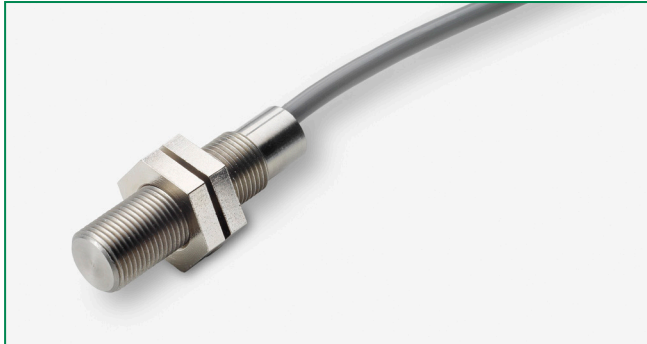


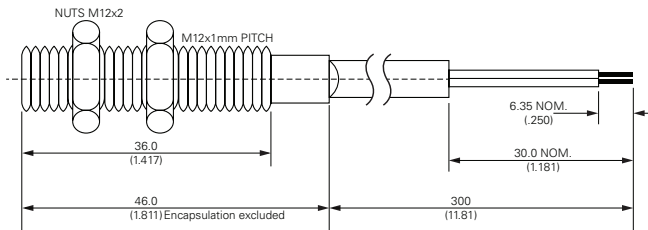
# 55075 Stainless Steel M12 Geartooth Speed Sensor

RoHS

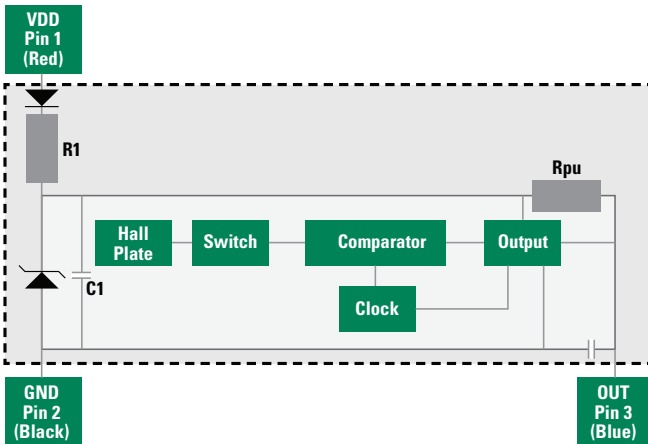


## Dimensions

Dimensions in mm (inch)



## Block Diagram



## Description

The 55075 is a robust stainless steel hall effect barrel sensor with an M12 x 1mm pitch thread, 46mm (1.810") long primarily for geartooth speed sensing. It protects against severe and automotive environments and is capable of switching up to 27Vdc and 20mA. It is available as three-wire (voltage output) version with a range of sensitivity, cable length and connector options. It is ideally suited to wheel, transmission and cam shaft speed sensing, geartooth sensor, rotary encoders, industrial, commercial, and automotive applications.

## Features

- Ferrous target geartooth speed sensor
- Stainless steel M12 threaded barrel
- Electronic protection against severe and automotive environments
- Self adjusting magnetic range
- Three-wire (voltage output)
- EMC Protection (Consult Littelfuse)
- Short circuit/reverse voltage protection

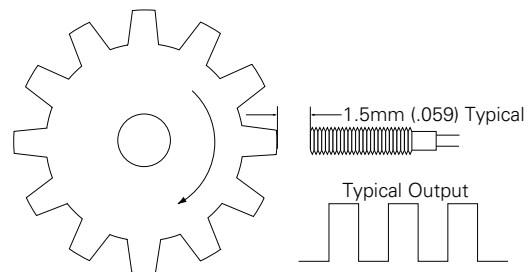
## Benefits

- Long life, up to 20 billion operations
- High speed operation
- No chopper delay
- Unaffected by harsh environments
- Rotary orientation not critical
- On-chip 10-bit A/D converter
- Customer selection of cable length and connector type

## Applications

- Geartooth sensor
- Camshaft sensor
- Linear encoder
- Rotary encoder

## APPLICATION EXAMPLE - Geartooth Sensor



# 55075 Stainless Steel M12 Geartooth Speed Sensor

## Electrical Ratings



| Hall Type                        |                                             | Digital Switch<br>3-Wire (Voltage Output) |                                                            |
|----------------------------------|---------------------------------------------|-------------------------------------------|------------------------------------------------------------|
| Supply Voltage <sup>1</sup>      | Maximum Operation<br>Overvoltage Protection | Vdc<br>Vdc<br>Vdc - max.                  | -25 to +25.2<br>4.75 to 25.2<br>27                         |
| Output High Voltage              |                                             | Vdc - min.                                | VDD - 2<br>(sinking output with internal pull-up resistor) |
| Output Low Voltage               |                                             | Vdc - max.                                | 0.6 @20mA                                                  |
| Output Current (continuously on) |                                             | mA - max.                                 | 20                                                         |
| Current Consumption              |                                             | mA - min.<br>mA - max.                    | 1<br>10.5                                                  |
| Switching Speed                  |                                             | KHz-max.                                  | 15                                                         |
| Temperature                      | Operating                                   | °C                                        | -40 to +85                                                 |

Note: 1. As long as Tj (Junction Temperature) is not exceeded.

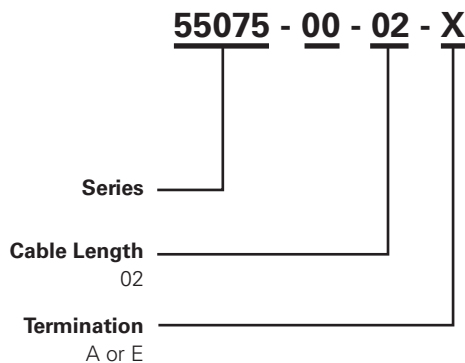
## Cable Length Options

| Cable Type: 24 AWG 7/32 PVC 105°C Double Insulated |                           |
|----------------------------------------------------|---------------------------|
| Select Option                                      | Cable Length<br>mm (inch) |
| 02                                                 | 300 (11.81)               |

## Termination Options

| Select Option | Description         |                                                                                       |
|---------------|---------------------|---------------------------------------------------------------------------------------|
| A             | Tinned Leads        |  |
| E             | JST XHP 2.5mm pitch |  |

## Part Numbering System



## Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|------------------|-------------------------|----------|---------------------------|--------------|
| Bulk             | Bulk                    | 500      | N/A                       | N/A          |