

# 9mm DHE SENSOR

## HIGH TEMPERATURE 175°C



DHE (Differential Hall Effect) sensors give an output when subjected to a changing magnetic field. The field is set up by a magnet inside the sensor body and changes when ferromagnetic teeth are passed beneath the sensor (no magnets are required in the target). To improve noise resistance, the sensor has two Hall effect elements and only responds to changes in magnetic field strength corresponding to tooth passing frequencies above 15Hz. As each tooth passes the sensor, the digital state of the output changes.

Please request our installation datasheet for further details.

### Electrical

- Supply voltage 9 to 15V unregulated
- Supply current 5 to 15mA
- Open collector output
- Output current 35mA maximum
- Frequency response 15Hz to 20kHz
- Reverse polarity protection
- Output polarity depends on the rotational direction of the target wheel

### Cable and Connection Definition

- 22 AWG un-screened cable
- Cable length is shown on the order details but any length is available on request
- Various automotive and military standard connectors are available
- Connection
 

Red wire	Pin A	Pin 1	Supply
Green wire	Pin B	Pin 2	Signal
White wire	Pin C	Pin 3	Ground

A 2kohm "pull up" resistor can be included on some models (see Application note)

### Application

- Wheel speed
- Cam position sensing (application specific, please contact our technical consultancy service)

### Mechanical

- Air gap 1.5mm maximum
- Body diameter 9mm
- Weight less than 30g (including cable)
- Aluminium alloy body, hard anodised and dyed black
- Polyester cable boss for strain relief to the sensor body

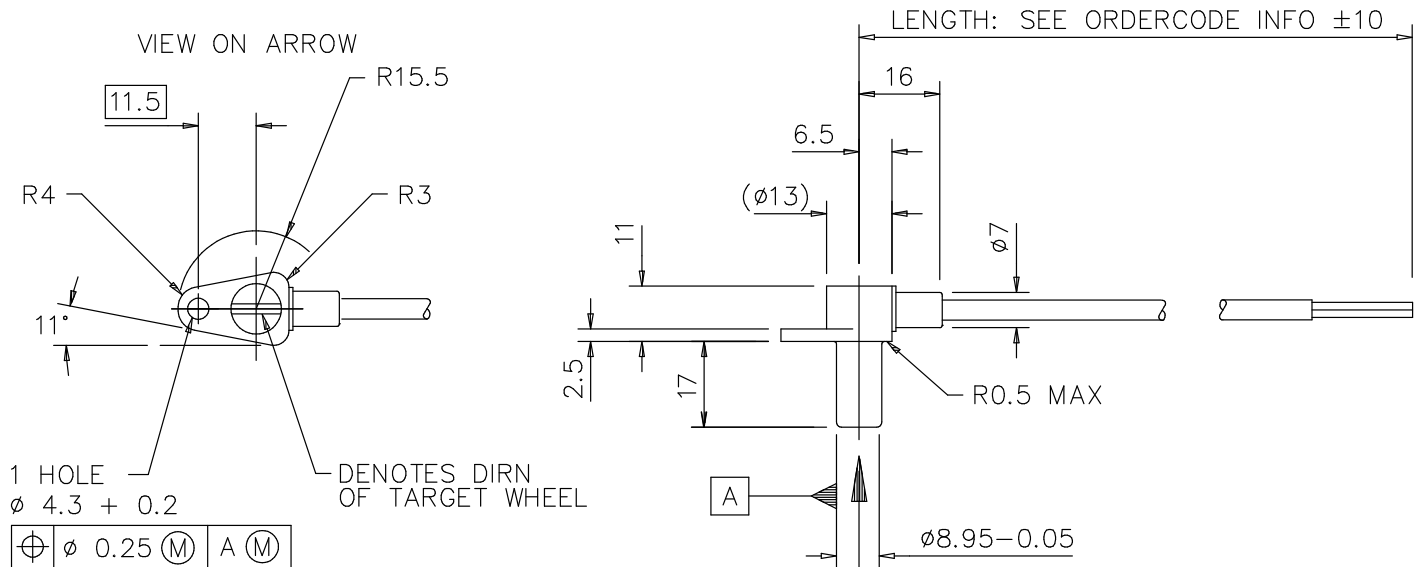
Design and manufacture is in-house, so if our existing designs do not suit your application, we can provide cost effective customised parts to suit even the most demanding application. No engineering charges are made for simple modifications such as customer specific connectors, cable protection and cable lengths. Please contact our technical consultancy service who will be pleased to help.

