



DSS7000 range (Differential Hall Effect)



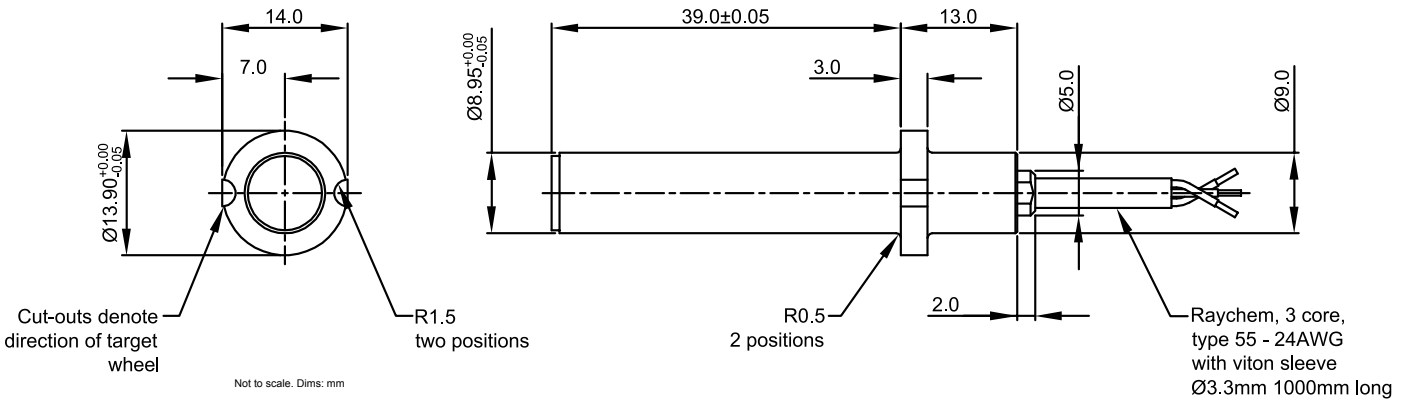
- Differential Hall Effect
- No external magnets
- Fully encapsulated
- Aluminium construction
- Raychem signal cabling
- Choice of mounting

Speed sensors are designed to detect a target-induced magnetic field between the sensor face and a target. No magnets are required in the target. All our speed sensors are heat cycled prior to final calibration to ensure survival when operated at elevated temperatures.

The Differential Hall Effect (DSS) sensor benefits from integrated signal electronics so no additional circuitry is required. The integrated electronics operate within two Hall Effect elements and operated at temperatures up to 175°C. The Inductive (ISS) sensor offers a higher temperature performance (200°C) for more extreme applications and requires an interface that triggers on threshold or zero crossing. The output voltage of the sensor increases and is proportional to target speed and air gap. The Zero Speed Hall Effect (ZSS) sensor is designed to switch in the presence of ferromagnetic targets such as gear teeth down to absolute zero speed.

Model dimensions and mounting

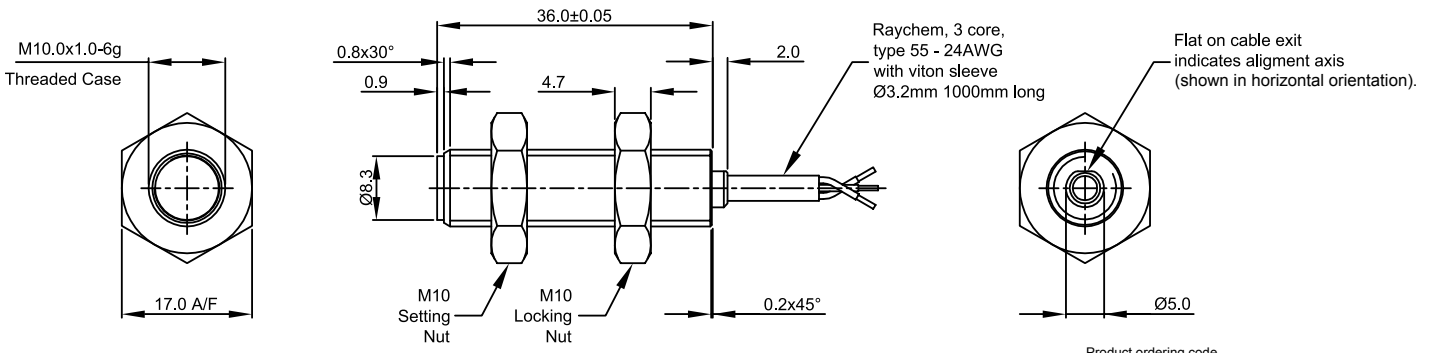
DSS710X - body clamp mounting



Product ordering code

DSS710X
 0 = with pull up resistor to supply voltage (Vs)
 1 = no pull up resistor (see note 2 & 3)

