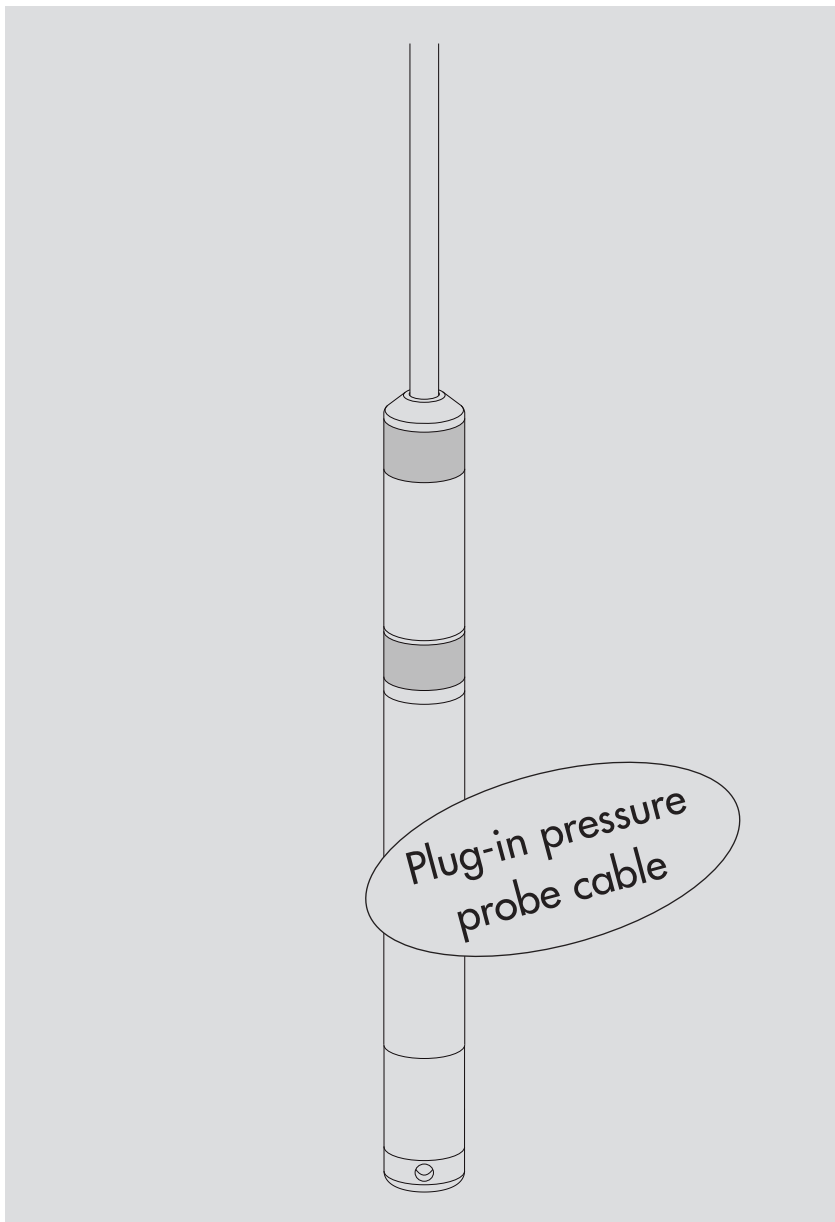


Supplement to operating instructions  
**Pressure Probe OTT PLS**



We reserve the right to make technical changes and improvements without notice.

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## 1 Scope of supply

- ▶ **OTT PLS plug-in type**
  - 1 pressure probe with ceramic, capacitive relative pressure measuring cell and plug-in, shielded, pressure probe cable with pressure compensation capillary and Kevlar core for length stabilization. Pre-fabricated cable end with transport protection against moisture. Optionally with 4 ... 20 mA or RS-485 interface (SDI-12 protocol)
  - 2 protective caps (for covering the contacts when the plug-in connection is separated)
  - 1 operating instructions
  - 1 supplement to operating instructions
  - 1 factory acceptance test certificate (FAT)

