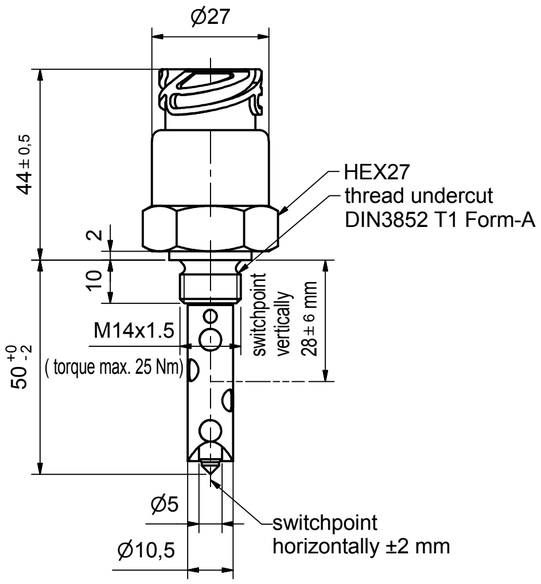
BEDIA Motorentechnik GmbH & Co.KG,
Altdorf bei Nürnberg

Technical data

Medium	oil
Function	Maximum - 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	0 seconds ± 5%
Connection	connector ISO15170-A1-3.1-Sn/K1 (former DIN72585) (a)
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. 90 g (a)
Marking	manufacturer; type; manufacturer no.; SN; year / week; approval
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



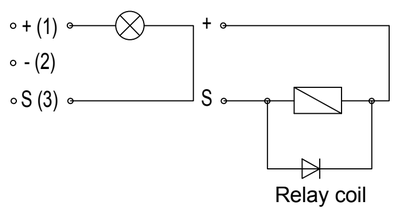
Caution!!
Do not connect negative potential to signal terminal of the sensor and positive potential to negative terminal of the sensor.

Approval	e1 035459	
Customs tariff number	90261029	

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

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)	

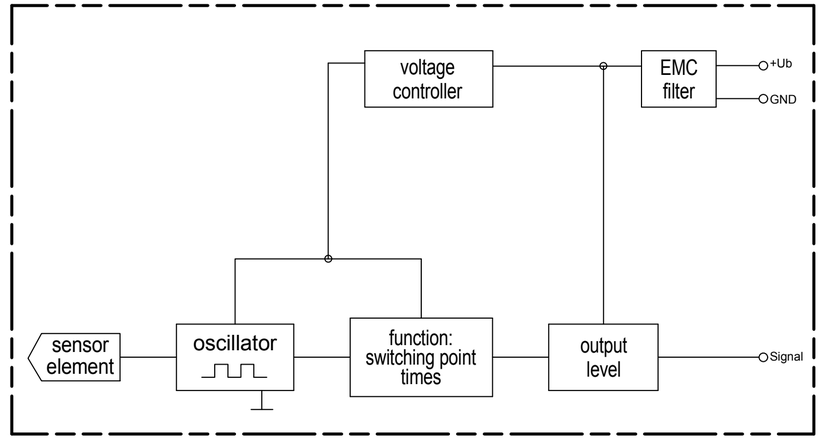


Relay coil

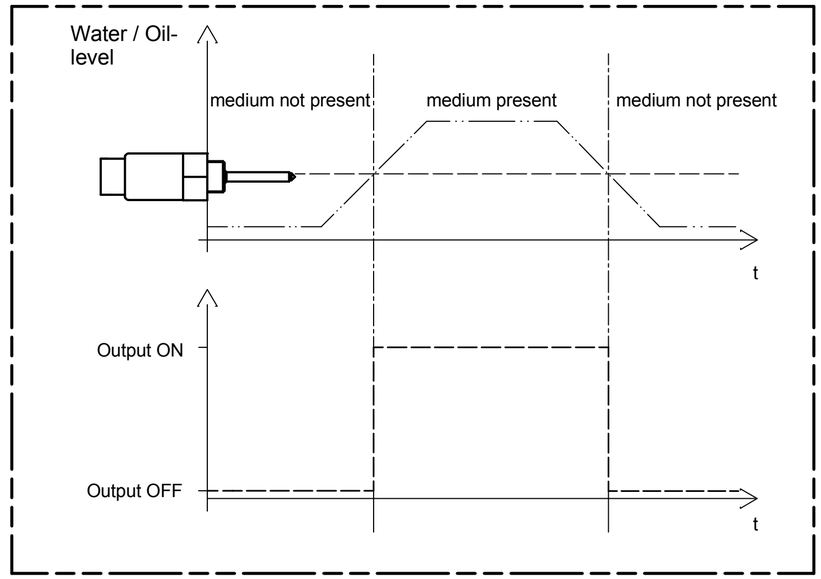
EMC

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

Block diagram



Functional diagram for MAXIMUM Probes



a	new norm	13.12.12	Kern/Stark	Zul. Abweichung / admissible tolerance	Oberfläche / surface	Maßstab / scale 1:1	Position / position - Menge / amount -
Zust. / rev.	Änderung/modification	Datum/date	Name/Geprüft checked by	ISO2768-mK	-	- -	- -
					Datum / date	Name / name	Benennung / description
				Erstellt / created by	23.03.2009	Schetnikvoa	CLS-40 oil level sensor low side switch - operating current with connetor ISO15170-A1-3.1-Sn/K1 (a)
				Geprüft / checked by	14.12.2009	Saß	
				Format / Size A2	Maßeinheit / dimension unit in [mm]		Zeichnungsnummer / drawing number 320454
				BEDIA®			Blatt / sheet 1/1