

# Spinner

## Visual Flow Indicator

Flow-Mon's Spinner, the latest design of low cost, 'entry level' Flow Indicator. This robust indicator out performs other spinner instruments by a considerable margin. When calibrated flow indicators are not needed, this single sided indicator will satisfy most requirements within pipe sizes 8mm to 40mm.

The Flow-Mon Spinner starts to rotate once flow has commenced, this can be from as low as 0.7lpm. The exceptional ratio between maximum and minimum flow is achieved by carefully toleranced manufacture. This spinner design can be mounted both horizontal and vertical, offering bi-directional flow indication with low pressure losses.

When operators require a visual confirmation in their pipework for lubrication and coolant flow, this simple Spinner can provide a cost effective solution for plant protection.

Including one of these inexpensive fittings to pipework on a power-plant may save thousands of pounds in downtime and bearing or pump impeller replacement. Add to this the safety implications resulting from plant failure and the true benefits may be fully appreciated.

### Features & Benefits

- Suitable for water and other clear liquids and gases
- 16 bar pressure and 200°C temperature capability
- Precision moulded glass dome with yellow PPS plastic spinner
- Can be used in any orientation
- Bi-directional flow
- Operates over a wide flow range
- Competitively priced
- Off the shelf deliveries
- No routine maintenance needed
- Unrivalled flow and pressure drop performance
- Manufactured in stainless steel or bronze



### Applications

This flow indicator is used in plant protection applications to show lubrication or coolant flow to pumps, compressors or engines.

#### Applications for the Flow-Mon Spinner include:

- Early warning of overheating, bearing or seal failure
- Detecting changes in the colour and condition of liquids during processing
- Pump, compressor and diesel protection
- Ensuring that flow of cooling water is maintained to specialised welding equipment
- Indication of air entrainment

### Technical Data

#### Materials:

<b>Body</b>	-Stainless Steel 316: ASTM-A-351-2000 GR CF8M -Bronze BS EN1982 CuSn5Zn5PB5-C-GS (formerly LG2)
<b>Clamp Ring</b>	-Stainless Steel or Bronze
<b>Spinner</b>	-PPS Plastic, 'canary yellow'
<b>Glass Dome</b>	-Annealed Borosilicate
<b>'O' Ring</b>	-Viton
<b>Gasket</b>	-Klingersil (C-4400) or equivalent
<b>Fasteners</b>	-Stainless Steel

**Pressure:** -16 Bar (maximum working pressure)

**Temperature:** -200°C (maximum working temperature)

**Connections:** -BSP(F) parallel and NPT(F) taper

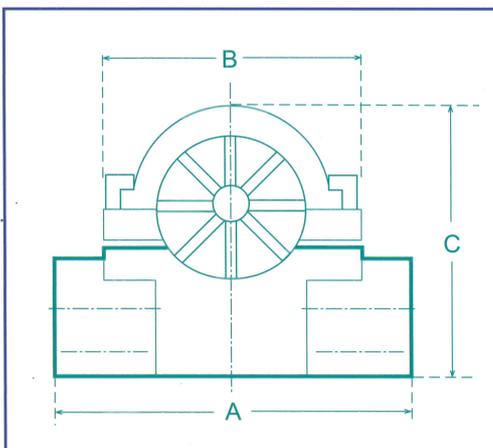
Every effort will be made to meet any special connection and seal requirements

#### Flow Requirements

Size	Min Flow	Max Flow	Pressure Drop - 2m/sec
mm	l/min	l/min	bar
8	0.7	30	0.14
10	0.8	40	0.16
15	1.0	55	0.22
20	1.2	90	0.19
25	1.5	140	0.50
32	4	180	0.80
40	4	200	0.90

#### Dimensions and Weights

Bore	Size	Weight	A' Overall Length	B' Width (Clamp)	C' Overall Height
mm	inch	kg	mm	mm	mm
8	1/4	0.68	76	63	65
10	3/8	0.65	76	63	65
15	1/2	0.62	76	63	65
20	3/4	1.25	89	63	83
25	1	1.20	89	63	83
32	1 1/4	2.4	115	75	100
40	1 1/2	2.4	115	75	100



# Rising Ball

## Visual Flow Indicator

Flow-Mon's Rising Ball, introduced to give industry a high standard flow indicator that meets the needs of simple flow applications. When calibrated flow indicators are not needed, the Rising Ball will satisfy most requirements within pipe sizes 8mm to 40mm.

