

Any non-compliance shall obligate the violator to compensate for damages. In case any patent is issued or a utility model is registered, or in case of any other industrial property rights, all such rights must be reserved for us.

BEDIA Motorentechnik GmbH & Co.KG, Altdorf bei Nürnberg

The copyright to this drawing belongs to us. No duplication or transfer to, providing access to or communicating to any third parties is allowed of its contents or excerpts thereof. This drawing may not be used without our approval for any purpose other than that for which it has been entrusted to the recipient.

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	M14x1,5
Function control	0 seconds ± 5%
Fault indication delay	7 seconds ± 5%
Connection	connector ISO15170-A1-3.1-Sn/K1 (a) (former DIN72585)
Housing material	CuZn38Pb2 EN12164; CW608N capacitive connected to ground
Probe coating	Tefzel® ETFE
Probe protection	IP 69K to DIN40050 with mounted mating connector (a)
Weight	approx. 85 g
Marking	manufacturer; type; manufacturer no.; customer-part-no.; SN; year / week; approval
Switch point hysteresis	(a) < 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 negative potential to signal terminal of the sensor and positive potential to negative terminal of the sensor.

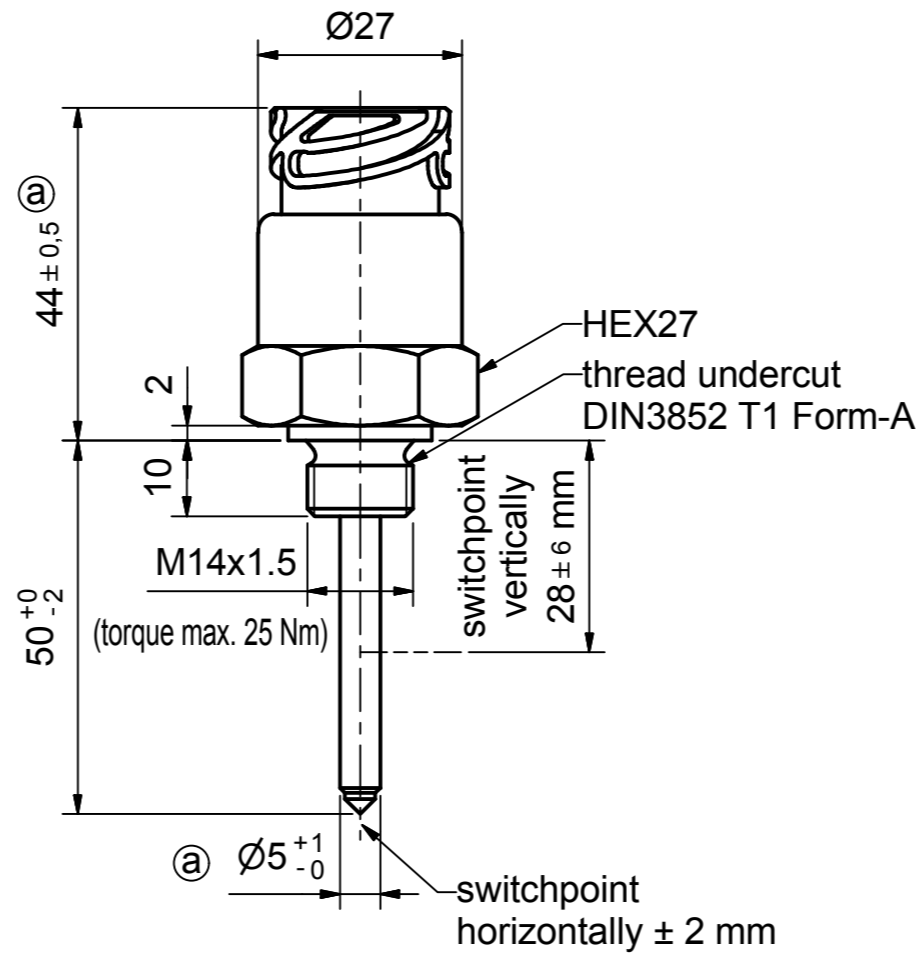
Approval	e1
Customs tariff number	035459 90261029

