

Transient Recorder Instruments

DEWE-TR ... Streaming machine that fits

The fast streaming to disk capabilities of DEWETRON systems define the transient recording application in a new way.

For sampling rates up to 1 MS/s per channel data is directly stored to the hard disk all the time. You just start the data storage before the test and stop it afterwards. This way there is no stress for the test engineer about the right trigger setup and it works for up to 32 channels sampled at 1 MS/s each.

Of course running such measurement for a long time results in huge amount of data, e.g. 32 channels at 1 MS/s each for 1 minute is almost 4 GB of data. DEWETRON addressed this fact by inventing a super fast data reload technology. It is a matter of seconds to reload the data file and then you just cut out the area of interest for analysis and archiving. This new kind of Transient Recorders use only short buffer memory on the A/D cards, a hardware trigger is still available.

For higher sampling rates up to 200 MS/s per channel still large onboard memory directly on the A/D cards is offered. DEWETRON offers a nice range of cards with 128 MS standard memory and options up to 2 GS. All these cards are hardware triggered and then record data to their memory. After recording data is downloaded to the systems hard disk for permanent storage. All these cards also can be used in the stream to disk mode for data rates up to 80 MByte/s.

Key Features

- High channel count, up to 64 channels per system
- Simultaneous sampling of analog channels and linked systems
- Sampling rates from 1 MS/s to 200 MS/s per channel
- Hardware trigger functions
- Huge acquisition memory up to 2 GS per card
- Easy to use and powerful software

TR Instruments

Only your choice of AD boards is required to complete these instruments



	DEWE-80x-TR		DEWE-302x-TR	
	800	801	3020	3021
Conditioned analog input channels via DAQP-modules (max.)	16	-	8	-
Direct analog input channels (BNC connectors, max.)	-	32	-	16
Number of DEWE-ORION-0816-1000 A/D cards (max.)	5	5	2	2
Number of M2i series A/D cards (max.)	2	5	2	2
Internal quasi-static temperature inputs (with DEWE-ORION-0816-1000 A/D cards only)	-		-	
External quasi-static channel expansion (with DEWE-ORION-0816-1000 A/D cards only)	EPAD interface, up to 16 EPAD2 modules = 128 ch			
Data storage ¹⁾				
Technology	Hard disk		Hard disk	
Capacity	1000 GB		1000 GB	
Max. gap free storing to disk	Typ. 70 MB/s		Typ. 70 MB/s	
Typ. duration of recording (16 ch. / 10 kS/s/ch. / 16 bit)	35 days		35 days	
Main system ¹⁾				
Display	External 17" monitor		15" TFT (1024 x 768)	
Processor	Intel® Core™2 Duo 2 GHz		Intel® Core™2 Duo 2 GHz	
Power supply				
Standard	95 to 260 V _{AC}		95 to 260 V _{AC}	
Dimensions				
Dimensions (W x D x H)	437 x 443 x 181 mm (17.2 x 17.4 x 7.1 in.)		377 x 168 x 284 mm (14.8 x 6.6 x 11.2 in.)	
Weight without batteries	Typ. 12 kg (26.4 lb.)		Typ. 8 kg (17.6 lb.)	
¹⁾ Please find current specifications in the latest price list		²⁾ Weight of one battery: 660 g (1.45 lb.)		

