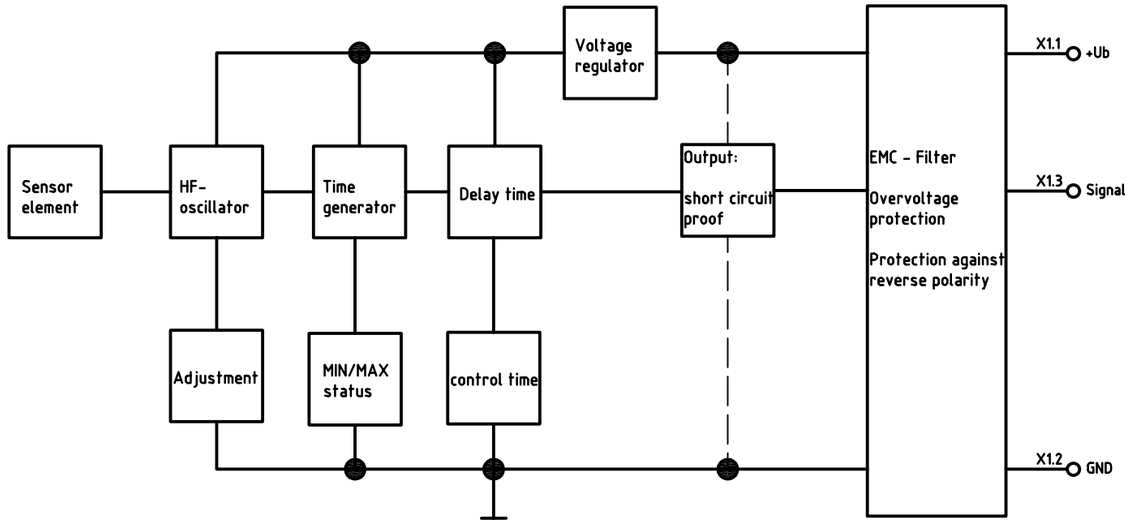
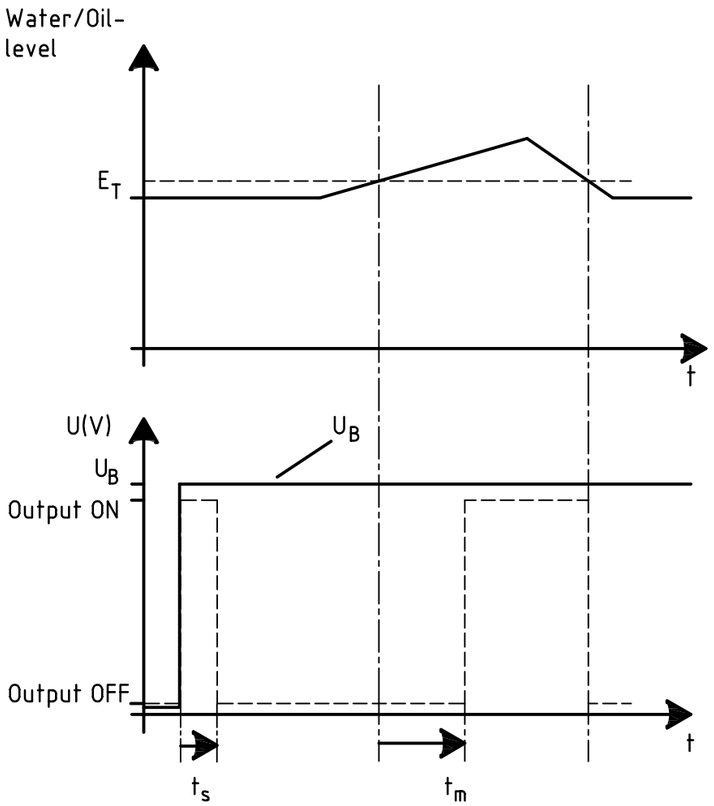
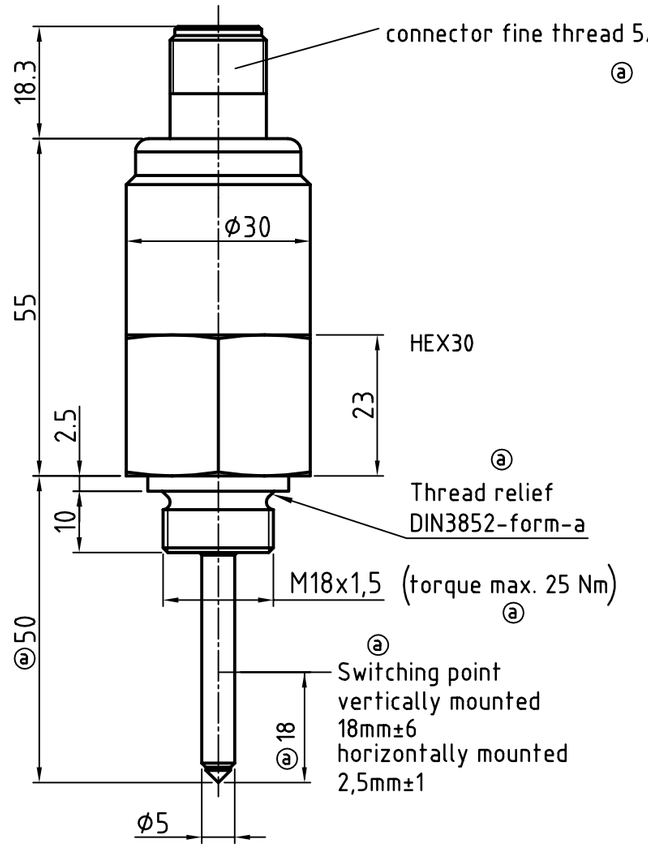
Blockdiagram