Environmental simulations

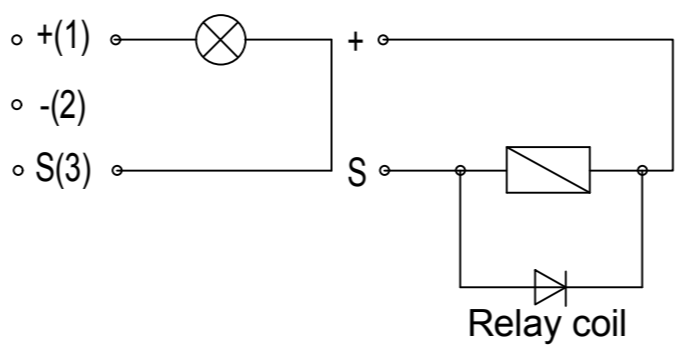
Vibration	ISO 16750-3:2007	10 Hz - 2000 Hz 20 g
Free Fall	IEC 16750	
Mechanical Shock	DIN EN 60068-2-27:1995;	100 g / 11ms
Dry Cold	DIN EN 60068-2-1:2006;	-40 °C / 24 h (-40 °F / 24 h)
Dry Heat	DIN EN 60068-2-2:2008;	+125 °C / 96 h (+257 °F / 96 h)
Temperature cycling	DIN EN 60068-2-14:2000	
Damp Heat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

EMC

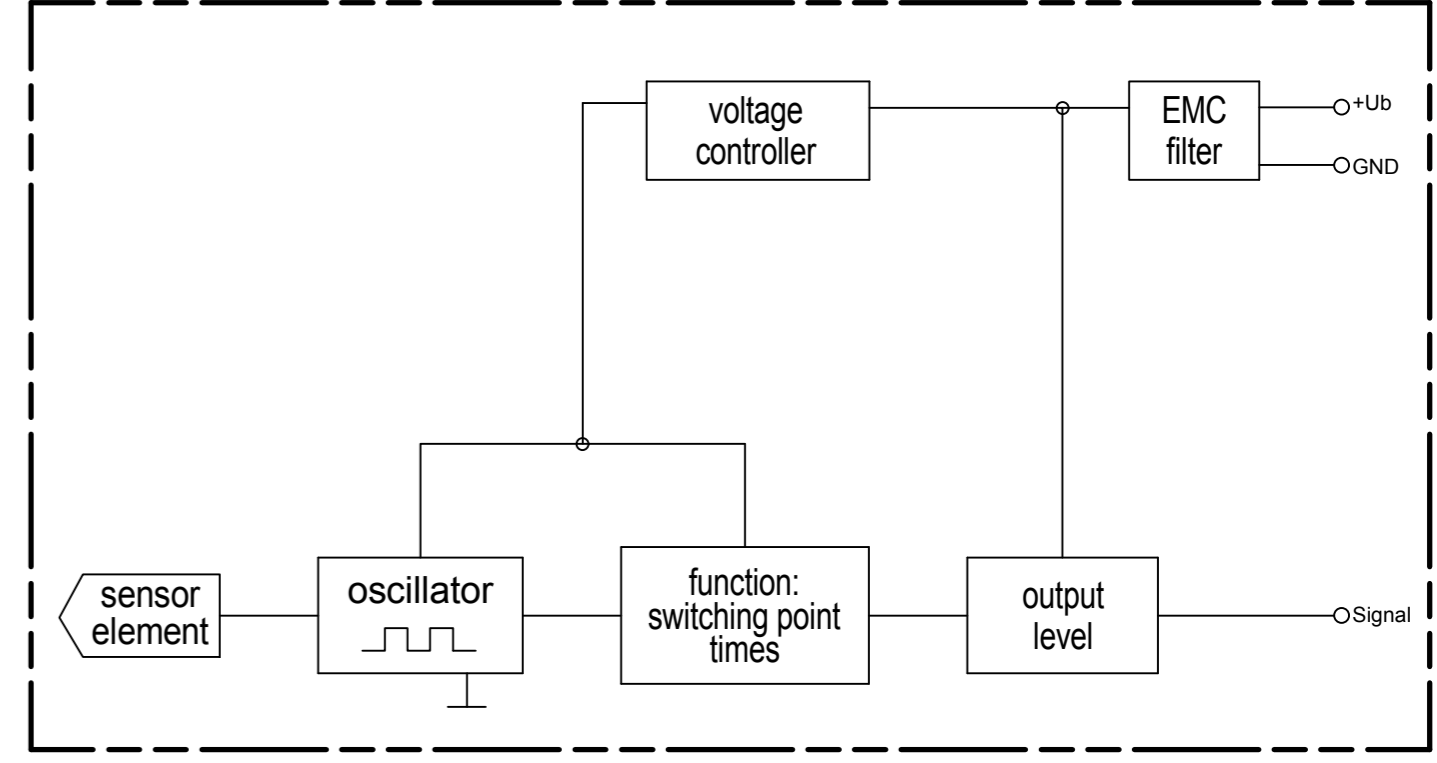
Radiated emission	2004/104/EG	30 MHz - 1 GHz; 1 m
Conducted transient emission	ISO 7637-2:2004	
Immunity to RF electromagnetic fields	ISO 11452-1/-2	1000 MHz - 2000 MHz; 150 V / m (rms)
Immunity to RF electromagnetic fields in the stripline	ISO 11452-1/-5	20 MHz - 1000 MHz; 150 V / m (rms)
Transient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



