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Technical data

Medium	water, coolant
Function	maximum - operating current (oc)
Operating voltage	12 / 24 V (-25% / +50%) (9 - 36 VDC)
Current consumption	< 8 mA
Output	high 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	0 seconds ±5%
Connection	connector ISO 15170-A1-3.1-Sn/K1 (former DIN72585)
Housing material	X5CrNi18 10 EN 10088-3:1.4301 capacitive connected to ground
Probe coating	Tefzel® ETFE
Probe protection	IP 69K according to DIN40050 with mounted mating connector
Weight	approx. 95 g
Marking	manufacturer; type; manufacturer no.; SN; year / week; approvals
Switch point hysteresis	< 3 mm
Medium temperature	-40°C to +125°C (-40°F to +257°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 positive potential to signal terminal of the sensor and negative potential to positive terminal of the sensor.

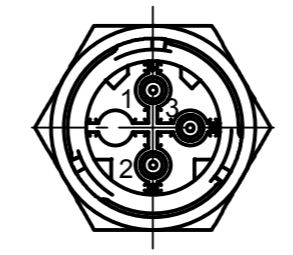
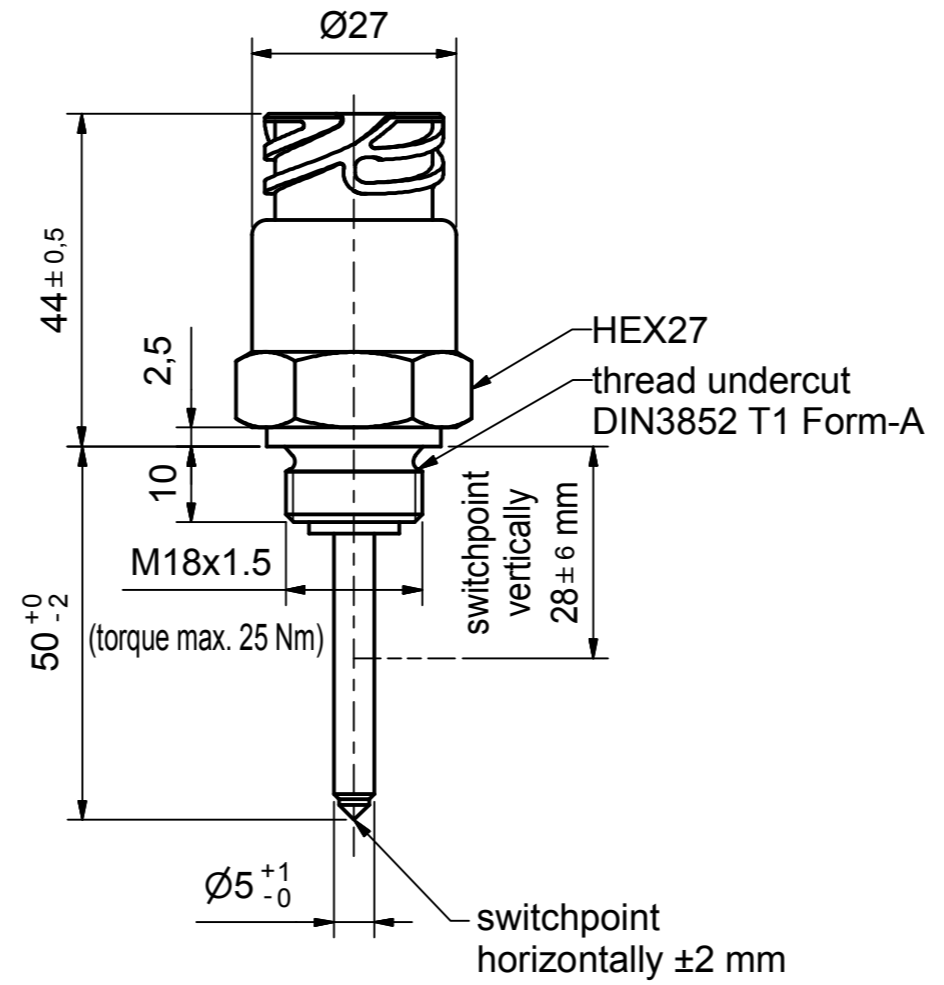
Approvals	ABS, BV, CCS, DNV, GL, KR, LR, NKK, RINA, RMRS
Customs tariff number	90261029

