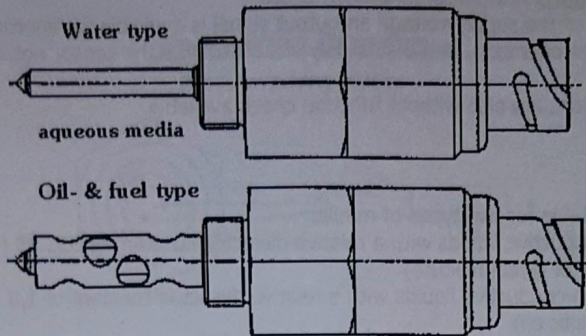


BEDIA niveau (level) – sensors Type PLCA-50

with approvals
ABS; BV; CCS; DNV; GL
NKK; KR; RINA; LR; RS
CE - marking to EMC directive



Voltage / Nennspannung:	24 VDC
Connection type / Anschlußart (2):	Thread (Gewinde) 5/8-24NEF-2A VAG 0095342
Medium:	(1) for water and liquids of similar viscosities für wässrige Flüssigkeiten (2) for oil and fuel für Öle und Kraftstoffe
Thread size / Gewinde:	(02) M18x1,5 - Standard
Signal output / Ausgangssignal:	(1) = minus switching / Minusschaltend (2) = plus switching / Pluschaltend
Function / Betriebsart	(1) = Minimum Sensor (2) = Maximum Sensor
Function test / Funktionskontrolle	(1) = 0 Sec.
Response delay / Meldeverzögerung	(1) = 7 Sec. Standard

Technical description

Level sensors type PLCA are designed to monitor oil, water and similar liquids in motors, commercial vehicles, boats and generating sets. They operate on the principle of electrical capacitance changes arising when an electrode surrounded by air is immersed in a liquid medium. This capacitance change causes the electrical circuit at the sensor electrode to oscillate (approx. 600 kHz); the resultant signal is processed in the digital control unit. The output signal at the short-circuit proof transistor output is delayed in order to prevent false indication when the liquid is temporarily below or above the set limit.

The sensor is available in two versions:

- a) **MINIMUM SENSOR** with integral function check
Upon application of the supply voltage an output signal is available for approx. 2 s, signalling that the sensor is ready for operation. Self-test is only visualised with the sensor immersed in the medium.
- b) **MAXIMUM SENSOR** with integral function check
Upon application of the supply voltage an output signal is available for approx. 2 s, signalling that the sensor is ready for operation. Self-test is only visualised with the sensor not immersed in the medium.

Both sensor versions are also without function check available.

MEDIA:

The level sensors are suitable for two types of media:

- for electrically conductive liquids with a relative dielectric constant of 35...85 (water, cooling agent, water glycol mixture)
- for electrically non-conductive liquids with a relative dielectric constant of 1,8 ... 6 (motor oil, fuel oil, hydraulic oil)

Both sensor versions are also without function check available.

Application

The level sensors are used to monitor the level of oil, water and similar liquids in motors, commercial vehicles, vessels, boats and generating sets.

Fault indication delay

The output signal is delayed in order to prevent false indication when the liquid is temporarily below or above the set limit. The standard delay time is 7 seconds. Other fault indication delays are available if requested.

Signal Output

The sensors are available as high - side or low - side switches

HSS High-side switch: The output transistor connects the load to plus potential

LSS Low-side switch: The output transistor connects the load to minus potential

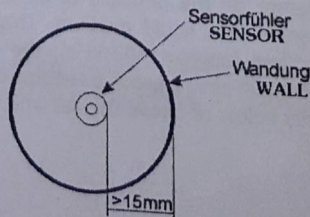
Installation Instruction for BEDIA Level Monitoring Probes

BEDIA Level Monitoring Probes may be installed in any attitude.

Please observe the following instructions when installing the probe:

To prevent false indication, install the probe in a smooth area where it is not affected by splashing media as may be the case when it is installed in a gear unit or directly in the motor oil sump.

To prevent false indication, install the sensor at least 15mm from the wall away

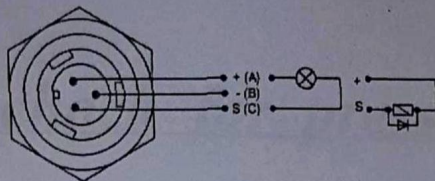


Only for water - sensors :

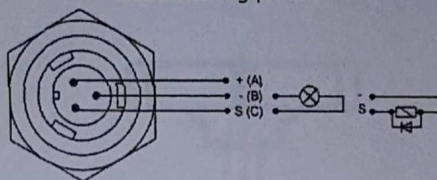
False indication may also occur if the sensor is mounted from above in a plastic container, with the medium carrying no potential. In all other mounting attitudes the housing will be in contact with the medium so as to ensure potential is available

Connection Diagram

Minus switching probes



Plus switching probes



Connection of the cables

	Bajonett 10SL Connector 5/8-24 NEF-2A	Bajonett DIN 72585 Connector DIN 43650	Cable
+	A	1	black
-	B	2	blue
S	C	3	brown