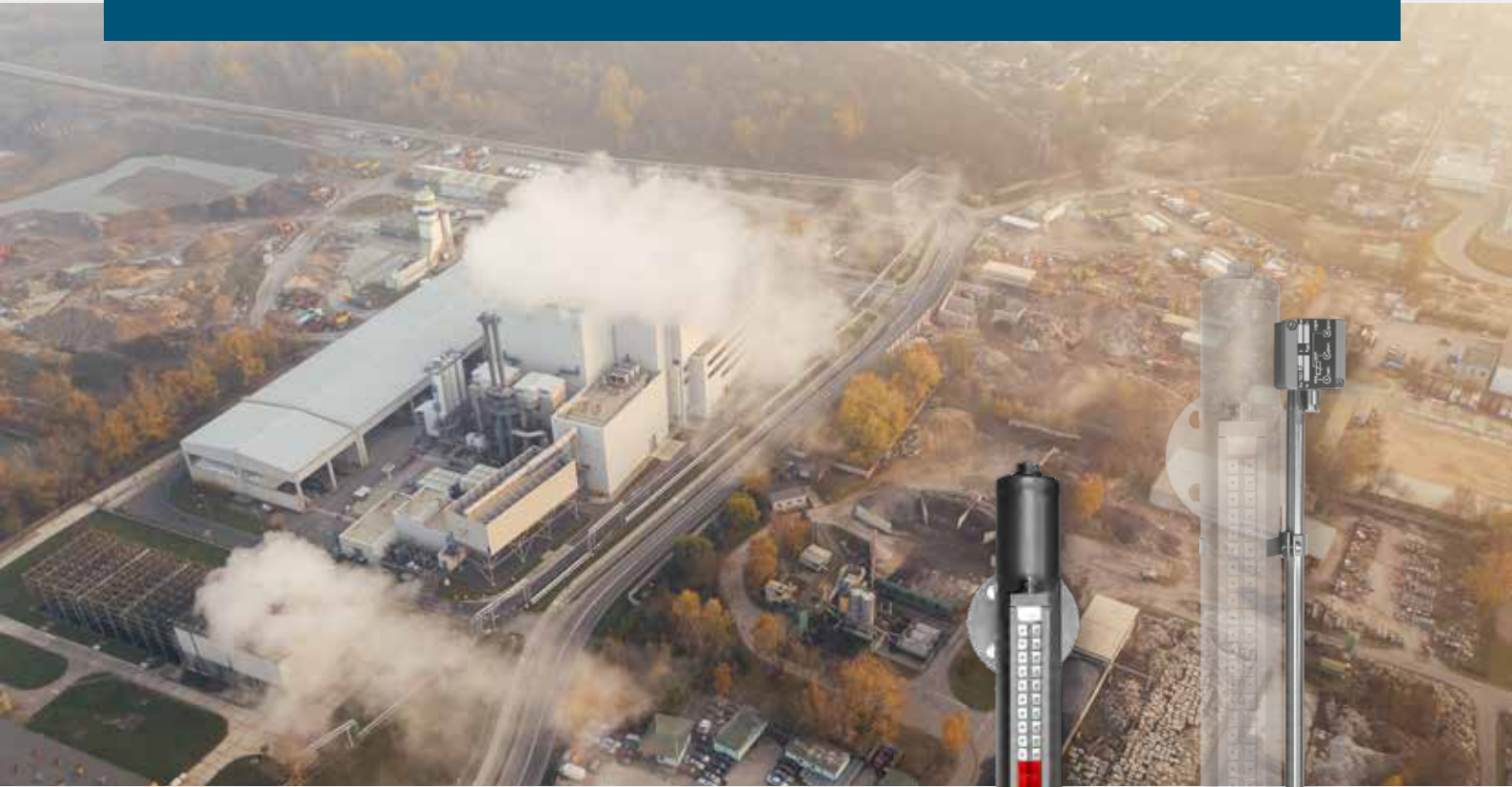


MECHANICAL LEVEL INDICATOR WITH MAGNETIC FLAPS FOR EXPLOSIVE ENVIRONMENTS



E.L.B.
FÜLLSTANDSGERÄTE



TECHNIK FÜR SICHERHEIT UND UMWELT



MKL

The magnetic flap indicator MKL in combination with the magnetic probe TK307 is an excellent solution for continuous measurement of liquids in hazardous areas (Ex II 1 Gc).

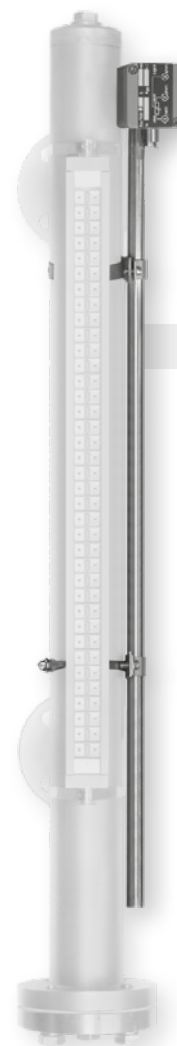
Its composition (stainless steel 1.4571 316Ti) makes the MKL very robust and insensitive to corrosive, toxic and highly inflammable media. In addition, the level indicator works completely mechanically and therefore does not require any electrical connection.

- ✓ The device can display tank levels up to 6 metres.

According to the principle of communicating vessels, the level in the standpipe is exactly the same as the level in the tank. The float has a special round magnet that rotates 180° around its own axis when the aluminium wafers pass. The red fluorescent colour on its back makes reading off the level very easy.

The continuous, immersible magnetic probe TK307 consists of reed contacts, which are mounted in the guide tube and switched by the magnet of the level indicator MKL. Depending on the filling level, these reed contacts continuously pick up a partial resistance from a chain, consisting of individual resistors.

- ✓ The device is also made of stainless steel 1.4571 and can measure levels up to 6 metres.



TK307



The digital display AD310 is designed for reading off the analogue signal (4-20mA or 0-10V) in the non-explosive area. It is fully configurable and always displays the required measurement unit (volume, weight, etc. ...). There are two programmable output relays for controlling actuators or sending information to a PLC.

AD310



In the following schematic illustration, we will show how it is implemented in practice with the help of an SI barrier, providing galvanic isolation of the signal between the hazardous and protected zone:

