

Technical Note

Entering Data Industrial Flow Constants for 200FLOW Meters

Upon the installation of a flow sensor, the cell constants (multiplier or k factor and additive or offset) must be entered into the meter. In order to calculate the values to be entered, you must first get the k factor (multiplier) and offset (additive) values from the Data Industrial Owners Manual. These values must be calculated using the formula as instructed in the Thornton 200 Flow Instruction Manual, (Section 10.3; Enter/Editing cell constants), by dividing 60 by the k value and multiplying the offset by the original k value. These results are then entered into the meter.

Below is a Flow Constants chart with the multiplier and additive values already calculated by Thornton Associates for the most common Data Industrial flow sensors.

Note: If using a Signet type flow sensor, refer to the data sheet, which is supplied with the sensor, or the Signet Flow Calibration Data manual, for the k values. The k factors used by Signet are already calculated in the 200 Flow format. No additional calculation is required.

Data Industrial Flow Constants

Thornton Part No.	Data Ind. Part No.	Pipe Diameter	Fitting	Pipe Material	Mult. Constant	Additive Constant
33176	400200	1/2"	flow-thru/pipe	PVC	145.2785	0.1444
33177	401200	3/4"	flow-thru/pipe	PVC	104.6207	0.1513
33175	402200	1.0"	flow-thru/pipe	PVC	97.8155	0.1120
33142	220P-1.5	1-1/2"	Socket tee	PVC	35.3149	-0.3160
33143	220P-2	2.0"	Socket tee	PVC	22.0183	1.0682
33144	220P-3	3.0"	Socket tee	PVC	7.2211	1.8861
33145	220P-4	4.0"	Socket tee	PVC	3.9088	3.8068
33172	400500	1/2"	Socket Union	PVDF	100.2171	0.0005
33174	401500	3/4"	Socket Union	PVDF	97.8793	0.1633
33171	402500	1.0"	Socket Union	PVDF	95.7549	0.0197
33162	228PF-1.5	1-1/2"	Weld tee	PVDF	28.8074	0.6738
33159	228PF-2	2.0"	Weld tee	PVDF	15.2439	0.7203
33160	228PF-3	3.0"	Weld tee	PVDF	10.8362	3.2868
33161	228PF-4	4.0"	Socket tee	PVDF	5.8224	7.4608
33173	228PF-6	6.0"	Weld tee	PVDF	3.2538	4.5861

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