

## DHE SENSOR

O 030 350 000 131

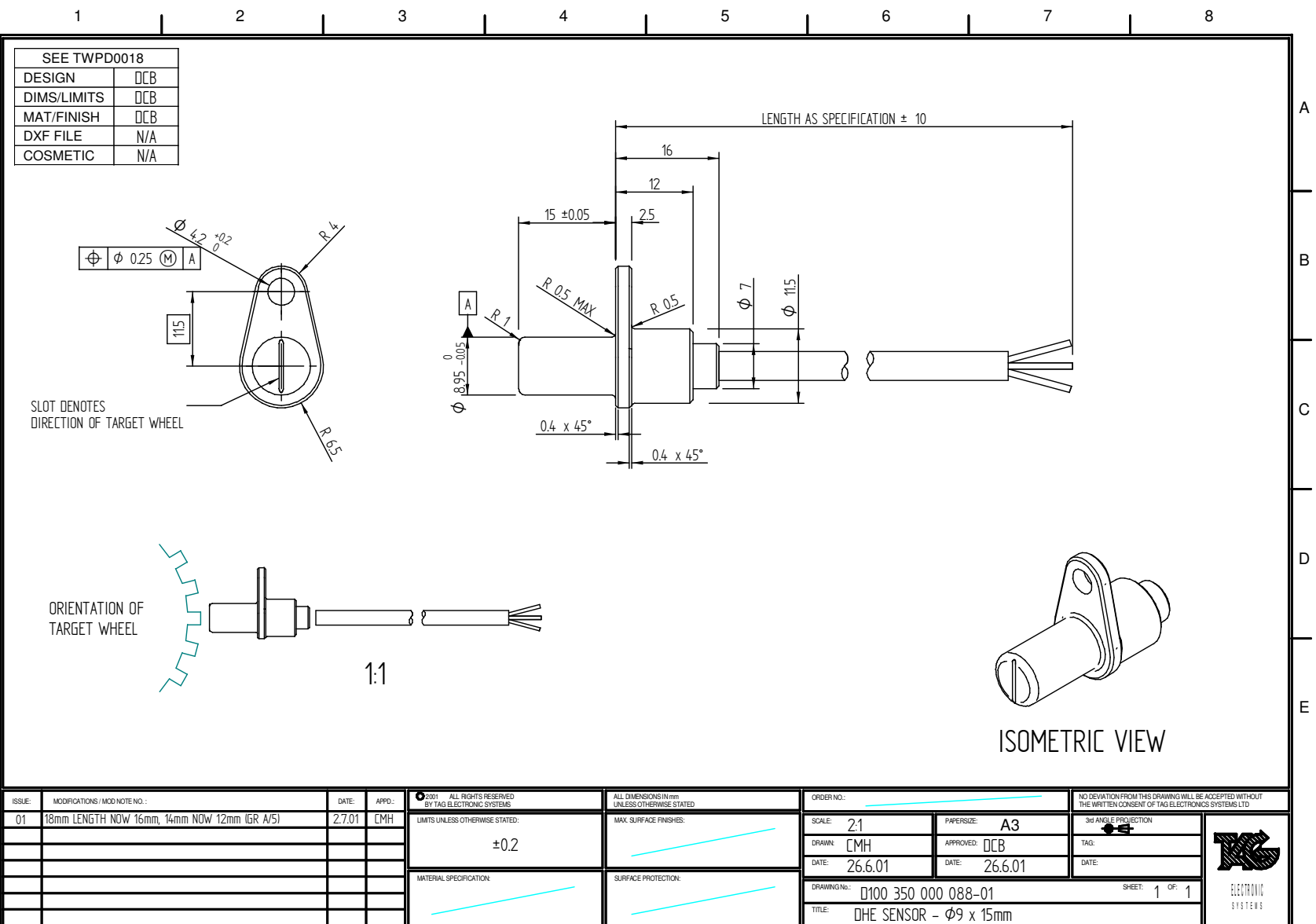
DHE (Differential Hall Effect) sensors give an output when subjected to a changing magnetic field. The field is set up by a magnet inside the sensor body and changes when ferromagnetic teeth are passed beneath the sensor (no magnets are required in the target). To improve noise resistance, the sensor 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.

<p>Electrical</p> <ul style="list-style-type: none"> <li>• Supply voltage 9 to 24V unregulated</li> <li>• Supply current 5 to 15mA</li> <li>• Open collector output</li> <li>• Output current 35mA maximum</li> <li>• Frequency response 15Hz to 20kHz</li> <li>• Reverse polarity protection</li> <li>• Output polarity depends on the rotational direction of target wheel</li> </ul> <p>Cable and Connection Definition</p> <ul style="list-style-type: none"> <li>• 22 AWG un-screened cable</li> <li>• Cable length 1000mm</li> <li>• Connection <table border="0"> <tr> <td>Red wire</td> <td>Supply</td> </tr> <tr> <td>Green wire</td> <td>Signal</td> </tr> <tr> <td>White wire</td> <td>Ground</td> </tr> </table> </li> </ul>	Red wire	Supply	Green wire	Signal	White wire	Ground	<p>Mechanical</p> <ul style="list-style-type: none"> <li>• See attached drawing No. D100 350 000 088</li> <li>• Air gap 1.5mm maximum</li> <li>• Body diameter 9mm</li> <li>• Weight less than 30g (including cable)</li> <li>• Polyester cable boss for strain relief to the sensor body</li> </ul> <p>Environmental</p> <ul style="list-style-type: none"> <li>• Vibration 50 to 2500Hz @ 40g 8hrs per axis</li> <li>• Resistant to standard motorsport fluids</li> <li>• Maximum humidity 100%</li> <li>• Operating temperature -10 to 175°C</li> <li>• Viton jacketed cable</li> <li>• Aluminium alloy body, hard anodised and dyed black</li> </ul>
Red wire	Supply						
Green wire	Signal						
White wire	Ground						

# DESIGN SPECIFICATION

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