




# PM-200 – The Power to Log

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



### Key Benefits

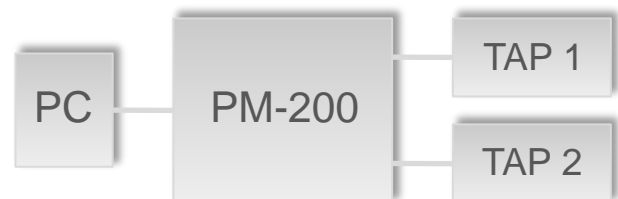
- ✔ Comprehensive data logging with central time stamp (1  $\mu$ s) and 120 MB/s data speed
- ✔ Replaceable SSD
- ✔ Extensive interfaces
- ✔ Flexible upgrades
- ✔ Efficient power management (sleep mode up to 100  $\mu$ A)
- ✔ Freely programmable using C/C++
- ✔ Live data visualization (optional)

The PM-200 sets the bar considerably higher on the topic of safeguarding and troubleshooting vehicles. Bus systems such as CAN, CAN-FD, FlexRay™, LIN, MOST150 and Automotive Ethernet are logged at a data speed up of to 120 MB/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 to meet the high demands of functionality and fleet tests as well as of test runs.

## Highlights

- ✔ SSDs in durable clip-on frames make handling large amounts of data a breeze, especially for fleets
- ✔ Flexible upgrades via modular design: up to an additional 6 x Gigabits and 24 x BroadR-Reach Ethernet ports by connecting 2 Ethernet expansion modules (PT-15B)
- ✔ Fast data interfaces (ePCIe and USB 3.0) to exchange data, device coupling and external storage media
- ✔ Implement individual functions using Eclipse IDE (C/C++) and extensive API
- ✔ Logs from IP video cameras (optional)

- ✔ Open data format for evaluation purposes on numerous applications

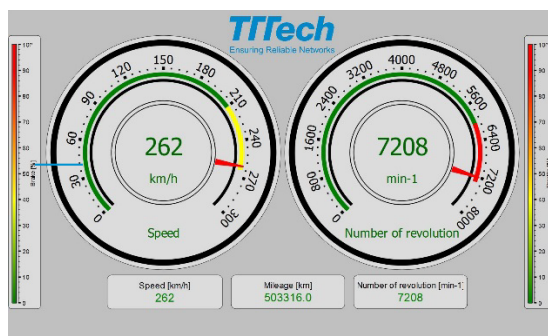


## Areas of Application

- Vehicle validation
- Functional tests
- System tests

## 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

|  |  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
|--|--|--------------|-------|--|-------|-----------------------------------|-------|-----------------------|-------|--------------------------------------|-------|-------------|-------|--|-------|---------------------------------|-------|---------------------------|-------|----------------------------------|-------|------------|-------|--------------|-------|--------------|-------|-----------------------|--|
| PC Interfaces                                  | <ul style="list-style-type: none"> <li>✔ 1 x USB 2.0 High Speed / Master</li> <li>✔ 1 x USB 3.0 Super Speed / Master (can be used as logging medium)</li> <li>✔ Ethernet (10/100/1000 MBit/s) for quick data transmission to PC</li> <li>✔ ePCIe 2.0 x1</li> </ul>   |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Vehicle Interfaces                             | <ul style="list-style-type: none"> <li>✔ 12 x CAN (high speed)</li> <li>✔ Optional upgrade with 12 x CAN-FD</li> <li>✔ 3 x FlexRay (channels A/B synchronous and asynchronous respectively)</li> <li>✔ 12 x LIN</li> <li>✔ Optional 1 x MOST150, SPY mode</li> <li>✔ 15 x analog inputs (12 Bit)</li> <li>✔ 15 x digital inputs (interruptible)</li> <li>✔ 6 x RS232</li> <li>✔ 6 x digital outputs + 3 x analog outputs</li> <li>✔ 2 x Ethernet 1000 MBit/s with hardware time stamp of 1µs</li> </ul>  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Operating Temperature                          | -40°C to +70°C   |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Power Use                                      | 1.7A (operating) up to 100 µA (sleep modus) (tentative)  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Operating Voltage                              | 6 V to 32 V (protects against outage due to strain)  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Dimensions                                     | 200 x 280 x 80 mm (L x B x H, height tentative)  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Weight   | 3.2 kg (tentative)   |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Order Numbers                                  | <table border="0"> <tr><td>PM-200 Basis</td><td>12812</td></tr> <tr><td>PS-128SI removable storage 128 GB (industrial)</td><td>12830</td></tr> <tr><td>PS-512SI removable storage 512 GB</td><td>12762</td></tr> <tr><td>PR-200 Storage Reader</td><td>12765</td></tr> <tr><td>PT-15B BroadR-Reach Ethernet Upgrade</td><td>12761</td></tr> <tr><td>Option MOST</td><td>12813</td></tr> <tr><td>Option +12CAN-FD incl. acknowledgement</td><td>12811</td></tr> <tr><td>Option Visualization incl. WLAN</td><td>12810</td></tr> <tr><td>Option Extended Protocols</td><td>12814</td></tr> <tr><td>Option Filter, Trigger, Classing</td><td>12815</td></tr> <tr><td>Option GPS</td><td>12833</td></tr> <tr><td>Option Video</td><td>12832</td></tr> <tr><td>Option Audio</td><td>12834</td></tr> <tr><td>Option Remote Control</td><td></td></tr> </table> | PM-200 Basis | 12812 | PS-128SI removable storage 128 GB (industrial) | 12830 | PS-512SI removable storage 512 GB | 12762 | PR-200 Storage Reader | 12765 | PT-15B BroadR-Reach Ethernet Upgrade | 12761 | Option MOST | 12813 | Option +12CAN-FD incl. acknowledgement | 12811 | Option Visualization incl. WLAN | 12810 | Option Extended Protocols | 12814 | Option Filter, Trigger, Classing | 12815 | Option GPS | 12833 | Option Video | 12832 | Option Audio | 12834 | Option Remote Control |  |
| PM-200 Basis                                   | 12812  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| PS-128SI removable storage 128 GB (industrial) | 12830  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| PS-512SI removable storage 512 GB              | 12762  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| PR-200 Storage Reader                          | 12765  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| PT-15B BroadR-Reach Ethernet Upgrade           | 12761  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option MOST                                    | 12813  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option +12CAN-FD incl. acknowledgement         | 12811  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option Visualization incl. WLAN                | 12810  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option Extended Protocols                      | 12814  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option Filter, Trigger, Classing               | 12815  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option GPS                                     | 12833  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option Video                                   | 12832  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option Audio                                   | 12834  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |
| Option Remote Control                          |  |              |       |  |       |                                   |       |                       |       |                                      |       |             |       |  |       |                                 |       |                           |       |                                  |       |            |       |              |       |              |       |                       |  |



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