

Conductive Sensors Level Probes Types CLH



- Flexible conductive level probe
- 1 to 5 electrodes
- User defined electrode length
- Isolated or unisolated electrodes
- 1 1/2" without pipe thread according to ISO 228/1-G1 1/2A

Product Description

A compact and flexible level probe for measuring the level of conductive liquids, i.e. overflow, dry run protection or pump control. A total measurements system consist of a multiple probe-

head, 1-5 electrodes and a control unit. The electrode length can be freely defined by means of electrode extension units - with or without isolation.

Ordering Key

CLH 5

Type _____
 Head mounting _____
 Number of electrodes _____

Type Selection - Probe

Pipe thread	Housing Material	Ordering no. for 3 electrodes	Ordering no. for 5 electrodes
1 1/2"	PP	CLH3	CLH5

Type Selection - Electrode

Type	Ordering no. 1000 mm Basic	Ordering no. 2000 mm Extended	Ordering no. Extension 1000 mm
Electrode without isolation	CLE1	CLE2	CLE1X
Electrode with isolation, Kynar (PVDF)	CLE1K	CLE2K	CLE1KX
Electrode with isolation, Polyolefine (FR)	CLE1P	CLE2P	CLE1PX
Description	1000 mm Basic electrode for no further extension	1000 mm Basic electrode for extension 1000 mm extension electrode 1 extension joint 1 isolation tube	1000 mm extension electrode 1 extension joint 1 isolation tube

Specifications

Probe Head			
Material	PP (Polypropylen)	Diameter	Ø 4 mm
No of electrodes	CLH3: 3 CLH5: 5	Isolation	CLE.K: Kynar (PVDF) CLE.P: Polyolefine (FR)
Electrode connection	M4	Environment	
Cable connection	Screw terminals	Overvoltage category	III (IEC 60664)
Electrodes		Degree of protection	
Material	Stainless steel	Housing	IP 65 IP 68
Length	AISI316/DIN1.4401	Electrode connections	2(IEC 60664/60664A, 60947-1)
	CLE1: 1000 mm	Pollution degree	
	CLE1: 1000 mm	Operating temperature	-20° to +90°C (-4° to +194°F)
		Storage temperature	-40° to +100°C (-40° to +212°F)

Specifications are subject to change without notice (07.03.05)

Specifications (cont.)

Weight	
Probe Head	260 g
Electrodes	107 g
CE marking	EN12445, EN12453, EN12978

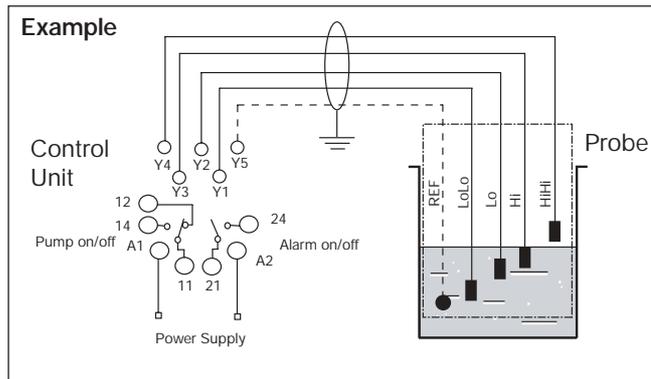
Mode of Operation

Functionality - example

The diagram shows the level control system connected as max. and min control, i.e. registration of 2 levels + 2 alarm levels. The relays react to the low alternating current created when the electrodes is in contact with the liquid. The reference (Ref) must be connected to the container or if the container are made of a nonconductive material, to an additional electrode. In the diagram this electrode is shown by the dotted line.

Electrodes

Cut or extend the electrodes



to the desirable length. If using extended electrodes, place the enclosed isolation tube over the extension joint,

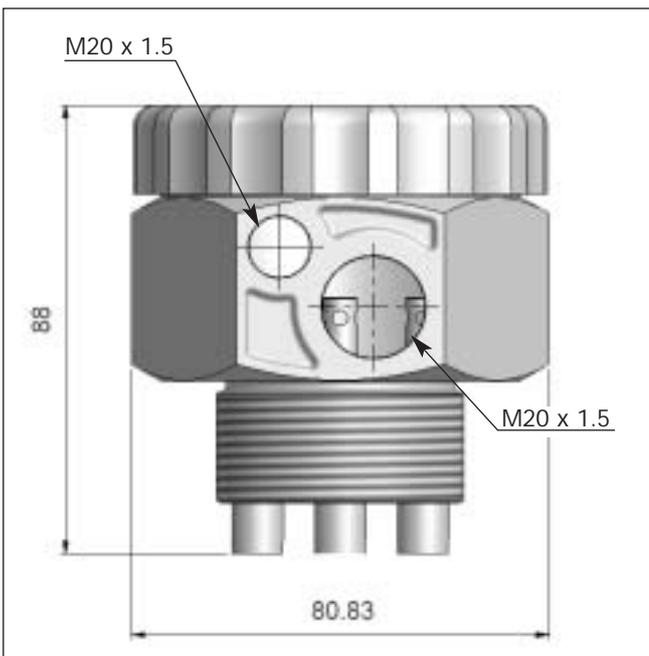
and heat it with a heat gun. Mount the electrodes in the probehead by means of the M4 screw inserts. Take care

not to damage the isolation material of the isolated electrodes.

Connection cable

2, 3, 4 or 5 conductor PVC cable, normally screened. Cable length: max. 100 m. The resistance between the cores and the ground must be at least 200k. In normal cases it is recommended to use screened cable between probe and controller, e.g. where the cable is placed in parallel to the load cables (mains). The screen has to be connected to Y5 (reference).

Dimensions



Accessories

Extension joint Ø4	VD
60 mm Kynar for isolation	VDK
60 mm Polyolefine for isolation	VDP
M12 Cable Gland	M12 Cable Gland
M20 Cable Gland	M20 Cable Gland

Delivery Contents

Probe Head
M20 Cable Gland
M12 Blind flange
Installation Instruction