Environmental simulations

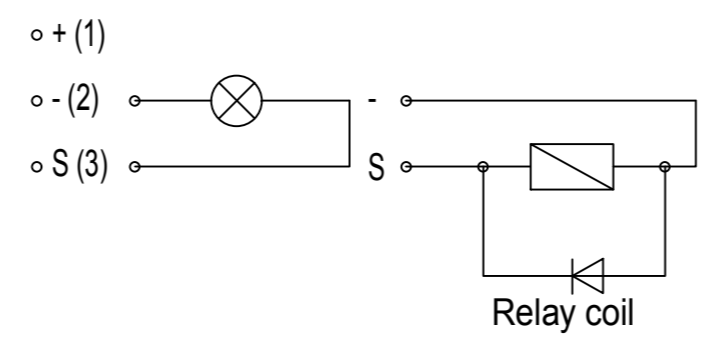
Vibration	ISO 16750-3:2007	10 Hz - 2000 Hz 20 g
Free Fall	IEC 16750	
Mechanical Shock	DIN EN 60068-2-27:1995;	100 g / 11 ms
Dry Cold	DIN EN 60068-2-1:2006;	-40°C / 24 h (-40°F / 24 h)
Dry Heat	DIN EN 60068-2-2:2008;	+125°C / 96 h (+257°F / 96 h)
Temperature cycling	DIN EN 60068-2-14:2000	
Damp Heat	DIN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

EMC

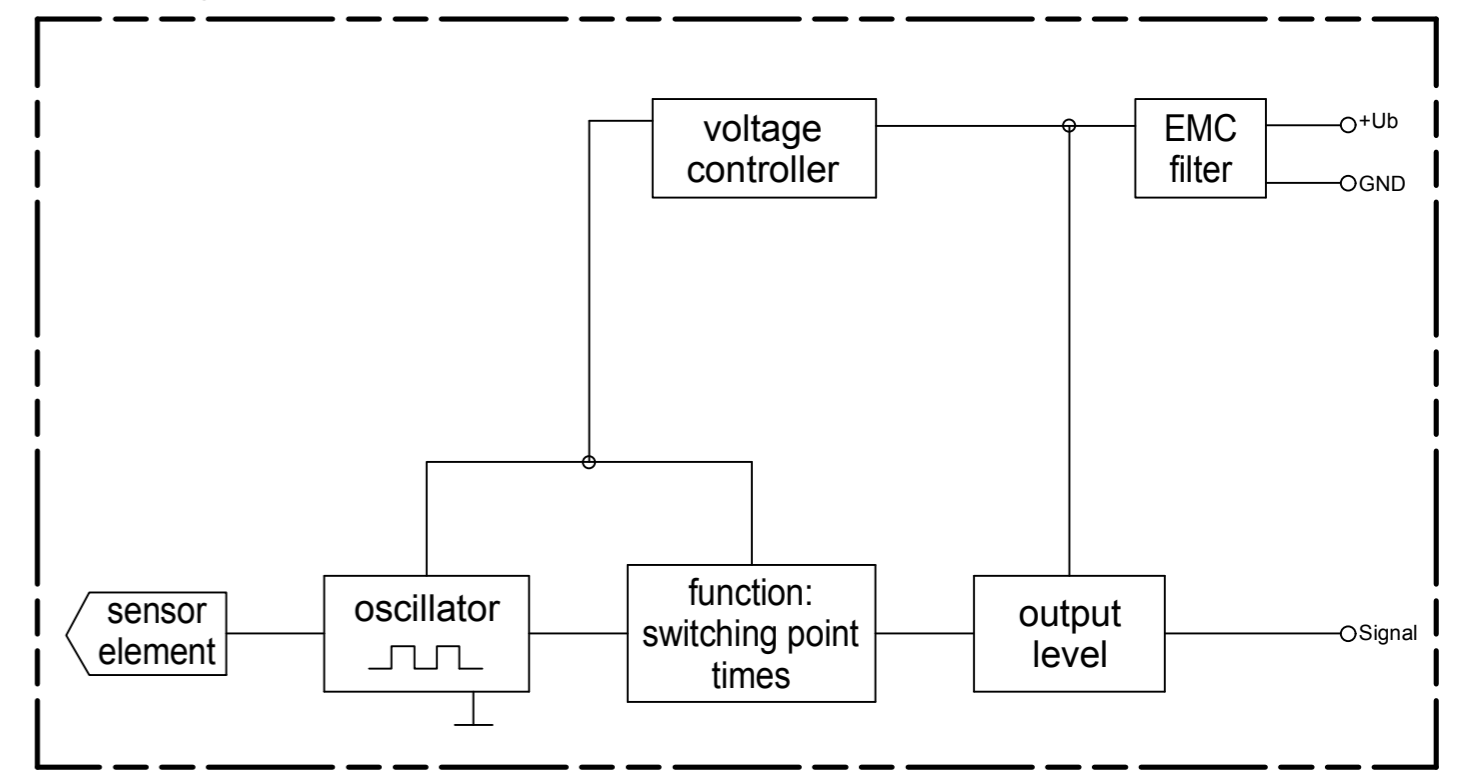
Conducted emission from the power port	CISPR 16	10 kHz - 30 MHz
Electric field radiated emissions	CISPR 16	150 kHz - 2 GHz
RF electromagnetic fields	EN 61000-4-3	1 MHz - 2 GHz; 100 V / m
Conducted interference	EN 61000-4-6	150 kHz - 80 MHz; 10 V
Conducted interference	IEC 60533	50 Hz - 10 kHz; 3 V / 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%



