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Altdorf bei Nürnberg

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Technical data

Medium	oil
Function	minimum - operating current (oc)
Operating voltage	12 / 24 V (-25% / +50%) (9 - 36 VDC)
Current consumption	< 8 mA
Output	high 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	3/8" NPTF
Function control	2 seconds ±5%
Fault indication delay	0 seconds ±5%
Connection	connector Packard 4-pole
Housing material	CuZn38Pb2 EN12164; CW608N capacitive connected to ground
Probe coating	Tefzel® ETFE
Probe protection	IP 67 to DIN40050 with mounted mating connector
Weight	approx. 85 g
Marking	manufacturer; type; manufacturer no.; SN; year / week
Switch point hysteresis	< 3 mm
Reference medium	paraffin oil, ε _r = 2,0..2,4, for switchpoint adjustment
Medium temperature	-40°C to +150°C (-40°F to +302°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 positive potential to signal terminal of the sensor and negative potential to positive terminal of the sensor.

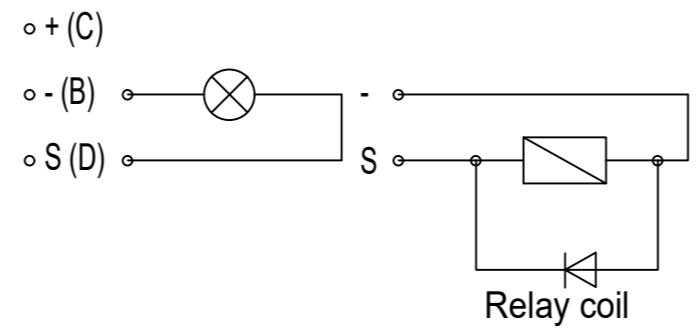
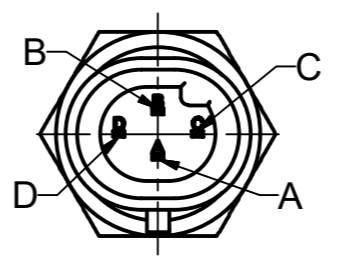
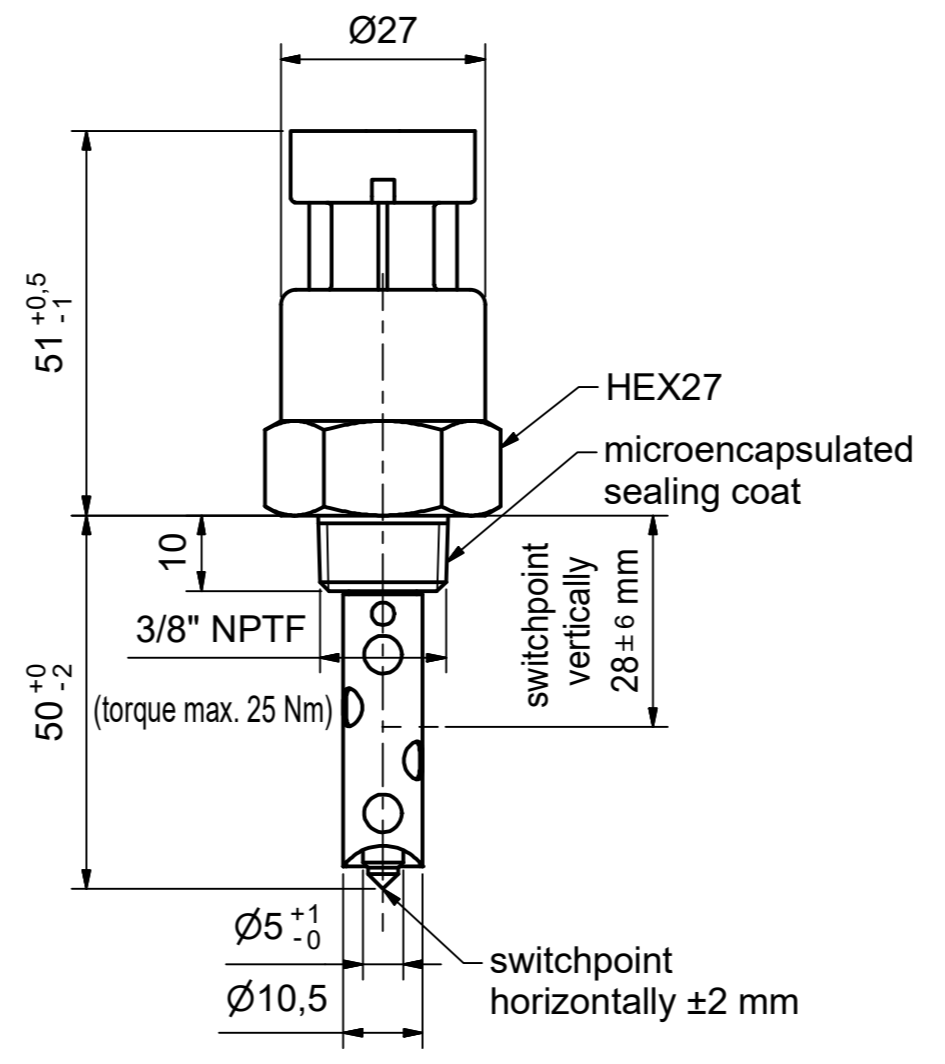
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Environmental simulations

