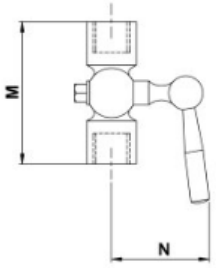
Bailey & Mackey Ltd

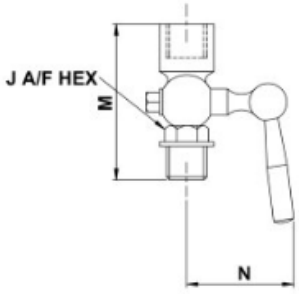
Accessories

Gauge Cock (FxF) – Max. 14 bar



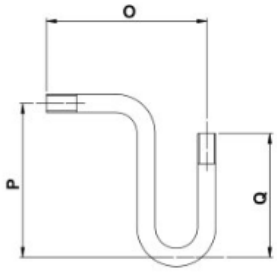
	M	N	Weight
1/2" BSPP	74.6mm	44.4mm	0.29kg
3/8" BSPP	65.0mm	42.9mm	0.202kg

Gauge Cock (MxF) – Max. 14 bar



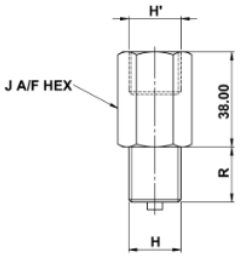
	M	N	J	Weight
1/2" BSPP	74.6mm	42.9mm	24.0mm	0.272kg
3/8" BSPP	69.8mm	41.4mm	19.0mm	0.227kg
1/4" BSPP	55.6mm	31.7mm	14.2mm	0.127kg

U Syphon – Max. 14 bar



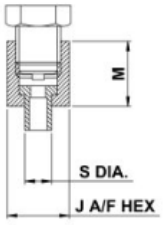
	O	P	Q	Weight
1/2" BSPP	16.7mm	14.9mm	16.9mm	0.545kg
3/8" BSPP	15.1mm	14.5mm	15.6mm	0.359kg

Adjustable Throttling Device – Max. 400 bar



H	H'	J	R	Weight
1/4" BSPP	1/4" BSPP	15.3mm	14.2mm	0.068kg
3/8" BSPP	3/8" BSPP	20.8mm	17.5mm	0.123kg
1/2" BSPP	1/2" BSPP	28.0mm	15.9mm	0.2kg

Union Nuts & Tailpipes



	M	S	J	Weight
1/2" BSPP	26.5mm	14.0mm	24.0mm	0.081kg
3/8" BSPP	21.5mm	12.0mm	19.0mm	0.043kg
1/4" BSPP	15.5mm	8.0mm	14.0mm	0.018kg

Bailey & Mackey Ltd

Diaphragm Seals

Diaphragm Seals or Chemical Seals are used with Bourdon Tube gauge to provide a barrier between a corrosive fluid and a bourdon tube pressure gauge. They can be used to prevent paint, slurry. Powder etc. blocking the bourdon tube.

The cavity above the diaphragm and the passageway in the bourdon tube gauge is filled with a non-aggressive fluid which transmits the pressure exerted on the diaphragm of the diaphragm seal to the bourdon tube in the gauge.

The filling should be done under vacuum which removes all the air from the filling media which gives a better accuracy than filling at atmospheric pressure.

Diaphragm seals are the one way of satisfying aggressive applications, but before selecting a diaphragm seal we would recommend that Diaphragm Gauges are used as they give a better solution. For example in a diaphragm gauge there is no liquid filling which is a major disadvantage when using a bourdon tube pressure gauge fitted to a diaphragm seal.

Bailey & Mackey manufacture two sizes of Diaphragm seals which can be selected for the size of gauge being used.

Type Z140

This diaphragm seal is in stainless steel construction only and is intended for use on Burdon Tube pressure gauges up to 80mm diameter.

