



WPT

Incremental Wheel Pulse Transducer

for

Acquisition of Wheel Rotation and Calculation of:

- Wheel speed
- Distance traveled
- Vehicle speed

The CORRSYS-DATRON Wheel Pulse Transducer is a universally adaptable measuring unit for the acquisition data derived from vehicle wheel rotation.

The WPT delivers 1000 pulses per rotation (standard, other values are possible*).

Available signals with cable version, "open end": A, A inverted, B, B inverted, Z, Z inverted (0 impulse).

Available signals with cable version, "D-Sub 9": A.

The WPT Wheel Pulse Transducer is ultra-compact and extremely light in weight. For maximum flexibility, the incremental transducer unit of the WPT can be exchanged quickly and easily.

Output signals generated by the WPT provide the basis from which wheel rotation speed, acceleration, distance and speed are calculated.

** on request*

Applications:

- Wheel slip measurement on passenger cars
- Acquisition of wheel rotation speed, distance and wheel speed
- Acceleration and braking tests (pay attention to the wheel slip!)
- ABS testing
- Measurement of the difference between wheel speeds (e.g. testing of all-wheel drive vehicles)
- Special configurations available for trucks and busses



Typical Technical Specifications

Characteristic Mechanical Values

Max. permissible rotational speed	6000 min ⁻¹ (continuous operation 3000 min ⁻¹)
Available pulse values	Standard: 1000 pulses/rotation, 10 to 3600 pulses/rotation on request
System protection	IP 67
Operating temperature range	-40° C to +85° C
Shock resistance	2500 m/s ² , 6 ms
Vibration resistance	100 m/s ² , 10 ... 2000 Hz

Characteristic Electrical Values

Output circuit	RS-422 (TTL compatible)	Push-pull circuit
Power supply, UB	5 ... 30 V DC	10 ... 30 V DC
Power consumption, signals inverted, without load	typ. 40 mA / max. 90 mA	typ. 50 mA / max. 100 mA
Permissible weight/channel	max. ±20 mA	max. ±20 mA
Pulse frequency	max. 300 kHz	max. 300 kHz
Signal level, high	min. 2.5 V	min. UB - 1V
Signal level, low	max. 0.5 V	max. 0.5 V
Rising and falling time	max. 200 ns	max. 1 µs
Reverse polarity protection of the power supply	yes	yes
Short circuit-proof outputs	max. 1 channel could be short-circuited	yes
Output signal	2 channels, A and B, 90° shifted, 1 zero impulse per rotation, all signals with inversion	
Plugs	12-pin M23 or 8 pin M12 plug radial flange connector on the housing, pins separately sealed, IP 67 in unplugged condition	

Mounting

The Wheel Pulse Transducer mounts to the wheel lug nuts via adjustable collets. The torsional protection rod (which maintains rotation around the wheel axis) is affixed to the vehicle body with suction holders.

- Mounting disk: For 3-, 4- and 5-lug rims
- Collets: Standard: 17, 19, 21 mm
(other sizes available upon request)
- Centering stars: 3-, 4- and 5-fold star
- Torsional protection: Joints, guide rod, suction holder, gaiter seals

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In a continuous effort to improve our products, CORRSYS-DATRON reserves the right to change specifications without prior notice.