



INFLUX

FLOWMETER CATALOGUE

www.influxmeasurements.com

Influx Measurements Ltd

Influx specialise in the design and manufacture of flowmeters, fluid instruments and accessories to suit processes requiring the measurement and control of liquids and gases.



Design

The standard products included in this guide will fit a wide range of applications . We are also able to design and manufacture solutions to fit more specific application needs. In this instance please contact us.

Service

ISO 9001:2008 accredited, we are committed to providing customers with the highest levels of service and meeting delivery expectations at all times.



Innovation

Influx engage in continuous research and development to ensure that new and innovative products are available to meet changing customer needs.

Flowmeter Selection Guide

The standard product index below shows the flow measurement ranges in litres/min for air and water at standard operating conditions (1 atm 20°C), standard connection sizes and options available.

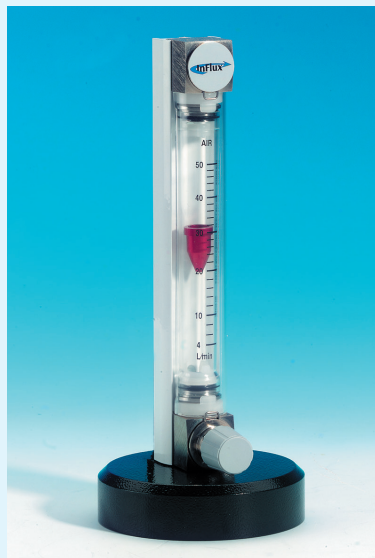
If using fluids at other operating conditions or for fluids other than air or water, the sizing data and unit conversion factors on pages 20 to 21 provide calculations for determining the equivalent air or water flows.

Product Index

| Flowmeter type | Connec- tion type | Suitable pipe sizes (mm) | Flow Ranges (L/min) | | | | Direct reading | 4-20 mA | Alarm Setpoint | Page |
|----------------|----------------------|--------------------------------|---------------------|-------|------|--------|----------------|---------|----------------|------|
| | | | Water | | Air | | | | | |
| | | | min | max | min | max | | | | |
| Uniflux | ¼" BSP | 3 -10 | 0.005 | 4.4 | 0.01 | 100 | Y | 0 | 0 | 4 |
| Reflux | ⅜"-½" BSP | 5-12 | 0.1 | 12 | 0.5 | 220 | Y | Y | 0 | 6 |
| Fluxline | ½"-1"BSP | 8-25 | 0.005 | 40 | 0.01 | 600 | Y | N | 0 | 8 |
| LPL | ⅜"-1" BSP | 5-25 | 0.005 | 100 | 0.01 | 2000 | Y | 0 | 0 | 10 |
| Flow Tubes | ¼"-½" BSP | 3-10 | 0.005 | 4.4 | 0.01 | 100 | Y | N | 0 | 12 |
| FloTrak | ¾"-2" | 10-50 | 0.1 | 415 | 2 | 11670 | Y | 0 | 0 | 14 |
| Deltaflux | 1"-10" | 25-250 | 50 | 16500 | 350 | 115000 | Y | 0 | 0 | 16 |

Accessories and Technical Data

| | | |
|---|-----------------------------------|-----------|
| Flowsense | Infra-red flow alarm system | 18 |
| Finetrim | Fine and ultra fine needle valves | 19 |
| Gas Flowmeter sizing information | | 20 |
| Liquid Flowmeter sizing information | | 21 |
| Unit conversion charts | | 21 |
| Calibration and Testing | | 22 |
| Flowmeters for automatic sprinkler systems | | 23 |



Standard, Compact and Long Series are available in a range of materials with optional fine or ultrafine needle control valves.

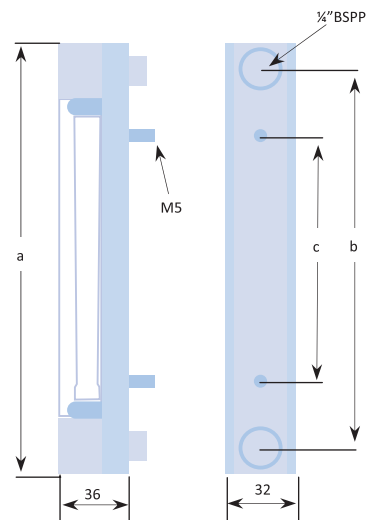
The **BENCH STAND** used with angled connections is ideal for use in laboratories and other testing applications where panel mounting is not practical.

FLOWSENSE infra-red flow alarms can be factory mounted or retro-fitted. Details on page 18.

Flow tubes are available in a wide range of standard scales to suit many common fluids and operating conditions.

CUSTOMISED SCALES are also provided on request, to meet specific fluid requirements or varied conditions of use.

Flow tubes for use in **ANAESTHETIC** equipment are available for medical gases.



| mm | Compact | Standard | Long |
|----|---------|----------|------|
| a | 133 | 210 | 250 |
| b | 108 | 184 | 226 |
| c | 65 | 121 | 121 |

Length
C=Compact
S=Standard
L= Long

Style
A=Angled
S=Straight

VI1=Integral Valved Ultra Fine
VI2=Integral Valved Fine
VC1=Cartridge Valved Ultra Fine
VC2=Cartridge Valved Fine

Connections ←

Frame Size ←

5,9 or 15

Obtain tube sizes from
tables on pages 12 & 13

S VI1 B 5

AI 05

Scale Code
Obtain scale code
from tables on
pages 12 & 13

If the range you require is not listed, a customised scale can be produced. Please supply: Nominal flow rate or preferred range, fluid properties (e.g. density & viscosity), units, working pressure and temperature.