Maximum Pressure 400 bar

Type Z800

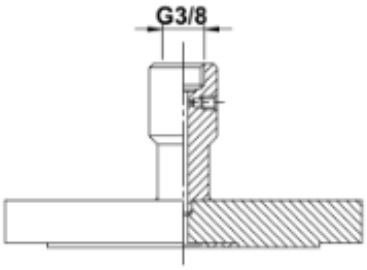
This diaphragm seal can be supplied with various wetted parts selected from the chemical compatibility chart.

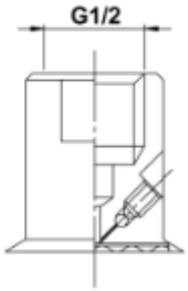
The Z800 diaphragm seal is intended for use with Bourdon Tube gauges above 80mm diameter although can be used with smaller gauges.

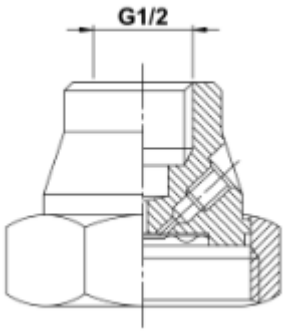
Maximum Pressure 200 bar

Flush Diaphragm Flanges

Applications that are of a hygienic nature or ones that are using fluids (granules or powders) that are likely to block the pressure passage or bourdon tube gauges can be fitted with diaphragm seals which have a stainless steel diaphragm, election beam welded to the bottom face of the deal. Bailey & Mackey can supply hygienic fittings and flanges in this form.







Options

Receiver Gauges

Pneumatic control systems using 3-1 ibf/in^2 (0.2 – 1 bar), the pressure in a process fluid is transmitted from the tapping point to the control by a proportional signal. Pressure Gauges can be calibrated to indicate this signal.

Zero on the dial being 3ibf/in2 (0.2 bar) and full scale 15 ibf/in^2 (1 bar). Receiver gauge scales may be graduated 0 -100%, 3-15 ibf/in^2 etc, or in other units such as °C, litres per hour, square root etc. as required by the system.

Movement of the Bourdon Tube is restricted by an internal stop below 3ibf/in^2 (0.2 bar), allowing the pointer to drop below zero when no pressure is applied.

Accuracy	Normally	+/-1% FSD
	Special Calibration	+/- 0.5% FSD

Setting Pointer

When maximum pressure is required to be indicated, which is below the full scale value of the pressure gauge an adjustable pointer can be fitted to the dial or to the window, so that the secondary pointer can be to the point on the dial at maximum reading.

Maximum Pointer

If the maximum pressure in the system is required to be shown until reset manually a slave pointer can be fitted to the window of the pressure gauge which remains in position when the pressure reduced.

This slave pointer can also be used as a minimum pressure indicator if adjusted to the gauge pointer once the system is running. An allowance for the drag that is finger caused should be added to the general tolerance of the gauge to which it is fitted, normally 1%.

Electric Contacts

Where an electric circuit is required at a specific pressure an electric contact unit can be fitted to the front of a pressure gauge. A dished transparent plastic housing, which replaces the normal window, contains the contacts which can give opening or closing circuits.

These contacts can be fitted to 100mm & 150mm diameter gauges only. They are available for pressure ranges of 1 bar and above. An increased tolerance of 1% above the respective gauge tolerance is required to accommodate the effect that contacts have on normal pressure gauges.

To alleviate the effects of contact bounce and to ensure secure switching magnetic contacts are used. Contacts are set by means of a removable key which fits in the central boss of the contact housing.

When electric contacts are fitted the pressure gauge should be installed in the vertical position and protected from humidity, vibration and pressure pulsation.

Applications

Electric contact gauges are normally used for high or low level alarm, for control of pumps or compressors etc.

Due to the low energy switching the contacts should be connected into the control circuit via a relay.

Electric Rating

Alternating Current	50VA
Direct Current	30 Watts
Contact Forms	
Single Contact	Make on rising pressure
	Make on falling pressure
Twin Contacts	Any combination rising and/or falling
Triple Contacts	Any combination of the above

Contacts cannot be configured to give a changeover function. If this is required we recommend that a relay is used.