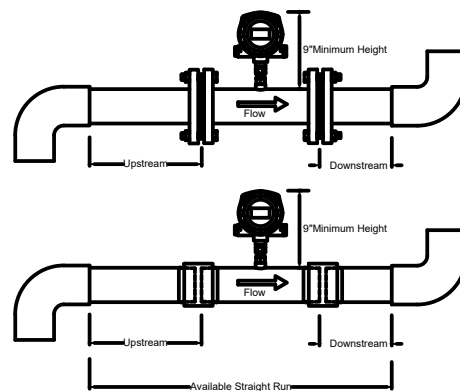


ONICON INLINE THERMAL MASS FLOW METER INSTALLATION DETAIL



Meter may be installed in a vertical pipe with upward or downward flow

Minimum Straight Run required upstream of flow meter process connection based on the nature of the upstream obstruction						
Upstream Obstructions	Single bend preceded by ≥ 9 diameters of straight pipe Or Pipe size reduction in straight pipe run	Multiple bends in plane with ≤ 9 diameters of straight pipe between them Or Pipe size expansion in straight pipe run	Tees	Multiple bends out of plane	Modulating or regulating valves	Minimum downstream straight pipe run required after flow meter process connection
None, dia	None	2'	0'	0'	0'	None
	1'	1'	0'	0'	10'	None
	None	None	None	1'	2'	None
None	None	1'	0'	0'	0'	1'
1"	None	None	1'	0'	0'	1'
1-1/4"	None	None	2'	0'	0'	2'
1-1/2"	None	None	0'	0'	0'	2'
2"	None	None	4'	12'	14'	2'
2-1/2"	2'	2'	7'	17'	19'	7'
3"	3'	3'	9'	21'	23'	9'
4"	4'	4'	12'	26'	28'	12'

ONICON, INC.
8001 BRIDGE ROAD, SUITE 100, LARVA, FL 33509

DATE: 05-15-11 DRAWN BY: DBJ SCALE: N.T.S. DRAWING #: 1108100001-1

TITLE: ONLINE THERMAL MASS FLOW METER INSTALLATION DETAIL