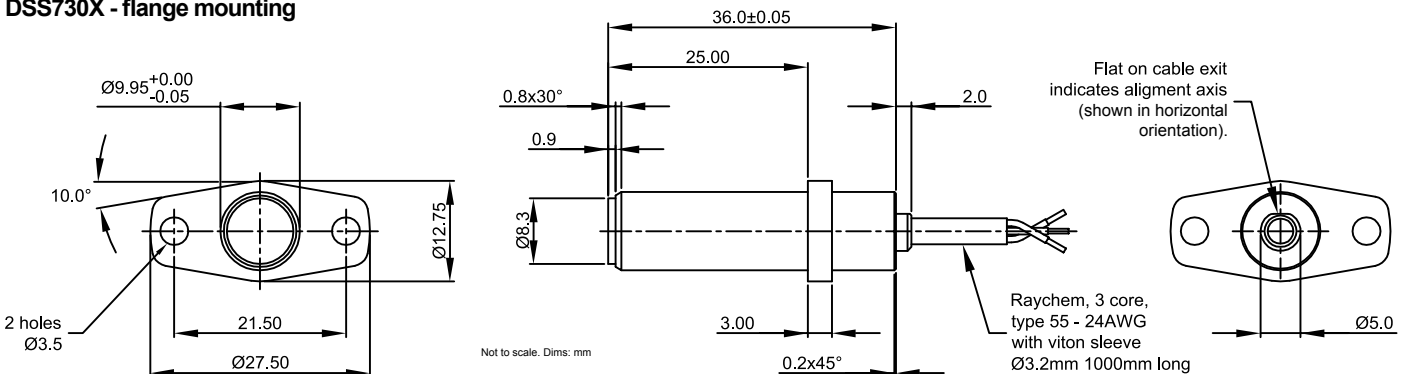
DSS720X - 10mm threaded body



Product ordering code

DSS720X
 0 = with pull up resistor to supply voltage (Vs)
 1 = no pull up resistor (see note 2 & 3)

DSS730X - flange mounting



Product ordering code

DSS730X
 0 = with pull up resistor to supply voltage (Vs)
 1 = no pull up resistor (see note 2 & 3)

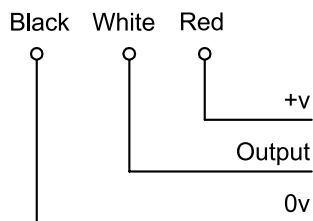
Electrical & mechanical information for DSS7000

Supply voltage (Vs)	7 to 24	Volts
Supply current	<15	mA
Over voltage protection	Yes (Max 30V)	
Reverse polarity protection	Yes	
Air gap Max	1.5	mm
Frequency response	15 to 20,000	Hz
Output sink current Max	35	mA
Output polarity	Dependant on direction of target wheel rotation	
Output type (DSS7X00)	Voltage output	
Output low	<1.0% Vs	
Output high	>50% Vs	
Output type (DSS7X01)	Open collector	
Operating temp. range (see graph)	-40° to +175°	°C
Sealing	IP66	
Weight (approx.)	30	grams
Material	Case - Aluminium alloy	

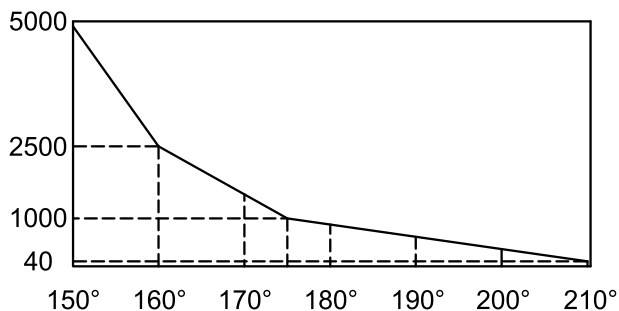
Note:

1. Incorrect wiring may cause internal damage.
2. An external resistor (R_L) is required between the output and an external DC voltage (V_{EXT}). The output will switch between 0v and the external voltage.
3. R_L should be selected to ensure the sink current does not exceed 35mA.

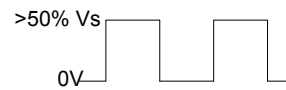
Electrical connections (see Note 1)



Max operating temp. (°C) vs Life (Hrs)

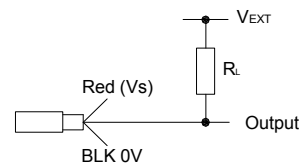


DSS7X00 - Output swing 0v to >50% Vs
Sensor output

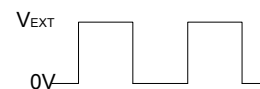


DSS7X01 - Output swing 0V to V_{ext}

Example connection - see Note 2 & 3



Sensor output



Other Speed sensor models available

- ISS7000**
- Inductive technology
 - No external magnets
 - Raychem signal cabling
 - 200°C (440°F) operating temperature



- ZSS7000**
- Single Hall Effect
 - No external magnets
 - Integrated electronics
 - Up to 150°C operating temperature



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Additional product information

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