

# Proximity Sensors

Designed to meet demanding temperature, vibration, shock, and EMI/EMP interference specifications. Multiple potential applications are found in aerospace, ordnance, marine, and off-shore equipment.



Series	RDS8004	100 FW	200 FW	300 FW
<b>Description</b>	rail wheel proximity sensor	one-piece 5/8 in proximity sensor	one-piece 5/8 in proximity sensor	two-piece proximity sensor
<b>Technology</b>	–	ECKO	hall	ECKO
<b>Target material</b>	–	all metals	magnet	ferrous metals
<b>Load current</b>	–	120 mA, 50 mA lamp	100 mA, 50 mA lamp	750 mA
<b>Supply current</b>	–	20 mA max. @ 25 °C	20 mA max. @ 25 °C	65 mA max.
<b>Sensing face</b>	–	shielded, unshielded	shielded	shielded
<b>Housing material</b>	polyimide "Grilamid LKN5H"	stainless steel	stainless steel	stainless steel
<b>Guaranteed actuation distance</b>	–	1 mm to 1,99 mm [0.039 in to 0.0783 in]; 5 mm to 10 mm [0.197 in to 0.394 in]	2 mm to 2,99 mm [0.0787 in to 0.1177 in]	1,78 mm to 3,3 mm [0.07 in to 0.130 in]
<b>Operating temp. range</b>	-40 °C to 80 °C [-40 °F to 176 °F]	-55 °C to 125 °C [-67 °F to 257 °F]	-54 °C to 100 °C [-65.2 °F to 212 °F]	-77 °C to 125 °C [-106.6 °F to 257 °F]
<b>Supply voltage</b>	10 Vdc to 30 Vdc	18 Vdc to 32 Vdc	18 Vdc to 32 Vdc	18 Vdc to 32 Vdc
<b>Output type</b>	–	normally open, current sinking	normally open/closed, current sinking	normally open/closed, current sinking
<b>Oscillating frequency</b>	230 kHz ±10 % 160 kHz ±10 %	–	–	–
<b>Output current</b>	supply voltage and load dependent; 2 mA/8 mA	–	–	–
<b>Operating frequency</b>	> 400 Hz	–	–	–
<b>Vibration</b>	Sinusoidal 10 Hz to 2 kHz, 20 g for 30 min, IEC 68-2-2	–	–	–
<b>Nom. sensing distance</b>	26,5 mm, 35 mm	–	–	–
<b>Approvals</b>	IP67	FM Class 1, Division 2, Groups A, B, C, D	FM Class 1, Division 2, Groups A, B, C, D	MIL-STD-810B
<b>Measurements</b>	55,0 mm H x 60,0 mm W x 110 mm L [2.16 in H x 2.36 in W x 4.33 in L]	sensing face: 5/8 in x 63,5 mm L [2.5 in L]	sensing face: 5/8 in x 63,5 mm L [2.5 in L]	Ø 11,2 mm x 31,8 mm L [Ø 0.44 in x 1.25 in L]
<b>Features</b>	two-wire dc inductive; available in high and low frequency versions; output of 8 mA when no wheel is detected, and 2 mA when a wheel is detected	all metal sensing; shielded three-wire dc sinking (NPN); high level of electronics protection; lead wire or connector termination	Hall-effect, magnetic field sensitive; high-frequency switching; shielded three-wire dc sinking (NPN); high level of electronics protection	ferrous metal sensing; two-piece construction; reverse polarity