UNIFLUX FLOWMETERS

Low flows

Direct reading

Alarm options

Customised scales

High repeatability

Angled or straight connections

Low pressure drop

Suitable for panel mounting



| Specification | |
|----------------|--|
| Gas Range | 5 cm ³ /min – 120 L/min (air equiv.) |
| Liquid Range | 2 cm ³ /min – 4.4 L/min (water equiv.) |
| Scale Length | 30/100/140 mm |
| Accuracy Class | 4 / 2.5 / 2.5 VDI / VDE |
| Repeatability | Better than 0.5% |
| Temperature | -15°C to 120°C |
| Connections | ¼ " BSP female, stainless steel or nickel plated brass |
| Seals | Viton (PTFE valve seals) |
| Flow Tube | Borosilicate glass |
| Float | Stainless steel, anodised aluminium or PEEK |

INFLUX REFLUX FLOW TRANSMITTERS

| Housing Type | Air (20°C, 1013mbar) | Float Material | Scale Code | Housing Type | Water (20°C) | Float Material | Scale Code |
|--------------|----------------------|----------------|------------|--------------|--------------------|----------------|------------|
| 3/8" RH | 0.6 to 5 L/min | Dural | AI 48 | 3/8" RH | 6 to 70 cm³/min | PTFE | WA 48 |
| 3/8" RH | 2 to 10 L/min | Dural | AI 40 | 3/8" RH | 30 to 250 cm³/min | PEEK | WA 50 |
| 3/8" RH | 2.5 to 13 L/min | St. Steel | AI 41 | 3/8" RH | 40 to 500 cm³/min | St. Steel | WA 41 |
| 3/8" RH | 3 to 22 L/min | Dural | AI 42 | 3/8" RH | 100 to 800 cm³/min | St. Steel | WA 42 |
| 3/8" RH | 5 to 33 L/min | St. Steel | AI 43 | 3/8" RH | 0.4 to 3 L/min | St. Steel | WA 43 |
| 3/8" RH | 12 to 80 L/min | Dural | AI 44 | 3/8" RH | 0.5 to 3.5 L/min | St. Steel | WA 44 |
| 1/2" MH | 20 to 150 L/min | Dural | AI 46 | 1/2" MH | 1 to 8 L/min | St. Steel | WA 46 |
| 1/2" MH | 30 to 220 L/min | St. Steel | AI 47 | 1/2" MH | 1.5 to 12 L/min | St. Steel | WA 47 |
| 1" MH | 60 to 400 L/min | Dural | AI 81 | 1" MH | 3 to 24 L/min | St. Steel | WA 81 |
| 1" MH | 80 to 600 L/min | St. Steel | AI 82 | 1" MH | 4 to 40 L/min | St. Steel | WA 82 |

Reflux flow transmitters can be ranged to suit higher flowrates than those shown. Please supply details of your application.

Alarms may also be fitted to these meters, please enquire.

For indication only, please refer to the LPL Series on pages 10 –11.

RF

1/2" MH

AI 46

Reflux

Housing

3/8" RH

1/2" MH

1" MH

Scale Code
Obtain scale code from tables above

If the range you require is not listed, a customised scale can be produced. Please supply: Nominal flow rate or preferred range, fluid properties (e.g. density & viscosity), units, working pressure and temperature.

| mm | 3/8" RH | 1/2" MH | 1" MH |
|----|---------|---------|-------|
| a | 175 | 220 | 220 |
| b | 80 | 125 | 125 |
| c | 56 | 80 | 80 |
| d | 210 | 240 | 250 |

REFLUX FLOW TRANSMITTERS

- Low to medium flows
- 4-20 mA transmission
- Local indication
- Gases and liquids
- Approved for explosive atmospheres
- Fast response
- High repeatability
- Customised calibration
- Low pressure drop
- Suitable for panel mounting



| Specification | |
|---------------|--|
| Gas Range | 0.6 - 600 L/min (air equiv.) |
| Liquid Range | 6 cm³/min - 40 L/min (water equiv.) |
| Output | 2-wire, 4 to 20mA loop powered |
| Supply | 8 – 30 VDC |
| Approvals | Ex ia IIC T6 ATEX II 2GD T70°C IP65 |
| Accuracy | ±2% FSD |
| Repeatability | ±0.5% of Flow |
| Temperature | -15°C to 60°C |
| Pressure | 20 bar max. (non shock) |
| Pressure Drop | Gases: 6 mbar max. Liquids: 25 mbar max. |
| Connections | 3/8 ", 1/2 " or 1" BSP female, Stainless steel |
| Seals | Viton or nitrile on sizes 23 and 30 |
| Flow Tube | Borosilicate glass |
| Float | Stainless steel, anodised aluminium or PEEK |

INFLUX FLUXLINE FLOWMETERS



The Fluxline series of flowmeters are suitable for both our glass and acrylic flow tubes

The **SAFETY HOUSED (SH)** frame, shown here, is used for glass tubes. A polycarbonate cover completely surrounds the glass, protecting it from accidental damage and also shielding the user should breakage occur.

CUSTOMISED SCALES are also provided on request, to meet specific fluid requirements or varied conditions of use.

| Air | | | | Water | | | |
|--------|------------|-----------|----------------|-------|------------|-----------|----------------|
| L/min | Scale Code | Tube Size | Float Material | L/min | Scale Code | Tube Size | Float Material |
| 10-20 | AI 28 | 23 | Dural | 0.6-6 | WA 28 | 23 | St. Steel |
| 30-200 | AI 29 | | St. Steel | 1-10 | WA 29 | | St. Steel |
| 40-360 | AI 30 | 30 | Dural | 2-20 | WA 30 | 30 | St. Steel |
| 60-600 | AI 31 | | St. Steel | 4-40 | WA 31 | | St. Steel |

| | | |
|----|------|-----|
| mm | 1/2" | 1" |
| a | 220 | 253 |
| b | 45 | 55 |
| c | 44 | 52 |

Housing
SH=Safety Housed
OF=Open Frame

Size
SH 1/2" = 5, 9, 15 Glass
OF 1/2" = 23 Plastic
OF 1" = 30 Plastic

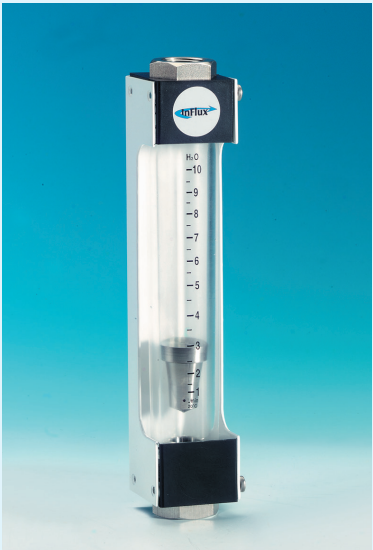
Connections
S=Stainless Steel
B=Nickel Plated Brass (1/2" only)

Scale Code
Obtain scale code from tables on pages 12 & 13 and above.

If the range you require is not listed, a customised scale can be produced. Please supply: Nominal flow rate or preferred range, fluid properties (e.g. density & viscosity), units, working pressure and temperature.

FLUXLINE FLOWMETERS

- Low to medium flows
- Direct reading
- Alarm options
- Plastic or glass tubes
- Customised scales
- Safety housing for glass flow tubes
- Low pressure drop
- Suitable for panel mounting



| Specification | |
|----------------------|---|
| Gas Range | 5 cm³/min - 600 L/min (air equiv.) |
| Liquid Range | 2 cm³/min - 40 L/min (water equiv.) |
| Scale Length | 100 mm or 140 mm |
| Accuracy | Glass: 2.5 VDI / VDE Acrylic: 5% FSD |
| Temperature | Glass: -15°C to 120°C Acrylic: 60°C max. |
| Pressure (non shock) | Glass: 10 bar max. Acrylic: 8 bar max. at 20°C 3 bar max. at 60°C |
| Connections | 1/2" or 1" BSPF 316 Stainless Steel 1/2" BSPF Brass |
| Seals | Sizes 5, 9, 15 :Viton Sizes 23, 30 : Nitrile |
| Flow Tube | Borosilicate glass or acrylic |
| Float | Stainless steel, anodised aluminium or PEEK |

INFLUX LPL SERIES HOUSED FLOWMETER



LPL Series flowmeters can be used with our glass or acrylic flow tubes. These include Size 40, which combine higher flowrates with a very low pressure drop.

REFLUX 4 to 20 mA OUTPUT versions of LPL Series flowmeters are available in many standard ranges, many of which are shown on page 6. If the range you require is not shown, please enquire.

Glass Tubes for LPL (MH) Flowmeters

| | Air | Water (H ₂ O) | Scale Code | Tube Size |
|--------|--------|--------------------------|------------|-----------|
| L/ min | 10-120 | 0.5-7 | 55LPL | 23 |
| | 30-230 | 1.5-12 | 56LPL | |
| | 40-360 | 2-20 | 98LPL | 30 |
| | 60-600 | 4-40 | 99LPL | |
| | AI | WA | | |

Acrylic Tubes for LPL (LH) Flowmeters

| | Air | Water (H ₂ O) | Scale Code | Tube Size |
|--------|----------|--------------------------|------------|-----------|
| L/ min | 100-1000 | 5-60 | 57LPL | 40 |
| | 300-2000 | 10-100 | 58LPL | |
| | AI | WA | | |

| | | |
|-----|---------|----|
| LPL | 1/2" MH | 23 |
|-----|---------|----|

AI 56 LPL

Scale Code
Obtain scale codes for sizes 5, 9 and 15 from the tables on pages 12 & 13. For sizes 23, 30 and 40 see tables above.

Housing

| | | |
|---------|---|----------|
| 3/4" RH | = | 5, 9, 15 |
| 1/2" MH | = | 23 |
| 1" MH | = | 30 |
| 1" LH | = | 40 |

Please enquire for details of alarm options.

For 4 to 20mA output versions go to page 6.

| mm | 3/4" RH | 1/2" MH | 1" MH | 1" LH |
|----|---------|---------|-------|-------|
| a | 175 | 220 | 220 | 355 |
| b | 80 | 125 | 125 | 125 |
| c | 56 | 80 | 80 | 80 |
| d | 210 | 240 | 250 | 410 |

LPL SERIES HOUSED FLOWMETER

- Medium flows
- Direct reading
- Gases and liquids
- Low pressure drop
- High repeatability
- Customised calibration
- Rugged enclosure
- Suitable for panel mounting



| Specification | |
|----------------------|---|
| Gas Range | 5 cm ³ /min - 2000 L/min (air equiv.) |
| Liquid Range | 2 cm ³ /min - 100 L/min (water equiv.) |
| Scale Length | 100 mm, 140 mm, 200 mm |
| Accuracy | 2.5 VDI/VDE |
| Temperature | Glass: 120°C max. Acrylic: 60°C max. |
| Pressure (non shock) | Glass: 20 bar max. Acrylic: 8 bar max. at 20°C 3 bar max. at 60°C |
| Pressure Drop | Gas: 6 mbar max. Liquid: 25 mbar max. |
| Connections | 3/8", 1/2" or 1" BSPF 316 Stainless Steel |
| Seals | Sizes 5, 9, 15 :Viton Sizes 23, 30, 40 : Nitrile |
| Flow Tube | Borosilicate glass or acrylic |
| Float | Stainless steel, anodised aluminium or PEEK |
| Other Materials | PVC adaptors on 1" LH units |