## 2 Order numbers

▶ <b>OTT PLS plug-in type</b>	<b>OTT PLS pressure probe with plug-in pressure probe cable</b> Required ordering information - Measuring range: 0 ... 4 m; 0 ... 10 m; 0 ... 20 m; 0 ... 40 m; 0 ... 100 m - Cable length: 1 ... 200 m - Interface: 4 ... 20 mA; RS-485 (SDI-12 protocol)	63.037.002.3.0
▶ <b>Replacement parts</b>	<b>Pressure probe</b> individual, without "pressure probe cable with connector"; Required ordering information - Measuring range: 0 ... 4 m; 0 ... 10 m; 0 ... 20 m; 0 ... 40 m; 0 ... 100 m - Interface: 4 ... 20 mA; RS-485 (SDI-12 protocol)	63.037.020.9.2
	<b>Pressure probe cable with connector</b> Can be used universally for all measuring ranges/ interfaces. Required ordering information - Cable length: 1 ... 200 m	63.037.021.9.2
	<b>O-ring</b>	0.926010.239
	<b>Protective cap</b>	99.820.002.9.5

### 3 Introduction

The "OTT PLS plug-in type" is equipped with a plug-in pressure probe cable, in contrast to the standard model. In the case of damage to the device, the pressure probe can thus be replaced more easily and deinstalling the pressure probe cable is not necessary. In the same way, during the initial installation, first the pressure probe cable (without pressure probe) can be pulled into an empty pipe. The plug-in pressure probe cable also simplifies maintenance work.

The function of the pressure compensation capillary is maintained by an axial air permeability in the plug-in connection. The connection must only be carried out in a dry state above the water! The OTT PLS version with SDI-12 interface is not available with a plug-in pressure probe cable.

### 4 Please note – important information



- ▶ Only transport and store while connected and screwed together!
- ▶ Before separating the plug-in connection, carefully clean and dry the pressure probe and connector.
- ▶ When disconnected, avoid the entry of contamination and damp. Always cover the connector and pressure probe with the protective caps supplied.
- ▶ Protect the thread, O-ring, sealing surfaces and the contacts for the pressure probe and connector from mechanical damage.
- ▶ Do not use any tools to separate/connect the plug-in connection. Only loosen/tighten by hand.
- ▶ Do not apply force to the connector. Where necessary, use cable grip to pull on the pressure probe cable.
- ▶ Do not push the connector sleeve off the connector body.
- ▶ Do not remove grease in the connector applied at the factory.
- ▶ If the pressure probe cable is not installed: always protect the prefabricated cable end against the entry of damp using the supplied transport protection container!

### 5 Separating/inserting plug-in connection

The principle installation of the OTT PLS plug-in type is carried out as described in the "Operating instructions OTT PLS Pressure Probe". Only separate the plug-in connection in situations where this is absolutely necessary (limited number of connection cycles). The gray wire in the pressure probe cable (SDI-12 data) is not present with the OTT PLS plug-in type. (Compare Fig. 3 of the operating instructions.)