### Environmental

- Vibration 50 to 2500Hz @ 40g 8hrs per axis
- Resistant to standard motorsport fluids
- Maximum humidity 100%
- Operating temperature -10 to +175°C\*
- Viton jacketed cable

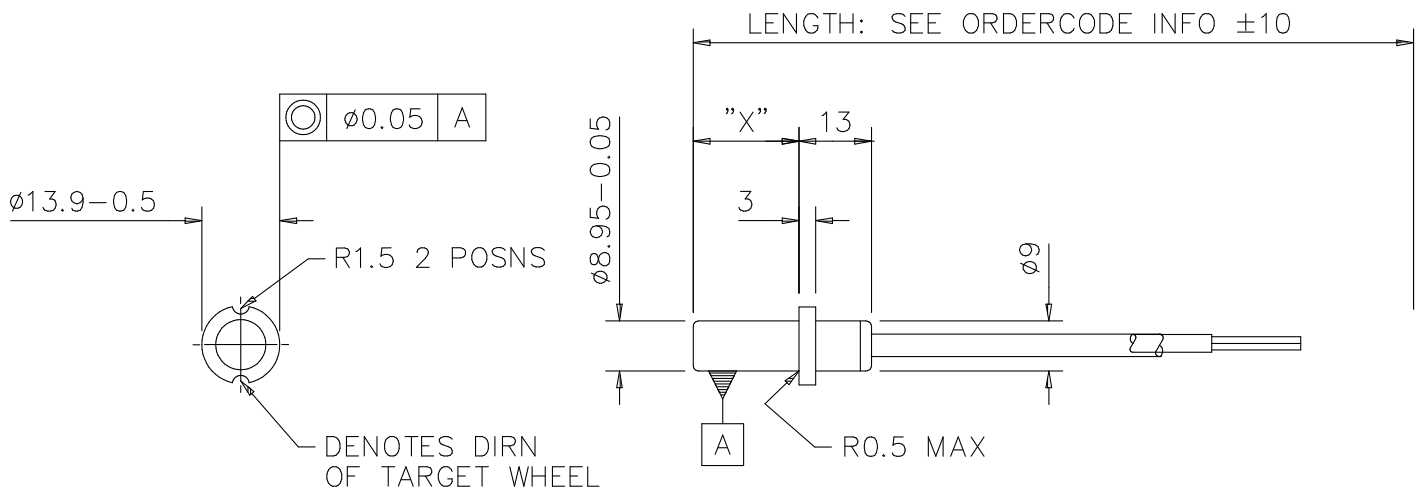
\* Functional life of no less than 1000 hours at 175°C

