

## WG2 Water Level Gauge

- Simple gauge glass for low pressure duties
- Recommended for boiler feedtank applications
- Available in lengths up to 2 200 mm
- Supplied in modular form for maximum versatility

### Description

The Spirax Sarco WG2 level gauge enables an instant visual check to be made of liquid level in tanks and process vessels.

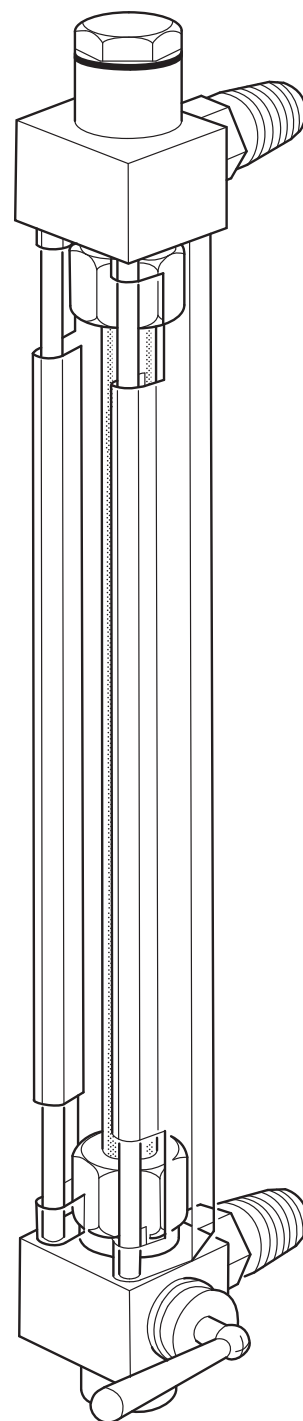
It consists of a glass tube (plastic also available) mounted in top and bottom support arms, with packing seals and washers to prevent leakage and accommodate expansion. The bottom arm incorporates a three port plug cock to allow isolation and checking of gauge operation.

An intermediate arm provides additional support and sealing for gauges with centres longer than 1100 mm, and enables two unequal length tubes to be used together to give a wide choice of overall lengths.

Two protector rods mounted either side of the tube reduce the risk of accidental damage. For greater protection 'C' section protectors are also available (used with rods).

### Limiting conditions

	Glass	Plastic tube
Maximum working pressure (Pmax)	6.9 bar g	2.0 bar g
Maximum working temperature (Tmax)	152 °C	134 °C
Maximum saturated steam conditions	4.1 bar g	2.0 bar g
Cold hydraulic test pressure	13.8 bar g	3.0 bar g



### Available lengths (approximate) in millimetres

WG 2 level gauge glasses are designated WG2 followed by/(centres dimension). Protector rods (in sets of two) and 'C' section protectors are available in 700, 800, 1000 and 1100 mm lengths. Two sets are required for gauges with intermediate arms. The glasses themselves are available in four lengths which may be paired in the following combinations to give the gauge centre dimensions opposite.

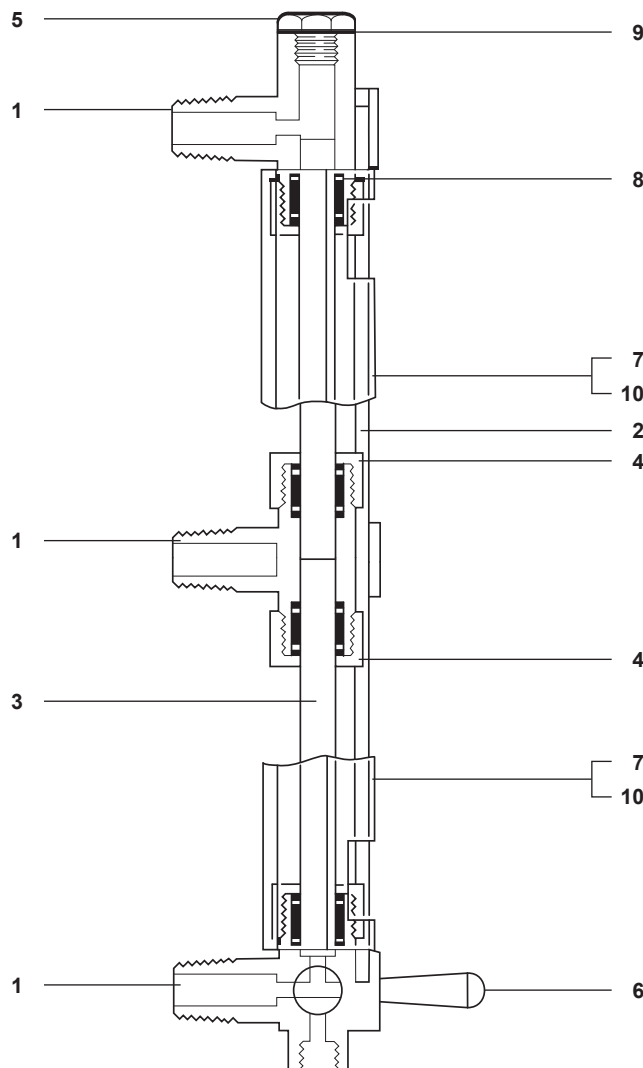
Glass 1 length	Glass 2 length	Intermediate arm	Gauge centres	Designation
686	-	No	700	<b>WG2/700</b>
786	-	No	800	<b>WG2/800</b>
986	-	No	1000	<b>WG2/1000</b>
1086	-	No	1100	<b>WG2/1100</b>
686	686	Yes	1400	<b>WG2/1400</b>
686	786	Yes	1500	<b>WG2/1500</b>
786	786	Yes	1600	<b>WG2/1600</b>
686	986	Yes	1700	<b>WG2/1700</b>
786	986	Yes	1800	<b>WG2/1800</b>
786	1086	Yes	1900	<b>WG2/1900</b>
986	986	Yes	2000	<b>WG2/2000</b>
986	1086	Yes	2100	<b>WG2/2100</b>
1086	1086	Yes	2200	<b>WG2/2200</b>

