

@ Technical data

Medium	water, coolant
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	M18x1,5
Function control	2 seconds ± 5%
Fault indication delay	7 seconds ± 5%
Connection	connector bayonet 16S
Housing material	CuZn38Pb2
Probe coating	EN12164; CW608N
Probe protection	capacitive connected to ground
Weight	Tefzel® ETFE
Marking	IP 67 to DIN40050
Switch point hysteresis	approx. 100 g
Medium temperature	manufacturer; type; manufacturer no.; (b) SN; year / week; approval
Ambient temperature	< 3 mm
Storage temperature	-40 °C to +125 °C (-40 °F to +257 °F)
Mounting position	-40 °C to +125 °C (-40 °F to +257 °F)
Reverse polarity protection	-50 °C to +125 °C (-58 °F to +257 °F)
	optional
	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
035459

Customs tariff number

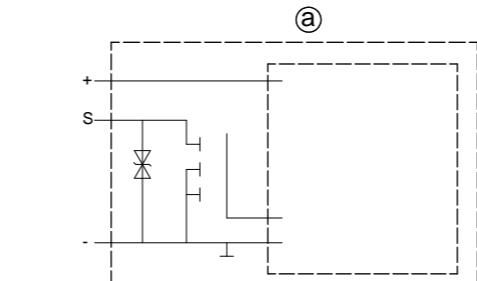
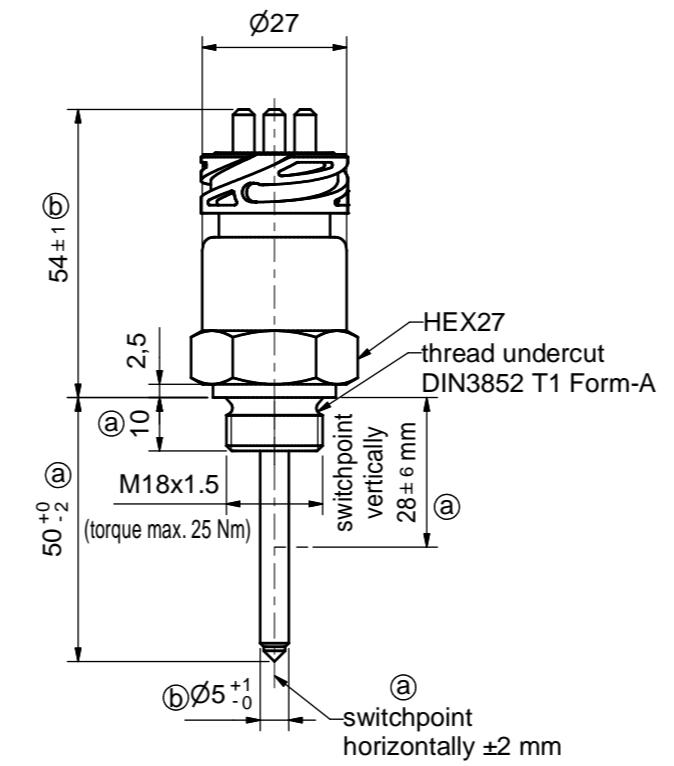
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Environmental simulations

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
Pressure resistance	2,5 MPa (25 bar / 362,6 psi) (25°C / 77°F / 1 h)

