## PM-200 The Power to Log

The all-in-one data logger for the entire vehicle networking


## KEY BENEFITS

Comprehensive data logging with central timestamp ( $1 \mu \mathrm{~s}$ ) and $120 \mathrm{MB} / \mathrm{s}$ data speed

## Replaceable SSD

Extensive interfaces \& extension modules via Ethernet

Flexible upgrades
Efficient power management
(sleep mode up to $100 \mu \mathrm{~A}$ )
and logging of wakeup process
Freely programmable using C/C++

Support from debugging/ multimedia protocols (CCP/ XCP, ESOtraces, GNLogs)

Open data format for evaluation purposes on numerous applications

Diagnostic Log and Trace protocol specified by AUTOSAR 4.0 available as a software option

The PM-200 sets the bar considerably higher on the topic of safeguarding and troubleshooting vehicles. Bus systems such as CAN, CAN-FD, FlexRay ${ }^{\text {™ }}$, LIN and Automotive Ethernet are logged at a data speed up of to $120 \mathrm{MB} / \mathrm{s}$. SSD removable media allow for quick evaluation and distribution of the data. Various upgrade options enable configuration for any application. Flexibility, programmability and support from debugging protocols make it possible. PM-200 is offering a software option of collecting and analyzing debug messages and valuable information from infotainment ECUs via Diagnostic Log and Trace (DLT) protocol. This standardized logging and tracing software component, based on the AUTOSAR 4.0 standard, helps to consolidate the existing variety of logging and tracing protocols on one format.

## FEATURE SET

## Highlights

SSDs in durable clip-on frames make handling large amounts of data a breeze, especially for fleets

Flexible upgrades via modular design: direct connection of 2 or up to 7 TAPs via a switch
PT-15B: $12 \times 100$ Base-T1 (BroadR-Reach) up to 6 Ethernet lines
PT-20MG: $6 \times 1000$ Base-T1 (BroadR-Reach) up to 3 Ethernet lines
Fast data interfaces (Ethernet PC and USB 3.0) to exchange data, device coupling and external storage media
Implement individual functions using Eclipse IDE (C/C++) and extensive API
Open data format for evaluation purposes on numerous applications

## Diagnostic Log and Trace protocol specified by AUTOSAR 4.0

Collected data typically stored in TTTech Auto trace log (.TTL) but real-time extraction in standard DLT format and plain text file format (ASCII) available

Both Internet protocols IPv4 and IPv6 supported
Default gateway address can be configured, as well as VLAN tag
PM-200 allows to configure and run multiple DLT clients at the same time
Auto-reconnect mechanism available to ensure reconnection to DLT daemon in case of any interruptions in communication, where user is able to define auto reconnect timeout


## THE POWER TO LOG



For further information, including price and availability, contact products@tttech-auto.com

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## Data Visualization via WLAN

Freely configurable, real-time presentation of signals while logging
Support for Windows, iOS \& Android
Data transfer over optional WiFi module

## Filter, Trigger, Classing Functions

Parallel to optional "get-it-all" logging, based on signal or bus
Logging and analysis for CAN, FlexRay, LIN, and Ethernet interfaces as well as for analog and digital inputs

Trip recorder functions for periodic and results-based data logging
Automatic and conditional data logging via defined trigger conditions
Statistical data analysis with global (persistent) and measurement-related data in 3 dimensions available

## Device specifications

| PC interfaces | 1 x USB 2.0 High Speed / Master <br> 1 x USB 3.0 Super Speed / Master (can be used as logging medium) Ethernet (10/100/1000 MBit/s) for quick data transmission to PC 1 x $1 \times$ Remote Control Interface |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| VEHICLE INTERFACES | $12 \times$ CAN (high speed) <br> Optional upgrade with 12 <br> $3 \times$ FlexRay (channels A/B <br> $12 \times \operatorname{LIN}$ <br> $15 x$ analog inputs (12 Bit) <br> $15 \times$ digital inputs (interru <br> $6 \times$ RS232 $6 \times$ digital outp <br> $3 x$ analog outputs <br> $2 \times$ Ethernet $1000 \mathrm{MBit} / \mathrm{s}$ | CAN/C synchro <br> tible) <br> uts + <br> with hard | FD <br> s and asynchronous res <br> re time stamp of $1 \mu \mathrm{~s}$ | ctively) |
| OPERATING TEMPERATURE | $-40^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |  |  |  |
| POWER USE | 1.7A (operating) up to $100 \mu \mathrm{~A}$ (sleep modus) (tentative) |  |  |  |
| OPERATING VOLtAGE | 6 V to 32 V (protects against outage due to strain) |  |  |  |
| DIMENSIONS | $200 \times 280 \times 80 \mathrm{~mm}$ ( $L \times B \times H$, height tentative) |  |  |  |
| WEIGHT | 3.2 kg (tentative) |  |  |  |
| ORDER NUMBERS | PM-200 Enhanced | 13164 | Option Extended Protocols | 12814 |
|  | PS-0S Enhanced | 13165 |  |  |
|  | PS-1000SC Enhanced | 13169 | Option Filter, Trigger, Classing | 12815 |
|  | PS-128SI Enhanced | 13467 | Option GPS | 12833 |
|  | PS-512SI Enhanced | 13166 | Option Video | 12832 |
|  | PT-20MG | 13239 | Option Audio | 12834 |
|  | PT-15B BroadR-Reach Ethernet Upgrade | 12761 | Option Remote Control |  |
|  | Option + 12 CAN/CAN-FD incl. acknowledgement | 12811 |  |  |
|  | Option Visualization incl. WLAN | 12810 |  |  |

