DP-10





DENSIMETRY SENSOR DP-10

Density measurement of liquid de-icing agents NaCl, CaCl and MgCl in water during brine production

Liquid de-icing agents are considered to be the ideal solution to cope with icy roads since a long time. The density meter DP-10 was especially developed for the requirements of winter road services when it comes to mixing the brine. Further fields of application are brine stations and salt mixing stations.

Other than the conventional, manual density measurement using a spindle, it's the DP-10's advantage that - via a bypass - the measurement can be done in process condition and therefore in real-time.

Choose the suitable measuring device according to your individual needs: The standard version with analogue output for further data processing, an enhanced version with internal LED-display (DP-10/A) or the system solution with integrated mixing controller and LED-display (DP-10/MR).

FEATURES and ADVANTAGES

- ✓ Real-time measurement
- ✓ Device facilitates automated mixing processes
- ✓ Different, suitable system for all requirements
- Robust construction for applications in demanding environmental conditions
- Easy installation and operation

TECHNICAL DATA

DP-10

Measuring range density	Range: 1.000 – 1.400 g/cm³; resolution: 0.001 g/cm³ Measurement principle: oscillating U-tube principle
Functions	determination of concentration of NaCl, CaCl, MgCl in water (switchable for NaCl, CaCl and MgCl)
Interface (analogue)	Concentration, specific density Signal: 0 10 V (equals to: 15.0 25.00 % NaCl; 12.5 37.5 % CaCl; 12.5 37.5 % MgCl)
Interface (digital)	Service-interface RS 232 (concentration, specific density) Transfer rate: 9.6 kBd Protocol: ASCII
Power supply	Supply voltage 20 30 V DC/AC Power consumption: 80 mA
Operation temperature	Operation temperature: -25 °C +50 °C Medium-Temperatur: -30 °C bis +30 °C
Housing	Dimensions (mm): 150 x 340 x 100 (width x height x depth) Material measuring pipe: stainless steel corrosion resistant DIN 1.4439 Medium-connection pipe: diameter 10 mm Weight: approx. 2 kg
Protection	IP 65

DP-10/A – LED-Display

Display	Integrated LED-display for illustration of concentration (%) and temperature (°C)

DP-10/MR – mixing controller

Display	Integrated LED-display for concentration (%) and temperature (°C); with setting button for nominal value
Mixing controller	PID controller with clocked output
Outputs – relays	Relay-outputs with mixing valve (2 pieces), potential-free Relay-output for status (1 piece), potential-free Current carrying capacity: up to max. 10 VA; 0.5 A

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