

A3716 Technical Specification

Inputs

Dynamic Channels (AC)

Number of synchronous parallel channels (AC):	16 AC (unlimited number of slave units)
Frequency range:	25600 Hz (65.5 kHz sampling frequency)
Input range:	+/- 12V (only one range, no gains)
Measurement timing:	fully synchronous
A/D Resolution:	24 bit input, 64 bit double floating point internal precision (no gain procedures used !)
Dynamic range:	120 dB
Channel configuration:	voltage or ICP (individually for every channel)
Input protection:	30 V
Input impedance:	100 kOhm
Input type:	acceleration, velocity, displacement, any non-vibration AC voltage
Integration:	single, double
2D Processing:	axis rotation according sensor mounting
Accuracy:	< 0.5 %
ICP drive:	18 V, 3.8 mA
High pass filter:	1Hz -12800 Hz (user definition)
Low pass filter:	25Hz -25600 Hz (user definition)
Connector:	terminal box

Tacho Channels

Number:	4 independent tacho inputs
Speed range:	0,8 Hz - 1000 Hz
Input impedance:	80 kOhm
Input type:	voltage
Input range:	+ 10V (only one range, no gains)
Accuracy:	<0.5 %
Triggering:	positive or negative
Trigger level:	0.1 -9.9 V, user defined
Input protection:	48 V
Connector:	terminal box

Statik Channels (DC)

The total number of DC channels can be divided to 4-20mA inputs and voltage inputs. Such requirement is specified in the order (e.g. 12mADC+4VDC).

Number:	16 DC
Input range:	+/- 24 V or 4-20mA
Input impedance:	100kOhm (VDC), 250 Ohm (mADC)
A/D Resolution:	12 bit input
Accuracy:	0.1% fsd
Input protection:	30 V

Measurement Functions

Triggering:	free run tacho external (voltage)
Data acquisition:	- overall values (TRUE RMS, TRUE PEAK, TRUE PEAK-PEAK, user high and low pass filters) time signal (65 536 samples max) realtime FFT order analysis speed measurement process static DC values Envelope demodulation ACMT procedure for low speed machines bearings
Time waveform samples:	256 - 65536
Spectrum ranges:	25 - 25600
Spectrum lines:	100 - 25600
Order analysis parameters:	1/2 - 10th order
Averaging:	1-255
Gap and Centerline displays:	yes

Acquisition Control:

(executed by A3750 software package)

User defines time controlled groups (TCGs). Each group is the set of measurements, which are taken in specified time interval. By this way the user can collect some measurements every second, other every minute and others in next different time intervals.

TCG is free run or can be triggered by any measurement, which exceeds the pre-defined limit.

Data are finally saved to MS SQL Server database.

Data Analysis:

(executed by DDS 2010 software)

See the User Guide of DDS 2010 for all details and available displays)

Real Time Displays:

(the external monitor, keyboard and mouse connected to the rear panel required)

Data display:	overall values frequency bands values time waveforms spectra Amplitude+phase values on speed frequency orders
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General:

Processor:	Intel Core2 - 2.5 GHz
RAM:	2 GB
Internal data disk:	250 GB
Interface:	Ethernet 1GB RJ45
Power supply:	AC 110-240V, 45-65Hz
Operating temperature:	-10 °C - +50 °C, 15°F-120°F
EMC:	CE tested
Dimensions:	482 x 87 x 326 mm
Weight:	9 kg