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Technical data

Medium	water, coolant
Function	minimum - quiescent current (rc)
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	0 seconds ±5%
Fault indication delay	7 seconds ±5%
Connection	connector ISO 15170-A1-3.1-Sn/K1 (former DIN 72585)
Housing material	brass
Probe coating	capacitive connected to ground
Probe protection	Tefzel® ETFE
Weight	IP6K9K according to ISO 20653 with mounted mating connector approx. 85 g
Marking	manufacturer; type; manufacturer-no.; SN; year / week; approval
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	any
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.

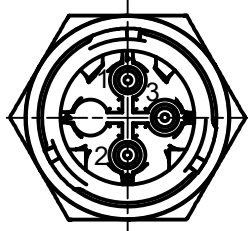
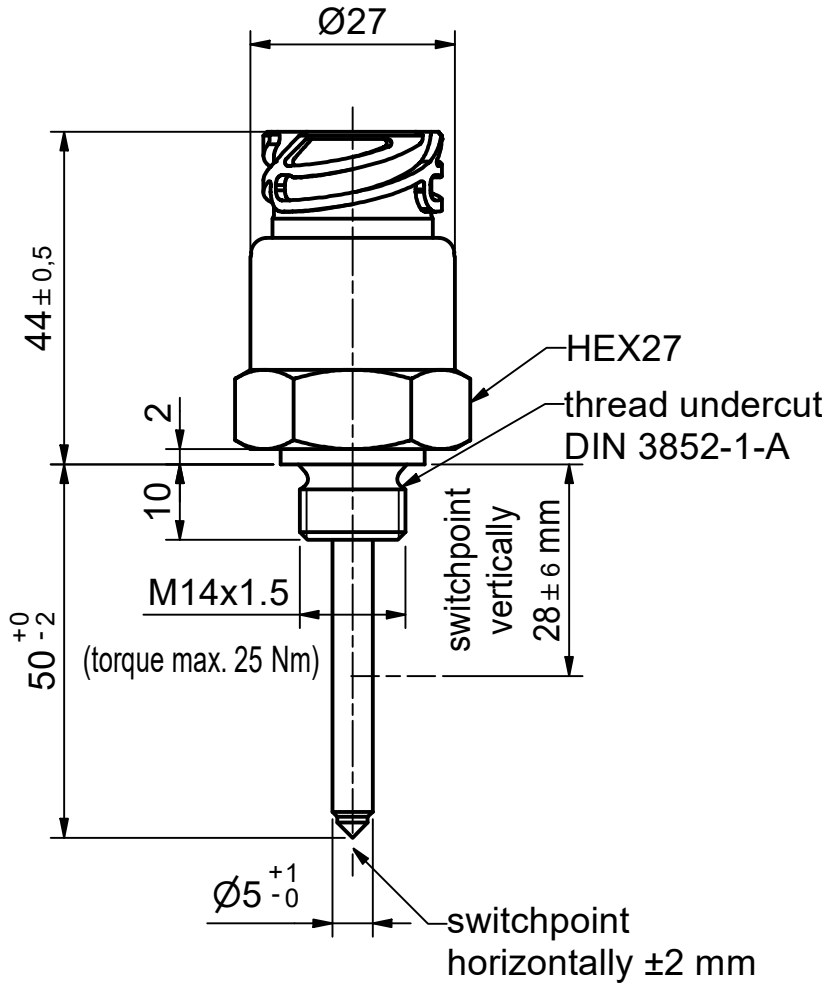
Approval	10R-03 5459
Customs tariff number	90261029

Environmental simulations

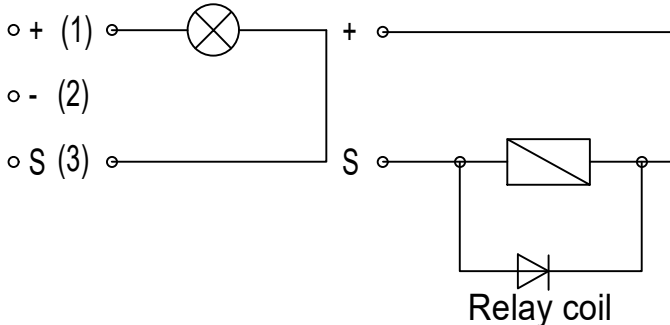
Vibration	ISO 16750-3	10 Hz - 2000 Hz 20 g
Free Fall	IEC 16750	
Mechanical Shock	DIN EN 60068-2-27;	100 g / 11 ms
Dry Cold	DIN EN 60068-2-1;	-40°C / 24 h (-40°F / 24 h)
Dry Heat	DIN EN 60068-2-2;	+125°C / 96 h (+257°F / 96 h)
Temperature cycling	DIN EN 60068-2-14	
Damp Heat	DIN EN 60068-2-78	
Damp Heat,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

