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Technical data

Medium: oil
 Function: maximum - operating current (oc)
 Operating voltage: 12 / 24 V (-25% / +50%) (9 - 36 VDC)
 Current consumption: < 8 mA
 Output: low side switch
 ≤ 1 A over the whole temperature range
 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.
 Mounting thread: M18x1,5
 Function control: 0 seconds ± 5%
 Fault indication delay: 7 seconds ± 5%
 Connection: connector fine thread 5/8" UNEF
 Housing material: X5CrNi18 10
 EN 10088-3:1.4301
 Probe coating: capacitive connected to ground
 Tefzel® ETFE
 Probe protection: IP 67 to DIN40050
 Weight: approx. 100 g
 Marking: manufacturer; type; manufacturer no.; customer-part-no.; SN; year / week; approvals
 Switch point hysteresis: typ. < 3 mm
 Reference medium: paraffin oil, ε_r = 2,0..2,4, for switchpoint adjustment
 Medium temperature: -40 °C to +150°C (-40 °F to +302 °F)
 Ambient temperature: -40 °C to +125 °C (-40 °F to +257 °F)
 Storage temperature: -50 °C to +125 °C (-58 °F to +257 °F)
 Mounting position: optional
 Reverse polarity protection: inbuilt between positive and negative terminal

Caution !!

Do not connect negative potential to signal terminal of the sensor and positive potential to negative terminal of the sensor.

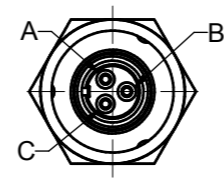
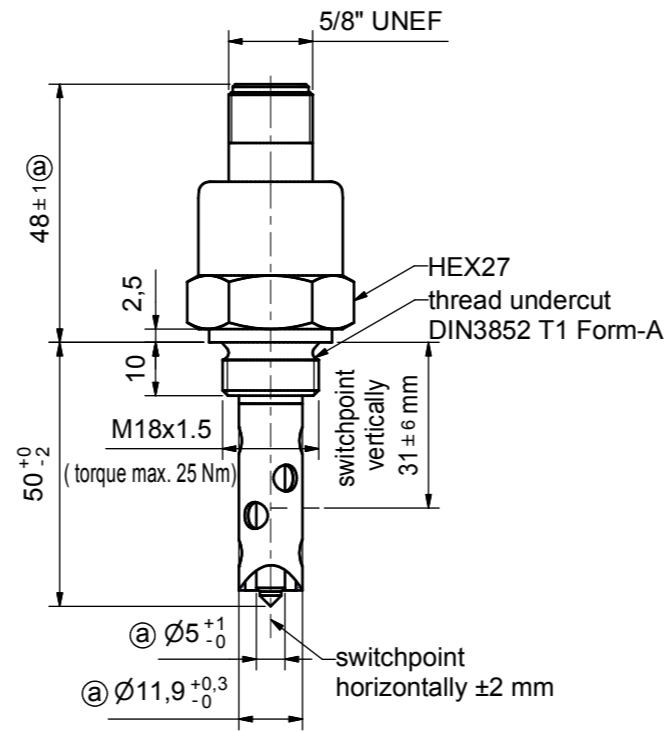
Approvals: ABS, BV, CCS, DNV, GL, KR, LR, NKK, RINA, RMRS
 Customs tariff number: 90261029

Environmental simulations

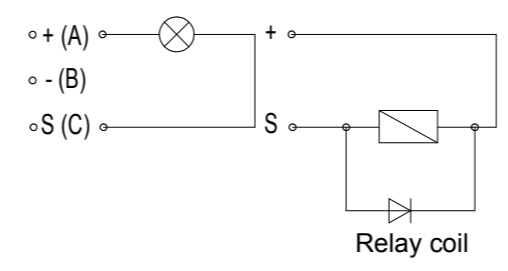
Vibration: ISO 16750-3:2007 10 Hz - 2000 Hz 20 g
 Free Fall: IEC 16750
 Mechanical Shock: DIN EN 60068-2-27:1995; 100 g / 11ms
 Dry Cold: DIN EN 60068-2-1:2006; -40 °C / 24 h (-40 °F / 24 h)
 Dry Heat: DIN EN 60068-2-2:2008; +125 °C / 96 h (+257 °F / 96 h)
 Temperature cycling: DIN EN 60068-2-14:2000
 Damp Heat: DIN EN 60068-2-78:2002
 Damp Heat, steady state: DIN EN 60068-2-30:2006
 Salt spray: DIN EN 60068-2-52:1996
 Flame retardant: DIN 75 200
 Pressure resistance: 2,5 MPa (25 bar / 362,6 psi) (25°C / 77°F / 1 h)