Standard Glass Tubes: for Uniflux (1/4"),
LPL (RH) or Fluxline (1/2") Flowmeters

| | Air | Argon (AR) | Butane (C ₄ H ₁₀) | Carbon Dioxide (CO ₂) | Carbon Monoxide (CO) | Cracked Ammonia (N:3H) | Helium (He) | Hydrogen (H ₂) | Methane (CH ₄) | Nitrogen (N ₂) | Oxygen (O ₂) | Propane (C ₃ H ₈) | Scale Code | Float Material | Tube Size | Floats are St.Steel | Water (H ₂ O) | Scale Code | |
|---------|---------|---------------|---|---|----------------------------|------------------------------|----------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------|---|---------------|-------------------|--------------|------------------------|-----------------------------|---------------|----|
| cm³/min | 5-100 | 5-80 | 20-130 | 10-100 | 10-100 | 10-120 | 5-100 | 20-250 | 10-150 | 5-100 | 5-90 | 10-140 | 02 | Dural | 5 | cm³/min | - | - | |
| | 20-250 | 20-200 | 50-290 | 20-250 | 20-270 | 30-360 | 20-280 | 40-600 | 40-360 | 20-250 | 20-220 | 40-300 | 03 | Dural | | | 1-10 | 08 | |
| | 60-600 | 60-560 | 100-700 | 60-600 | 50-700 | - | 50-800 | - | 0.05-0.9 | 60-600 | 40-600 | 100-700 | 38 | Dural | | | 2-25 | 49 | |
| | 50-750 | 40-660 | 100-800 | 50-750 | 50-800 | - | 0.05-1.1 | 0.1-2 | 0.1-1.1 | 50-800 | 50-700 | 100-850 | 04 | Dural | | | 4-60 | 01 | |
| L/min | 0.1-1.2 | 0.1-1 | 0.1-1.1 | 0.1-1.1 | 0.1-1.2 | 0.1-1.8 | 0.1-1.8 | 0.2-3.4 | 0.1-1.7 | 0.1-1.2 | 0.1-1.1 | 0.1-1.2 | 05 | St. Steel | 9 | | cm³/min | - | - |
| | 0.2-2 | 0.2-1.7 | 0.4-2 | 0.2-1.8 | 0.2-2 | 0.3-3 | 0.2-3 | 0.4-5.6 | 0.4-2.8 | 0.2-2 | 0.2-1.8 | 0.3-2.2 | 36 | Dural | | | | - | - |
| | 0.3-3.4 | 0.2-2.9 | 0.5-3 | 0.3-3 | 0.3-3.5 | 0.4-5.8 | 0.3-5.8 | 0.5-10 | 0.4-4.8 | 0.3-3.5 | 0.3-3.2 | 0.3-3.4 | 06 | PEEK | | | | 30-280 | 02 |
| | 0.6-5 | 0.4-4 | 0.8-4 | 0.6-4.4 | 0.6-5 | 1-8 | 0.5-9 | 1-15 | 1-7 | 0.6-5 | 0.4-4.4 | 0.8-4.8 | 07 | Dural | | | | 40-480 | 03 |
| | 1-10 | 1-8 | 1.5-8 | 1-8.5 | 1-10 | 2-18 | 2-20 | 3-34 | 2-14 | 1-10 | 1-9.5 | 1.5-9 | 45 | St. Steel | | | | 50-750 | 04 |
| | 1-13 | 1-11 | 1-10 | 1-11 | 1-12 | 2-22 | 1-28 | 2-46 | 1-18 | 1-13 | 1-12 | 1-11 | 08 | Dural | | | | - | - |
| | 2-26 | 2-22 | 2-19 | 2-20 | 2-26 | 4-48 | 2-60 | 5-95 | 3-36 | 2-27 | 2-25 | 2-22 | 09 | St. Steel | | | | 0.1-1.2 | 05 |
| | 4-50 | 4-44 | 4-36 | 4-40 | 6-54 | 10-90 | 5-120 | 10-180 | 5-70 | 4-50 | 4-50 | 4-40 | 10 | Dural | 15 | L/min | 0.3-3 | 06 | |
| | 10-100 | 10-90 | 10-70 | 10-80 | 10-100 | 20-180 | 20-270 | 40-400 | 15-140 | 10-100 | 10-100 | 10-85 | 11 | St. Steel | | | 0.4-4.4 | 07 | |
| | | AI | AR | BU | CD | CM | CA | HE | HY | ME | NI | OX | PR | | | | | WA | |

Compact Glass Tubes: For Uniflux (1/4") Flowmeters

| | Air | Scale Code | Float Material | | Tube Size | Floats are St.Steel | Water (H ₂ O) | Scale Code |
|---------|---------|------------|----------------|-------|-----------|---------------------|--------------------------|------------|
| cm³/min | 20-200 | 13 | Dural | 5 | cm³/min | - | - | |
| | 50-500 | 51 | Dural | | | 15-80 | 12 | |
| L/min | 0.2-1 | 15 | Dural | - | | - | | |
| | 0.5-2.5 | 52 | Dural | 9 | | 25-250 | 13 | |
| | 0.5-5 | 53 | Dural | | | 100-700 | 14 | |
| | 2-12 | 18 | Dural | L/min | 0.2-1 | 15 | | |
| | 5-25 | 54 | St. Steel | | - | - | | |
| | AI | | | | | WA | | |

