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Technical data

Medium	oil
Function	minimum - 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	M14x1,5
Function control	2 seconds ±5%
Fault indication delay	7 seconds ±5%
Connection	connector bayonet 10SL
Housing material	CuZn38Pb2 EN12164; CW608N
Probe coating	capacitive connected to ground
Probe protection	Tefzel® ETFE
Weight	IP 67 according to DIN 40050 with mounted mating connector approx. 95 g
Marking	manufacturer; type; manufacturer no.; SN; year / week; approval
Switch point hysteresis	< 3 mm
Reference medium	paraffin oil, $\epsilon_r = 2,0..2,4$, 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.

Approval **E1** 10R-03 5459

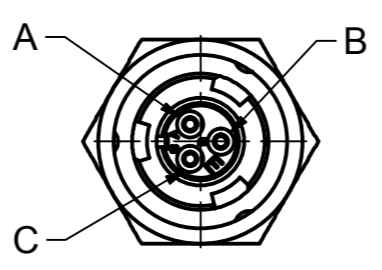
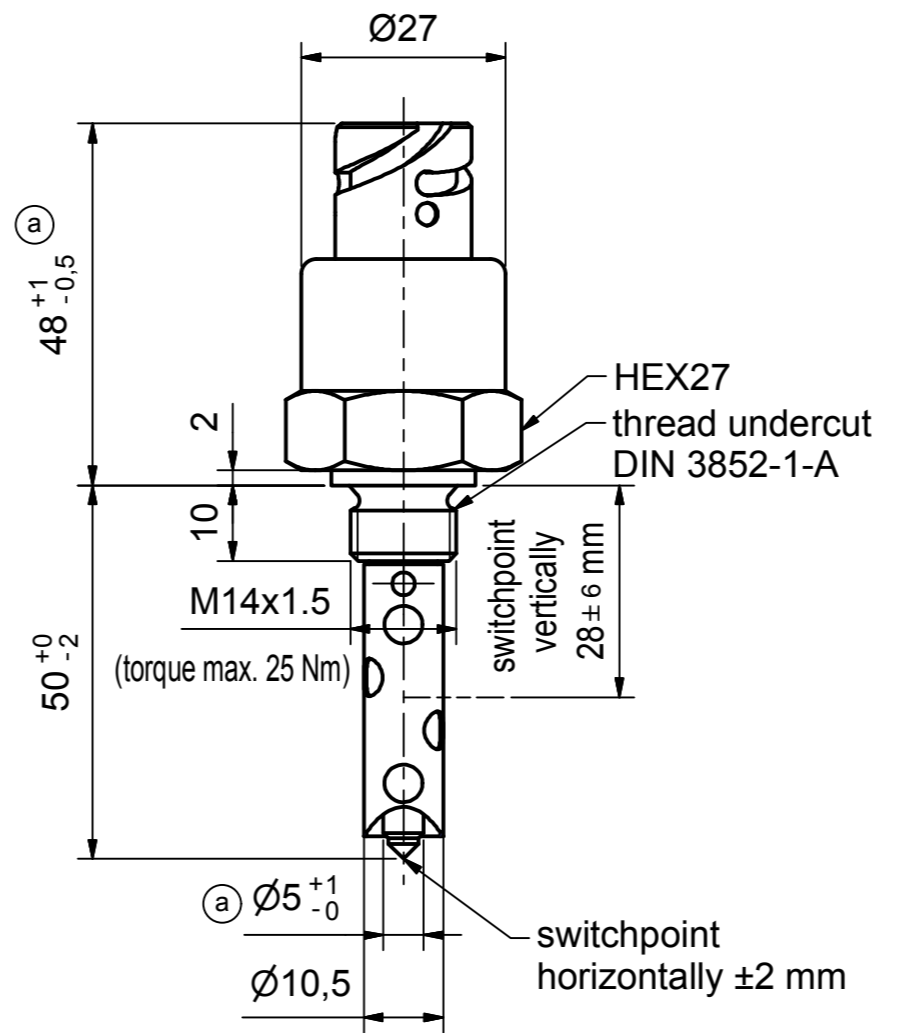
Customs tariff number 90261029

