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: _____
Phone no.: _____	Fax no./email: _____
P.O./reference no.: _____	P.O. line item: _____
Model no.: _____	
Customer sign-off: _____	

Tagging
Hardware tag:_____
Software tag: _____

Instrument Selection - Continued on Next Page

Select DP Instrument and complete appropriate additional information.

Annubar®:

3051SFA

- ❍ Fully Compensated
- ❍ Pressure Compensated
- ❍ Temperature Compensated
- ❍ DP Compensated[1]
- ❍ DP Only

- ❍ 3051CFA
- ❍ 2051CFA
- ❍ 485
- ❍ 585

Additional Information

Sensor Size (if known): _____

Connection Type:

For 3051SFA, 3051CFA, 2051CFA, 485

- ❍ Pak-Lok
- ❍ Flange w/ Opposite Side Support

Flange Rating:_____

Compact Orifice Solutions:

3051SFC

- ❍ Fully Compensated
- ❍ Pressure Compensated
- ❍ Temperature Compensated
- ❍ DP Compensated[1]
- ❍ DP Only

- ❍ 3051CFC
- ❍ 2051CFC
- ❍ 405
- ❍ 9295
- ❍ 9175

Additional Information

Primary Element Technology:

- ❍ Conditioning (405C)
- ❍ Standard (405P)

Beta Ratio (if known): _____

- ❍ Compact Annubar (405A)

Integral Orifice:

3051SFP

- ❍ Fully Compensated
- ❍ Pressure Compensated
- ❍ Temperature Compensated
- ❍ DP Compensated[1]
- ❍ DP Only

- ❍ 3051CFP
- ❍ 2051CFP
- ❍ 1195

Additional Information

Bore Size (if known): _____

Connection Type:

Pipe Ends

- ❍ Flanged

Flange Rating:_____

- ❍ Beveled
- ❍ Threaded

Orifice Plates:

- ❍ 1595 Conditioning Plate
- 1495 Standard Plate

Concentric Square Edged

- ❍ ISO 5167-2 2003
- ❍ AGA Report #3 2003
- ❍ ASME MFC 3M 200
- ❍ Drain/Vent (ISO TR 15377

- ❍ Restriction Orifice
- ❍ Alt. Bore

Type:_____

Additional Information

Bore Size (if known): _____

or

Beta Ratio (if known): _____

Plate Type:

- ◉ Paddle ★

Instrument Selection

○ Flange-Lok Flange Rating:_____ Gear Drive Flo-Tap: ○ Threaded ○ Flanged Flange Rating:_____ Manual Drive Flo-Tap: ○ Threaded ○ Flanged Flange Rating:_____ For 585 ○ Flange w/ Opposite Side Support Flange Rating:_____ ○ Gear Drive Flo-Tap Flange Rating:_____ ○ Main Steam Annubar w/ Opposite Side Support	Wedge Meter: ○ 9195 *Additional Information* h/d (if known): _____ Transmitter Connection Style ○ Direct mount 1/2" NPT connection ○ Remote mount 1/2" NPT connection ○ Compact remote seal connection ○ 2" NPS/DN50 flanged ANSI/DIN connection	Body Only ○ Threaded ○ Socket-Weld	○ Paddle–Spiral Wound (1495 only) ○ Universal for RTJ Type Flange ☐ With Plate Holder Tap Type: ○ Flange ○ Corner ○ Pipe – D & D/2 Flange Rating:_____

Non-Rosemount Primary Element: _____

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.

Fluid Selection

Steam:	○ Superheated	○ Saturated - Pressure Based	○ Saturated - Temperature Based
Liquid:	○ Water ○ Ammonia	○ Methanol ○ Other Database Liquid_____ (see page 4 and 5)	○ Ethanol
Gas:	○ Air ○ Oxygen	○ Nitrogen ○ Other Database Gas _____ (see page 4 and 5)	○ Hydrogen
Natural Gas:	○ Please complete Natural Gas Data Sheet (document number 00806-0300-4803) or submit gas analysis report.		
Custom(1):	Name_____		
Gas	Specific Gravity / Molecular Weight _____ Density / Compressibility @ Flowing Conditions _____		Viscosity _____ @ Base Conditions _____
Liquid	Isentropic exponent _____ Density @ Flowing Conditions _____ Vapor Pressure _____		@ Base Conditions _____

1. Please provide data at normal flowing conditions. For MultiVariable flow meter 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: _____ ◉ in.★ ○ mm

Sch: _____

OR

Pipe I.D. _____ ◉ in.★ ○ mm

Wall Thickness _____ ◉ in.★ ○ mm

For Duct Mount Only

Circular

Duct ID_____ ◉ in.★ ○ mm

Wall Thickness_____ ◉ in.★ ○ mm

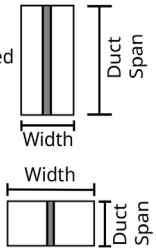
Square or Rectangular

Duct Span(1)_____ ◉ in.★ ○ mm

Duct Width_____ ◉ in.★ ○ mm

Wall Thickness_____ ◉ in.★ ○ mm

Recommended



Primary Element Material:_____ (316 SST★)

Pipe/duct Material:_____ (CS★)

Pipe Orientation:

◉ Horizontal★

○ Vertical - Flow Up

○ 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)

◉ Standard★	○ Normal (ISO Standard)	○ Standard - Natural Gas (AGA)	○ 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 Flow Meter Calibration

For MultiVariable flow meters, please specify each sensor's Lower Trim Value (LTV) and Upper Trim Value (UTV)(1)

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.