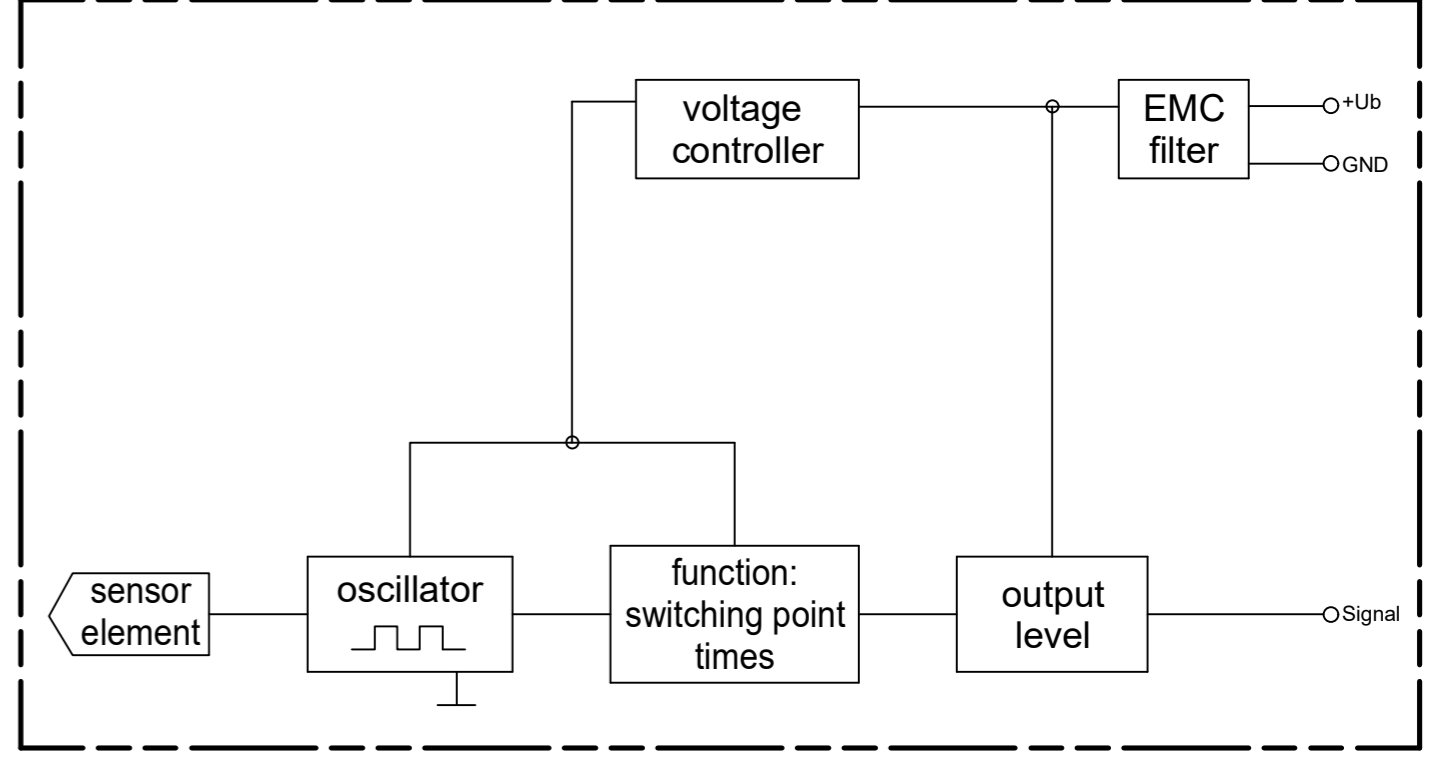
Vibration	ISO 16750-3:2007	10 Hz - 2000 Hz 20 g
Free Fall	IEC 16750	
Mechanical Shock	DIN EN 60068-2-27:1995;	100 g / 11 ms
Dry Cold	DIN EN 60068-2-1:2006;	-40°C / 24 h (-40°F / 24 h)
Dry Heat	DIN EN 60068-2-2:2008;	+125°C / 96 h (+257°F / 96 h)
Temperature cycling	DIN EN 60068-2-14:2000	
Damp Heat	DIN 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

