PJM

PJ Messtechnik GmbH

4 - 16 channel
Data Logger System

www.pjm.co.at

DESCRIPTION

The PJM 4-channel data logger is a self-sustaining, expandable multi-channel data logger for strain gauge based long-term measurements.

The system consists of up to four data logger allowing synchronized data acquisition of 4 to 16 measuring channels under difficult climatic and local conditions.

A hermetically sealed housing (protection type IP 65) assures a high resistance to external influences. Like this it is perfectly suitable for the harsh conditions in railway environments.

4-channel data logger

The PJM 4 - 16-channel data logger system was especially de signed for measurements on rotating axles (particularly for wheelset axles).

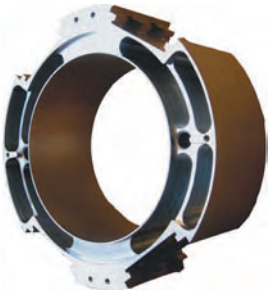
Strain gauges in quarter, half and full bridge circuits can be connected. The sample rate is up to 8 kHz (depends on the channel amount) and the available analog bandwith is more than750 Hz.

Accuracy of data acquisition is 12 bit. After signal processing data is saved in 16 bit format.

Supply voltage of the data logger is 2.2V to 6V.

BATTERY RING

The battery ring allows ongoing measurements of up to 10 days, depending on the amount of used data loggers. Recording time can be extended by adding an optional second battery ring.



Housing of the battery ring - mounted

The PJM 4 - 16-channel data logger system is designet for rotation speeds of up to 2000 rpm.

Battery ring halves

SOFTWARE

Recorded data is saved to a up to 16 GB micro SD memory card.

Data can be read out directly from the SD card by included PJM software with a PC.

The PJM software is Windows compatible and it also used for configuring the data logger via configuration file on the SD card or online with USB interface adapter.

A trigger function that enables eventdriven measurements is available on request.

Parameter settings:

- Zero balance
- Sensor adjustment (quater, half and full bridge circuit)
- Amplification
- Trigger (including pre-trigger and post-trigger time)

AREAS OF APPLICATION

Due to its robust casing, high electric stability, long recording time and easy handling, the multi-channel data logger allows for very versatile application.

Measurable parameters:

- Force
- Torque
- Acceleration
- Strain
- Pressure

Possible areas of application:

- Wheel sets and wheel discs to determine load spectrum
- Rotating components and parts subjected to voltage (e.g. pantograph)
- Measurements at components over a longer period of time
- Hotspots of highly stressed components
- Rails and switches
- Turbines and pumps
- Measurements in the field of motor sports and automotive engineering

Instrumented wheelset

INCLUDED IN DELIVERY

- 1 - 4 four-channel data logger with a storage capacity of 16 GB each
- Battery ring for autarkic measurements at wheelset axles
- PJM data logger software
- User guide, specifications
- USB interface adapter

OPTIONAL ACCESSORIES

- Additional high-capacity battery ring
- Additional micro SD cards
- Synchronisation cable (to connect the data loggers for synchronous data recording)
- Calibration data

Customer specific adjustments are available on request.

HOW TO CONTACT US

Contact address

PJ Messtechnik GmbH
Waagner-Biro-Straße 125
8020 Graz
Austria

Phone: +43 (0)316 22 84 54
Fax: +43 (0)316 22 84 54 15

E-mail: office@pjm.co.at
Internet: www.pjm.co.at

Legal information

Court of jurisdiction: Graz-Stadt
VAT-ID: ATU62580255
Commercial register: FN 278800 a
Tax number: 68 272/5270

Managing board

Martin Joch, PhD
+43 (0)650 90 80 651
joch@pjm.co.at

Günter Petschnig, MSc
+43 (0)650 90 80 652
petschnig@pjm.co.at

Technical Support

Friedrich Luhn, MSc
+43 (0)699 18 14 83 83
luhn@pjm.co.at

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