

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

integrated flexible interference-free



## Brake disc temperature acquisition

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

The D<sup>x</sup>-telemetry system can be implemented universally. With one receiver unit (D<sup>x</sup>-RCI), data from up to four transmitter units (D<sup>x</sup>-SCT) can be received synchronously.

Each D<sup>x</sup>-SCT sends the data from one or more different sensors to the D<sup>x</sup>-RCI. It is therefore easy to cascade an existing system: Simply connect the new sensor to a D<sup>x</sup>-SCT transmitter and display the data in real time with the existing D<sup>x</sup>-RCI receiver. Even if the sensors change, the associated D<sup>x</sup>-telemetry system remains the same.



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



# D<sup>x</sup>-BrakeTemp for measuring temperatures on the brake disc

## High precision

The CAEMAX D<sup>x</sup>-BrakeTemp is a high-precision tool for measuring temperatures on the wheels of road vehicles. All measurement signals, such as the temperatures at the brake disc, are digitized directly at the wheels and transmitted telemetrically via mirror antennas to the receiver unit inside the vehicle. With its robust design, the system is also well-suited for harsh environments and road driving.



D<sup>x</sup>-transmitter module with 3 DI-thermocouple channels type K

## Measure all four wheels synchronously

All four wheels on a road vehicle can be acquired synchronously. The data are displayed in real time, as physical variables.

## Short set-up time

CAEMAX supplies the sensor in special housings that are robust and easy to handle: Optionally CAEMAX offers Peiseler plates with collets for mounting. This makes the set-up time very short.



D<sup>x</sup>-transmitter module with 6 DI thermocouple channels type K



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

## Easy to integrate

Due to the modular design of the CAEMAX products, the sensor can be easily integrated into an existing system. If, for example, a Dx telemetry system already exists, CAEMAX can easily add the D<sup>x</sup>-BrakeTemp. Its data are then transmitted synchronously with the measured values of other sensors via the existing system and displayed in real time.

This means that new systems can be cascaded in as often as required.

## Specifications

D <sup>x</sup> -BrakeTemp	
Accuracy	±1 K
Temperature range	-10 °C to 60 °C
Sensor inputs	3 or 6 thermocouples type J or K per wheel
Sampling rate	Up to 200Hz per channel with 3 channels per wheel
Measurement range	Typ K: to 1300 °C Typ J: to 1200 °C
Resolution	16 bit
Dimensions	Height: approx. 50 mm Diameter: approx. 100 mm
Mounting on the wheel	Collets on the wheel bolts

D <sup>x</sup> -Telemetry Transmitter Unit (SCT)	
Transmission frequency	D <sup>x</sup> : 13 frequencies in the 868-MHz-Band D <sup>x</sup> -HT: 17 frequencies in the 2.4-GHz-Band
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> -SCTs (4 wheels)
Ingress protection rating	IP 68
Power voltage	Battery
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> -BrakeTemp
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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