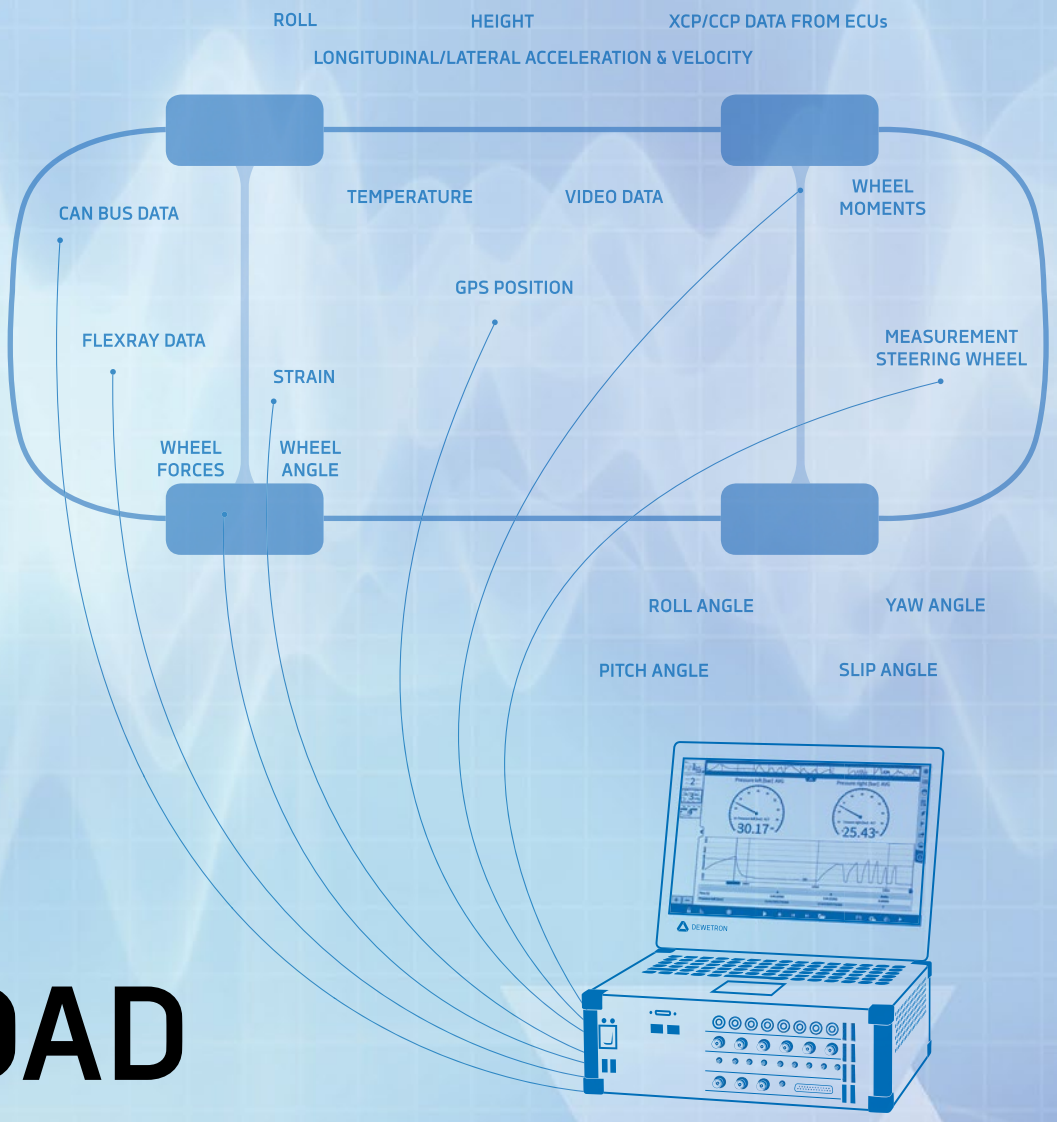


ROAD LOAD DATA

The DEWETRON RLD system is used for durability measurements during real test drives or on testbeds – for a whole vehicle or specific components.

The measured data can be exported for replay on a testbed to simulate all forces and vibrations in the laboratory. As an option, DEWETRON RLD systems can be equipped with a real time analog output for testbed integration.