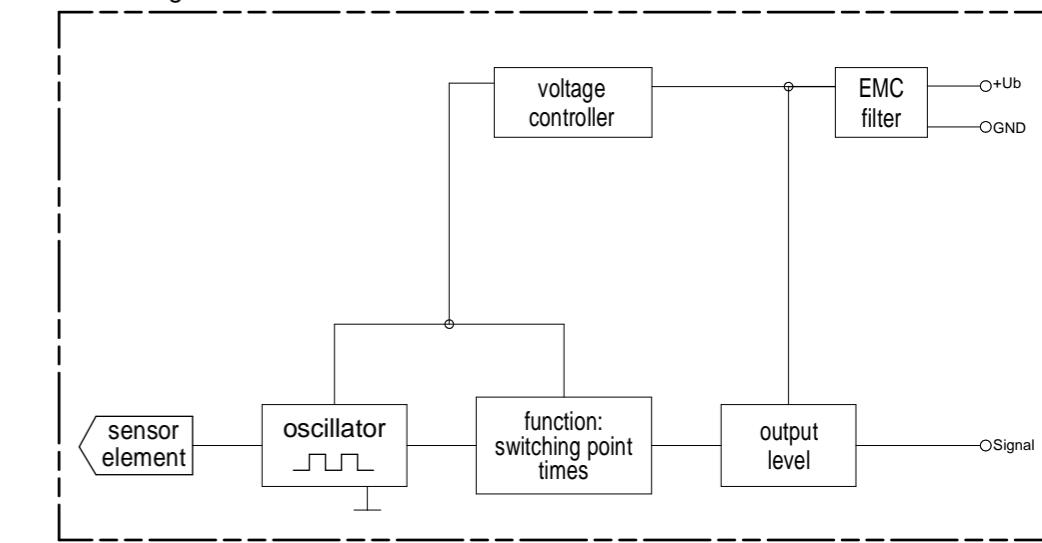
EMC

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	Impulse 1, 2a, 2b, 3a, 3b, 4

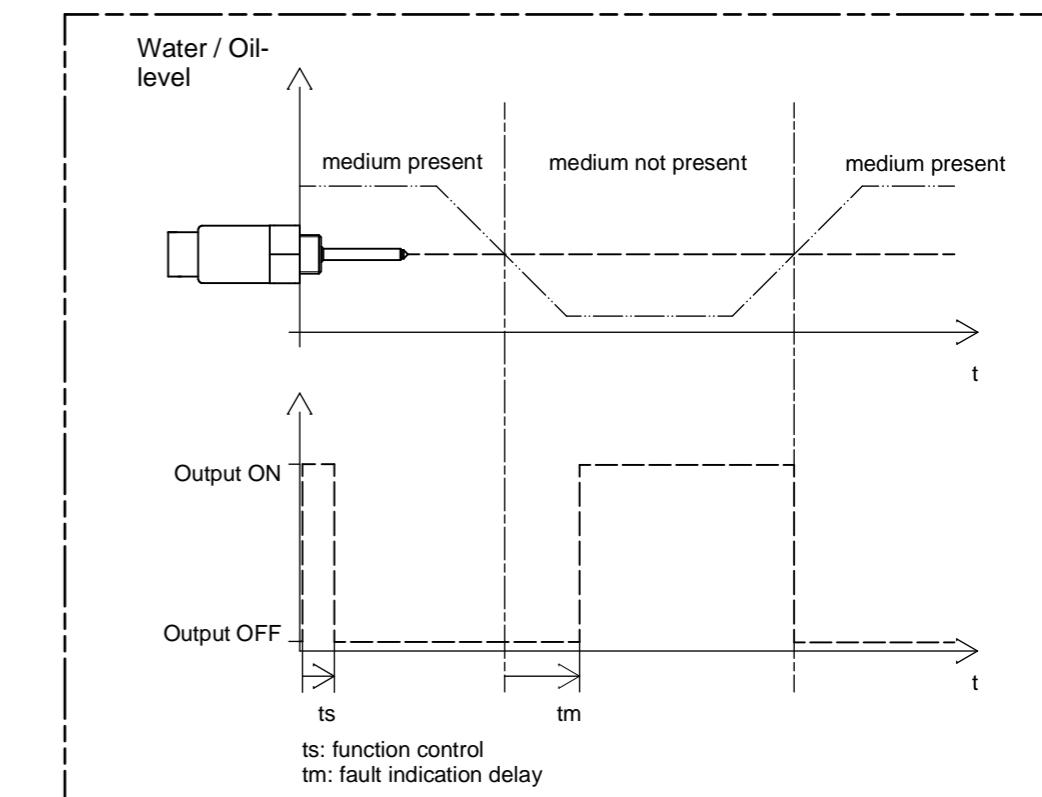


For this level sensor with suppressor diode between sensor output (S) and minus contact the supply voltage of the switching load has to be 7,5 V or less. At a higher voltage than 7,5 V the current of the diode must be 10 mA or less. If the supply voltage is higher than 7,5 V and the current of the diode is higher than 10 mA the sensor is not short-circuit proof.

@ Block diagram



Functional diagram for MINIMUM Probes (b)



field of application	admissible tolerance	surface	scale 1:1		position -	amount -
			date	name	description	
ISO2768-mK						
b revised	03.05.11	Bernath/Saß				
a revised	10.03.10	Möderer/Saß				
rev. modification	date	name/checked by				
CLS-40 water level sensor						
low side switch - operating current						
with connector bayonet 16S						
drawing number						
321563						
sheet						
1/1						
drawing path:	l:\CAD\321321563US.idw					