Being constructed from high quality materials this in-line indicator will meet the needs of many chemical applications, as well as being suitable for water, oil and gases.

Whilst there is no flow in the pipe the white PTFE Ball remains seated in the body socket. As the flow rises the ball will lift out of the socket, clearly becoming visible. The ball will continue to rise and move freely in the dome as the flow rate increases.

The Flow-Mon Rising Ball needs to be mounted on a horizontal plane, with the glass dome positioned upwards. When there is flow in the pipes the ball can be seen clearly, giving a positive confirmation of flow.

### Features & Benefits

- Clear flow indication
- 16 bar pressure and 200°C temperature capability
- Excellent chemical compatibility due to the materials of construction
- Can be used on condensate duty as well as liquids and gas
- Operates over a wide flow range
- Durable PTFE ball and borosilicate glass dome
- Competitively priced
- Off the shelf deliveries
- No routine maintenance needed
- Unrivalled flow and pressure drop performance
- Manufactured in stainless steel or bronze



### Applications

This flow indicator is primarily used in plant protection applications to show lubrication or coolant flow to pumps, compressors or engines.

#### Applications for the Flow-Mon Rising Ball include:

- Ensuring that the flow of cooling water is maintained to specialised medical factory equipment
- Indicating chemical dosing on water treatment facilities
- Showing the presence of condensate in steam return lines
- Detecting changes in the condition and colour of liquids during processing
- Maintaining demineralised water rinsing essential to electronics components manufacture

### Technical Data

#### Materials:

<b>Body</b>	-Stainless Steel 316: ASTM-A-351-2000 GR CF8M -Bronze BS EN1982 CuSn5Zn5PB5-C-GS (formerly LG2)
<b>Clamp Ring</b>	-Stainless Steel or Bronze
<b>Ball</b>	-PTFE 'Teflon'
<b>Glass Dome</b>	-Annealed Borosilicate
<b>'O' Ring</b>	-Viton
<b>Gasket</b>	-Klingsil (C-4400) or equivalent
<b>Fasteners</b>	-Stainless Steel

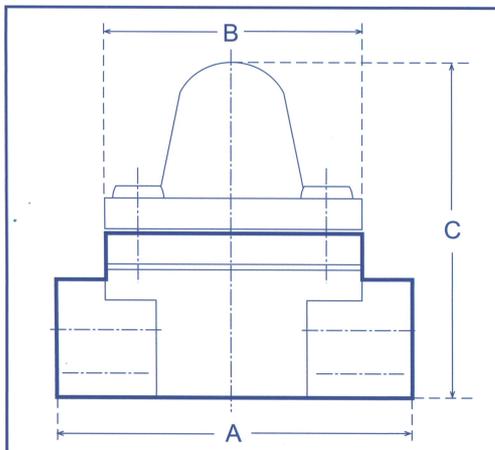
**Pressure:** -16 Bar (maximum working pressure)

**Temperature:** -200°C (maximum working temperature)

**Connections:** -BSP(F) parallel and NPT(F) taper

Every effort will be made to meet any special connection and seal requirements

#### Flow Requirements



Size	Min Flow	Out of Socket	Max Flow	Pressure Drop - 2m/sec
mm	l/min	l/min	l/min	bar
8	0.1	1.0	60	0.13
10	0.1	1.0	60	0.16
15	0.1	1.0	65	0.19
20	2.4	5.2	150	0.16
25	2.7	5.5	165	0.40
32	11.0	16.0	400	0.20
40	16.0	21.0	450	0.23

#### Dimensions and Weights

Bore	Size	Weight	A' Overall Length	B' Width (Clamp)	C' Overall Height
mm	inch	kg	mm	mm	mm
8	1/4	0.72	76	63	79
10	3/8	0.69	76	63	79
15	1/2	0.65	76	63	79
20	3/4	1.30	89	63	95
25	1	1.25	89	63	95
32	1 1/4	2.50	117	75	125
40	1 1/2	2.35	117	75	125