</sup>

Differential Pressure:	LTV= _____	UTV= _____	Units= _____
Static Pressure:	LTV= _____	UTV= _____	Units= _____
Process Temperature:	LTV= _____	UTV= _____	Units= _____

(1) If left blank, trim values will be determined from process conditions entered on page 2.

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00806-0100-4010, Rev FA

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# DP Flow CDS

Flowmeter Configuration Defaults <sup>(1)</sup>		
Flowmeter Models: 3051SFA / 3051SFC / 3051SFP		
3051S MultiVariable		3051S Single Variable
<b>Compensated Mass and Energy Flow</b> (Measurement Type: 1-4)  4 mA = 0, 20 mA = Full Scale Flow  Process Variable Assignment PV: Mass Flow 2V: Differential Pressure 3V: Static Pressure (if available) 4V: Process Temp. (if available)  Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: Flow, DP, P, T	<b>Direct Process Variable</b> (Measurement Type: 5-7)  4 mA = 0, 20 mA = URL inH <sub>2</sub> O  Process Variable Assignment PV: Square Root of DP 2V: Static Pressure (if available) 3V: Process Temp. (if available) 4V: Module Temp.  Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: DP, P, T	<b>Differential Pressure</b> (Measurement Type: D)  4 mA = 0, 20 mA = Full Scale Flow  Process Variable Assignment PV: Scaled Variable Representing Flow 2V: Differential Pressure 3V: Module Temp.  Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: Flow
Flowmeter Models: 3051CFA / 3051CFC / 3051CFP	Flowmeter Models: 2051CFA / 2051CFC / 2051CFP	Flowmeter Models: 3095MFA / 3095MFC / 3095MFP
<b>Differential Pressure</b>  4 mA = 0, 20 mA = URL inH <sub>2</sub> O  Process Variable Assignment PV: Square Root of DP  Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: Flow	<b>Differential Pressure</b>  4 mA = 0, 20 mA = URL inH <sub>2</sub> O  Process Variable Assignment PV: Square Root of DP  Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: Flow	<b>Compensated Mass Flow</b>  4 mA = 0, 20 mA = Full Scale Flow  Process Variable Assignment PV: Mass Flow 2V: Differential Pressure 3V: Static Pressure 4V: Process Temp.  Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: Flow

(1) If device settings other than default are required, please complete the appropriate Configuration Data Sheet: 00806-0100-4801 for 3051S, 00806-0100-4803 for 3051SMV, 00806-0100-4001 for 3051C, 00806-0100-4101 for 2051C, and 00806-0100-4716 for 3095.

