



Standard Models

Instruments

For Your Computer

Signal Conditioning

Components

Ride and Handling Instruments

DEWE-RAH ... Objective data analysis

The DEWETRON RAH instruments offer a rugged and portable design for in-vehicle use and fulfill the requirement of high channel counts for vehicle dynamics investigations. The systems cover a wide range of analog input types e.g. voltage, strain, acceleration, current, charge, sound, potentiometer, resistor, temperature, etc. as well as GPS, Video, CAN, OBD II, XCP, counter and digital I/O.

Up to now, the data obtained from different sensors and sensor systems could only be correlated with major error tolerances and in most cases only in post analysis. New sync-clock technology by DEWETRON is used for the mixed signal recorder unit together with sensor systems and sensors from DTA partners. The coordinated implementation of synchronization capabilities in all DTA partner systems enables reduction of editing and analysis times by up to 70 %. At the same time, the quality of the analysis results can be improved by a factor of 5 – 10. Having automatically all data synchronized including video and voice data, makes data analysis and processing faster and easier than ever. This brings a whole new level of understanding and comparing test results.

Key Features

- Proven package, DEWETRON is a member of DTA (Driveability Testing Alliance)
- Guaranteed compatibility of the complete system including sensors; e.g. synchronized acquisition of data from Kistler RoadDyn® measurement wheels
- Synchronized universal inputs (voltage, acceleration, strain, etc.) without phase errors
- Up to 100 kS/s per channel sample rate (binary sampling rates such as 409.6 Hz possible)
- Up to 8 CAN bus interfaces
- Realtime mathematics

As a complete novelty on the market, DEWETRON, GeneSys, CORRSYS-DATRON, Kistler and TÜV SÜD Automotive have founded the DTA consortium and offer the complete spectrum of acquisition and evaluation of vehicle driveability.



RAH Instruments

Nothing is required to complete these instruments



	DEWE-211-RAH-16	DEWE-501-RAH-64	DEWE-2601-RAH-64
Dynamic analog input channels	16	64	64
Supported analog input signals	Voltage ± 10 V or strain gauge input via two MDAQ-SUB-STG; by optional MSI also IEPE, voltage ± 200 V, thermocouple, RTD and charge	Voltage ± 10 V or strain gauge input via two MDAQ-SUB-STG; by optional MSI also IEPE, voltage ± 200 V, thermocouple, RTD and charge	Voltage ± 10 V or strain gauge input via two MDAQ-SUB-STG; by optional MSI also IEPE, voltage ± 200 V, thermocouple, RTD and charge
External quasi-static channel expansion	EPAD interface, up to 16 EPAD2 modules = 128 ch		
A/D conversion			
Sampling method	Simultaneous sampling		
Sampling rate	100 kS/s per channel		
Resolution	16 bit		
Options			
DEWE-501-PCI-RAH-64 DEWE-501-RAH-64 expansion for a total of 128 channels	-	✓	-
Digital I/O and counters			
Digital I/O	8, TTL level		
Counters / digital inputs	2 counters or 8 digital inputs, TTL level		
CAN bus			
High-speed CAN bus interfaces	2	4	4
Video input option			
UP-DEWE-CAM-01 adds synchronized video picture acquisition of up to 200 FPS (frames per second) up to 70 fps at 640 x 480 pixel up to 200 fps at 640 x 120 pixel	✓	✓	✓
Data storage ¹⁾			
Technology	Solid State Disk	Solid State Disk	Hard disk
Capacity	32 GB	64 GB	600 GB
Max. gap free storing to disk	Typ. 40 MB/s	Typ. 40 MB/s	Typ. 80 MB/s
Typ. duration of recording (16 ch. / 10 kS/s/ch. / 16 bit)	1 day	2 days	20 days
Main system ¹⁾			
Display	-	-	15" TFT (1024 x 768)
Processor	Intel® Core™2 Duo 2 GHz	Intel® Core™2 Duo 2 GHz	Intel® Core™2 Duo 2 GHz
Power supply			
Standard	8 to 30 V _{DC} , incl. external AC power supply (Optional battery pack for ~2 hrs.)	Battery powered, 2 battery slots ²⁾ , 2 batt. for ~2 hrs. operation incl., incl. external AC power supply and external DCDC converter for 9 .. 36 V _{DC} input	Battery powered, 3 battery slots ²⁾ , 3 batt. for ~2 hrs. operation incl., incl. external AC power supply and external DCDC converter for 9 .. 36 V _{DC} input
Dimensions			
Dimensions (W x D x H)	317 x 252 x 92 mm (12.4 x 9.9 x 3.6 in.)	439 x 209 x 181 mm (17.2 x 8.2 x 7.1 in.)	417 x 246 x 303 mm (16.4 x 9.6 x 11.9 in.)
Weight without batteries	Typ. 5 kg (11 lb.)	Typ. 6 kg (13.2 lb.)	Typ. 14 kg (31 lb.)
¹⁾ Please find current specifications in the latest price list		²⁾ Weight of one battery: 660 g (1.45 lb.)	