



Pressure Measurement in the Automotive Industry



Application:

Bourdon tube pressure gauges for filling levels in the automotive industry

for manufacturers of filling systems

There are many fields in the automotive industry where pressure measuring instruments are used. The range of applications is very diverse and the requirements are very specific. This application involves the filling of vehicles with various aggressive media.



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The problem:

The filling of vehicles with liquid media (e.g. brake fluid, engine and gear oil, refrigerant, fuel) is a difficulty. At the filling stations a mist is produced that emits into the environment. These media are partially aggressive. Therefore, all non-metallic external parts of the pressure gauges (window and sealings) have to meet increased demands. For this application, suitable parts and sealants must be used to avoid leakage of the case filling.

Our solution:

In consultation with our customers, the following materials have proven themselves in most cases:

- ◆ Window: laminated safety glass
- ◆ Sealants:
 - ◆ Viton for windows and connection pieces
 - ◆ PTFE for the case screws
 - ◆ Fibre-reinforced composite for the screw plug

For this application, we use a pressure gauge with crimped-on ring case. Here, the window is encapsulated in this crimped-on ring, which is better than the case configuration with bayonet ring.

With special sealings and crimped-on ring: RChgG 63

- ◆ Crimped-on ring case
- ◆ Bottom connection or centre back connection (rm), u-clamp for panel mounting (BFR)
- ◆ Screw plug with cross bore for venting
- ◆ Laminated safety glass
- ◆ Various sealants for windows, connection pieces, case screws and screw plug



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