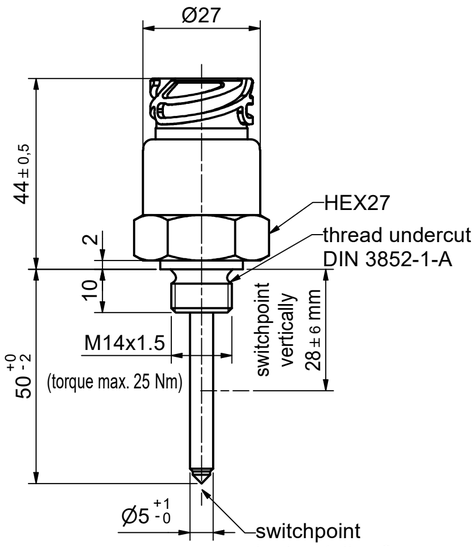
BEDIA Motorentechnik GmbH & Co.KG,
Altdorf bei Nürnberg

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
	capacitive connected to ground
Probe coating	Tefzel® ETFE
Probe protection	(b) IP6K9K according to ISO 20653 with mounted mating connector
Weight	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

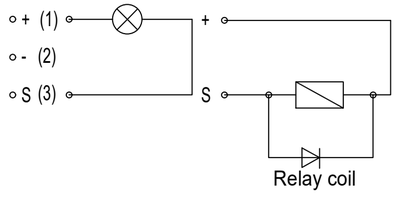


Caution!!
Do not connect negative potential to signal terminal of the sensor and positive potential to negative terminal of the sensor.

Approval (b) E1 10R-03 5459

Customs tariff number 90261029

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



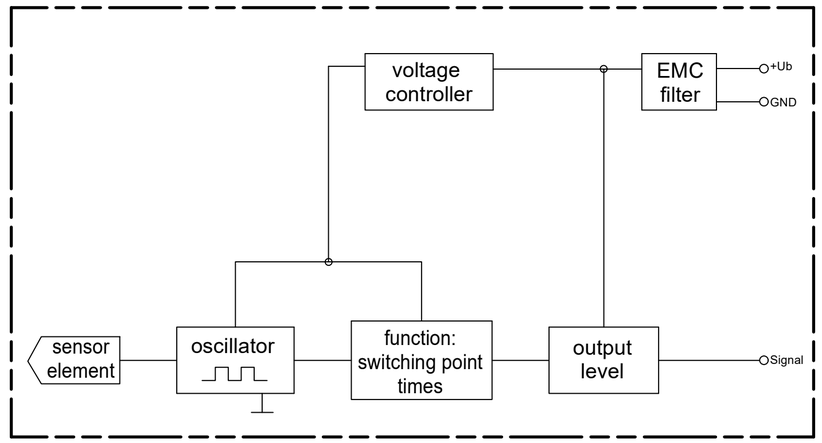
Environmental simulations

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)	

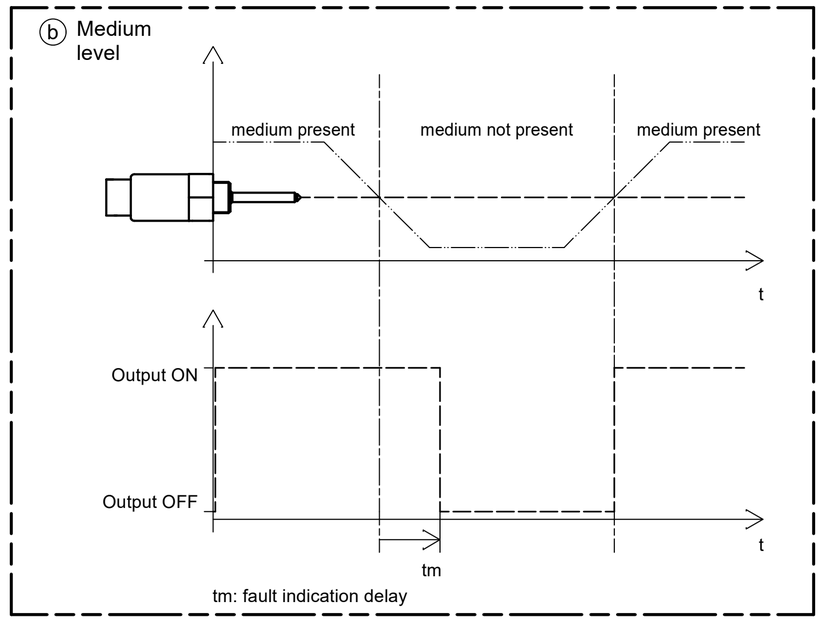
EMC

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

Block diagram



Functional diagram for MINIMUM Probes



b	TA-2021-0046; year removed; div.	25.10.23	BruMi/SchSt
a	see drawing	23.03.12	MoeMi/StaRo
Zust./ rev.	Änderung/modification	Datum/date	Name/Geprüft checked by

Zul. Abweichung / admissible tolerance: ISO 2768-mK
Oberfläche / surface
Maßstab / scale: 1 : 1
Sprache / language: ENU
Blatt sheet: 1 /1

	Datum / date	Name / name
Erstellt / created by	26.05.2009	SchAl
Geprüft / checked by	21.10.2009	SasCh

Format / Size: A2
Maßeinheit / dimension unit in [mm]

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

Zeichnungsnummer / drawing number: 320402
Zng. Art/ drw.type: DRC