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BEDIA Motorentechnik GmbH & Co.KG, Altdorf bei Nürnberg

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 2 seconds ± 5%
 Connection connector ISO 15170-A1-3.1-Sn/K1 (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
 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 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.

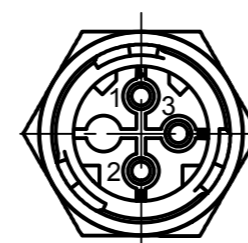
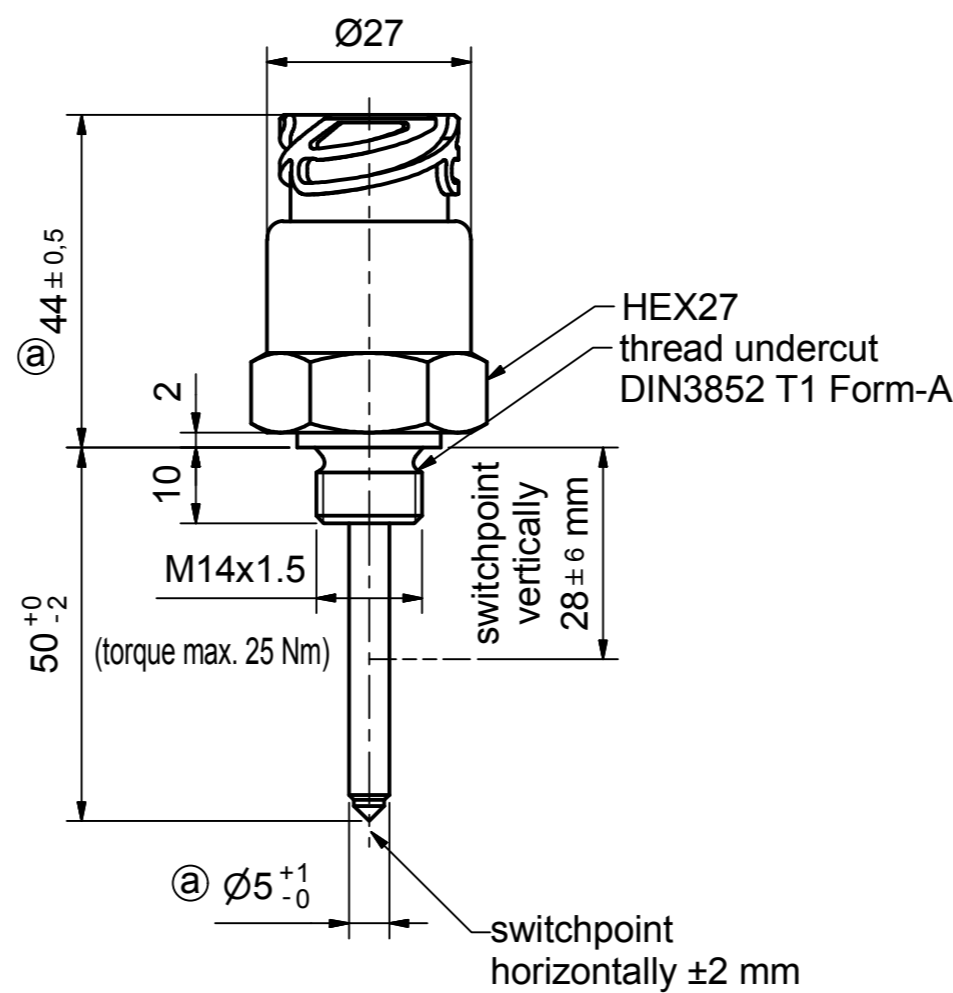
Approval e1
 035459
 Customs tariff number 90261029

Environmental simulations

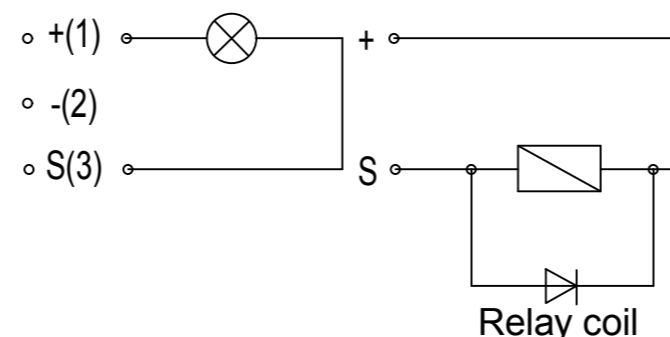
Vibration ISO 16750-3:2007 10 Hz - 2000 Hz 20 g
 Free Fall IEC 16750
 Mechanical Shock DIN EN 60068-2-27:1995; 100 g / 11 ms
 Dry Cold DIN EN 60068-2-1:2006; -40°C / 24 h (-40°F / 24 h)
 Dry Heat DIN EN 60068-2-2:2008; +125°C / 96 h (+257°F / 96 h)
 Temperature cycling DIN EN 60068-2-14:2000
 Damp Heat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