# DP Flow CDS

Fluid Database List				
<input type="radio"/> 1~1~2~2-TETRAFLUORO-ETHANE	<input type="radio"/> 2-METHYL-1-PENTENE	<input type="radio"/> ETHANE	<input type="radio"/> METHYL ETHYL KETONE	<input type="radio"/> PROPANE
<input type="radio"/> 1~1~2-TRICHLOROETHANE	<input type="radio"/> ACETIC ACID	<input type="radio"/> ETHANOL	<input type="radio"/> N-BUTYRALDEHYDE	<input type="radio"/> PROPYLENE
<input type="radio"/> 1~2~4-TRICHLOROBENZENE	<input type="radio"/> ACETONE	<input type="radio"/> ETHYLAMINE	<input type="radio"/> METHYL VINYL ETHER	<input type="radio"/> PYRENE
<input type="radio"/> 1~2-BUTADIENE	<input type="radio"/> ACETONITRILE	<input type="radio"/> ETHYLBENZENE	<input type="radio"/> N-BUTANE	<input type="radio"/> STYRENE
<input type="radio"/> 1~3~5-TRICHLOROBENZENE	<input type="radio"/> ACETYLENE	<input type="radio"/> ETHYLENE	<input type="radio"/> N-BUTANOL	<input type="radio"/> SULFUR DIOXIDE
<input type="radio"/> 1~3-BUTADIENE	<input type="radio"/> ACRYLONITRILE	<input type="radio"/> ETHYLENE GLYCOL	<input type="radio"/> N-BUTYRONITRILE	<input type="radio"/> TOLUENE
<input type="radio"/> 1~4-DIOXANE	<input type="radio"/> AIR	<input type="radio"/> ETHYLENE OXIDE	<input type="radio"/> N-DECANE	<input type="radio"/> TRICHLOROETHYLENE
<input type="radio"/> 1~4-HEXADIENE	<input type="radio"/> ALLYL ALCOHOL	<input type="radio"/> FLUORENE	<input type="radio"/> N-DODECANE	<input type="radio"/> VINYL ACETATE
<input type="radio"/> 1-BUTENE	<input type="radio"/> AMMONIA	<input type="radio"/> FURAN	<input type="radio"/> NEON	<input type="radio"/> VINYL CHLORIDE
<input type="radio"/> 1-DECANAL	<input type="radio"/> ARGON	<input type="radio"/> HELIUM-4	<input type="radio"/> NEOPENTANE	<input type="radio"/> VINYL CYCLOHEXENE
<input type="radio"/> 1-DECANOL	<input type="radio"/> BENZALDEHYDE	<input type="radio"/> HYDRAZINE	<input type="radio"/> N-HEPTADECANE	<input type="radio"/> WATER
<input type="radio"/> 1-DECENE	<input type="radio"/> BENZENE	<input type="radio"/> HYDROGEN	<input type="radio"/> N-HEPTANE	
<input type="radio"/> 1-DODECANOL	<input type="radio"/> BENZYL ALCOHOL	<input type="radio"/> HYDROGEN CHLORIDE	<input type="radio"/> N-HEXANE	
<input type="radio"/> 1-DODECENE	<input type="radio"/> BIPHENYL	<input type="radio"/> HYDROGEN CYANIDE	<input type="radio"/> NITRIC ACID	
<input type="radio"/> 1-HEPTANOL	<input type="radio"/> CARBON DIOXIDE	<input type="radio"/> HYDROGEN PEROXIDE	<input type="radio"/> NITRIC OXIDE	
<input type="radio"/> 1-HEPTENE	<input type="radio"/> CARBON MONOXIDE	<input type="radio"/> HYDROGEN SULFIDE	<input type="radio"/> NITROBENZENE	
<input type="radio"/> 1-HEXADECANOL	<input type="radio"/> CARBON TETRACHLORIDE	<input type="radio"/> ISOBUTANE	<input type="radio"/> NITROETHANE	
<input type="radio"/> 1-HEXENE	<input type="radio"/> CHLORINE	<input type="radio"/> ISOBUTENE	<input type="radio"/> NITROGEN	
<input type="radio"/> 1-NONANAL	<input type="radio"/> CHLOROPRENE	<input type="radio"/> ISOBUTYLBENZENE	<input type="radio"/> NITROMETHANE	
<input type="radio"/> 1-NONANOL	<input type="radio"/> CHLOROTRIFLUORO-ETHYLENE	<input type="radio"/> ISOPENTANE	<input type="radio"/> NITROUS OXIDE	
<input type="radio"/> 1-OCTANOL	<input type="radio"/> CARBON DIOXIDE	<input type="radio"/> ISOPRENE	<input type="radio"/> N-NONANE	
<input type="radio"/> 1-OCTENE	<input type="radio"/> CYCLOHEPTANE	<input type="radio"/> ISOPROPANOL	<input type="radio"/> N-OCTANE	
<input type="radio"/> 1-PENTADECANOL	<input type="radio"/> CYCLOHEXANE	<input type="radio"/> M-CHLORONITRO-BENZENE	<input type="radio"/> N-PENTANE	
<input type="radio"/> 1-PENTANOL	<input type="radio"/> CYCLOPENTANE	<input type="radio"/> M-DICHLORO-BENZENE	<input type="radio"/> OXYGEN	
<input type="radio"/> 1-PENTENE	<input type="radio"/> CYCLOPENTENE	<input type="radio"/> METHANE	<input type="radio"/> PENTAFLUOROETHANE	
<input type="radio"/> 1-UNDECANOL	<input type="radio"/> CYCLOPROPANE	<input type="radio"/> METHANOL	<input type="radio"/> PHENOL	
<input type="radio"/> 2~2-DIMETHYLBUTANE	<input type="radio"/> DIVINYL ETHER	<input type="radio"/> METHYL ACRYLATE	<input type="radio"/> PROPADIENE	

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