

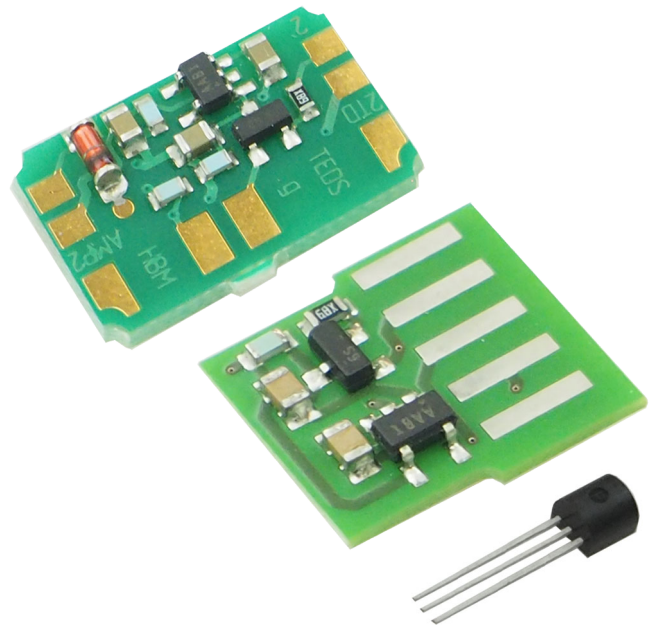
DATA SHEET

# TEDS

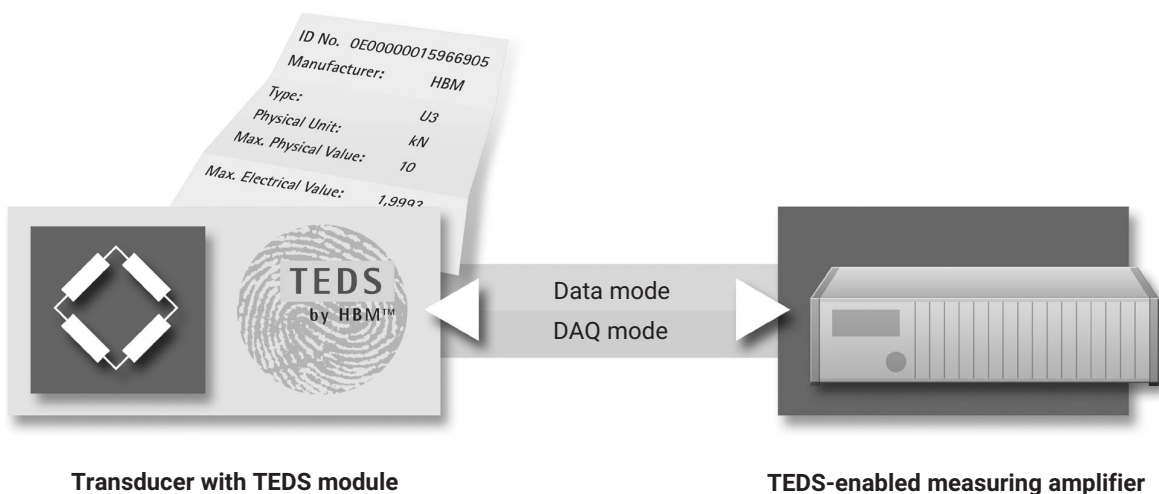
## Electronic data sheet in the transducer

### SPECIAL FEATURES

- Memory modules for upgrading new or existing transducers
- Data storage according to TEDS standard IEEE1451.4
- Suitable for strain gage transducers and all commonly used sensors
- Amplifier can be set up automatically on importing the data sheet information from the transducer
- Data easily written to the TEDS memory using the TEDS Editor provided at no extra cost



### FUNCTIONAL OVERVIEW



## SPECIFICATIONS

Type	TEDS	
<b>Data transfer</b>		
<b>Zero-Wire-TEDS</b> Driven by switching from DAQ mode to data mode  Maximum permissible excitation voltage for connected transducer	V	Apply a supply voltage between one of the excitation voltage lines (HBM designation: 2) and the associated sensor circuit (HBM designation: 2'). Here the sense lead acts as a signal lead, the excitation voltage lead as the ground. If this voltage is no longer present, the module switches to DAQ mode, in which it no longer interacts with the excitation voltage and the measurement signal.  30
<b>1-Wire® TEDS</b> The TEDS module is permanently connected		GND is used together with a separate connection for driving
<b>Data transfer protocol</b>		According to specification in IEEE standard 1451.4 (1-Wire® Protocol).
<b>Data format</b>		As specified in IEEE standard 1451.4
<b>Power supply</b>		
Nominal (rated) value of the supply voltage	V <sub>DC</sub>	5
Working range	V <sub>DC</sub>	3.4 ... 6.0
<b>General information</b>		
<b>Nominal (rated) temperature range</b>	°C	-20 ... +60
<b>Storage temperature range</b>	°C	-25 ... +70
<b>Dimensions</b> Motherboard for D-sub-HD15 plug (3-row, zero-wire)	mm	20 x 5.5
Motherboard for D-sub-HD15 plug (2-row, zero-wire)	mm	19 x 11
1-Wire® chip	mm	Ø6 mm x 6 mm, pin length approx. 20 mm
<b>EMC conformity</b>		Installation in D-Sub plugs by HBM or in accordance with the mounting instructions is compliant with EN 61326. This ensures that the TEDS module has no influence on the conformity of the overall system in accordance with the EMC directive 89/336/EEC.

