



# WHEEL SPEED SENSORS

for the Automotive, Industrial and Commercial Transport Industry

TE Connectivity's (TE) wheel speed sensors (WSS) are used to transfer wheel speed or speed and direction information to electronic brake control systems for ABS, TCS and ESC.

The technology is based on a non-contacting Hall or GMR measurement principles to detect rotational speed and direction of a tone wheel or magnetic encoder.

# **PRODUCT HIGHLIGHTS**

- Flexible platform WSS head and body design - cable, integrated connector, in-bearing
- Flexible cable grommet over-molding and assembly (multi tooling and modular assembly)
- Full automation assembly process (full error proofing)

# **PRODUCT SPECIFICATIONS**

Solution Name	Wheel Speed Sensors
Application Focus	Brake
Sensor Type	Speed

### **FEATURES & BENEFITS**

- PWM or AK-protocol output
- True zero-speed detection
- · Two wire current interface
- Functional safety: ASIL B compliance

### **MAIN SPECIFICATIONS**

Description	Non-Directional	Directional
Operating frequency	0 ~ 2500 Hz	0 ~ 2500 Hz 2500 ~ 5000 Hz
Current "low"	5.9 mA ~ 8.4 mA	5.9 mA ~ 8.4 mA
Current "high"	11.8 mA ~ 16.8 mA	11.8 mA ~ 16.8 mA
Signal ratio (IHIGH/ ILOW)	≥ 1.85	≥ 1.85
Rising time (tr)	≤ 1.5 <i>µ</i> s	≤ 1.5 <i>µ</i> s
Falling time (tf)	≤ 1.5 <i>µ</i> s	≤ 1.5 <i>µ</i> s
Duty cycle t1/T (with ideal impulse wheel)	40% ~ 60%	40% ~ 60%

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