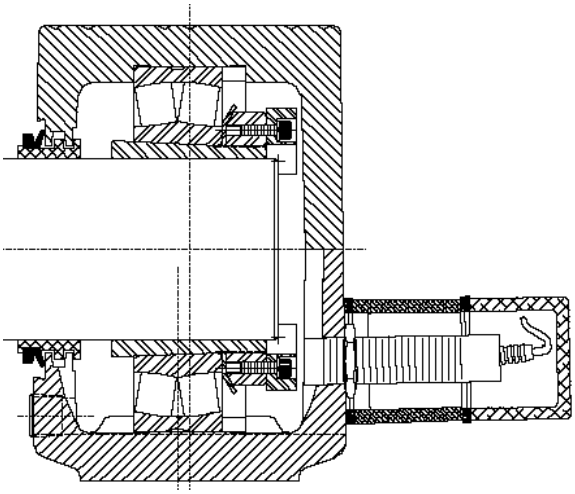


Product Description

The Speed Pickup Proximity Switch is a factory-installed sensor that monitors the shaft rotational speed of Dodge bearings. The Speed Pickup Proximity Switch senses the presence of two targets on a specially mounted collar inside the sensorized bearing housing. When the targets come into range the proximity switch closes, passing through the supplied voltage. The time between the two pulses per revolution may be measured to determine the shaft speed.

Both the AC Proximity Switch and the DC Proximity Switch incorporate False Pulse Protection and Transient Noise Protection. Additionally, the DC Proximity Switch includes protection against reverse polarity, short circuit, and overload.

Specifications

AC Proximity Switch Specifications

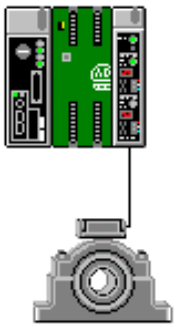
Switching Frequency	
TAF Bearings	35 Hz (700 RPM)
USAF Bearings	20 Hz (480 Hz)
Current	
Load Current	5 - 250 mA
Maximum Leakage Current	1.7 mA
Maximum Inrush Current (1 cycle)	2A
Minimum Supply Current	5 mA
Operating Voltage	40-250V AC
Volt. Drop	6.5VAC @ 500mA,10VAC @ 20mA
Repeatability	less than 1%
Hysteresis (Typ.)	less than 7%
Operating Temperature	-25C to 70C

DC Proximity Switch Specifications

Switching Frequency	
TAF Bearing	2000 Hz
USAF Bearing	1000 Hz
Current	
Maximum Load Current	300 mA
Maximum Leakage Current	10µA
Maximum Inrush Current (1 cycle)	3 A
Minimum Supply Current	5 mA
Operating Voltage	10-30V DC
Voltage Drop	less than 1V
Repeatability	less than 10%
Hysteresis (Typ.)	less than 10%
Operating Temperature	-40C to 70C

Typical Application 1

Wire the Speed Pickup Proximity Switch output to an AC input card on a PLC and measure the period between pulses.



Typical Application 2

Wire the Speed Pickup Proximity Switch output to a Dodge Micro Logix Zero Speed Switch for pre-programmed monitoring and control.