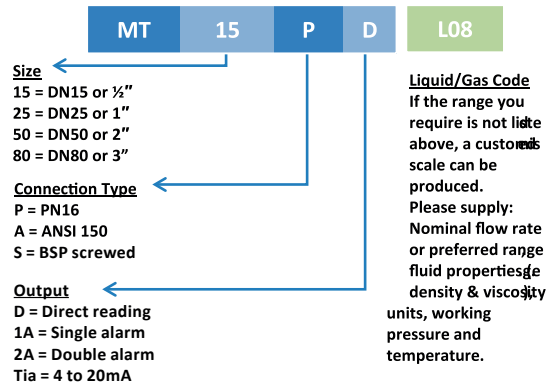
Long Glass Tubes: For Uniflux (1/4") Flowmeters

| | Air | Scale Code | Float Material | Tube Size | Floats are St.Steel | Water (H ₂ O) | Scale Code |
|-------|----------|------------|----------------|-----------|---------------------|--------------------------|------------|
| L/min | 0.05-1.6 | 24 | St. Steel | 5 | cm³/min | 2-80 | 20 |
| | 0.3-4.6 | 25 | PEEK | 9 | | 30-380 | 22 |
| | 0.5-16 | 33 | Dural | | | | |
| | 1-33 | 39 | St. Steel | 15 | L/min | 0.05-1.5 | 24 |
| | 5-115 | 27 | St. Steel | | | 0.1-3.4 | 34 |
| | - | - | - | | | 0.1-4.8 | 25 |
| | | | | | | | |
| | AI | | | | WA | | |

| Size (MM) | Full Scale Flow Rates (at 20°C & 1013 mbar) | | | | Max Pressure Drop (kPa) |
|---------------------|---|-------------------|------------------------|----------------|-------------------------|
| | Water | Liquid Range Code | Air (with gas damping) | Gas Range Code | |
| DN 15 Flange or BSP | 50 L/h | L08 | 1.5 m³/h | G08 | 1.5 |
| | 70 L/h | L11 | 2 m³/h | G11 | 1.5 |
| | 100 L/h | L14 | 3 m³/h | G14 | 1.5 |
| | 160 L/h | L16 | 4.8 m³/h | G16 | 1.5 |
| | 250 L/h | L19 | 7.5 m³/h | G19 | 3.0 |
| | 400 L/h | L23 | 12 m³/h | G23 | 3.0 |
| | 600 L/h | L26 | 18 m³/h | G26 | 3.5 |
| DN 25 Flange or BSP | 1 m³/h | L00 | 30 m³/h | G00 | 1.5 |
| | 1.6 m³ | L02 | 48 m³/h | G02 | 3.0 |
| | 2.5 m³/h | L04 | 75 m³/h | G04 | 3.5 |
| | 4 m³/h | L07 | 120 m³/h | G07 | 8.0 |
| | 6 m³/h | L11 | 180 m³/h | G11 | 16.0 |
| DN 50 Flange or BSP | 6 m³/h | L00 | 180 m³/h | G00 | 3.0 |
| | 10 m³/h | L02 | 300 m³/h | G02 | 4.0 |
| | 16 m³/h | L05 | 480 m³/h | G05 | 8.0 |
| | 25 m³/h | L08 | 750 m³/h | G08 | 16.0 |
| DN 80 Flange only | 25 m³/h | L00 | 750 m³/h | G01 | 14.0 |
| | 50 m³/h | L04 | 1500 m³/h | G05 | 22.0 |



MT meters are installed in vertical lines with flow upwards and are normally supported by the pipework.



Medium to high flows
 High pressures
 Direct reading
 Alarm option
 4 - 20 mA option
 Gases and liquids
 Flanged connections



| Specification | |
|---------------|---|
| Gas Range | 0.1 - 700 m³/h (air equiv) |
| Liquid Range | 5 L/h – 25 m³/h (water equiv) |
| Scale Length | 100 mm |
| Alarms* | Single or Dual NAMUR Type (ATEX II 2G) |
| Transmitter* | 2-wire 4 to 20 mA (EEx ia IIC T6) (ATEX II 2GD T70°C) |
| Protection | IP65 |
| Accuracy | ±2% FSD |
| Repeatability | 0.5% of Flow |
| Temperature | -30°C to 65°C Ambient -40°C to 200°C Fluid |
| Pressure** | 100 bar max. (or flange rating) |
| Flanged | DIN PN16 or ANSI 150 |
| Screwed | BSP female |
| Sizes | DN15-DN50 (1/4" to 2") |
| Materials | 316 SS standard |

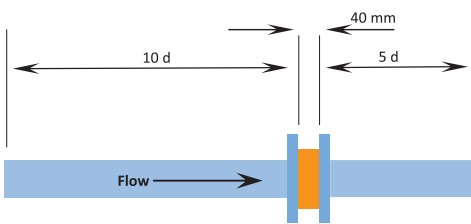
*Alarms and transmitters are optional

**In accordance with the European Pressure Equipment Directive 97/23/EC, stated pressure rating is for Group 2 fluids (non dangerous).