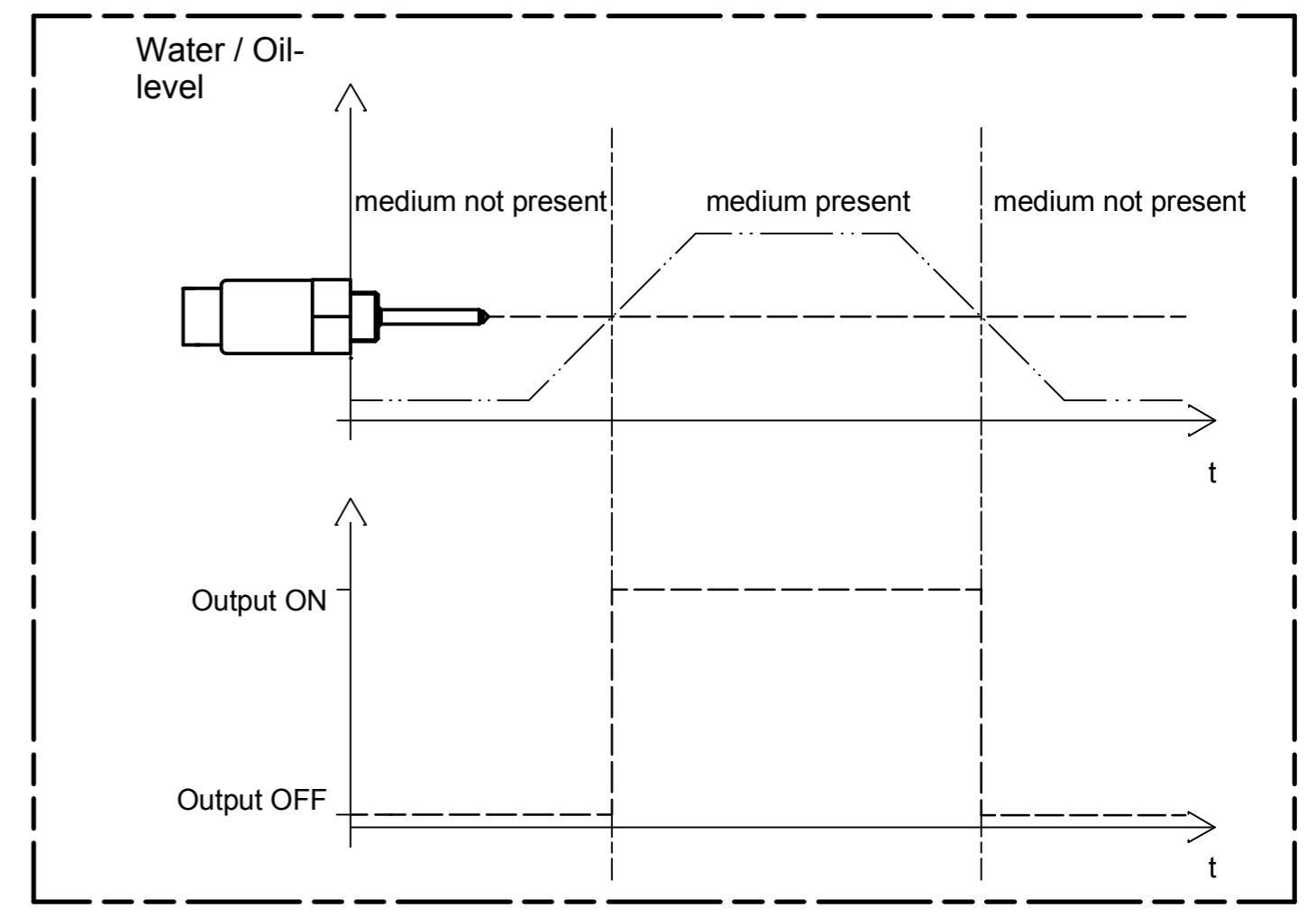
1 = positive (+)
2 = negative (-)
3 = signal (S)



Block diagram



Functional diagram for MAXIMUM Probes



basis sample drawing
CLS50-078-001V1

Zul. Abweichung / admissible tolerance	Oberfläche / surface	Maßstab / scale	Sprache / language	Blatt / sheet
		1:1	ENU	1 / 1
ISO2768-mK		Benennung / description		
Erstellt / created by	Datum / date	Name / name		
05.04.2017		Möderer		
Geprüft / checked by	06.04.2017	Boni		
Format / Size	Maßeinheit / dimension unit	Zng. Art/ drw.type		
A2	mm	DRC		
Zust. / rev.		Änderung/modification		Datum/date
		Name/Geprüft checked by		
BEDIA®				500313

CLS-50 water level sensor
high side switch - operating current
with connector ISO 15170-A1-3.1-Sn/K1