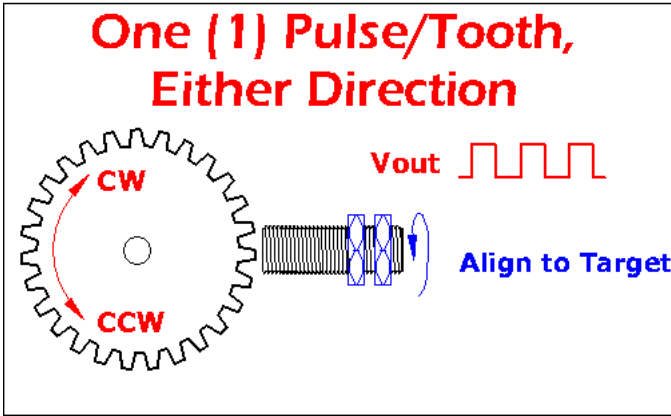


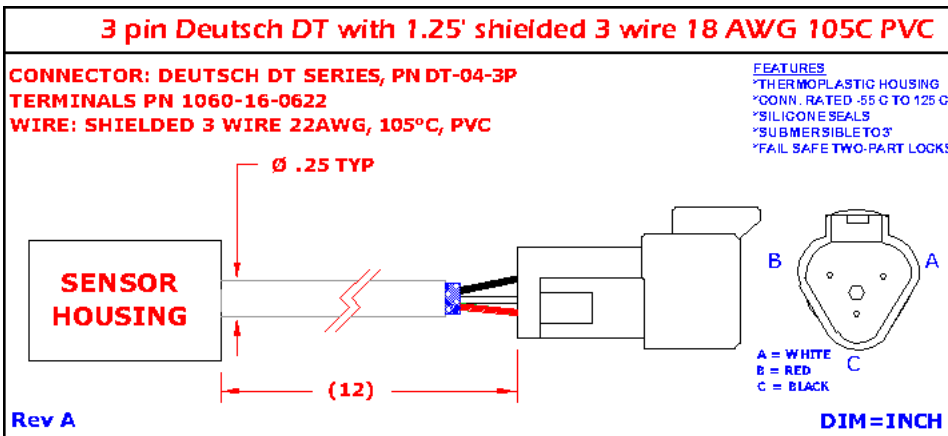
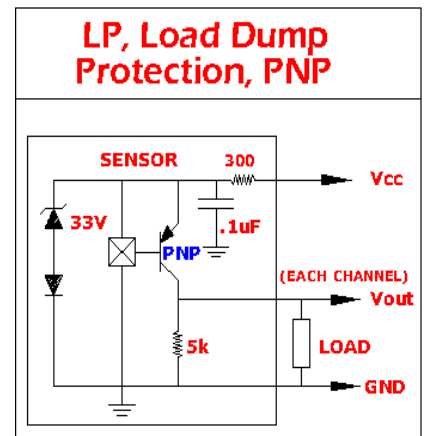
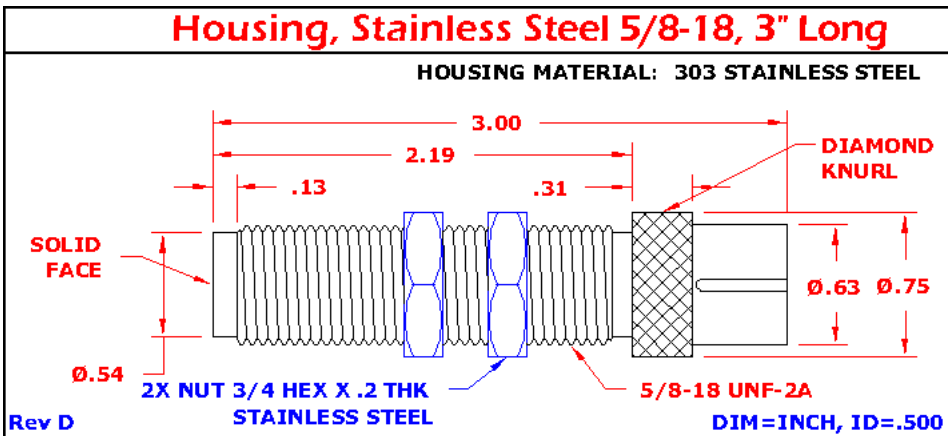
# Single Channel Gear Tooth Sensor