EMC

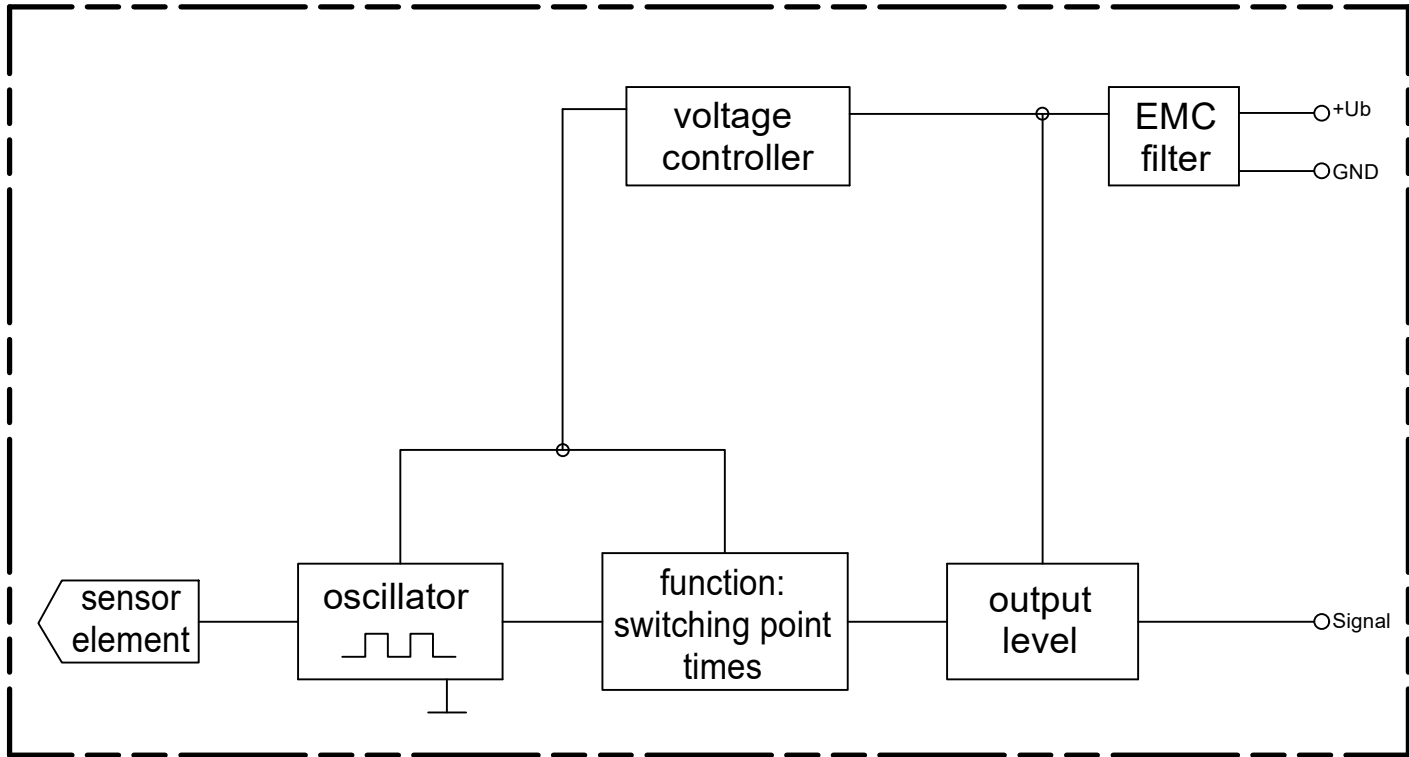
Radiated emission	2004/104/EG	30 MHz - 1 GHz; 1 m
Conducted transient emission	ISO 7637-2	
Immunity to RF electromagnetic fields	ISO 11452-1/-2	1000 MHz - 2000 MHz; 150 V / m (rms)
Immunity to RF electromagnetic fields in the stripline	ISO 11452-1/-5	20 MHz - 1000 MHz; 150 V / m (rms)
Transient immunity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



