

## SUMMIT II EX

### The Intrinsically Safe Seismic System!

SUMMIT II Ex is an intrinsically safe seismic exploration system. It is specialised for use in potentially explosive underground environments like for instance in coal mines. The system is based on the SUMMIT II Plus Technology and allows flexible layout configuration for any underground application like in-seam seismics, underground tomography and borehole applications.

#### Specialised for Underground Seismic Exploration!

- Optimised for seismic surveys in mines through its ATEX certification
- Fast and easy setup with unique snap-on technology
- Extremely robust but lightweight casing
- Supreme service via rapid reaction support hotline



SUMMIT II EX remote unit



SUMMIT II EX explosion proofed central station

## Technical specifications

Sample Interval	1/48, 1/32, 1/16, 1/8, 1/4, 1/2, 1, 2, 4, 8 ms	Analogue Anti-Alias Filter	7.2 kHz 6 dB/octave
Record Length	0.5 K samples, ..., 120 K samples	Analogue Low-Cut Filter	1 Hz 6 dB/octave
Preamp Gain	0 dB, 20 dB or 40 dB	Digital Anti-Alias Filter	0.8 x Nyquist
A/D Converter	24 bit delta sigma technology	Rejection at Nyquist Frequencies	-120 dB
Maximum Input Signal	2.0 Volt RMS 5.6 Volt peak to peak	Passband Ripple	+/-0.05 dB
Input Impedance	20 kOhm	Built-In Test Functions	- Sine wave - Pulse - Instrument noise - Geophone step - Sweep transfer - Auto correlation - Cross correlation
Instantaneous Dynamic Range	≥ 120 dB @ 2 ms sampling interval	System Check	- Battery status - Equivalent input noise - Total harmonic distortion - Instantaneous dynamic range - Common mode rejection - Cross talk - Time accuracy
System Input Noise	Less than 0.2 µV RMS @ 2 ms	Geophone Check	- Impedance - Damping - Natural frequency - Noise
Crosstalk Rejection	≥ 112 dB (between channels)		
Total Harmonic Distortion	≤ 0.0008 %		
Common Mode Rejection	≥ 100 dB		
Gain Accuracy	Typical 1 % (between all channels)		
Time Accuracy	Typical 5 ppm (between all channels)		
Power Supply	Built-in accumulator		
Dimensions	26.5 x 23.5 x 7.6 cm		
Weight	2.7 kg		

Subject to technical changes

## Environmental Specifications

Operation Temperature	-20°C to +70°C
Humidity Range	0 - 95 %
Case	Solid waterproof housing

## Overall System Performance and Flexibility

### Typical Shot Cycling Time

- 10 seconds @ 1 ms sampling rate, 2 K trace length with 256 channels inclusive data storage

### Mobile System Control

- via easy to handle portable ATEX certified computer

### Power Supply

- via internal accumulator

### Connectors

- Geophone or string connector
- Snap-on connector for variable line position

### Line Length

- Unlimited by using Repeater Units every 250 m

### Cross Lines

- Realized by Repeater Units deploying as Cross or Distribution Units

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Disposal information :

Our products are subject to the WEEE directive. DMT has committed itself to take back all electrical and electronic components sold and to dispose of them professionally. Please contact: [products@dm-t-group.com](mailto:products@dm-t-group.com)

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