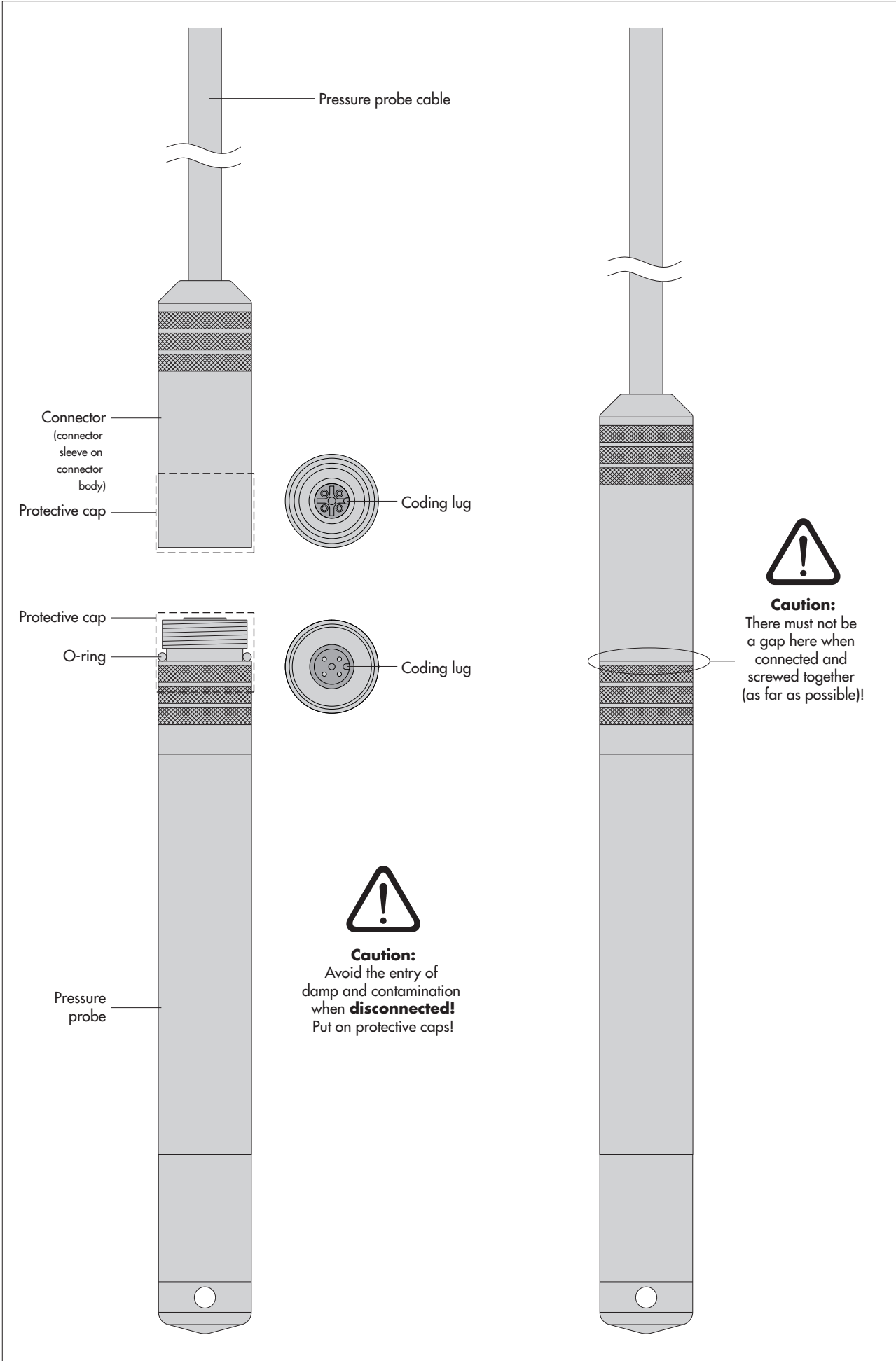


#### **Caution! Danger of damaging the device:**

Avoid the entry of damp or contamination into the pressure probe and connector when separating/joining the plug-in connection! Damp entering the device can condense in the pressure compensation capillary if there are temperature variations and lead to unusable measurement results.

#### **How to separate the plug-in connection:**

- Remove the pressure probe from the water, clean thoroughly and dry.
- Hold the pressure probe tight and turn the connector counter-clockwise until the pressure probe can be pulled off.
- Immediately put the supplied protective cap onto the connector and pressure probe (if necessary, secure the protective cap with adhesive tape).



### How to join the plug-in connection:

- If necessary: dry and clean the connector, pressure probe and protective cap\*.
- Take the protective cap off the connector and the pressure probe.
- Check the O-ring on the pressure probe for damage and correct seating.  
Replace O-ring if necessary\* (spare part - temporarily cover the thread with adhesive tape before replacement: danger of damage to the O-ring)
- Carefully put the connector onto the pressure probe, taking note of the coding lugs.
- Hold the pressure probe tight and turn the connector clockwise as far as it goes. Do not use a tool for this! There must be no gap between the connector and the pressure probe.

\* After cleaning/replacing the O-ring, regrease the interior of the plug-in connector (thread/sealing surface/O-ring – omitting contacts) with suitable, standard grease for NBR materials (petroleum-based)

## 6 Information on repair

In the case of a device fault, particularly with variable measurement values and measurement drift, please send the complete device including the pressure probe cable for repair. A reliable fault diagnosis is only possible if both units are present.

## 7 Technical Data

Interfaces	RS-485 (SDI-12 protocol) 4 ... 20 mA; 2-wire (scaleable)
Dimensions	
pressure probe L x Ø	222 mm x 22 mm
Weight	
pressure probe	approx. 0.325 kg
Material	
Connector inserts	PA 66
Connector contacts	CuZn, gold plated/ CuSn, gold plated
Max. number of connection cycles	100
Protection class	
disconnected pressure probe cable	IP 40
connected pressure probe cable	IP 68
	max. submersion depth (dependent on measuring range):
	0 ... 4 m → 20 m
	0 ... 10 m → 50 m
	0 ... 20 m → 50 m
	0 ... 40 m → 50 m
	0 ... 100 m → 120 m
	max. submersion duration: unlimited time

All other data are identical to the standard OTT PLS version.

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**OTT Hydromet GmbH**

Ludwigstrasse 16  
87437 Kempten · Germany  
Tel. +49 831 5617-0  
Fax +49 831 5617-209

info@ott.com · www.ott.com