Flow Meter Configuration Defaults[1]		
Flow Meter Models: 3051SFA / 3051SFC / 3051SFP		
3051S MultiVariable		3051S Single Variable
Compensated Mass and Energy Flow (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	Direct Process Variable (Measurement Type: 5-7) 4 mA = 0, 20 mA = URL in H_2O 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	Differential Pressure (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
Flow Meter Models: 3051CFA / 3051CFC / 3051CFP	Flow Meter Models: 2051CFA / 2051CFC / 2051CFP	
Differential Pressure 4 mA = 0, 20 mA = URL in H_2O Process Variable Assignment PV: Square Root of DP Protocol: HART Burst Mode: Off Write Protect: Off Alarm: High LCD: Flow	Differential Pressure 4 mA = 0, 20 mA = URL in H_2O Process Variable Assignment PV: Square Root of DP 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.

Fluid Database List			
○ 1~1~2~2-TETRAFLUORO-ETHANE	○ ACRYLONITRILE	○ ETHYLENE OXIDE	○ N-HEPTADECANE
○ 1~1~2-TRICHLOROETHANE	○ AIR	○ FLUORENE	○ N-HEPTANE
○ 1~2~4-TRICHLOROBENZENE	○ ALLYL ALCOHOL	○ FORMALDEHYDE	○ N-OCTANE
○ 1~2-BUTADIENE	○ AMMONIA	○ FORMIC ACID	○ N-PENTANE
○ 1~3~5-TRICHLOROBENZENE	○ ANILINE	○ FURAN	○ NAPHTHALENE
○ 1,2-PROPYLENE GLYCOL	○ ARGON	○ HELIUM-4	○ NEON
○ 1,2-PROPYLENE OXIDE	○ BENZALDEHYDE	○ HYDRAZINE	○ NEOPENTANE
○ 1~3-BUTADIENE	○ BENZENE	○ HYDROGEN	○ NITRIC ACID
○ 1,3-BUTADIENE	○ BENZYL ALCOHOL	○ HYDROGEN CHLORIDE	○ NITRIC OXIDE
○ 1~4-DIOXANE	○ BIPHENYL	○ HYDROGEN CYANIDE	○ NITROBENZENE
○ 1~4-HEXADIENE	○ BROMINE	○ HYDROGEN PEROXIDE	○ NITROETHANE
○ 1-BUTENE	○ CARBON DIOXIDE	○ HYDROGEN SULFIDE	○ NITROGEN
○ 1-DECANAL	○ CARBON MONOXIDE	○ ISOBUTANE	○ NITROMETHANE

Fluid Database List			
1-DECANOL	CARBON TETRACHLORIDE	ISOBUTENE	NITROUS OXIDE
1-DECENE	CHLORINE	ISOBUTYLBENZENE	NONANAL
1-DODECANOL	CHLOROPRENE	ISOHEXANE (2-METHYLPENTANE)	OXYGEN
1-DODECENE	CHLOROTRIFLUORO-ETHYLENE	ISOPENTANE	OZONE
1-HEPTANOL	CARBON DIOXIDE	ISOPRENE	P-NITROANILINE
1-HEPTENE	CYCLOHEPTANE	ISOPROPANOL	PENTAFLUOROETHANE
1-HEXADECANOL	CYCLOHEXANE	M-CHLORONITRO-BENZENE	PHENOL
1-HEXENE	CYCLOPENTANE	M-DICHLORO-BENZENE	PROPADIENE
1-NONANAL	CYCLOPENTENE	MELAMINE	PROPANE
1-NONANOL	CYCLOPROPANE	METHANE	PROPYLENE
1-OCTANOL	DECANAL	METHANOL	PYRENE
1-OCTENE	DIVINYL ETHER	METHYL ACRYLATE	STYRENE
1-PENTADECANOL	ETHANE	METHYL ETHYL KETONE	SULFUR DIOXIDE
1-PENTANOL	ETHANOL	METHYL VINYL ETHER	SULFUR TRIOXIDE
1-PENTENE	ETHYLAMINE	N-BUTYRALDEHYDE	TOLUENE
1-UNDECANOL	ETHYLBENZENE ETHYLENE	N-BUTANE	TRICHLOROETHYLENE
2~2-DIMETHYLBUTANE	ETHYLENE GLYCOL	N-BUTANOL	VINYLACETYLENE
2-METHYL-1-PENTENE		N-BUTYRONITRILE	VINYL ACETATE
ACETIC ACID		N-DECANE	VINYL CHLORIDE
ACETONE		N-DODECANE	VINYLCYCLOHEXENE
ACETONITRILE			WATER
ACETYLENE			

For more information: **Emerson.com**

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