DB-140-00-01d
März 2005

PMS-RD

Level sensor for conductive liquids

- **Fast response time**
- **For different media**
- **Process temperature up to 150°C**
- **Independent of installed position**
- **Sterilisable**
- **Compact and Remote model**

Specifications

Probe

Length	200-4000 mm
Diameter	6 or 12mm
Dead zone bottom	20mm
Dead zone top	50mm
Accuracy	±1.0% FS
Reproducibility	±0.2% FS
Response time	0.1 sec.
Typ. conductivity	>200 µs/cm
Min. conductivity	>8 µs/cm
Normal temperature	0-100°C, ±1%F.S.
Max. temperature	150°C, 1 hour
Pressure	Max. 10 bars
Material	SS316L or Hastelloy Peek®, Viton®, Kalrez®, Silicone

Electronics

Voltage supply	18-36 V DC, 150mA
Output	0/4-20mA
Max. load	500Ω
Galvanic isolation	Voltage supply, output
Operating temp.*	+10...+55°C
Protection class	IP65
Connection	4-wire
Cable connection	screw termination

*between 10... 40°C the accuracy is +-1.0%, >40°C accuracy is +-2.0%.

Application

The PMS RD level sensor is suitable for all conductive media such as clear solutions, suspensions, slurries, emulsions and also for processes where the medium changes and has a different conductivity.
The insensitivity to contamination, residue and foam make this level sensor ideally suited for use in the food, beverage, cosmetic and the pulp and paper industry. Even high-viscosity media such as pastes and slurries can be accurately measured. The probe can be sterilised up to 150°C and can be CIP/SIP cleaned.

Measurement is independent of pressure, temperature, density, viscosity or dielectric. The potentiometric sensor has a short response time of 0.1 seconds.

Description

The PMS RD consists of a probe and a transducer either in a “compact” (electronics attached directly to the probe) or “two-part” (electronics attached via a cable to the probe) design. The measurement output is a 0/4-20mA signal.

The probe is calibrated with the aid of two potentiometers. For difficult installations the two-part model can be used.

The level of liquids with a conductivity of >= 200µs/cm can be measured to an accuracy of +-1.0 %. Liquids with a conductivity of <200µs/cm may also be measured. However, the accuracy in such cases depends on the geometry and form of the tank and should be verified before use.

The probe may be custom-made to comply with special geometries. It is possible to install the probe from the top, bottom or side of the tank. The measuring range can be freely defined along the length of the probe.

HELIOS Messtechnik AG
Erlenstrasse 56 • CH-4106 Therwil • Switzerland
Tel. +41-(0)61 726 8400 • Fax +41-(0)61 726 8401
mail@helios-messtechnik.ch • www.helios-messtechnik.ch

PMS-RD Code

Typ	
PMS RD	PMSRD

Electronic	
Compact	T
Remote	S

Output	
0/4-20 mA , Level	L

Material	
SS316L	01
Hastelloy C	02

Process connection	
Triclamp DIN 25	T2
Triclamp DIN 50	T5
Thread G1”	G1
Dairy pipe screw joint DIN 11851, DN25	M2
Dairy pipe screw joint DIN 11851, DN50	M5
Special 50x21mm (customer specific connections)	SE

Probe Diameter	
12mm	L
6mm	S
6mm, Mini	M
Customer specific (available on request)	X

Probe length	
500 mm	0500
800 mm	0800
Customer specific (min.200mm)	XXXX

Cable length (only required for two-part model “S”)	
2 m	2
4 m	4
6 m	6
Sondermass	XX

Special connections (only required for separate model “S”)	
Amphenol Typ C16-1	A
Cable screw termination type M16	K

Compact Version “T”

Remote Version “S”

Example of ordering code	PMSRD	S	L	01	T5	L	0500	2	A

Accessories
Gylon gasket 40x36x2mm in blue
Flange DIN DN25/PN16 for 1“ thread
Flange DIN DN50/PN16 for 1“ thread
Flange ANSI 2“/150lbs. for 1“ thread

ISO 9001

DB-140-00-00d

HELIOS Messtechnik AG
Erlenstrasse 56 • CH-4106 Therwil • Switzerland
Tel. +41-(0)61 726 8400 • Fax +41-(0)61 726 8401
mail@helios-messtechnik.ch • www.helios-messtechnik.ch