Environmental simulations

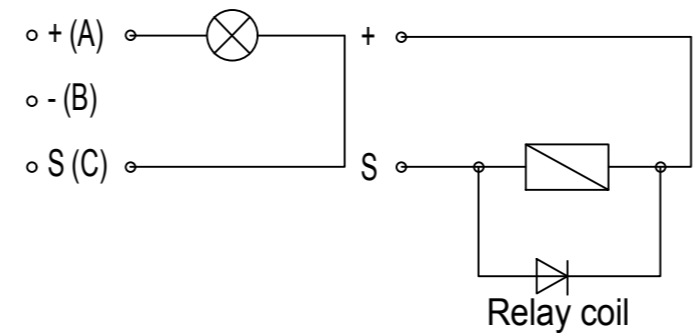
Vibration	ISO 16750-3:2007	10 Hz - 2000 Hz 20 g
Free Fall	IEC 16750	
Mechanical Shock	DIN EN 60068-2-27:1995;	100 g / 11 ms
Dry Cold	DIN EN 60068-2-1:2006;	-40°C / 24 h (-40°F / 24 h)
Dry Heat	DIN EN 60068-2-2:2008;	+125°C / 96 h (+257°F / 96 h)
Temperature cycling	DIN EN 60068-2-14:2000	
Damp Heat	DIN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

EMC

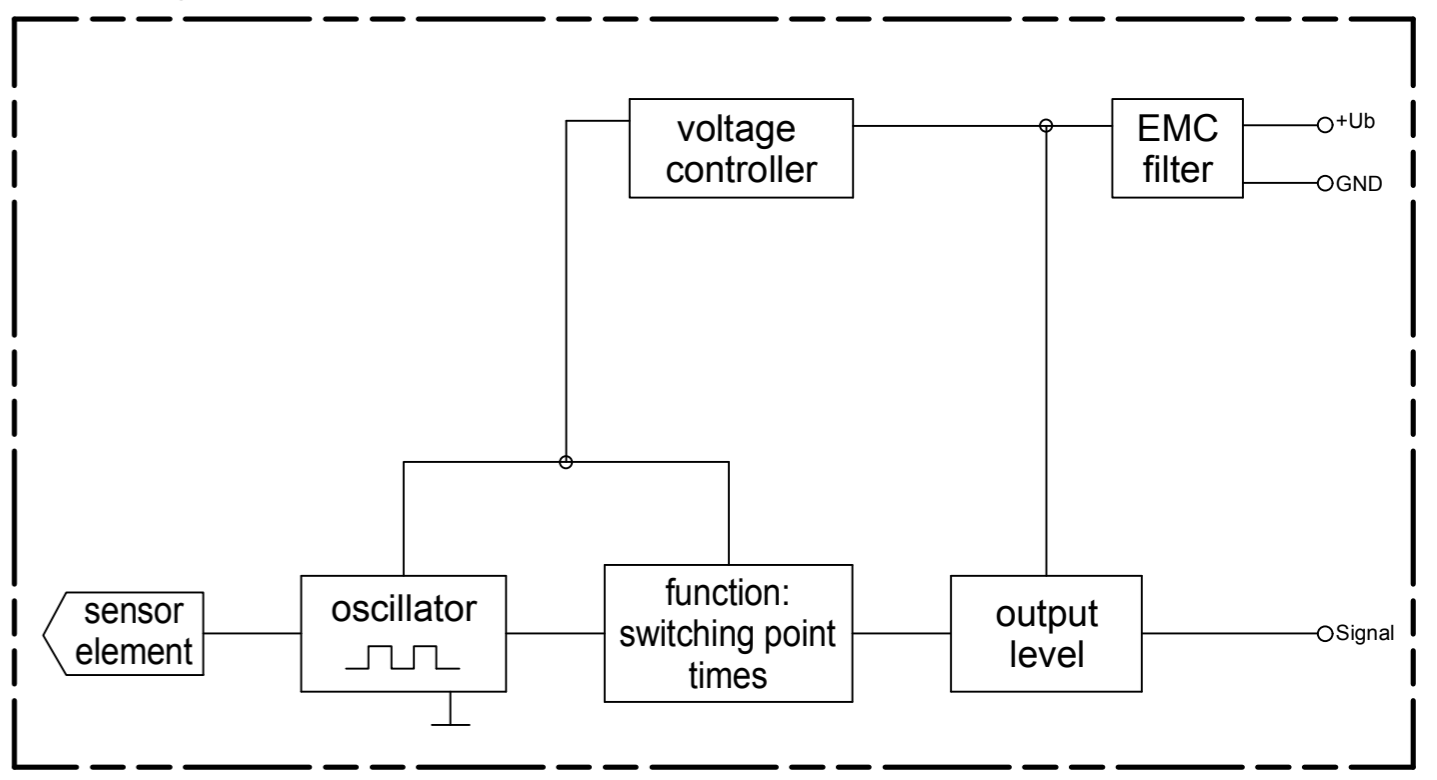
Radiated emission	2004/104/EG	30 MHz - 1 GHz; 1 m
Conducted transient emission	ISO 7637-2:2004	
Immunity to RF electromagnetic fields	ISO 11452-1/-2	1000 MHz - 2000 MHz; 150 V / m (rms)
Immunity to RF electromagnetic fields in the stripline	ISO 11452-1/-5	20 MHz - 1000 MHz; 150 V / m (rms)
Transient immunity test on power lines	ISO 7637-2/2004	pulses 1, 2a, 2b, 3a, 3b, 4



