

GNR5 Sight-Glass Level Controller



Safety Precautions

- The device may only be operated under the conditions specified in the operating instructions!

Attention!

- Use with low-viscosity media only which neither tend to become sticky or encrusted, nor precipitate crystals. Media may not contain magnetic particles (e.g. metal chips).
- Use only type S5/25d floats.
- The float must be installed with the "TOP" marking at the top.
- Observe maximum temperature and pressure ratings.
- Do not allow to tilt during installation! Centre-to-centre distance and squareness of the flanges or threaded connectors should be checked before installing the glass tube.
- Observe correct installation order for sealing rings (see drawing next page).

Functional Principle:

The GNR5 sight-glass level controller is mounted to the side of a vessel or a tank. The gauge is filled with liquid media to the same level as the tank via two shut-off valves.

A magnetic float is located within the standpipe which indicates the current fill-level.

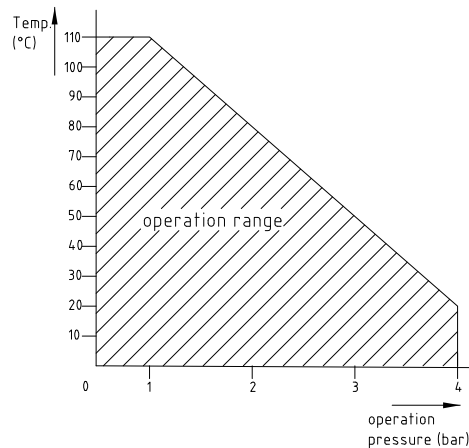
The glass tube is protected against damage with a semicircular impact guard made of transparent PVC.

The magnetic float can also be used to activate optionally available BSM 501 bistable switches.

Technical Data

Standpipe	Glass, DURAN. 34.5 x 2.75 mm
Float	Polypropylene (PP), type S5/25d
Fittings	Nickel plated brass
Seals	Silicon rubber
Operating temperature	0 to + 110° C (120° C intermittent)
Length (flange centre-to-centre)	300 to 2000 mm
Mounting	Flange: DIN 2642 DN 25 PN, steel respectively DIN EN 1092-1 Type 02 form A PN40 alternatively DN20 PN10 steel or threaded connector: G½" or G1"
Discharge stopcock	Brass, integrated into the bottom shut-off valve
Electrical components	BSM 501 bistable switch with 34 mm dia. pipe clamp

Pressure - Temperature Operation Range



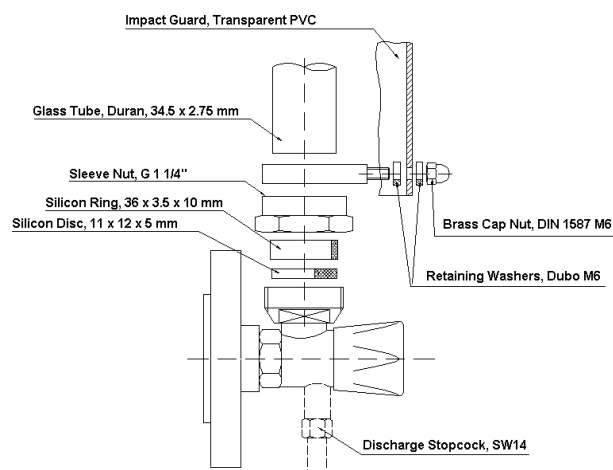
Installation Procedure:

GNR5 with Flanges:

- Mount the top and bottom shut-off valves to the tank flanges using suitable sealing materials. Do not yet fully tighten the screws.
- Insert the 11 x 12 x 5 mm silicon discs into the shut-off valves.
- Push the hose clamps for fastening the impact guard and the sleeve nuts, along with the silicon rings (which have been snapped into place inside the nuts), over the standpipe.
- Insert the standpipe between the shut-off valves making sure that is square.
- Check the length of the glass tube! The tube must fit flush against the silicon discs. Loosen the flange screws if necessary to correct distance and squareness.
- Retighten the flange screws.
- Push the sleeve nuts up to the shut-off valves and tighten (46 mm open-end wrench). Tighten the sleeve nuts!
- Attach BSM 501 bistable switches if used (the cable gland must always point down).
- Mount the transparent impact guard.
- After the vessel has been filled, check all fittings for leaks!

GNR5 with Threaded Connectors:

- Mount the top and bottom shut-off valves to the threaded connectors at the tank using suitable sealing materials.
- Insert the 11 x 12 x 5 mm silicon discs into the shut-off valves.
- Push the hose clamps for fastening the impact guard and the sleeve nuts, along with the silicon rings (which have been snapped into place inside the nuts), over the standpipe.
- Insert the standpipe between the shut-off valves making sure that is square.
- Check the length of the glass tube! The tube must fit flush against the silicon discs. Correct if necessary.
- Push the sleeve nuts up to the shut-off valves and tighten (46 mm open-end wrench). Tighten the sleeve nuts.
- Attach BSM 501 bistable switches if used (the cable gland must always point down).
- Mount the transparent impact guard.
- After the vessel has been filled, check all fittings for leaks!



Maintenance:

If used for its intended purpose, the GNR5 is maintenance-free.

However, the magnetic float accumulates any magnetic particles which may be present in the medium over a period of time. In order to prevent operating errors, the float should be cleaned to remove magnetic particles at regular intervals.

In order to clean the float, close both shut-off valves and empty the medium from the glass tube by opening the stopcock (SW14).

Check the condition of the seals during reassembly and replace if necessary.

Dimensions:

