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BEDIA Motorentechnik GmbH & Co.KG, Altdorf bei Nürnberg

Technical data

Medium oil
 Function minimum - operating current (oc)
 Operating voltage 24 V (-62,5% / +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 G 3/8"
 Function control 0 seconds ± 5%
 Fault indication delay 0 seconds ± 5%
 Connection connector ISO 15170-A1-3.1-Sn/K1 (former DIN72585)
 Housing material CuZn38Pb2
 EN12164; CW608N
 Probe coating capacitive connected to ground
 Tefzel® ETFE
 Probe protection IP 69K to DIN40050 with mounted mating connector
 Weight approx. 105 g
 Marking manufacturer; type; manufacturer no.; SN; year / week
 Switch point hysteresis < 3 mm
 Reference medium paraffin oil, $\epsilon_r = 2,0..2,4$, for switchpoint adjustment
 Medium temperature -40 °C to +150 °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.

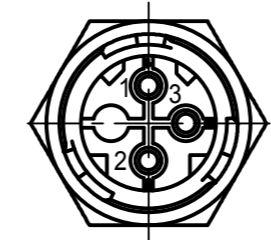
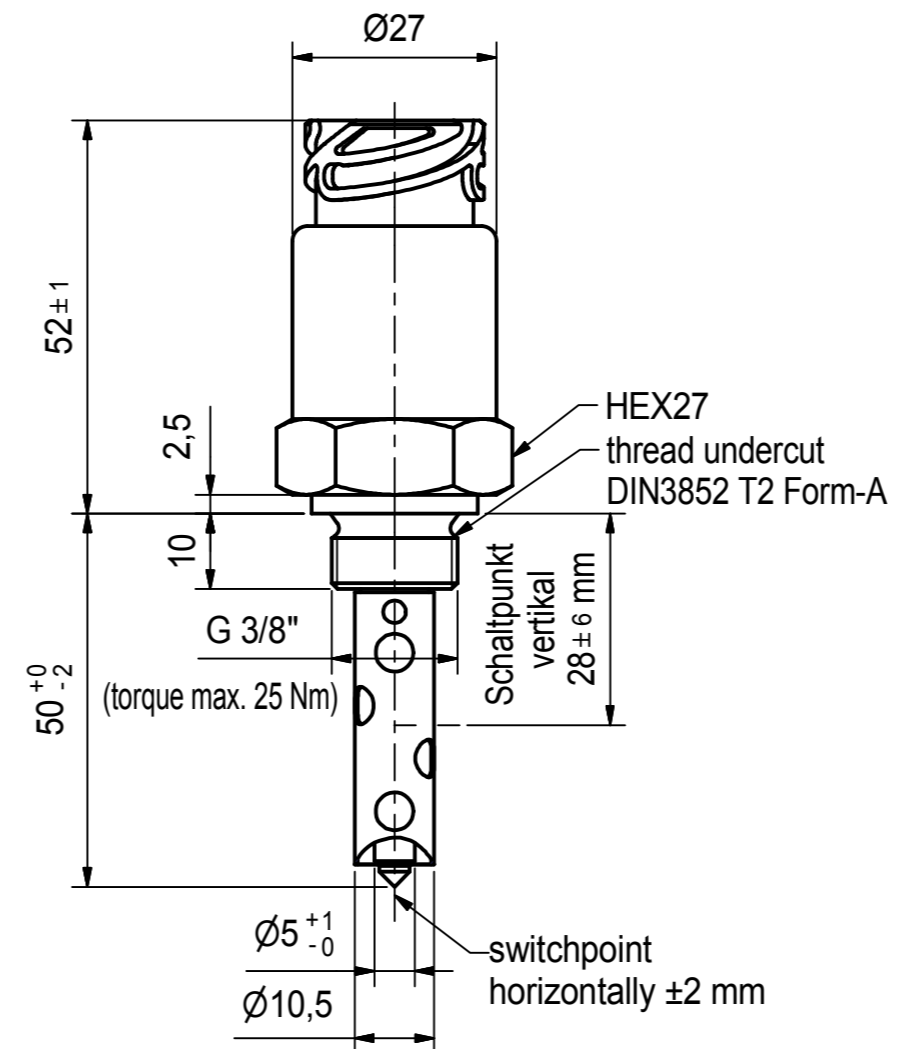
Customs tariff number 90261029