## SCOPE AND PURPOSE OF APPLICATION

The TEDS (Transducer Electronic Data Sheet) module contains an electronic data sheet (all key transducer characteristics and a unique identification number) which can be used to set up a measuring amplifier automatically. An appropriately equipped measuring amplifier can read-in the transducer characteristics and convert them into its own settings in order to display the physically measured value correctly scaled. You can also integrate a TEDS module into the transducer plug later if the transducer does not have a built-in TEDS module.

Wiring with a zero-wire TEDS enables you to use the existing wires to transfer TEDS data, provided the amplifier supports this TEDS variant. This means you can use the same cables as for transducers that do not have TEDS. Otherwise, use a 1-Wire® TEDS module.

You will find a description of the connection variants in the TEDS module mounting instructions.

## SUITABLE MEASURING AMPLIFIERS

Transducers fitted with TEDS can be connected and operated like conventional transducers without restriction, even in the case of amplifiers that do not support TEDS. The prerequisite for using the TEDS functionality is support for the TEDS interface and for the data format as defined by IEEE standard 1451.4. The module wiring must conform to the mounting instructions.

The key information in the TEDS module is organized into templates, which are prestructured to store defined groups of data in table form. Only the entered values are stored in the TEDS module. The amplifier firmware assigns the interpretation of the respective numerical values. This minimizes the memory requirement in TEDS, but requires a TEDS-enabled measuring amplifier.

## WRITING THE TRANSDUCER DATA TO THE TEDS MEMORY

If you purchase TEDS modules from HBM as a fully assembled solution on new transducers or as expansion modules, the TEDS module is ready-written and the transducer is ready for immediate use.

To program TEDS modules, you can use a TEDS-enabled measuring amplifier from HBM, as a TEDS editor is included in their device assistant. You can also pro-

gram TEDS modules using the HBM catman data acquisition software. If you are using devices from other manufacturers, please establish whether you can also program a TEDS module with them. This is not always the case, even if transducers with TEDS can be used on the device.

## AVAILABLE CONFIGURATIONS

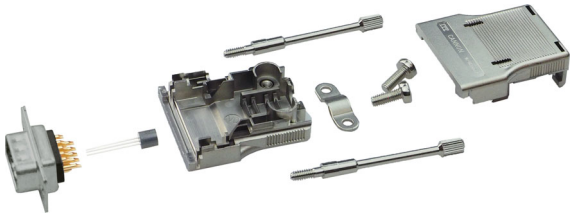
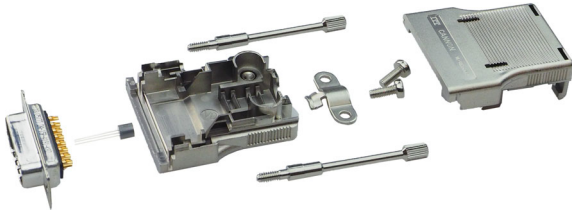
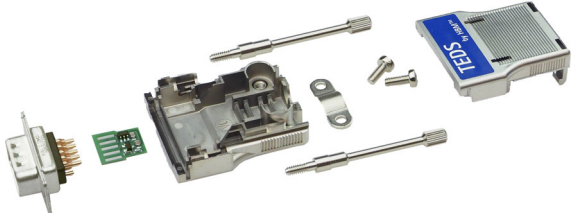



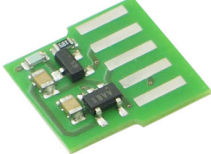
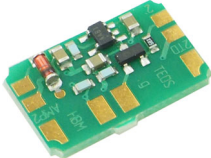
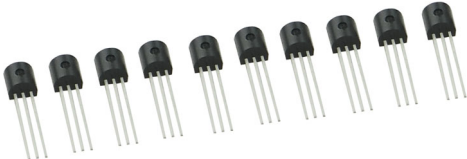
Figure	Description	Ordering number
	D-sub-HD15 plug with 1-Wire® TEDS	1-SUBHD15-MALE
	D-sub plug 15-pin with 1-Wire® TEDS	1-SUBD15-MALE
	D-sub-HD15 plug with Zero-Wire TEDS	1-TEDS-HDB-15P
	D-sub plug 15-pin with Zero-Wire TEDS	1-TEDS-DB-15P

Figure	Description	Ordering number
	<p>Cable 2 m, 6 wires, double shielded, open ends and D-SUB-HD15 socket, suitable for connection to measuring devices with no socket</p>	<p>1-KAB-246-2</p>
	<p>Cable 2 m, 6 wires, double shielded, open ends and D-SUB-HD15 socket, suitable for connection to measuring devices with no socket</p>	<p>1-KAB-245-2</p>
	<p>Zero-Wire TEDS module for D-Sub-HD15 plug</p>	<p>1-TEDS-BOARD-HD15</p>
	<p>Zero-Wire TEDS module for D-sub plug 15-pin</p>	<p>1-TEDS-BOARD-L</p>
	<p>1-Wire®-TEDS chip (x5)</p>	<p>1-TEDS-PAK</p>