Plastic tubes (complete with 2 off tube supports) are supplied in 1100 mm nominal lengths which can be cut to length with a knife.

### Materials

No.	Description	Material	
1	Arm body	Gunmetal	BS 1400 LG2
2	Protector rods	Brass	BS 2874 CZ121
3	Glass tube	Glass	Borosilicate
4	Gland nut	Brass	BS 2874 CZ121
5	Top plug	Brass	BS 2874 CZ121
6	Gauge cock	Gunmetal	BS 1400 LG 2
7	Packing sleeve	Rubber	Nitrile
8	Packing washer	Permanite	AF 2000
9	Top plug gasket	Red fibre	BS 216 Grade B
10	'C' section protector	Stainless steel	Type 304/304L
11	Plastic tube	FEP	
12	Tube supports (used with item 11)	Brass (Dezincification resistant)	BS 2874 CZ132

Note: 11 and 12 not illustrated for clarity



## Installation

### WARNING

Your attention is drawn to Safety information leaflet IM-GCM-10. Tanks or vessels must be drained, vented to atmosphere, and inlets isolated before work is commenced.

In particular, make sure that any connections which could carry hot fluids, for example condensate return or flash steam from blowdown, are isolated.

Top, intermediate, and bottom arms have a ½" BSP taper male thread (R½) for connection to the tank.

- The tank should have ½" BSP PI (Rp ½) screwed sockets to take the top and bottom arms, and intermediate arm if fitted. Notes:-For certain lengths, the intermediate arm is not equidistant between the top and bottom arms. The socket for the intermediate arm does not need to pierce the tank.
- Fit arms to tank using PTFE tape or a suitable jointing compound.
- Align arms vertically.
- Slacken all gland nuts and remove the ¾" BSP top arm plug and gasket.
- Trim plastic tube to the required length (686, 786, 986, or 1086 mm). Each end of the tube requires an internal brass support, (supplied with the tube).
- Slightly flatten the ends of the tube with thumb and forefinger before fitting the supports, to stop them moving during positioning.
- Pass glass/plastic tube through ¾" BSP thread in top arm and lower into position. When an intermediate arm is fitted, the ends of the two glasses/tubes should touch and the joint should sit between the intermediate arm glands.
- Gently tighten gland nuts and refit top arm plug and gasket.
- Fit the 'C' section protector (if used) to the front of the unit, then rotate it so that its hooked edges line up with the protection rod drillings.
- Fit the protector rod(s) through the drillings in the top and intermediate arms and locate in the blind drillings in the bottom arm.
- Use the cutouts in the side of the protector to ensure the rods are correctly positioned.
- The drain connection must not be plugged. It can either be left open to a tundish, or may be piped to drain.

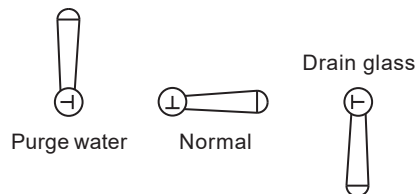
## Operation

The plug cock has three positions:-

**Up** Purge water connection.

**Horizontal** Normal operation.

**Down** Drain glass. This position also isolates the water connection in case of a broken glass.



An indication of the plug position is marked on the lever. We recommend that the water connection is purged and the glass drained periodically. It is important to check that water flows to drain and that the level is rapidly re-established in the glass. A slowly rising level could indicate a partial blockage.

## Maintenance

No specific maintenance is required. We recommend that the arms are checked for leakage periodically and the packing sleeves and washers renewed if necessary. Always fit new packing sleeves and washers if the tube has to be replaced.

