



Smart solutions with Smartmeasurement

Line Size	Fluid	Density	Normal Flow	Temperature	Pressure	β	Energy Drop	Energy Price	Energy Cost
in (mm)		kg/m ³	m/s (ft/min)	°C (°F)	Kpa		KW/hr	USD/KWH	USD/year
1" (25)	water	1000	5 (984.25)	20 (68)	100	0.65	0.034353173	0.13	US\$38.59
2" (50)	water	1000	5 (984.25)	20 (68)	1600	0.65	0.343531728	0.13	US\$385.85
3" (80)	water	1000	5 (984.25)	20 (68)	100	0.65	0.35177649	0.13	US\$395.12
4" (100)	water	1000	5 (984.25)	20 (68)	1600	0.65	1.374126914	0.13	US\$1,543.42
8" (200)	water	1000	5 (984.25)	20 (68)	100	0.65	2.198603062	0.13	US\$2,469.47
12" (300)	water	1000	5 (984.25)	20 (68)	1000	0.65	12.36714222	0.13	US\$13,890.77
1" (25)	air	12	20 (3937.0)	20 (68)	1000	0.65	0.137412691	0.13	US\$154.34
2" (50)	air	7.4	20 (3937.0)	200 (392)	1000	0.65	1.374126914	0.13	US\$1,543.42
3" (80)	air	12	20 (3937.0)	20 (68)	1000	0.65	1.40710596	0.13	US\$1,580.46
4" (100)	air	7.4	20 (3937.0)	200 (392)	1000	0.65	5.496507654	0.13	US\$6,173.68
8" (200)	air	12	20 (3937.0)	20 (68)	1000	0.65	8.794412247	0.13	US\$9,877.88
12" (300)	air	7.4	20 (3937.0)	200 (392)	1000	0.65	49.46856889	0.13	US\$55,563.10
1" (25)	saturated steam	5.16	20 (3937.0)	180 (356)	1000	0.65	0.109693235	0.13	US\$123.21
2" (50)	saturated steam	19.8	20 (3937.0)	250 (482)	4000	0.65	1.096932347	0.13	US\$1,232.07
3" (80)	saturated steam	5.16	20 (3937.0)	180 (356)	1000	0.65	1.123258723	0.13	US\$1,261.64
4" (100)	saturated steam	19.8	20 (3937.0)	250 (482)	4000	0.65	4.387729386	0.13	US\$4,928.30
8" (200)	saturated steam	5.16	20 (3937.0)	180 (356)	1000	0.65	7.020367018	0.13	US\$7,885.28
12" (300)	saturated steam	19.8	20 (3937.0)	250 (482)	4000	0.65	39.48956448	0.13	US\$44,354.68

Notes: Orifice plates (DP @ Beta 0.65) versus Magnetic for water, Vortex for saturated steam and Thermal for air

[Contact your application engineer at sales@smartmeasurement.com](mailto:sales@smartmeasurement.com)