# 9mm DHE SENSOR HIGH TEMPERATURE 175°C



**Cable Length**  
1000mm

**Order Code**  
O 030 350 000 086

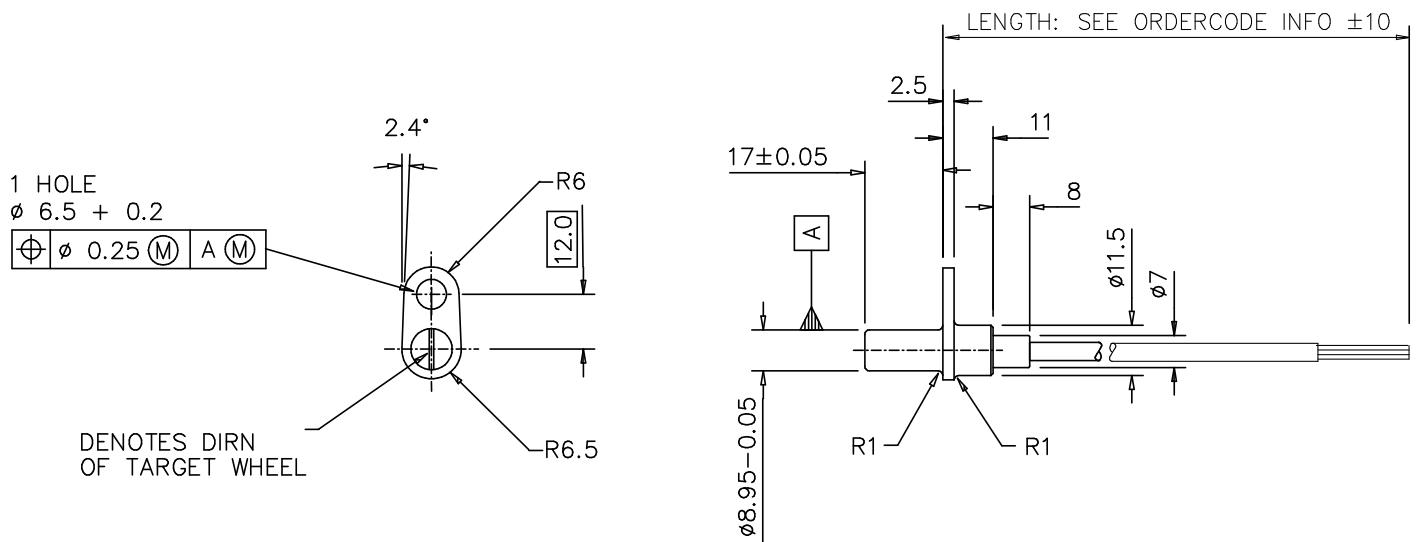


**Cable Length**  
1000mm  
1000mm

**Dim "X"**  
19mm  
31mm

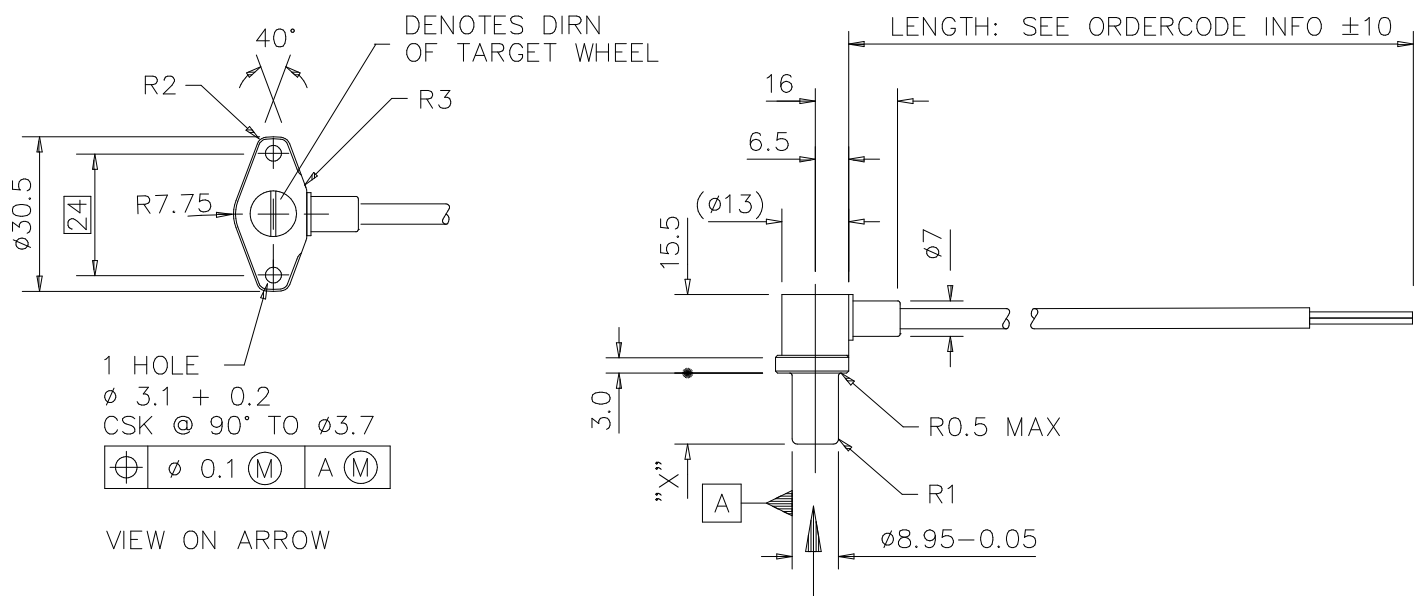
**Order Code**  
O 030 350 000 087  
O 030 350 000 097

