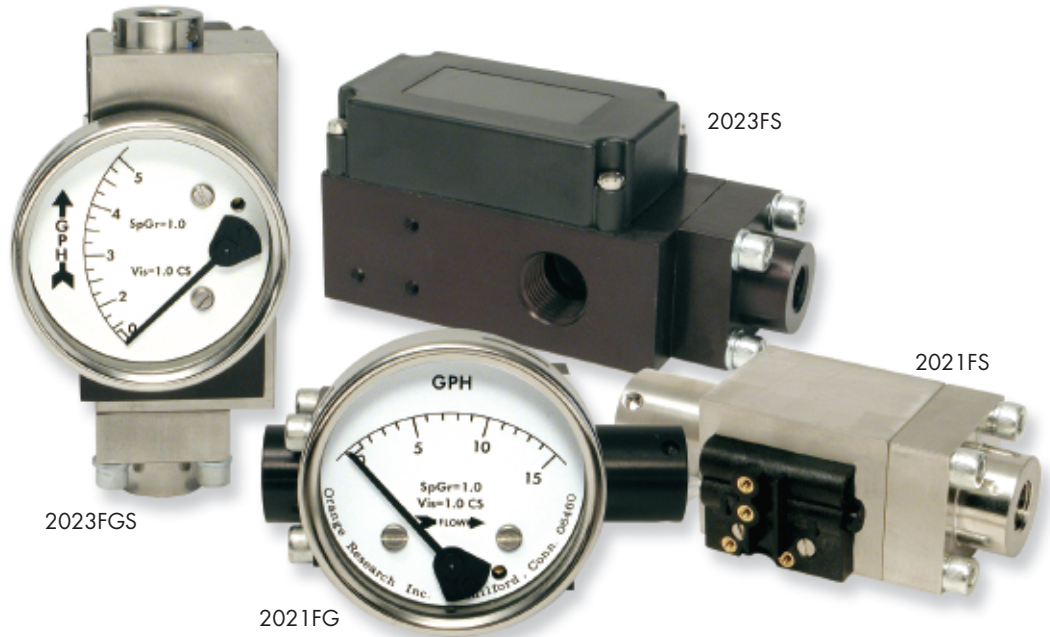


**0-2 to 0-40 GPH
1.5-5 SCFM**

Fixed-Orifice Flow
for Low Flow Rates –
Liquid or Gas

Features

- Large, easy-to-read dial
- Rugged, high line pressure design
- Vertical or horizontal mounting



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

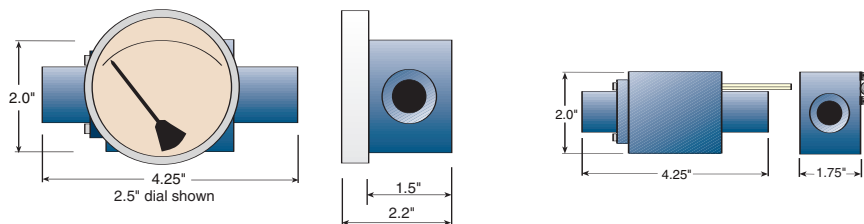
with dirty or opaque fluids. Our 2.5 to 4.5 inch dials with large, bold markings can be read from a distance. The spring-loaded sensor allows them to be oriented either horizontally or vertically. Many others must be mounted vertically only, limiting space and design flexibility.

We offer them with pressure bodies (and wetted parts) of aluminum or stainless steel. Choose from a wide selection of standard options such as liquid filled dials, reverse flow, red arc scales and many more. More details on these models can be found in our flow introduction pages 16-19.

Reed switches and relays can accompany the meters or be supplied on their own, without a dial. Electrical details are on pages 26-27.

Dimensions

Detailed drawings on website.



2021FG

2021FS

Specifications (Detailed Specification Sheets on Website)

Model	Flow range	Porting	Maximum line pressure/temperature	Accuracy (F.S.)/repeatability	Turndown*	Electrical Available**
2021FG/FGS/FS FG = Flow Gauge FGS = Flow Gauge-Switch FS = Flow Switch	<u>Liquids</u> 0-2 to 0-40 GPH (0-8 to 0-150 LPH) <u>Air & Gas</u> 1.5-5 SCFM (60-140 SLPM)	1/4" NPT	3000 psig (200 bar) 200°F (93°C)	<u>Liquids</u> 2%/1% <u>Air & Gas</u> 5%/1%	3:1	2 switches
2023FGS/FS/FGT/FT FGS = Flow Gauge-Switch FS = Flow Switch	<u>Liquids</u> 0-2 to 0-40 GPH (0-8 to 0-150 LPH) <u>Air & Gas</u> 1.5-5 SCFM (60-140 SLPM)	1/4" NPT	3000 psig (200 bar) 200°F (93°C)	<u>Liquids</u> 2%/1% <u>Air & Gas</u> 5%/1%	3:1	2 switches 1 relay NEMA-4X

*Turndown results in 1st mark at approximately 30% of full scale

**NEMA 4X switch models have a 1/2 inch NPT conduit port as standard. A DIN 43650A-PG11 with mating connector is optional, rated IP65 & NEMA 4X

How to Order

Select from each of the applicable categories to construct a model number. Use the model number when ordering or obtaining additional information and pricing from Orange Research or your local distributor.

Reordering? You must supply the Part Number from your instrument label.

Sample Model Number
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	Switch	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	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	<u>Liquid</u> 0-2, 0-4, 0-5, 0-8, 0-10, 0-15, 0-20, 0-25, 0-40 GPH <u>Air & Gas</u> 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 See std. calibration conditions page 26	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
2023FGS 2023FS		Change "B" to "F" above for flanged dial case				

Flow Curves