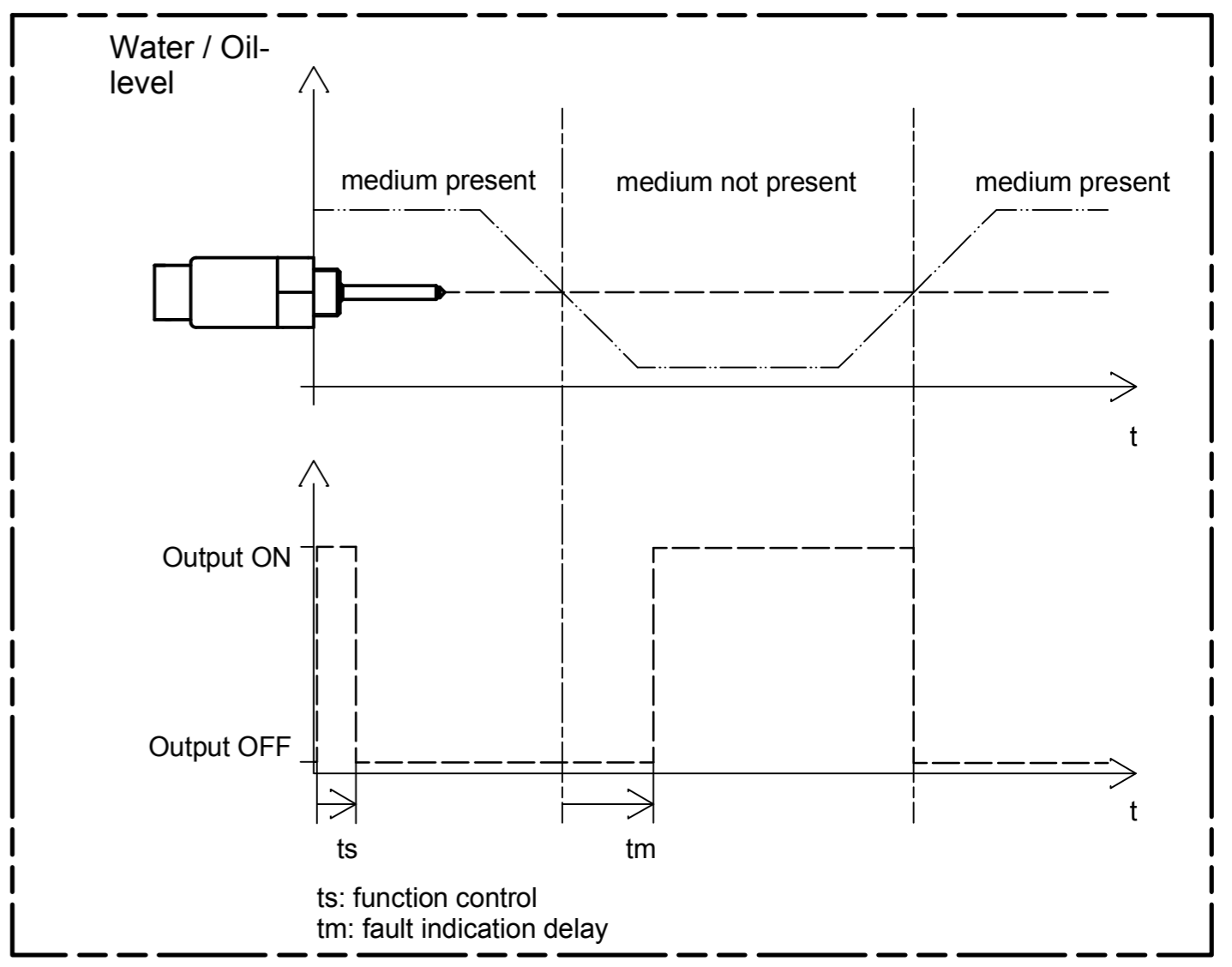
A = positive (+)
B = negative (-)
C = signal (S)



Block diagram



Functional diagram for MINIMUM Probes



Zul. Abweichung / admissible tolerance	Oberfläche / surface	Maßstab / scale	Sprache / language	Blatt / sheet
ISO2768-mK	-	1:1	ENU	1 / 1
Benennung / description				
CLS-40 oil level sensor low side switch - operating current with connector bayonet 10SL				
Zeichnungsnummer / drawing number				
321504				
Zng. Art/ drw.type	DRC			

