Fixed orifice Flow meter / switches for gases and liquids

TM-OR 2020

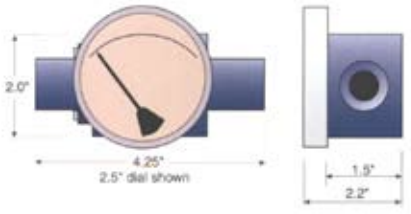
Our fixed-orifice flowmeters are designed for low flow applications, from 0-2 to 0-40 GPH. Like our variable-area flowmeters they are built from solids blocks of metal making them a favorite for high line pressure applications, to 3000 psi. You will find many in hydraulic and pneumatic systems.
Though rugged, they maintain the sensitivity required for low flow measurements. We use a fixed Delrin orifice centered on a spring-loaded Buna-N diaphragm-magnet sensor, which provides sensitive responses to changes in flow. This diaphragm sensor is magnetically coupled to a pointer, which relays the flow rate onto an easy-to-read square-root calibrated dial.
These in-line flowmeters often replace rotameters, which have small scales that can be difficult to read, especially with dirty or opaque fluids. Our 2.5 to 4.5 inch dials with large, bold markings can be read from a distance. The spring-loaded sensor allows them to be oriented either horizontally or vertically. Many others must be mounted vertically only, limiting space and design flexibility.

Specifications

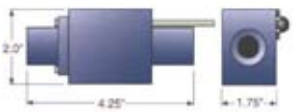
Ranges	see table
Accuracy:	liquids: ± 2%, gases: ± 5%
Repeatability:	± 1%
Pressure drop:	0,2 bar
Scale:	square root
Process connection:	¼“ NPT

Model	Flow range	Maximum line pressure/ max. Temp.	Electrical
TM-OR-2021FG/FGS/FS FG = gauge FGS = gauge / switch FS = switch	liquids 0-8 bis 0-150 l/h gases 60-140 l/min	200 bar / 93°C	1 o. 2 switches
TM-OR-2023FGS/FS FGS = gauge / switch FS = switch	liquids 0-8 bis 0-150 l/h gases 60-140 l/min	100 bar / 93°C	1 o. 2 switches Relay

Dimensions



2021FG



2021FS

All specifications are subject to change without notice

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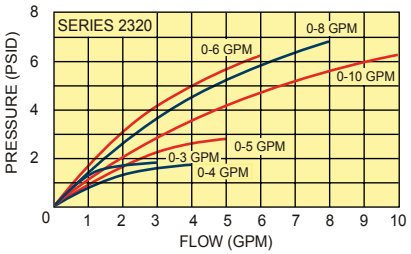
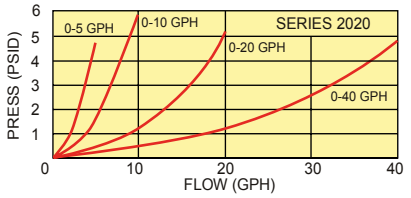
Ordering

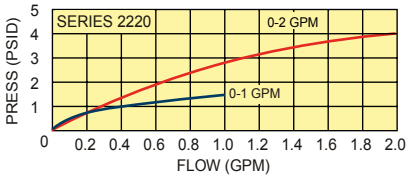
TM-OR-2021FGS 1A 2.5B A 0-2 GPH-W, 5T

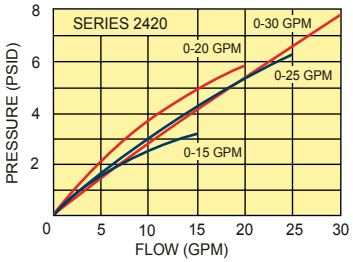
2021FGS	1A	2.5B	A	0-2 GPH	W	,	5T
Model	Flow Body	Dial Case	Electrical	Range	Calibration		Options (more on pg . 19)
2021FG 2021FGS 2021FS	1A = aluminum 1C = 316 SS	2.5B = 2.5 basic 3.5B = 3.5 basic 4.5B = 4.5 basic Change B to F above for flanged dial case	A = SPST N.O. B = SPST, N.C. C = SPDT A-A = 2 ea. -A B-B = 2 ea. -B C-C = 2 ea. -C R2 = relay	Liquid 0-2, 0-4, 0-5, 0-8, 0-10, 0-15, 0-20, 0-25, 0-40 GPH Air & Gas 1.5-5 SCFM	W = std.calibr.-water O = std. calibr. -oil A = std.calibr.-air S= special calibr.* *Liquids must specify specific gravity and viscosity *Gas must specify gas, pressure and temperature		5 = plastic lens 6 = liquid fill (glycerine) 8 = reverse flow 9 = vertical flow (specify direction up or downward) Special Seals (Buna-N standard): T = Teflon V = Viton

Flow Curves









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