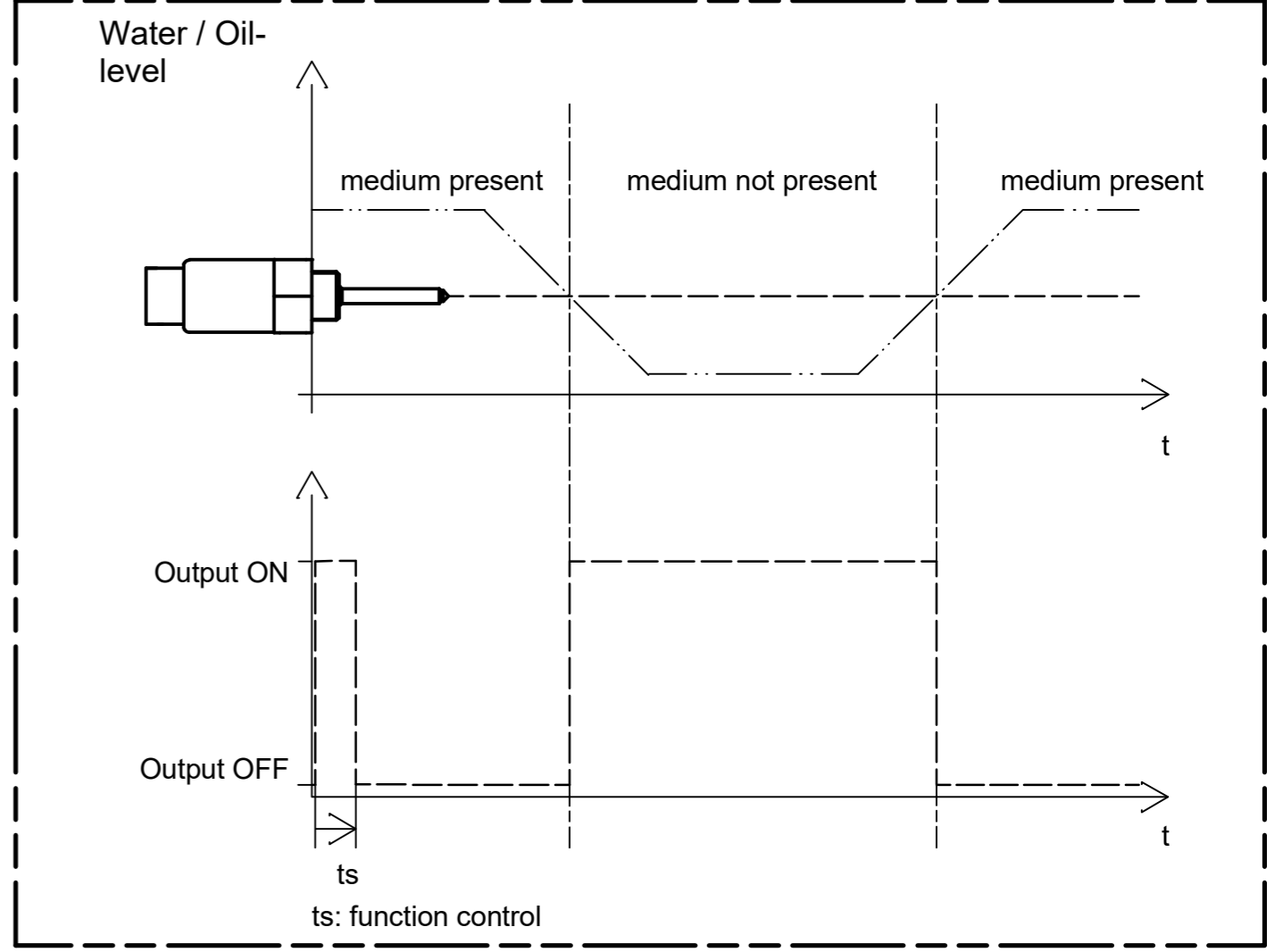
Radiated emission	2004/104/EG	30 MHz - 1 GHz; 1 m
Conducted transient emission	ISO 7637-2:2004	
Immunity to RF electromagnetic fields	ISO 11452-1/-2	1000 MHz - 2000 MHz; 150 V / m (rms)
Immunity to RF electromagnetic fields in the stripline	ISO 11452-1/-5	20 MHz - 1000 MHz; 150 V / m (rms)
Transient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



Block diagram



Functional diagram for MINIMUM Probes



Zul. Abweichung / admissible tolerance	Oberfläche / surface	Maßstab / scale	Sprache / language	Blatt / sheet
ISO2768-mK	-	1:1	ENU	1 / 1
Erstellt / created by	Datum / date	Name / name	Benennung / description	
26.04.2016	26.04.2016	Zimbrod	CLS-10 oil level sensor high side switch - operating current with connector Packard 4-pole	
Geprüft / checked by	Format / Size	Maßeinheit / dimension unit in [mm]	Zeichnungsnummer / drawing number	
Boni	A2	mm	360013	
Zug. Art/ drw.type				DRC