YOUR BENEFITS

> High channel count (16 to 1000 channels)
> 24 bit aliasing free sampling
> Multiple inputs (voltage, acceleration, strain, etc.)
> Support for Kistler RoaDyn® measurement wheels
> Export to different file formats (supports RPC III)
> Battery powered, portable system for in-vehicle use
> Real-time analog output (ORION only)

ROAD LOAD DATA APPLICATION

DEWETRON systems offer a rugged and portable design for in-vehicle use and fulfill the requirement for high channel counts. The devices cover a wide range of input types such as voltage, strain, temperature, counters, GPS, Video, CAN and OBD II.
For testbed simulation the acquired data is exported to an RPC III file format.

DUAL USE

REAL TIME ANALOG OUTPUT FOR TEST RIG APPLICATION

Dual-use allows the DEWETRON RLD system to also be used on the testbed.
The same road test environment is measured on the testbed.
Additionally, the system provides real-time conditioned and filtered (typ. ±10 V) analog output signals from each input signal.

THE PRIMARY FEATURES

FOR ROAD LOAD DATA MEASUREMENT SYSTEMS ARE:

- > Simultaneous and aliasing free recording
- > High channel count
- > Connectivity for a broad range of sensors - including a flexible power supply for sensors
- > Sensor database, TEDS functionality
- > Shunt calibration
- > Amplifier and sensor balance
- > Offline instrument setup
- > Online overload detection and failure detection for e.g. damaged sensors
- > Various trigger options
- > Powerful online mathematics
- > Fast and efficient data analysis
- > Traceability of the measurement results
- > Compact and rugged hardware design
- > CAN .dbc import
- > J1939 decoding
- > RPC III export

SYNCHRONOUS INPUT SIGNALS

GPS POSITION AND VELOCITIES

ACCELERATIONS AND ROTATIONAL RATES

ROLL, PITCH, YAW

TEMPERATURES

STRAIN GAUGES

PRESSURE SENSORS

WHEEL VECTOR SENSORS

WHEEL FORCE TRANSDUCERS

HEIGHT SENSORS

MEASUREMENT STEERING WHEEL

CAN FlexRay

CAN/FLEXRAY BUS DATA

VIDEO DATA

REMOTE CONTROL

The NET option provides for the communication between different DEWETRON instruments. Each unit can be configured as stand alone, as master or as slave. It is also possible to use any PC to remotely control a measurement unit.
For road load data measurement the NET option is used to combine several instruments and to increase the total number of measurement channels

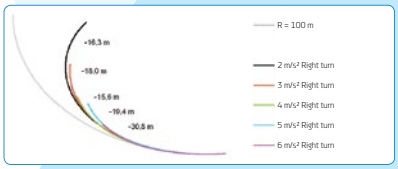
OFFLINE SETUP

To standardize and to simplify the setup procedure of a DEWETRON measurement system, it is possible to do this task using your office PC. Together with the sensor database, the setup can be performed independent from the measurement hardware. This feature allows you to use a central setup database. A standard office PC using our software can export XML based file format with all this setup information. Simply loading this file on a DEWETRON measurement system adjusts all settings for this setup which is required for the measurement. The set-up time of the whole system can be significantly reduced and this also avoids user errors.

ANALYZE MODE: REPLAY, EXPORT, SHARE DATA

You can replay any captured data file, zoom in with the recorder graph cursors, make measurements, print in full color to any printer, and export the data to a wide variety of formats compatible with today's popular analysis software packages, like FlexPro®, Matlab, Excel, DIAdem, UNV, Famos, Nsoft, Text and many more.
You can even export the whole measurement view to an AVI video file from your recorded data to create „moving documentation".

NO LICENSE is needed to use the software in the ANALYZE mode, so you can install the software on all your computers, or even distribute it to your customers, so they can view to the results. In this way, all of your colleagues and customers can replay your data files and execute all of the functions that you can.