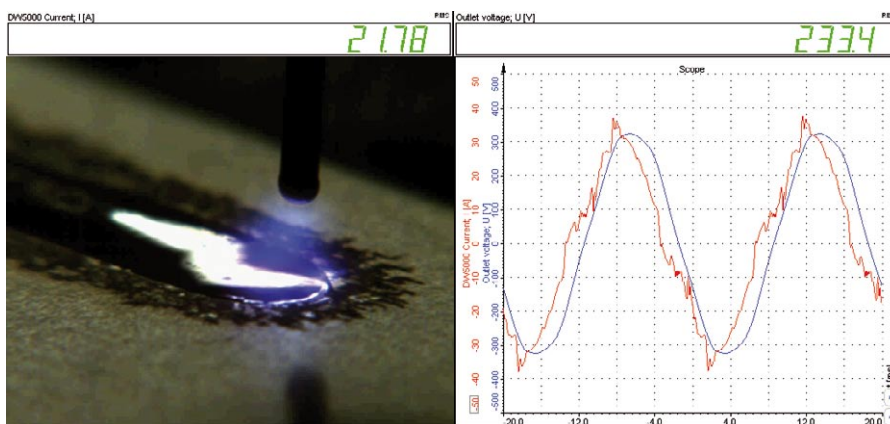
A/D boards

A/D board	Number of analog input channels	Input resolution	Sample rate per channel	Sample rate total	Standard on-board memory (total)	Memory consumption	Recording duration (128 MS memory)	Recording duration (2 GS memory)
ORION-0816-100x	8	16 bit	1 MS/s	8 MS/s	-	16 MB/s	Stream to disk	
M2I.3121	4	12 bit	10 MS/s	40 MS/s	128 Msamples	80 MB/s	3.2 s	51.2 s
M2I.3122	8	12 bit	10 MS/s	80 MS/s	128 Msamples	160 MB/s	1.6 s	25.6 s
M2I.3131	4	12 bit	25 MS/s	100 MS/s	128 Msamples	200 MB/s	1.28 s	20.48 s
M2I.3132	8	12 bit	25 MS/s	200 MS/s	128 Msamples	400 MB/s	0.64 s	10.24 s
M2I.3024	2 / 4	12 bit	100/50 MS/s	200 MS/s	128 Msamples	400 MB/s	0.64 s	10.24 s
M2I.3026	1 / 2 / 4	12 bit	200/100/50 MS/s	200 MS/s	128 Msamples	400 MB/s	0.64 s	10.24 s
M2I.4022	4	14 bit	20 MS/s	80 MS/s	128 Msamples	160 MB/s	1.6 s	25.6 s
M2I.4032	4	14 bit	50 MS/s	200 MS/s	128 Msamples	400 MB/s	0.64 s	10.24 s
M2I.4642	8	16 bit	1 MS/s	8 MS/s	128 Msamples	16 MB/s	16 s	256 s
M2I.4651	4	16 bit	3 MS/s	12 MS/s	128 Msamples	24 MB/s	10.66 s	170.66 s
M2I.4652	8	16 bit	3 MS/s	24 MS/s	128 Msamples	48 MB/s	5.33 s	85.33 s
M2I.2031	2 / 4	8 bit	200/100 MS/s	400 MS/s	256 Msamples	400 MB/s	0.64 s	10.24 s



DEWE-260x-TR		DEWE-500x-TR	
2600	2601	5000	5001
16	-	16	-
-	64	-	32
8	8	5	5
2	5	4	4
Up to 4 MPAD-TH8-x (=32 ch)		-	
EPAD interface, up to 16 EPAD2 modules = 128 ch			
Hard disk		Hard disk	
600 GB		1000 GB	
Typ. 80 MB/s		Typ. 70 MB/s	
20 days		35 days	
15" TFT (1024 x 768)		17" TFT (1280 x 1024)	
Intel® Core™2 Duo 2 GHz		Intel® Core™2 Duo 2 GHz	
Battery powered, 3 battery slots ²⁾ , 3 batteries for ~2 hrs. operation incl., incl. external AC power supply optional external DC power supply		95 to 260 V _{AC}	
417 x 246 x 303 mm (16.4 x 9.6 x 11.9 in.)		460 x 351 x 192 mm (18.1 x 13.8 x 7.7 in.)	
Typ. 14 kg (31 lb.)		Typ. 17 kg (37.4 lb.)	

DEWETRON transient recorders with DAQP modules offer fast sampling and great isolated signal conditioning for demanding measurements. A good example is monitoring of a welding process, where additional high-speed video is also a great feature.



High-speed monitoring of a welding process

Configurations

All DEWE-xx0-TR systems are prepared for DAQP signal conditioning modules. DAQP series modules are dynamic isolation amplifiers with high bandwidth up to 700 kHz. The electrical isolation of the signal inputs makes our DAQP modules almost indestructible, and users do not need to be specialists, or worry about details like common mode voltage, ground loops or DUT (Device Under Test) influences. Just connect the signal – be it voltage, pressure, acceleration, force, torque, current etc. – and measure. DAQP modules offer single channel modularity and can be interchanged or added at any time by the user.

The basic models do not include an A/D card yet. So to complete these systems one or more A/D cards and your choice of DAQP modules are required.

All DEWE-xx1-TR systems are prepared for direct voltage input to the A/D cards. BNC sockets are already foreseen and only one or more A/D cards are required to complete these systems.

Optional all DEWE-xx1-TR systems accept MDAQ modules to add signal conditioning. MDAQ series modules are dynamic differential amplifiers with high bandwidth up to 300 kHz. MDAQ modules are factory installed.

Example Systems



DEWE-2601-TR
Most popular system, 32 channels at 1 MS/s each

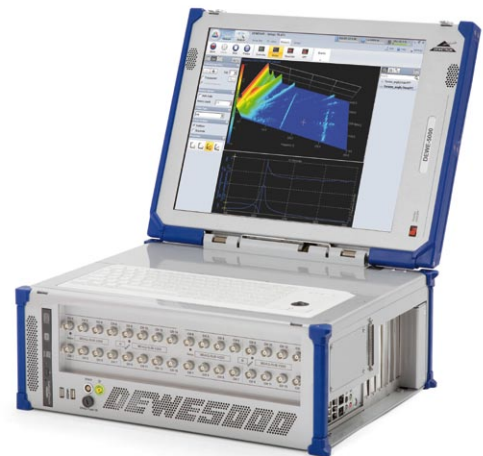


DEWE-2601-TR front view



DEWE-3020-TR
Very popular system,
8 channels at 1 MS/s each with
isolated signal conditioning

DEWE-5001-TR
High speed system,
32 channels at 25 MS/s each



DEWE-801-TR with 32 channels at 1 MS/s each



DEWE-801-TR with 32 channels at 1 MS/s each



Transient Recorder network with 64 channels at 1 MS/s