



*An Axiometrix Solutions Brand*

# D<sup>x</sup>-Speed

integrated • flexible • interference-free



Wireless wheel speed acquisition directly on the wheel

productive testing

# D<sup>x</sup>-Speed - Wireless wheel speed acquisition

## Wheel speed measurement without reference point

The D<sup>x</sup>-Speed system conveniently acquires the wheel speed directly on vehicle wheels. The system does not require a stator or additional reference point and delivers measurement results – both on the test bench and outdoors – even in harsh conditions such as mud, snow and dust. The accuracy is typically better than 0.5%. Impacts against the axle also will not affect the results. **This means that even driving over sleepers is possible!**

## ◀ Forward



## Aquaplaning tests without angle encoder

At last there is a system for the precise measurement of aquaplaning without a stator rod – the D<sup>x</sup>-Speed. Compact in its mechanical design, it captures every change in the wheel speed and thus exactly the moment at which aquaplaning occurs. This makes the tests simple, and at the same time very accurate. Up to four wheels can be simultaneously measured in sync with multiple sensors, cable-free and on all wheel types!

## Easy to work with

The mechanical construction of the D<sup>x</sup>-Speed system is simple – allowing for an easy installation and convenient transport, as no bulky stator rod has to be accommodated.

## Short set-up times

Imc Test & Measurement offers optional Peiseler plates with corresponding collets for the D<sup>x</sup>-Speed sensors. As a result, the set-up times remain short – the system can be installed and ready to use in just a few minutes.

## Synchronous acquisition from four wheels or axles

With four D<sup>x</sup>-Speed sensors, the telemetry receiver unit (D<sup>x</sup>-RCI) synchronously acquires the measured values from all four wheels. The data appear in real time and can be collected and processed via CAN or analog.



D<sup>x</sup>-Receiver Unit (RCI)



D<sup>x</sup>-antenna for mounting on side mirror

## Specifications

### D<sup>x</sup>-Speed

|                   |                                 |
|-------------------|---------------------------------|
| Maximum RPM       | ±7200 1/min                     |
| Accuracy          | < 0.5 % at 0 °C to 50 °C        |
| Signal frequency  | 16 Hz (others on request)       |
| Temperature range | -10 °C to +65 °C                |
| Weight            | 400 g                           |
| Dimensions        | Diameter: 140 mm, height: 36 mm |

### D<sup>x</sup>-Telemetry Transmitter Unit (SCT)

|                           |                                                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------------------------|
| Transmission frequency    | D <sup>x</sup> : 13 frequencies in the 868-MHz-Band<br>D <sup>x</sup> -HT: 17 frequencies in the 2.4-GHz-Band |
| Aggregate sampling rate   | Max. 4.6/5.0 kHz per channel (868-MHz-/2.4-GHz-Band)                                                          |
| Resolution                | 16 bit                                                                                                        |
| Synchronized measurements | Up to 4 D <sup>x</sup> -Speed sensors                                                                         |
| Ingress protection rating | IP 68                                                                                                         |
| Power voltage             | Battery with 40 h operating time                                                                              |
| Transmission power        | Max. 10 dBm                                                                                                   |

### D<sup>x</sup>-Telemetry Receiver Unit (RCI)

|                   |                                             |
|-------------------|---------------------------------------------|
| Antenna inputs    | 2 independent receivers in diversity mode   |
| Display           | 2.83 inch color display, 320 x 240 px       |
| Auto-zero         | Remote controllable                         |
| CAN interface     | CAN 2.0b acc. to ISO 11898, max. 1 MBaud    |
| Analog output     | 6 BNC sockets                               |
| Configuration     | Up to 4 D <sup>x</sup> -Speed               |
| Power voltage     | 9-36 Volt DC                                |
| Temperature range | -20 °C to +65 °C                            |
| Dimensions        | Approx. 170 x 130 x 53 mm (without antenna) |
| Weight            | Approx. 0.8 kg                              |



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