INFLUX DELTAFLUX ORIFICE FLOWMETER

| Flow Ranges (@ 20°C, 1013 mbar) | | | | | | |
|---|-------------|------------|------------|------------|--------------|------------|
| Pipe Size (mm) | Water m³/h | Scale Code | Water m³/h | Scale Code | Air m³/h | Scale Code |
| DN 38 | 2 to 20 | WA 85 | 2 to 10 | WA 91 | 20 to 150 | AI 85 |
| DN 50 | 5 to 40 | WA 86 | 4 to 20 | WA 92 | 40 to 300 | AI 86 |
| DN 80 | 10 to 100 | WA 87 | 10 to 50 | WA 93 | 100 to 700 | AI 87 |
| DN 100 | 20 to 200 | WA 88 | 20 to 100 | WA 94 | 200 to 1500 | AI 88 |
| DN 150 | 50 to 400 | WA 89 | 40 to 200 | WA 95 | 500 to 3500 | AI 89 |
| DN 200 | 100 to 1000 | WA 90 | 80 to 400 | WA 96 | 1000 to 7000 | AI 90 |
| | 400 mbar | | 100 mbar | | 40 mbar | |
| Unrecovered pressure loss at maximum flow | | | | | | |

FLOWSENSE infra-red flow alarms can be factory mounted or retro-fitted. Details on page 18
 Other materials of construction are available, please enquire for details.



DF100

AI 88

Size

38 = DN 38
50 = DN50
80 = DN80
100 = DN100
150 = DN150
200 = DN200

Additional sizes are available on request.

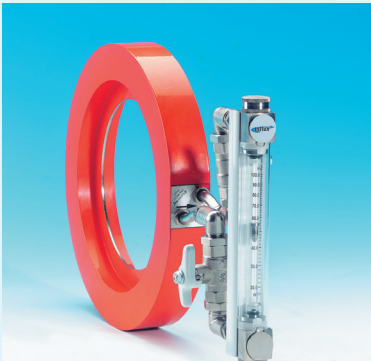
Scale Code

Obtain scale code from the tables above

If the range you require is not listed, a customised scale can be produced. Please supply: Nominal flow rate or preferred range, fluid properties (e.g. density & viscosity), units, working pressure and temperature.

DELTAFLUX ORIFICE FLOWMETER

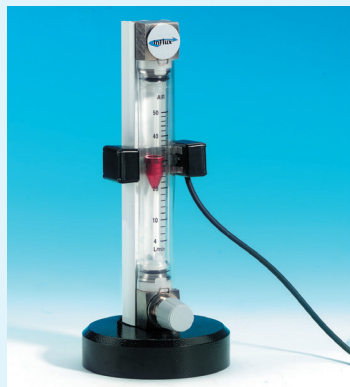
- High flows
- Direct reading
- Gases and liquids
- Between flange connections
- Compact construction
- Vertical or horizontal mounting
- By-pass isolation valves
- Optional alarm



| Specification | |
|-----------------|---|
| Gas Range | 20 - 7000 m³/h (air equiv) |
| Liquid Range | 2 - 1000 m³/h (water equiv) |
| Scale Length | 100 mm |
| Accuracy | ±2% FSD |
| Temperature | -15 to 90°C |
| Pressure* | 20 bar max. (non shock) |
| Connections | Flange wafer, bolted between flanges (DIN or BS10 Table E or D) |
| Seals | Viton and polyurethane |
| Flow Tube | Borosilicate glass |
| Float | Liquids: Stainless steel Gases: Anodised aluminium (Dural) |
| Orifice Carrier | 316 St. steel flow orifice mounted in a polyester coated carbon steel carrier |
| Other Materials | Copper and brass |

*Pressure rating for water application. In accordance with the European Pressure Equipment Directive 97/23/EC, actual pressure rating is dependent upon fluid type and nominal pipe size.

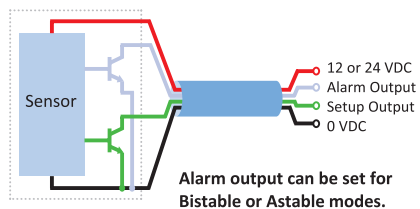
INFLUX FLOWSENSE ALARM



Fits most frame types
Adjusts to any point on scale
Simple interfacing
Selectable output modes
Power failure detection
Can be retro-fitted
Optional power supply/relay module

| Sensor | |
|-------------|--|
| Supply | 12 VDC, 30mA (24 VDC optional) |
| Output | 2 x npn open collector* 150mA, 24VDC max. |
| Cable | 3m, screened 4 core |
| Temperature | -5 to 60°C |

* Alarm output conducts in non-alarm state. Setup output non conducting after power failure, until initialised.



Depending upon flowmeter type and range required, for Hazardous Area applications, NAMUR type inductive sensors may be available. Enquire for suitability.

| Power Supply + Relay Module | |
|-----------------------------|---|
| Supply | 115/230 VAC, 50-60Hz |
| PSU Output | 12 VDC, 200 mA max. |
| Relays | 2 x SPCO 10A @ 30 VDC/250 VAC 125 VDC/380 VAC max. 10mA @ 5 VDC min. |
| Indicators | Power on, Output and Setup LEDs |
| Temperature | -5 to 50°C |
| Protection | IP65 |

Sensor:

FIS 12V

Uniflux

Supply
12V
24V

Flowmeter
Specify type of
flowmeter to
be used

Power Supply + Relay Module:

FPSU

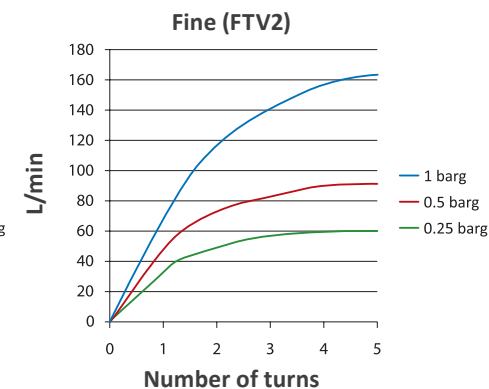
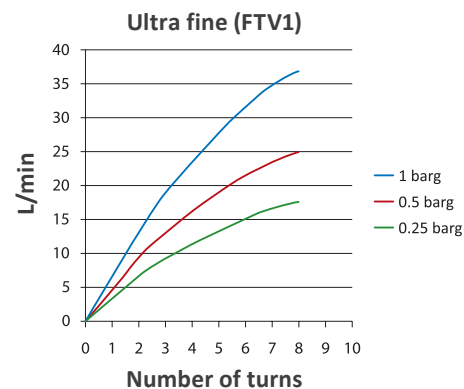
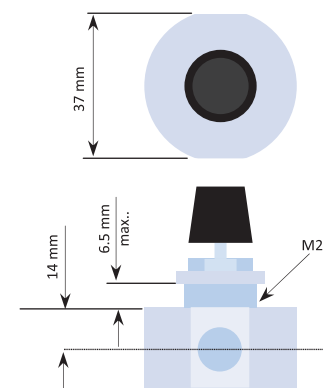
Suitable for up to
two 12V sensors.

INFLUX FINETRIM VALVES

Gas or liquid control
Multi-turn operation
Choice of valve characteristics
Stainless steel construction
Interchangeable valve cartridge



| Specification | |
|---------------|-------------------------|
| Temperature | 120°C max. |
| Pressure | 30 bar max. |
| Adjustment | 10 operating turns max. |
| Connections | ¼" BSPP Female |
| Seals | Viton and PTFE |
| Valve Body | 316 stainless steel |
| Valve Needle | 316 stainless steel |



Gas Sizing

For non-standard gases or conditions, use the tables below to find the flowrate of Air @20°C and 1013 mbar and match to the equivalent flowmeter type and size.

To convert from Air at other temperatures or pressures, use table 1.

To convert from other gases to Air, use table 2.

Table 1: Multiplier to give equivalent flow @ 20°C and 1013 mbar

| Fluid Conditions | 0 bar g | 1 bar g | 2 bar g | 3 bar g | 4 bar g | 5 bar g | 6 bar g | 7 bar g |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°C | 0.965 | 0.685 | 0.560 | 0.485 | 0.434 | 0.396 | 0.367 | 0.343 |
| 10°C | 0.983 | 0.697 | 0.570 | 0.494 | 0.442 | 0.403 | 0.374 | 0.349 |
| 20°C | 1.000 | 0.709 | 0.580 | 0.502 | 0.450 | 0.410 | 0.380 | 0.355 |
| 30°C | 1.017 | 0.721 | 0.590 | 0.511 | 0.457 | 0.417 | 0.387 | 0.362 |
| 40°C | 1.034 | 0.733 | 0.599 | 0.519 | 0.465 | 0.424 | 0.393 | 0.368 |
| 50°C | 1.050 | 0.745 | 0.609 | 0.528 | 0.472 | 0.431 | 0.399 | 0.373 |
| 60°C | 1.066 | 0.756 | 0.618 | 0.536 | 0.479 | 0.438 | 0.405 | 0.379 |
| 70°C | 1.082 | 0.768 | 0.627 | 0.544 | 0.486 | 0.444 | 0.411 | 0.385 |
| 80°C | 1.098 | 0.779 | 0.636 | 0.552 | 0.493 | 0.451 | 0.417 | 0.390 |
| 90°C | 1.113 | 0.790 | 0.645 | 0.559 | 0.500 | 0.457 | 0.423 | 0.396 |
| 100°C | 1.128 | 0.800 | 0.654 | 0.567 | 0.507 | 0.463 | 0.429 | 0.401 |

Table 2: Multiplier to give equivalent flow of Air

| Fluid | Symbol | Multiplier |
|-------------------|--------------------------------|------------|
| Acetylene | C ₂ H ₂ | 0.948 |
| Ammonia | NH ₃ | 0.767 |
| Argon | Ar | 1.175 |
| Butane | C ₄ H ₁₀ | 1.417 |
| Carbon Dioxide | CO ₂ | 1.233 |
| Carbon Monoxide | CO | 0.983 |
| Chlorine | Cl ₂ | 1.565 |
| Ethane | C ₂ H ₆ | 1.019 |
| Ethylene | C ₂ H ₄ | 0.984 |
| Hydrogen | H ₂ | 0.264 |
| Hydrogen Chloride | HCl | 1.122 |
| Methane | CH ₄ | 0.744 |
| Nitrogen | N ₂ | 0.984 |
| Nitrous Oxide | N ₂ O | 1.233 |
| Oxygen | O ₂ | 1.051 |
| Propane | C ₃ H ₈ | 1.234 |

Example 1

50 L/min of Air @ 2 barg & 40°C

Using table 1:

Equivalent flow of Air at 1013 mbar and 20°C

$$= 50 \text{ L/min} \times 0.599$$

$$= 30 \text{ L/min}$$

Example 2

50 L/min of Hydrogen @ 1013 mbar & 20°C

Using table 2:

Equivalent flow of Air @ 1013 mbar and 20°C

$$= 50 \text{ L/min} \times 0.264$$

$$= 13.2 \text{ L/min}$$

Example 3

50 L/min of Hydrogen @ 2 barg & 40°C

Using tables 1 & 2:

Equivalent flow of Air @ 1013 mbar and 20°C

$$= 50 \text{ L/min} \times 0.599 \times 0.264$$

$$= 7.9 \text{ L/min}$$

Liquid Sizing

For liquids other than water, use the Specific Gravity (SG) of the liquid and table 3 below to find the water flowrate and match to the equivalent flowmeter type and size.

