

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).

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|-------------------|-------------------------------|
| 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

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|------------------------------|---|
| 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)

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

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 |