EMC

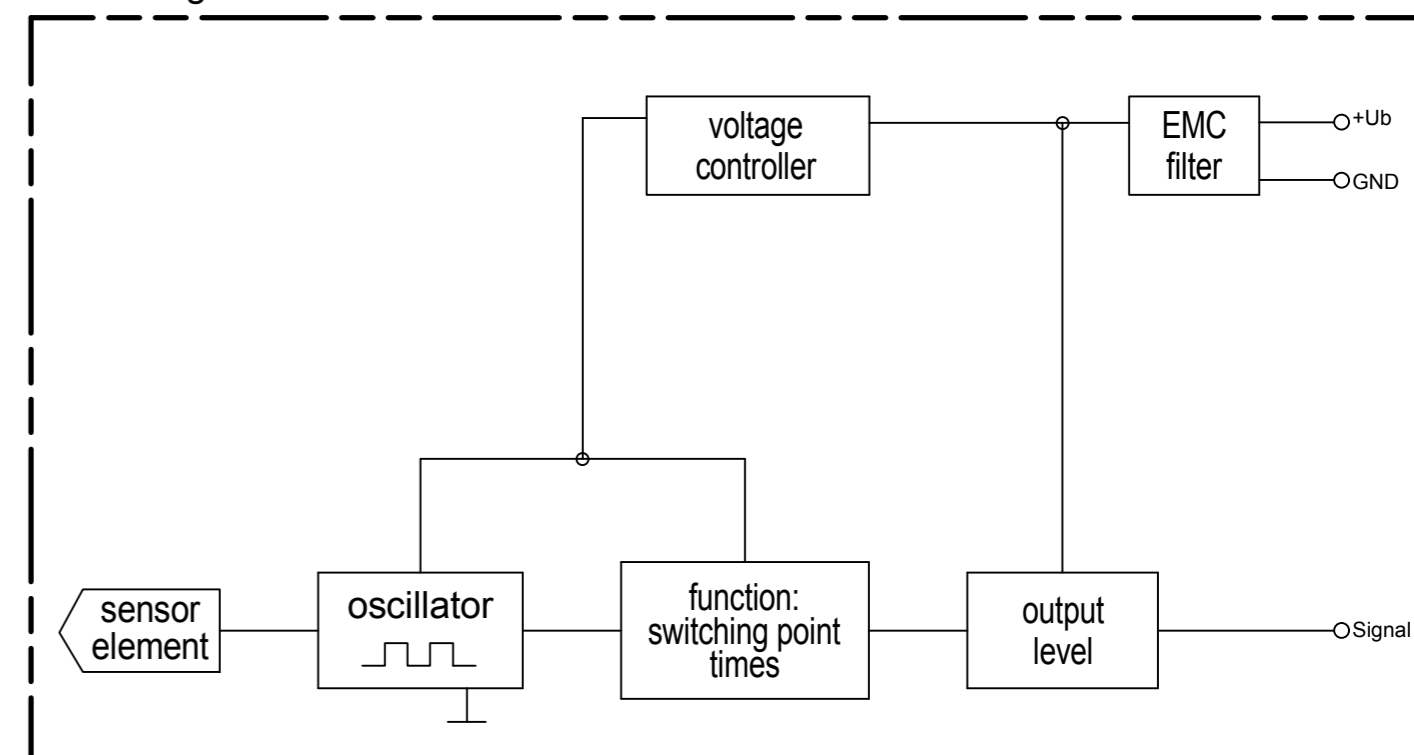
Radiated emission 2004/104/EG 30 MHz - 1 GHz; 1 m
 Conducted transient emission ISO 7637-2:2004
 Immunity to RF electromagnetic fields ISO 11452-1/-2 1000 MHz - 2000 MHz; 150 V / m (rms)
 Immunity to RF electromagnetic fields in the stripline ISO 11452-1/-5 20 MHz - 1000 MHz; 150 V / m (rms)
 Transient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