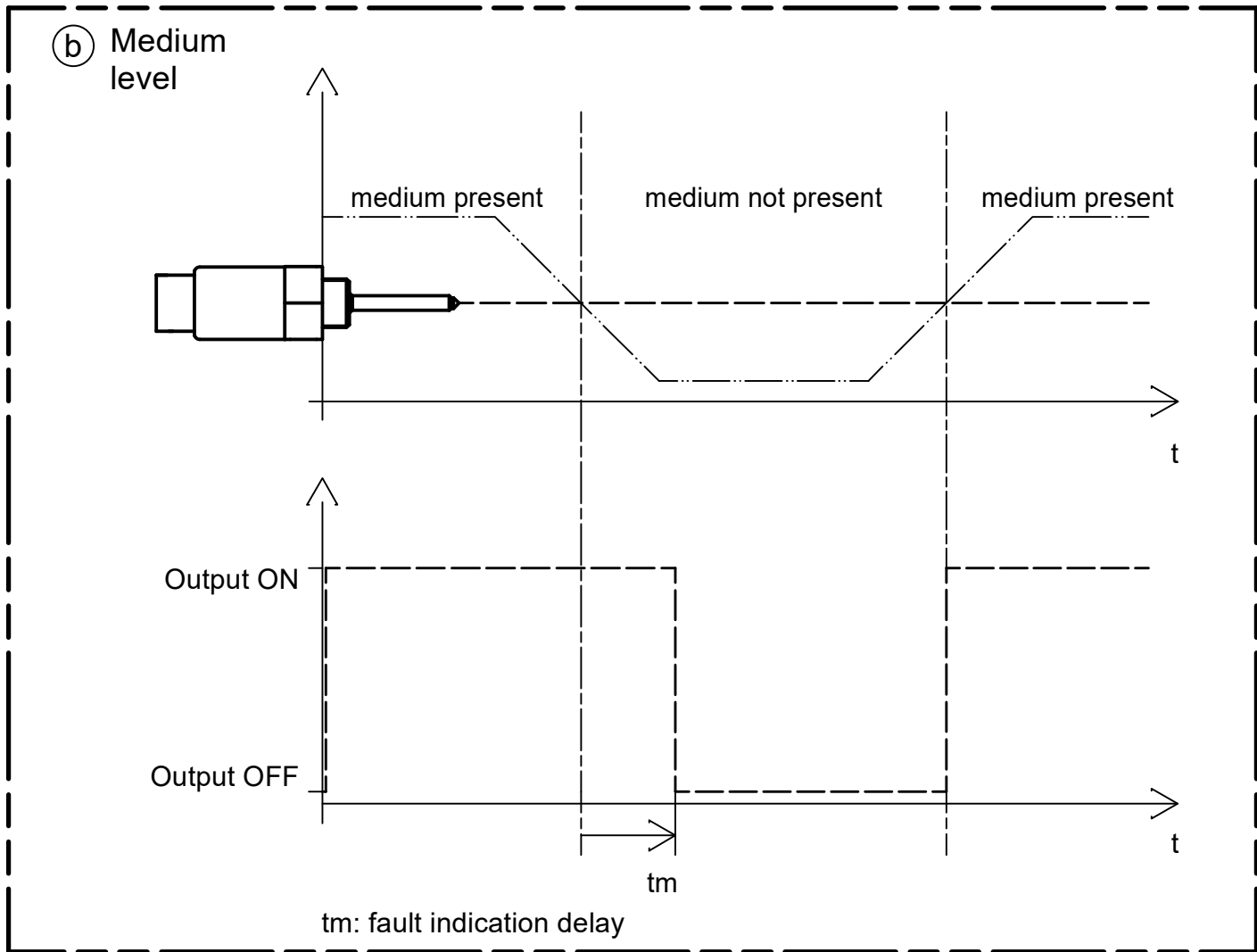
1 = positive (+)
2 = negative (-)
3 = signal (S)



Block diagram



Functional diagram for MINIMUM Probes



				Zul. Abweichung / admissible tolerance	Oberfläche / surface	Maßstab / scale	1 : 1	Sprache / language	ENU	Blatt sheet	1 / 1
				ISO 2768-mK							
				Erstellt / created by	Datum / date	Name / name					
				Geprüft / checked by	26.05.2009	SchAl					
				Format / Size	21.10.2009	SasCh					
				Maßeinheit / dimension unit in [mm]							
b	IA-2021-0046; year removed div.	25.10.23	BruMi/SchSt								Zng. Art/ drw type
a	see drawing	23.03.12	MoeMi/StaRo								
Zust./ rev.	Änderung/modification	Datum/date	Name/Geprüft/ checked by								DRC

BEDIA

CLS-40 water level sensor
low side switch - quiescent current
with connector ISO 15170-A1-3.1-Sn/K1

320402