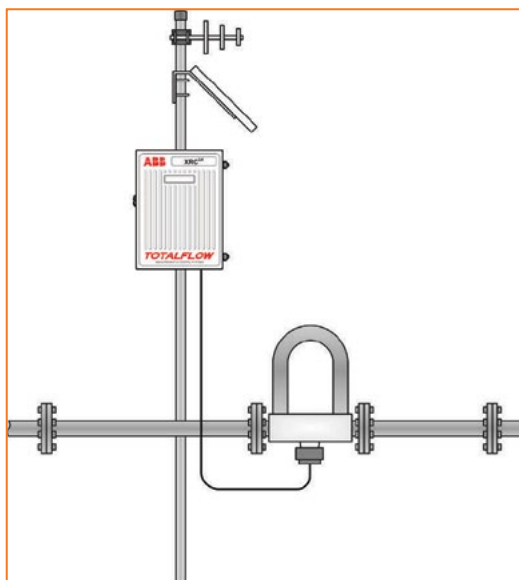


## CORIOLIS XSERIES INTERFACE

The ABB Totalflow XSeries Coriolis application allows an XSeries device (XFC or XRC) to interface with an Emerson Micro Motion® Coriolis transmitter and perform volume and corrected mass calculations. Mass flow output from the Coriolis device, retrieved via Modbus protocol, is requested and utilized by the interface application to calculate corrected volume. Daily logs, hourly logs, characteristics and event logs are collectable, both locally and remotely, from the Coriolis application's historical data (i.e. corrected volume, corrected mass, uncorrected mass, energy, and alarms). PCCU (local PC user Configuration and Collection software) provides the user interface to the Totalflow XSeries device for configuration, calibration, collection and viewing of historical data, as well as the ability to view and edit parameters resident in the Micro Motion® Coriolis transmitter. The Coriolis Interface allows the user to enter the calibration pressure (PCal) and pressure effect (PEffect), which are then applied to mass flow to produce the corrected mass flow. A list of configurable parameters is shown on the back.



## SOFTWARE REQUIREMENTS

1. XFC flash or XRC flash with Micro Motion® Coriolis support features
2. PCCU32 version 6.03
3. WinCCU version 6.04
4. Appropriate XFC or XRC Configuration Files

Description	Value	Units	Save How Value to Coriolis?
8.2.38 Measured Density(Coriolis Device)	0.0000	lbm/ft3	
8.2.12 Damping Period	1.6000	Sec	Nc
8.2.13 Low Density Cutoff	12.4858	lbm/ft3	Nc
8.2.14 Slug Duration	0.0000	Sec	Nc

Description	Value	Units
11.7.79 Static Pressure (Orp 2)	730.000	psia
11.7.80 Temperature (Orp 5)	60.000	deg F
11.7.0 Pulse Count	0	Counts/Flow Period
11.7.35 Input Mass Flow Rate(from data app)	2.43001	kg/s
11.7.8 Corrected Volume (Orp 20)	264.658	MCF/yr
11.7.37 Energy Flow Rate (Orp 30)	0.356	MME/yr
<b>Today's Values</b>		
11.7.7 Volume (Orp 18)	10.932	MCF
11.7.85 Uncorrected Mass (Orp 13)	460.781	lbm
11.7.74 Mass (Orp 13)	460.781	lbm
11.7.71 Energy (Orp 28)	6.101	MME/yr
<b>Yesterday's Values</b>		
11.7.8 Volume (Orp 18)	0.000	MCF
11.7.87 Uncorrected Mass (Orp 13)	0.000	lbm
11.7.75 Mass (Orp 13)	0.000	lbm
11.7.78 Energy (Orp 28)	0.000	MME/yr
<b>Accumulated Values</b>		
11.7.8 Volume (Orp 18)	10.932	MCF
11.7.85 Uncorrected Mass (Orp 13)	460.781	lbm
11.7.75 Mass (Orp 13)	782.229	lbm
11.7.76 Energy (Orp 28)	14.354	MME/yr
<b>Last Calculated Values</b>		
11.7.33 Volume (Orp 16)	6252.666	CF
11.7.84 Uncorrected Mass (Orp 11)	321.468	lbm
11.7.45 Mass (Orp 11)	321.468	lbm
11.7.48 Energy (Orp 28)	6252688.000	BTU

## XSERIES/CORIOLIS INTERFACE CONFIGURATION

Each XSeries/Coriolis interface uses one XSeries measurement tube application. The measurement tube can be forward, reverse, or bi-directional. For two forward tube applications, two Coriolis interfaces are required. An XSeries G3 device can support a maximum of either one bi-directional interface or two single direction flow interfaces.

## CORIOLIS TRANSMITTER CONFIGURATION PARAMETERS

Many of the Micro Motion® transmitter parameters may be configured using Totalflow's PCCU 6.03 or newer MMI software. Below are some of the Micro Motion® Curved Tube Coriolis configuration parameters that may be read from or written to the Micro Motion® transmitter using the Totalflow Coriolis interface and PCCU software.

Mass Flow Correction Parameters				
Calibration Pressure (PCal)		R/W	Pressure Effect (PEffect)	R/W
Mass Flow Parameters				
Damping Period		R/W	Flow Temperature Coefficient (FT)	R/W
Low Flow Cutoff (lbm/s)		R/W	Meter Factor	R/W
Flow Calibration Factor (FCF)		R/W	Mechanical Zero	R only
Density Parameters				
Measured Density from Coriolis		R only	Flowing Density Factor (FD)	R/W
Damping Period		R/W	Temperature Coefficient (DTC)	R/W
Low Density Cutoff		R/W	Low Density Calibration (D1)	R/W
Slug Duration		R/W	Temperature Corrected Tube Period (K1)	R/W
High Slug Limit		R/W	High Density Calibration (D2)	R/W
Low Slug Limit		R/W	Temperature Corrected Tube Period (K2)	R/W
Density Meter Factor		R/W		
Temperature Parameters				
Damping Period		R/W	Calibration Offset	R/W
Calibration Slope		R/W	External Temperature	R/W
T-Series Parameters				
Temperature Corrected Tube Period (K3)		R/W	FFQ	R/W
Temperature Corrected Tube Period (K4)		R/W	DTG	R/W
Density Calibration (D3)		R/W	DFQ1	R/W
Density Calibration (D4)		R/W	DFQ2	R/W
FTG		R/W	Note: Straight tube (T-Series) parameters are also supported.	
R = Read      R/W = Read/Write				

Power and productivity  
for a better world™

[www.abb.com/totalflow](http://www.abb.com/totalflow)  
[www.abb.us](http://www.abb.us)  
[www.abb.com](http://www.abb.com)



**ABB Inc.**  
**Totalflow Products**  
7051 Industrial Blvd.  
Bartlesville, OK 74006  
Tel: (918) 338-4888  
Fax: (918) 338-4699  
(800) 442-3097

For more information,  
please contact your  
local ABB Totalflow  
representative or visit  
our website.