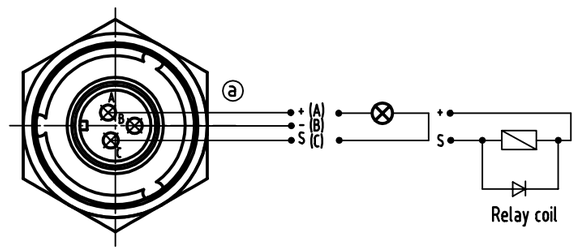


ⓐ Functional diagram for MINIMUM Probes



U_B: operating voltage
E_T: immersion depth
t_s : function test
t_m: fault indication delay





A= Plus (+)
B= Minus (-)
C= Signal (S)

field of application				admissible tolerance	surface	scale 1:1	position – amount –
				ISO 2768-mK	galv. nickel plated	– –	– –
					date	name	description
				created by	13.12.2001	Möderer	PLCA-50 operating current - low side switch - water level-sensor with connector fine thread 5/8-24UNEF-2A
				checked by	13.12.2001	Zibes	
a	see drawing	20.09.05	Möderer/Zibes	BEDIA®		drawing number 5021021121	sheet 1/2
rev.	modification	date	name/checked by			drawing path: I:\CAD\502\5021021121US.dwg	

4 | 3 | 2 | 1

D C B A

@Technical description for min level sensors low side switch

with approvals :

ABS, BV, CCS, DNV, GL, KR, LR, NKK, RINA, RS

	TU = 25 °C
Voltage rating	DC 12/24V (-25% / +30%)
Current consumption	typ. 8 mA
Signal output switching capacity	12 W /12 V; 24 W / 24 V short-circuit and overload protected over the ambient temperature range at inductive loads freewheeling diode e.g. 1N4007, has to be mounted at the load.
Switch point vertically mounted	18mm ± 6mm
Switch point horizontally mounted	2,5mm ± 1mm
Switch point hysteresis	typ. < 3mm
Medium temperature	-30°C to +125°C
Ambient temperature	-30°C to +125°C
Storage temperature	-50°C to +125°C
Fault indication delay	7 seconds
Function test	2 seconds
Function	operating current (oc)
Reverse polarity protection	in-built, between plus and minus terminal

Caution !!

With low-side switching sensors do not connect minus potential to signal terminal and plus potential to minus terminal.

Voltage drop	< 300mV / 1A
Overvoltage protection	limits the voltage to approx. 40 V. (suppression diode)
Vibration	IEC 68-2-6 2 - 25Hz × 1,6mm Amplitude 25 - 100 Hz 4g
Pressure resistance	25 x 105 Pa (25bar = 367,5 PSI)
Degree of protection	IP 67 to DIN40050
Mounting attitude	optional
Housing	capacitively connected to ground
Material	brass - CuZn38Pb2 galvanic nickel plated
Probe coating	Tefzel® ETFE
Mass	approx. 180g
Mounting thread	M18 x 1.5
Connection turning moment	max. 25Nm
Marking	manufacturer; manufacturer number; date: year/ calendar week approvals; function; pin assignment

EMC

Electrostatic discharge	IEC 1000-4-2 8kV air discharge 6kV contact discharge
Radiated electro-magnetic fields	IEC 1000-4-3 10 V/m; 27 MHz to 1000 Mhz 80% AM (1kHz)
Burst	IEC 1000-4-4 2 kV power supply 1 kV signal output
Surge	IEC 1000-4-5 1 kV, diff. mode: power supply 2 kV, common mode: power supply 2 kV, common mode: signal output
Conducted high frequency	IEC 1000-4-6 3 V; 10 kHz to 80 Mhz 80% AM (1kHz)
Conducted low frequency	IEC 945 3 V rms; 50 Hz to 10 kHz

CE-marking to EC-directive 89/336/EWG (EMC - directive)

field of application	admissible tolerance	surface	scale 1:1	position -	amount -
	-	-	-	-	
		-	-	-	

					date	name
				created by	13.12.2001	Möderer
				checked by	13.12.2001	Zibes
a	see data	20.09.05	Möderer/Zibes			
rev.	modification	date	name/checked by			

description

PLCA-50 operating current - low side switch - water level-sensor

with connector fine thread 5/8-24UNEF-2A

BEDIA®

drawing number **5021021121**

sheet 2/2

drawing path: I:\CAD\5021\5021021121US_2.dwg