**Dimensions/weights (approximate) in mm and kg**

			Weight
Top arm			0.65
Intermediate arm			0.62
Bottom arm			0.69
Glass	100 mm length		0.145
Protector rod	100 mm length		0.015
'C' section protector	100 mm length		0.12
Plastic tube (1100 mm)			0.4

**Available spares**

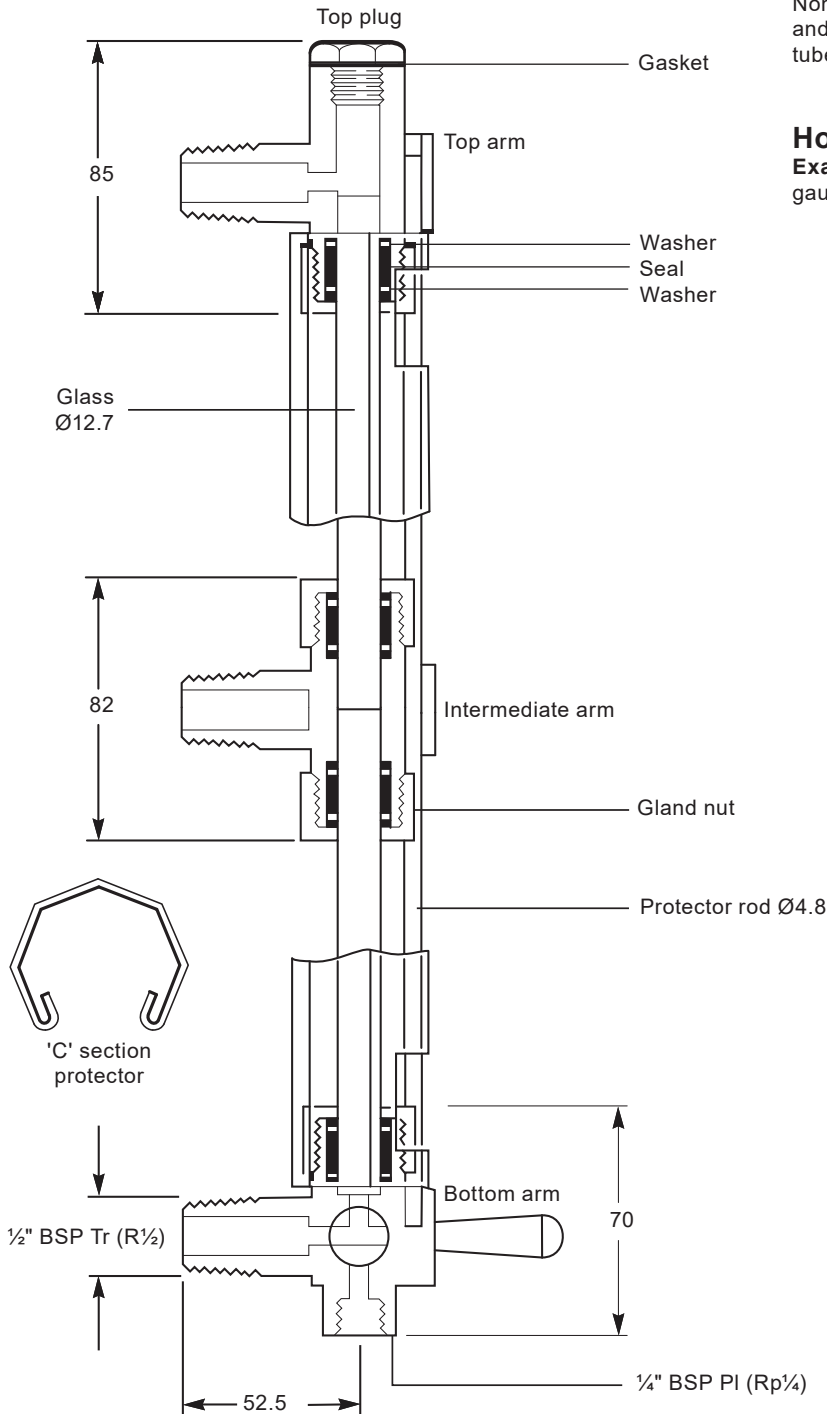
Glass 686 mm  
 Glass 786 mm  
 Glass 986 mm  
 Glass 1086 mm  
 Plastic tube (1100 mm) with 2 internal supports  
 Spare packing seal set consisting of:-  
 4 off Packing sleeves  
 8 off Washers (1 fitted each side of the sleeve)  
 2 off Top plug gaskets  
 The set is suitable for two re-packings of a gauge with no intermediate arm or one re-packing of a gauge with an intermediate arm.  
 Order:- 1 spares pack for Water Level Gauge WG 2.

**How to specify**

Non-ferrous water level gauge with 3 port plug cock and protector rods (and 'C' section protector), glass tubes/plastic tubes.

**How to order**

**Example:** 1 off Spirax Sarco WG 2/1000 water level gauge with 'C' section protector and rods.



**4090050/4**