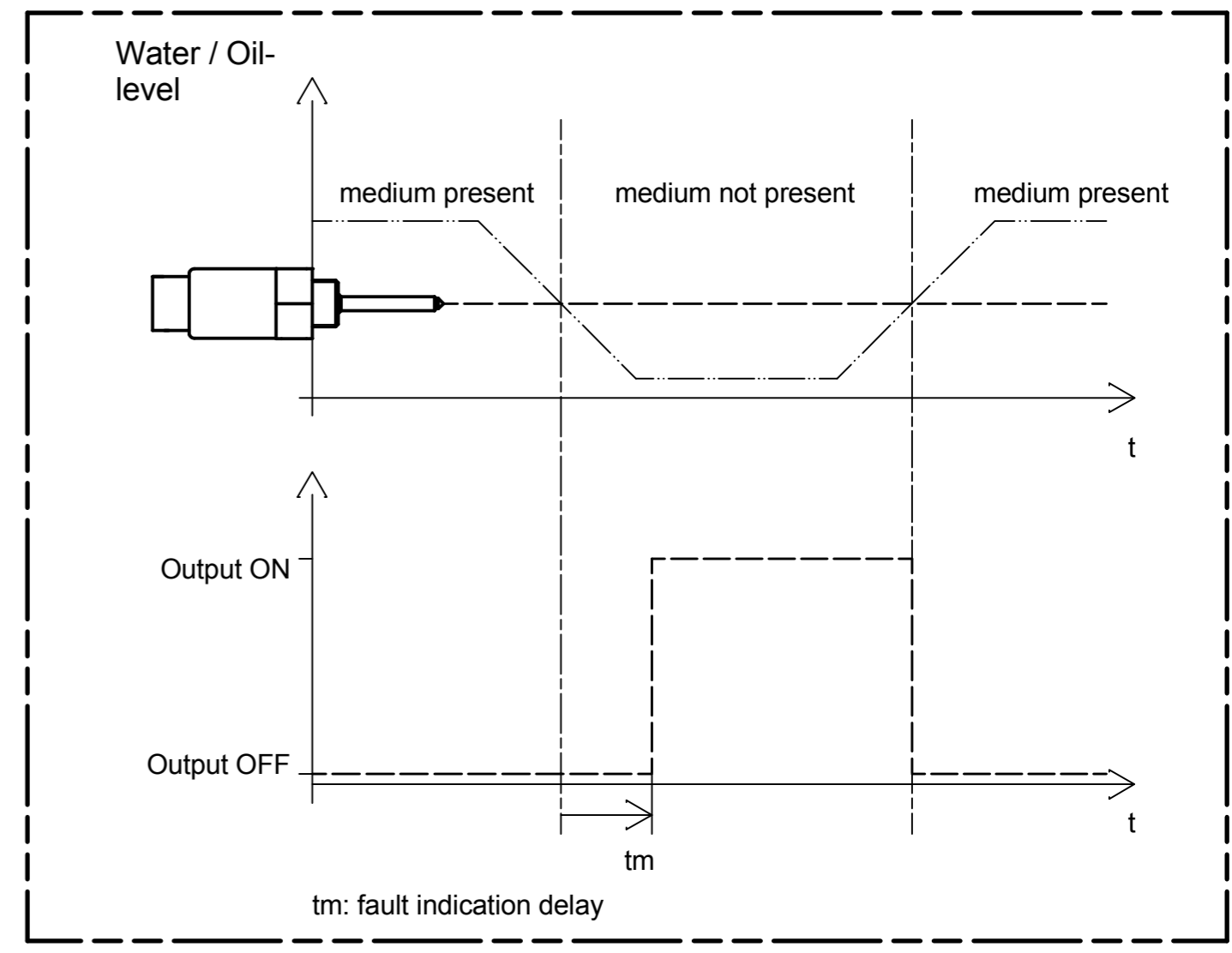
1 = positive (+)
2 = negative (-)
3 = signal (S)



Block diagram



(a) Functional diagram for MINIMUM Probes



field of application	admissible tolerance	surface	scale 1:1	position -	amount -
	ISO2768-mK				
	date	name	description		
	created by 26.05.2009	SchAl	CLS40 water level sensor low side switch - operating current (a)		
	checked by 26.10.2009	SasCh			
			drawing number		
			320459		
			sheet		
			1/1		
a see drawing	22.03.12	BerVi/StaRo	drawing path: I:\CAD\320\320459\US.idw		
rev. modification	date	name/checked by			