EXPORT FORMATS

The export dialog allows selecting different export files for

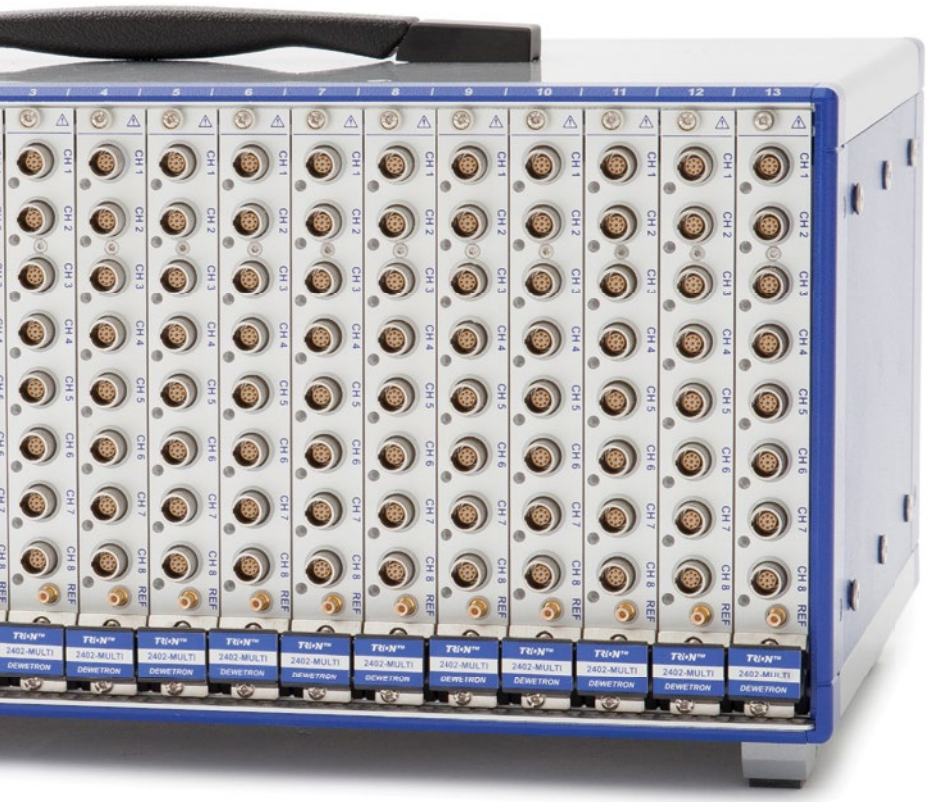
- > RPC III
- > FlexPro
- > ComTrade
- > MS Excel
- > WAV
- > Diadem
- > ATI
- > Matlab
- > SDF
- > UNV
- > CAN
- > Famos
- > AVI
- > Nsoft
- > Clipboard
- > Text
- > Google Earth
- > And many more

AMPLIFIER BALANCE

Amplifier balancing is integrated within the amplifier module – the input is shorted and the offset of the amplifier is checked automatically. This feature is a quick check of the amplifier and allows for the measurement of absolute output from a strain gage.

AMPLIFIER BALANCING - FOR ALL AMPLIFIERS AT A TIME:

- > Automated amplifier balancing
- > Check of the amplifier offset
- > Quick overview of adjust value
- > Absolute strain gage measurement



SENSOR BALANCE

Sensor balancing allows a quick zero adjustment of all sensors. In static conditions the offset of the amplifiers are adjusted, to compensate the offset of the strain gage.

SENSOR BALANCING - FOR ALL SENSORS AT A TIME:

- > Automated sensor balancing
- > Quick overview of adjust value
- > Easy to detect fatigue of material

SHUNT CALIBRATION

Shunt calibration is a very useful feature to quick check the measurement chain of bridge amplifiers.

CONFIGURATION EXAMPLES

	DEWE2-M4 (with Road Load Data configuration)	DEWE2-M13s (with Road Load Data configuration)	DEWE2-A13 (with Road Load Data configuration)
Analog input channels	2 free slots for TRION™ series modules	11 free slots for TRION™ series modules	
Digital channels	8 DIO and 2 CTR or 8 DI		
Channel expansion	Yes		
CAN interfaces	4		
Video	DEWE-CAM-GIGE-120 or USB		
Display	External MOB-DISP-x		17" (1920 x 1080)
Power supply	11 to 32 V_{DC} (max. 10 to 36 V_{DC}) isolated; incl. external AC power supply		100 to 240 V_{AC} (max. 90 to 264 V_{AC})
Dimensions (W x D x H)	318 x 253 x 108 mm 12.5 x 10 x 4.3 in.	441 x 230 x 177 mm 17.4 x 9.1 x 7 in.	450 x 246 x 303 mm 17.7 x 9.7 x 11.9 in.
Weight	Typ. 3.8 kg (8.6 lb)	Typ. 13.0 kg (28.6 lb)	Typ. 15.0 kg (33 lb)
TRION™ series modules are available for almost all kinds of sensors			

SENSORS & ACCESSORIES

DE-POWERBOX-11
Power distribution box

TRION-VGPS
with antenna

4 slots for hot-swapable batteries
(option DW2-PS-BAT)