EMC

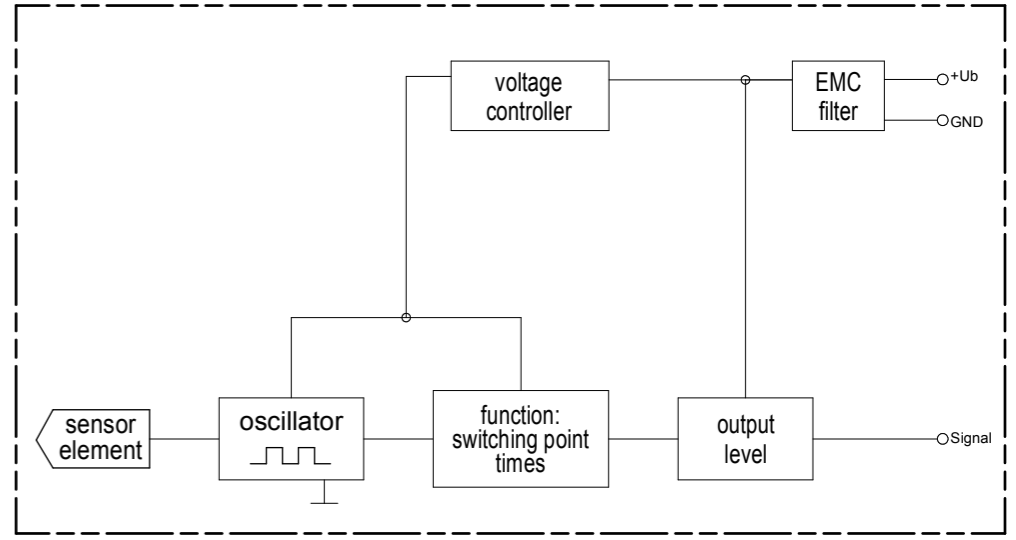
Conducted emission from the power port: CISPR 16 10 kHz - 30 MHz
 Electric field radiated emissions: CISPR 16 150 kHz - 2 GHz
 RF electromagnetic fields: EN 61000-4-3 1 MHz - 2 GHz; 100 V / m
 Conducted interference: EN 61000-4-6 150 kHz - 80 MHz; 10 V
 Conducted interference: IEC 60533 50 Hz - 10 kHz; 3 V / 0,5 V
 ESD: EN 61000-4-2 ± 8 kV Contact / Air discharge
 Burst: EN 61000-4-4 ± 2 kV DC power port / signal lines
 Surge: EN 61000-4-5 ± 1 kV line <-> ground
 ± 0,5 kV line <-> line
 High voltage: IEC 60092-504 550 V
 Power supply variations and interruptions: EN 61000-4-11 Ub +50% / -25%



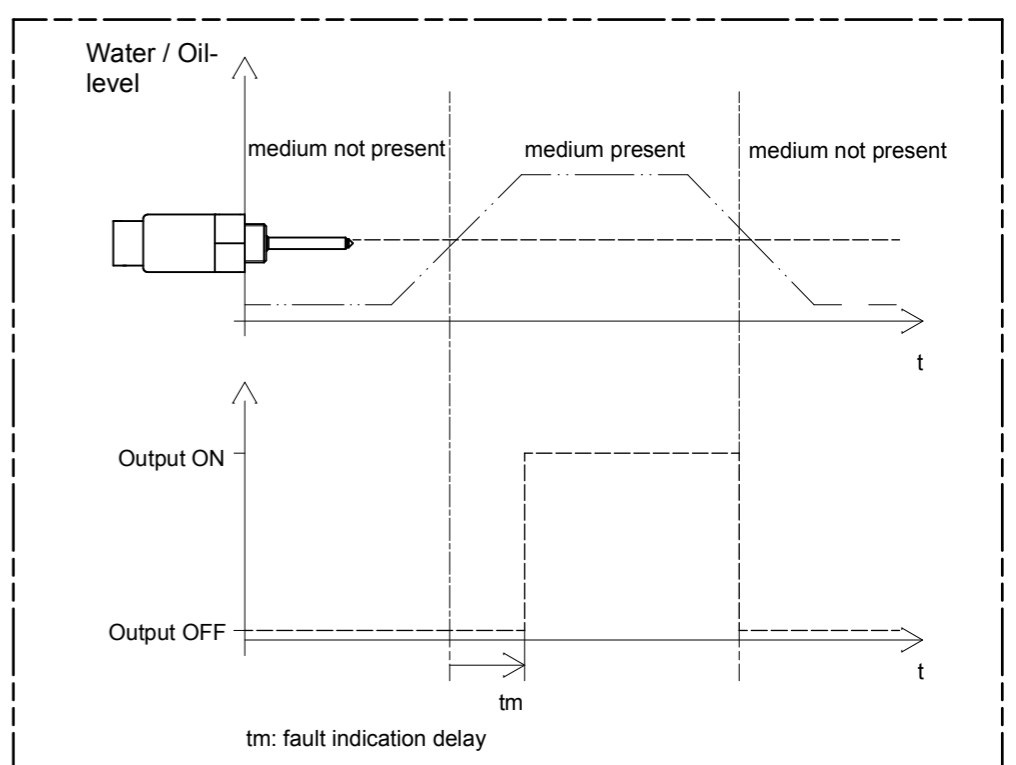
A = positive (+)
 B = negative (-)
 C = signal (S)



Block diagram



Functional diagram for MAXIMUM Probes



field of application	admissible tolerance	surface	scale 1:1	position -	amount -
	ISO2768-mK				
	date	name	description		
	created by 01.02.2010	Moderer	CLS-50 oil level sensor		
	checked by 01.02.2010	Stark	low side switch - operating current		
			with connector fine thread 5/8" UNEF		
			drawing number		sheet
b	customer-part-no. 14.02.11	Moderer/Stark	BEDIA	500056	1/1
a	revised 09.09.10	Moderer/Stark			
rev.	modification	date		name/checked by	drawing path: I:\CAD\500050056US.dwg