Large Coarse Pitch Speed Sensor 25G hys, load dump & EMI protection, pnp & 5k output, Stainless 5/8-18 x 3" w/ knurl housing, 3 pin Deutsch DT with 1.25 ft shielded 3 wire 18AWG 105C PVC



- o TRUE ZERO SPEED
- o LARGER COURSE GEARS, 4-32 PITCH
- o BOUNCE FREE DIGITAL OUTPUT
- o NON CONTACT, SOLID STATE

ENVIRONMENTAL SPECIFICATIONS	
Corrosion Resistance	500 hours salt spray ASTM B-117
Installation Torque	80 Foot-Pounds Maximum
Enclosure	Nema 1,3,4,6,13 & IEC IP67
Vibration	10 G's 2 to 2000 Hz Sinusoidal
Mechanical Shock	100 G's, 11 mS Half-Sine



## Connections Chart

- Pin A (Black) Ground
- Pin B (White) Signal
- Pin C (Red) Power

Date Code 'YYM'			
YY = YEAR, M = MONTH			
A JAN	D APR	H JUL	L OCT
B FEB	E MAY	J AUG	M NOV
C MAR	G JUN	K SEP	N DEC

The Digital Speed Sensor provides a digital output as gear teeth rotate by the sensor's face. These sensors use a flux reversal technology that only works properly when the internal magnet is aligned with the gear's direction of rotation. Therefore, be sure to install the sensor following alignment description on the bottom of the next page.

The Sensor is a true zero speed magnetic gear tooth sensor which will provide one pulse per tooth on 4 - 32 pitch ferrous steel gears. These sensors are magnetically calibrated at a .100" gap on a 12 pitch gear. Calibration to a customer gear and gap is available, contact us to discuss your options.

To avoid changing the magnetic calibration, avoid face to face contact with other sensors or magnets.

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## Electrical & Functional Specifications

ABSOLUTE MAX LIMITS	Min	Max	Units
Supply Voltage, Vcc	-15	+30	Volts DC
Voltage applied to output	-0.3	+30	Volts
Current into output	--	n/a	mA
Current out of output	--	60	mA
Load Dump, 400 mS	--	80	Volts
Output Power, T=25C	--	225	mW

ELECTRICAL SPECS	Conditions	Min	Max	Units
Temperature Range *	Operating	-40	+110*	Deg C
Supply Voltage, Vcc	Over temperature	+5	+26	Volts DC
Supply Current, Output Off	Into Vcc	+5	+16	mA
Frequency Range		0	10	kHz
Source Current	Out of Vout	--	50	mA
Voh, Vout High	Vcc = 12, Rload > 100k	5	8	Volts
Vol, Vout Low	Vcc = 12, Rload > 100k	0	.5	Volts
Output Rise Time, 10-90%	Clload < 100pF	--	2.0	uS
Output Fall Time, 90-10%	Clload < 100pF	--	8.0	uS
ESD **	non destructive	--	2000	Volts
EMI **	20k to 1 G Hz	--	20	V/M

\* Tmax 125 available

\*\* Similar Product Qualified

TARGET PERFORMANCE GEAR PITCH ~(#Teeth/Diam. in inches)	AIR GAP RANGE***	TYPICAL MAX GAP	TYP. OUTPUT DUTY CYCLE	ALIGNMENT SKEW ANGLE
4 (.785" tooth to tooth)	.000 to .130"	.160"	40 to 60 %	±80 deg
6 (.524" tooth to tooth)	.000 to .120"	.150"	40 to 60 %	±80 deg
8 (.393" tooth to tooth)	.000 to .105"	.130"	40 to 60 %	±75 deg
12 (.262" tooth to tooth)	.000 to .085"	.110"	40 to 60 %	±70 deg
16 (.196" tooth to tooth)	.000 to .070"	.090"	40 to 60 %	±60 deg
20 (.157" tooth to tooth)	.000 to .050"	.070"	40 to 60 %	±50 deg
24 (.131" tooth to tooth)	.000 to .030"	.045"	40 to 60 %	±45 deg
32 (.098" tooth to tooth)	.000 to .010"	.020"	40 to 60 %	±30 deg

Rev A

\*\*\* Non contacting