Environmental simulations

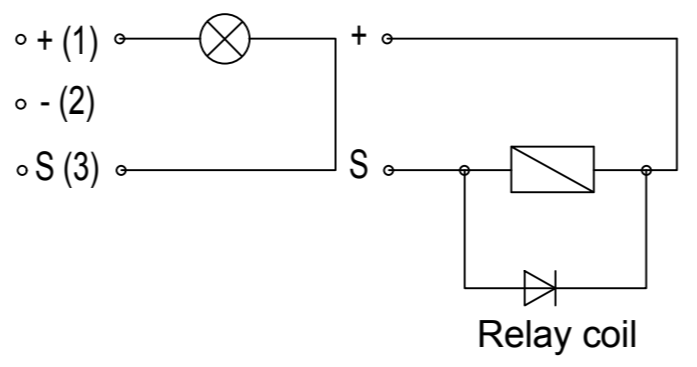
according to railway applications DIN EN 50155
 Simulated long life testing at increased random vibration levels DIN EN 61373-clause 9
 Shock testing conditions DIN EN 61373-clause 10
 Performance test with broad-band random DIN EN 61373-clause 8
 Storage at cold DIN EN 60068-2-1
 Dry heat DIN EN 60068-2-2
 Damp heat, cyclic DIN EN 60068-2-30
 Salt mist DIN EN 60068-2-11
 Flame test flammability class S1 according to DIN 5510 part 2
 Pressure resistance 2,5 MPa (25 bar / 362,6 psi) (25°C / 77°F / 1 h)

EMC according to railway applications

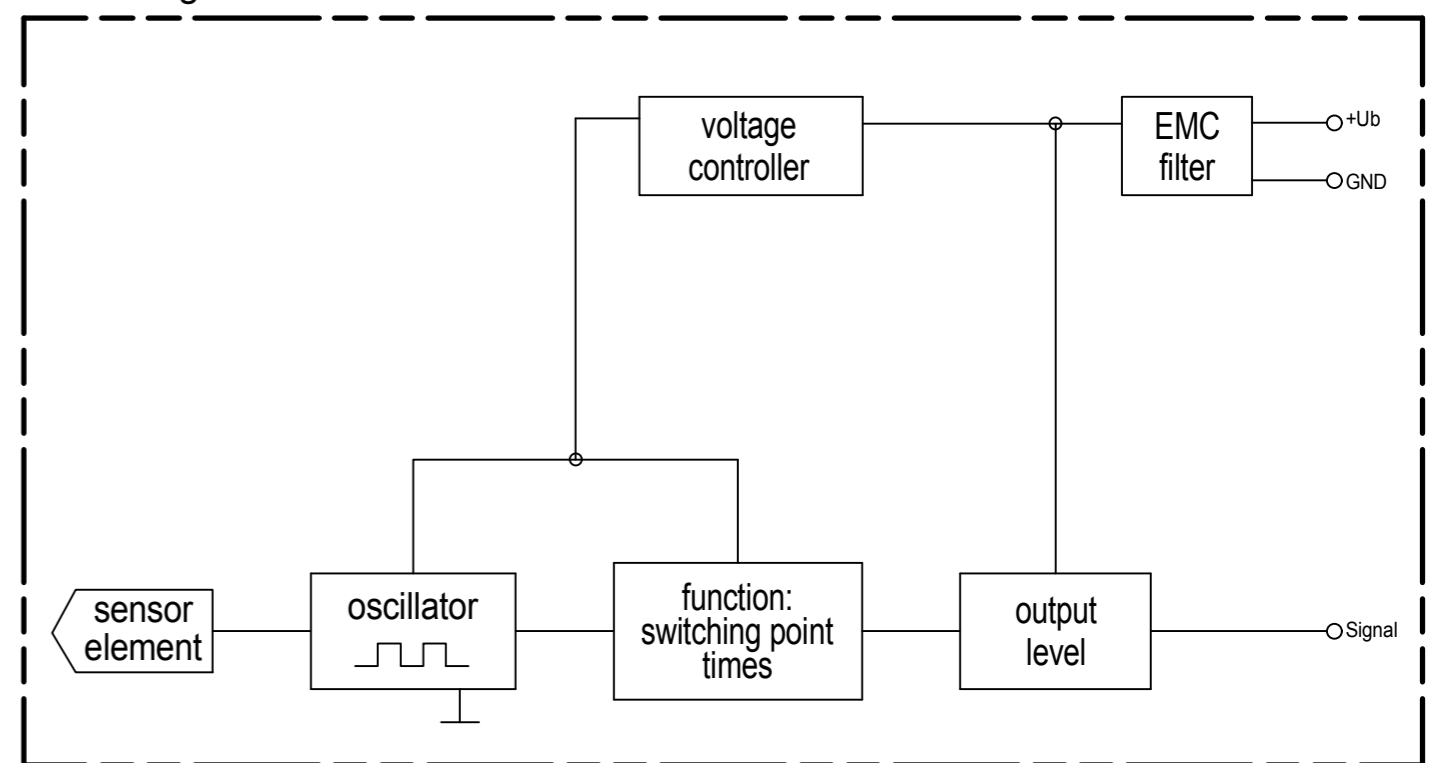
Conducted continuous disturbance at mains ports EN 50121-3-2 class A+20
 Conducted continuous disturbance at signal and data ports EN 50121-3-2 class A+20
 Radiated disturbance, electrical field EN 50121-3-2 class A
 Immunity radiated electromagnetic fields IEC 61000-4-3 20 V/m
 Conducted immunity, injected currents EN 61000-4-6 10 V
 EFT / Burst EN 61000-4-4 2 kV
 Electrostatic discharge test EN 61000-4-2 6 kV / 8 kV
 Surge immunity test EN 61000-4-5 1 kV / 2 kV
 Immunity to voltage dips, interruptions and fluctuations EN 50155
 Insulation test DIN EN 50155 clause 12.2.9.1
 Voltage withstand test DIN EN 50155 clause 12.2.9.2



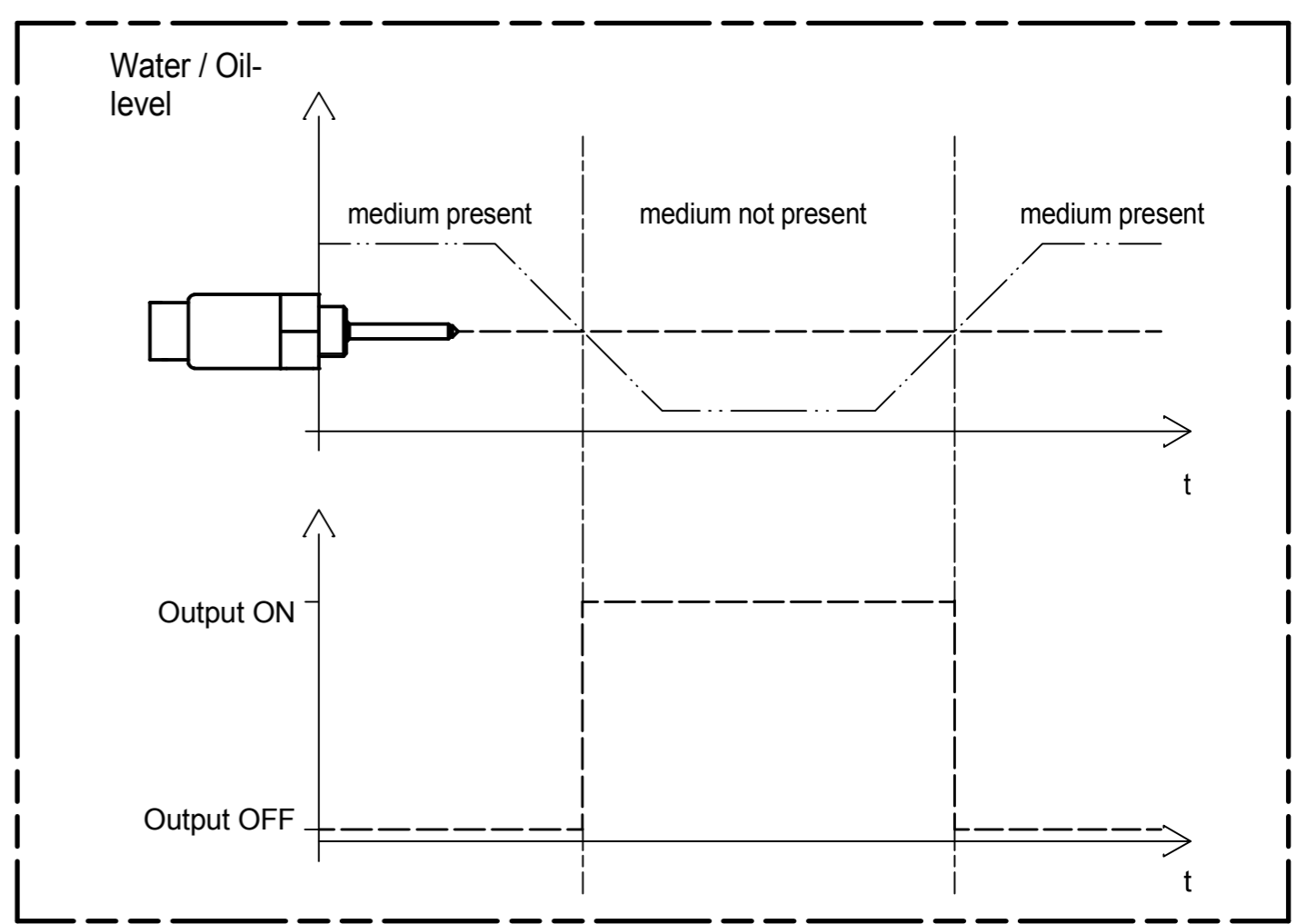
1 = positive (+)
 2 = negative (-)
 3 = signal (S)



Block diagram



Functional diagram for MINIMUM Probes



field of application	admissible tolerance	surface	scale 1:1	position -	amount -
	ISO2768-mK				
	date	name	description		
	created by 01.02.2012	Möderer	CLS-20 oil level sensor low side switch - operating current with connector ISO 15170-A1-3.1-Sn/K1		
	checked by 03.02.2012	Saß			
			drawing number	sheet	
			350601	1/1	
rev.	modification	date	name/checked by	drawing path: I:\CAD\350\350601\US.dwg	

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