Fuel gauge

Characteristic

In automotive fuel level in the tank is usually measured by the float and arm that controls the mechanism of the resistor. Using the rotary indicator (fig. 1, 2) the resistive element is mounted together with the slide. Along with the increase or decrease of level of the float, slide is rotated by a certain angle, moving its position on paths and changing resistance. Change of resistance affects on the current or voltage, which controls the indicator on the dashboard. Less frequently used are indicators with linear track of slider (fig.1), where float moves in the tube setting slider in linear motion. Such kind of gauge is mainly used in tanks of motorcycles or scooters. The indicators can be used to measure the level of any liquid (oil, water…).

Telpod fuel gauges are made in a thick film technology, on ceramic substrates (Al_2O_3 96%) with a thickness 0,63mm or 1mm. The main advantage of proposed solution is durability of indicator. In applications with slider moving on resistive track (as in potentiometers) products doesn't achieve required 1 million cycles. The printed silver is much more resistant to abrasion, which results in better mechanical strength of circuit. Resistance of the circuit is trimmed by laser to 0,1% tolerance.

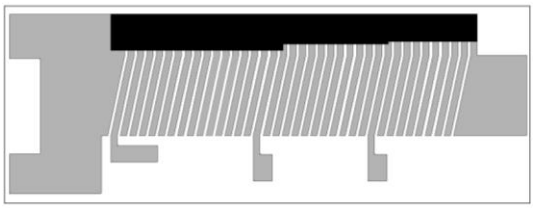

Fig. 1. Fuel gauge layout with linear track of slider **GBR-353**

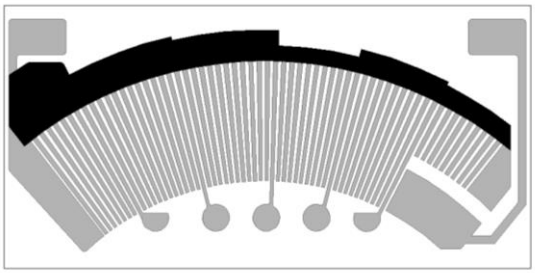

Fig. 2. Fuel gauge **GBR-356**

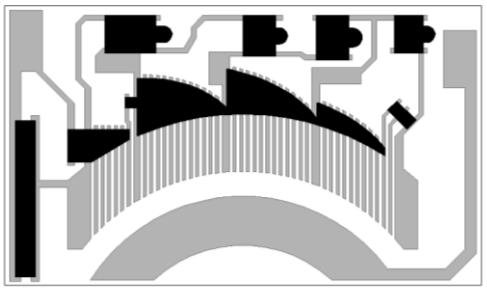

Fig. 3. Fuel gauge **GBR-371**

Most fuel tanks are designed especially for application in specific vehicle model. Therefore, system of fuel level information transmission must be designed especially for application in each fuel tank. For this purpose, please contact our technical department via e-mail: thickfilm@telpod.pl

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