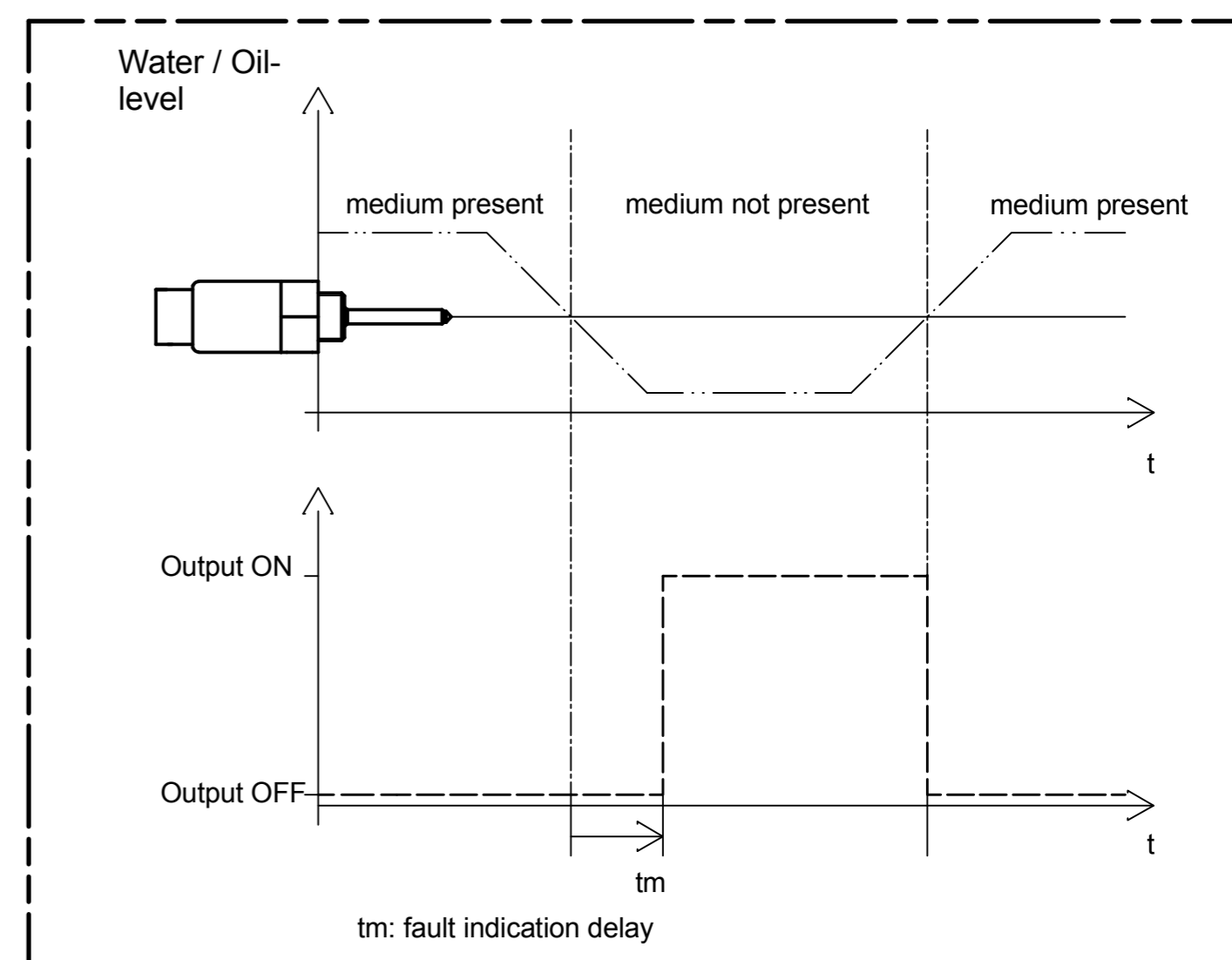
1 = positive (+)
 2 = negative (-)
 3 = signal (s)



Block diagram



Functional diagram for MINIMUM Probes



| | | | | | |
|----------------------|-----------------------|-----------------|-----------------------------------------------------------------------------------------------------------|------------|----------|
| field of application | admissible tolerance | surface | scale 1:1 | position - | amount - |
| | ISO2768-mK | | | | |
| | date | name | description | | |
| | created by 25.05.2009 | SchAl | CLS-40 water level sensor low side switch - operating current with connector ISO 15170-A1-3.1-Sn/K1 | | |
| | checked by 25.06.2009 | SasCh | | | |
| | | | drawing number | sheet | |
| | | | 320419 | 1/1 | |
| a new connector norm | 30.07.12 | KerSe/SasCh | drawing path: I:\CAD\320419\US\idw | | |
| rev. modification | date | name/checked by | | | |