Table 3: Multiplier to give equivalent water flow

| Liquid SG (g/cm ³) | Multiplier |
|--------------------------------|------------|
| 0.7 | 0.819 |
| 0.8 | 0.882 |
| 0.9 | 0.942 |
| 1.0 | 1.000 |
| 1.1 | 1.056 |
| 1.2 | 1.111 |
| 1.3 | 1.166 |
| 1.4 | 1.218 |
| 1.5 | 1.271 |
| 1.6 | 1.323 |

Example

25 L/min of Liquid with a Specific Gravity of 1.2

Using table 3:

Equivalent flow of Water

$$= 25 \text{ L/min} \times 1.111$$

$$= 27.8 \text{ L/min}$$

Unit Conversion

Flowrate

| Multiply to convert | To | |
|----------------------|----------------------|---------|
| | From | To |
| cm ³ /sec | cm ³ /min | L/min |
| | 60 | 0.06 |
| cm ³ /min | 1 | 0.001 |
| L/min | 1000 | 1 |
| L/h | 16.67 | 0.0166 |
| m ³ /h | 16670 | 16.67 |
| CFM | 28320 | 28.32 |
| CFH | 471.9 | 0.4719 |
| Imp GPM | 454.6 | 4.546 |
| Imp GPH | 75.77 | 0.07577 |
| US GPM | 3785 | 3.785 |
| US GPH | 63.08 | 0.06308 |

Pressure

| Multiply to convert | To | |
|-----------------------|---------|----------|
| | From | To |
| psi | mbar | bar |
| | 68.947 | 0.069 |
| atms. | 1013 | 1.013 |
| inch H ₂ O | 2.486 | 0.0025 |
| kg/cm ² | 980.662 | 0.981 |
| mm H ₂ O | 0.0977 | 0.000098 |
| mm Hg | 1.329 | 0.001329 |
| kPa | 10 | 0.01 |

Temperature

| To convert | To |
|------------|-------------------------------------|
| From | °C |
| °F | $\frac{(^{\circ}\text{F}-32)}{1.8}$ |
| K | K-273.15 |



Each flowmeter scale is produced using our bespoke air or water calibration facilities where all reference equipment used is traceable to national standards and controlled within our approved ISO9001:2008 management system, assuring accuracy within the required limits.

To meet the exacting needs of modern industry we can offer higher levels of accuracy and certification traceable to national standards or third party UKAS certification.

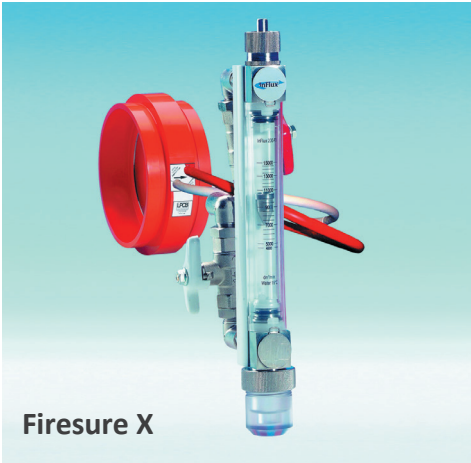


Investment in flow calibration facilities and automation of build and test routines enables Influx to deliver consistent product quality in support of both small batch and high volume manufacturing requirements.

Flowmeters for sprinkler systems



Flange and groove style connection
Simple and quick to install
Horizontal or vertical pipelines
Direct or remote indicator
Certificated to LPS 1045

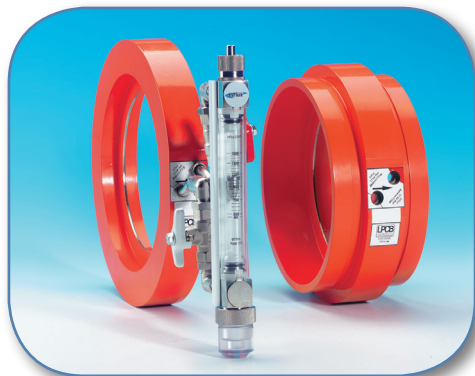


| Size & connection | Firesure close coupled | | Firesure X remote coupled. | |
|-------------------|------------------------|-----------|----------------------------|-----------|
| | dm3/min | LPCB ref. | dm3/min | LPCB ref. |
| 50 Flange | 150 to 700 | 464a/01 | 200 to 850 | 464a/11 |
| 80 Flange | 300 to 1600 | 464a/02 | 200 to 1800 | 464a/12 |
| 100 Flange | 500 to 3500 | 464a/03 | 400 to 4000 | 464a/13 |
| 150 Flange | 900 to 7900 | 464a/04 | 1100 to 9500 | 464a/14 |
| 200 Flange | 2000 to 15000 | 464a/05 | 2500 to 17000 | 464a/15 |
| 50 Groove | 150 to 700 | 464a/06 | 200 to 850 | 464a/16 |
| 80 Groove | 300 to 1600 | 464a/07 | 200 to 1800 | 464a/17 |
| 100 Groove | 500 to 3500 | 464a/08 | 400 to 4000 | 464a/18 |
| 150 Groove | 900 to 7900 | 464a/09 | 1100 to 9500 | 464a/19 |
| 200 Groove | 2000 to 15000 | 464a/10 | 2500 to 17000 | 464a/20 |



A wide range of low flowrate meters for monitoring, controlling and visualisation in sampling, blending, dosing, aeration, cooling and laboratory use.

Flowmeters suitable for high flowrate measurement and control in process flows, water treatment and gas furnace applications.



The Firesure range of meters approved for the testing of automatic sprinkler installations in buildings.

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