# 9mm DHE SENSOR HIGH TEMPERATURE 175°C



**Cable Length**  
1000mm

**Order Code**  
O 030 350 000 113

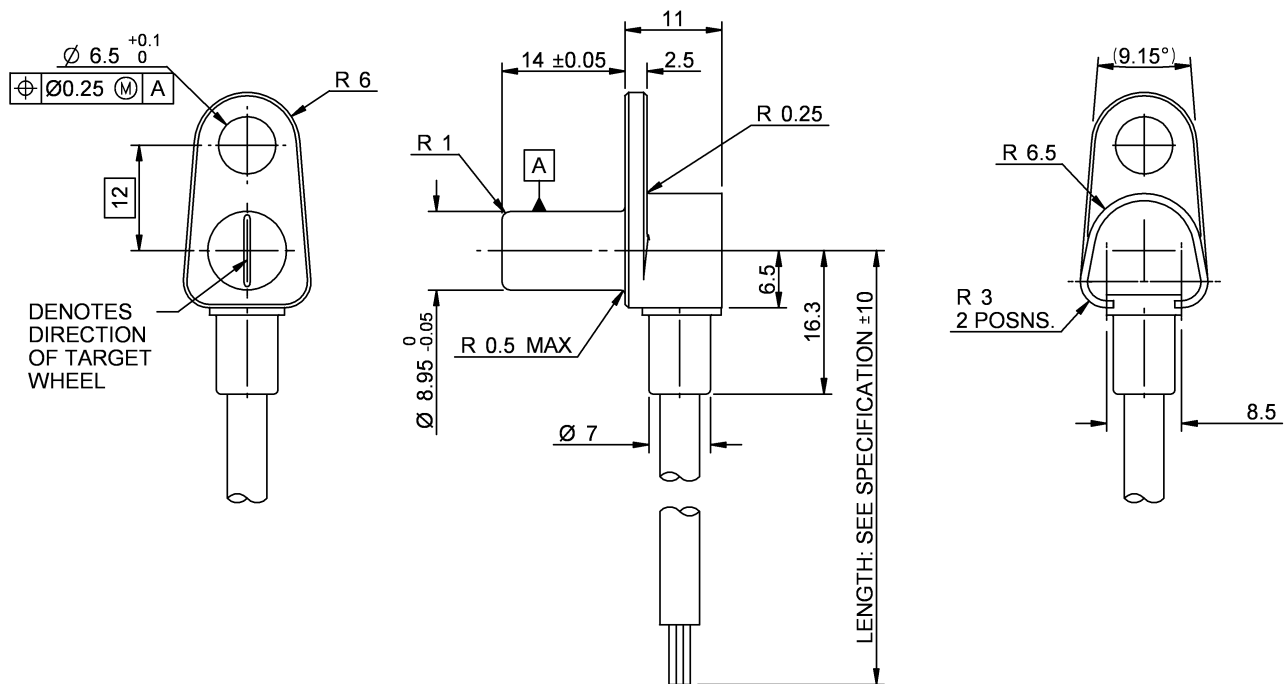


**Cable Length**  
1000mm  
1000mm

**Dim "X"**  
14mm  
19mm

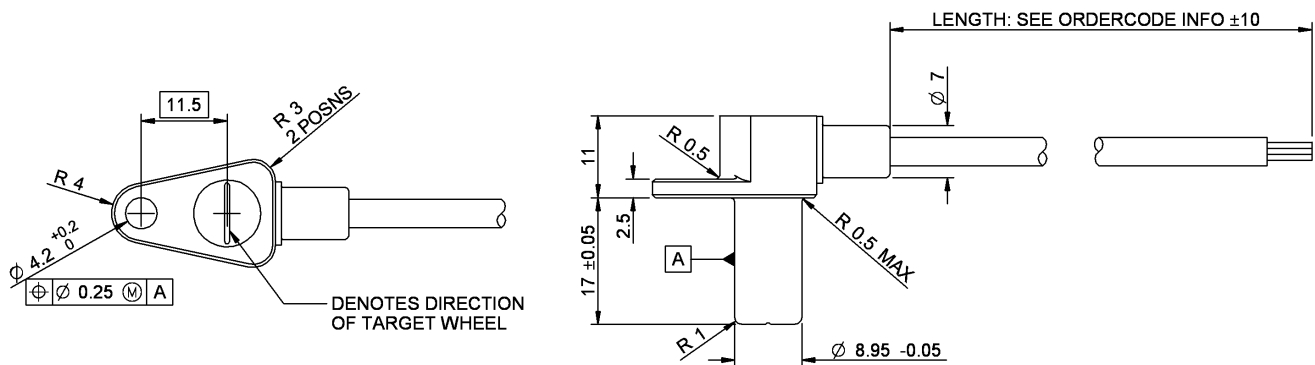
**Order Code**  
O 030 350 000 115  
O 030 350 000 129

# 9mm DHE SENSOR HIGH TEMPERATURE 175°C



**Cable Length**  
1000mm

**Order Code**  
O 030 350 000 155



**Cable Length**  
1000mm

**Order Code**  
O 030 350 000 195