

EXPLOMET™ 4 SERIES

Explomet 4, Detomet 4, Explomet 4 Dual

Technical Data Sheet — Portable Version



The Explomet 4 series brings Kontinitro's entire measurement range together on a single hardware platform and replaces the Explomet 2T+, Explomet 3 and Detomet 2.0. The same electronics and the same measurement chain are configured at the time of order — for velocity of detonation (VOD) measurement, detonator delay measurement, or both.

CONFIGURATIONS

Dual · Explomet ·
Detomet

FORMATS

Portable

TIME

RESOLUTION
0.01 μ s (10 ns)

REPLACES

Explomet 2T+,
Explomet 3,
Detomet 2.0

Technical & Logistic Offices

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LIST OF INSTRUMENTS — PORTABLE VERSION: 3 MODELS

- **Explomet 4™ Portable**
- **Detomet 4™ Portable**
- **Explomet 4™ Dual Portable**

CONFIGURATIONS

Explomet™ 4 Dual

Velocity of detonation and detonator delay in a single instrument.

The Dual configuration combines both measurement modes in a single instrument and on its own replaces the Explomet 2T+, Explomet 3 and Detomet 2.0. Switching from VOD measurement to detonator delay measurement requires no additional hardware — the same optical inputs and the same time base serve both modes.

- **Portable format with 6 optical receivers**
- A common time base and measurement chain for both modes
- No additional hardware needed to switch measurement mode

Explomet™ 4

VOD measurement only.

The Explomet configuration measures the time intervals between fiber-optic inputs without requiring a predefined trigger sequence. It accepts 2 to 6 optical inputs and records time intervals down to 0.01 μ s. Input X1 can be triggered optically, via a fiber-optic cable, or electrically, via a dedicated trigger input. Once the distances between the optical measurement points have been entered, the instrument automatically calculates the velocity of detonation in meters per second.

- Quality control & VOD measurement of cartridged and bulk explosives
- VOD measurement in blastholes
- Verification of detonation direction (from bottom to collar)
- Analysis of shock tube transmission times
- Explosive performance testing in the field or at the quarry

Upgrade

All **Explomet™ 4** versions can be upgraded to the **Explomet™ 4 Dual**, combining **Explomet™ 4** and **Detomet™ 4** modes in a single instrument.

Simply send us your instrument and pay the upgrade fee. We will return it to you fully upgraded and ready to **measure detonator delay times and slow-burning propellant burn times.**

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Detomet™ 4

Detonator delay measurement only.

The Detomet configuration has been completely redesigned and integrated into the Explomet 4 platform. Input **X1 simultaneously starts five independent counters**, and five optical inputs each stop one counter. Results are displayed in milliseconds, with a reading resolution of one microsecond.

- Delay measurement of electric & electronic detonators
- Delay measurement of pyrotechnic shock tube detonators
- Delay measurement of surface detonators
- Blast sequence analysis
- Verification of delays between successive detonations

TECHNICAL SPECIFICATIONS — PORTABLE VERSION

Physical characteristics & display

The following technical specifications apply to the models listed below:

- **Explomet 4™ Portable**
- **Detomet 4™ Portable**
- **Explomet 4™ Dual Portable**

Format	Portable: full anodized aluminum enclosure. Enclosure thickness 5 mm, lid thickness 3 mm
Dimensions	13 × 18.5 × 4.30–8.30 [cm]
Weight	1.85 kg
Display	5.00" resistive touchscreen
Optical inputs	6 channels
VOD results per measurement	Up to 5 (6-input portable configuration)
Detonator delay results per measurement	Up to 5 (6-input portable configuration)

Timing & accuracy

Time resolution	0.01 μs (10 ns)
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Accuracy	± 10 nanoseconds [ns]
Timers	5 synchronous timers
Time interval measurement range	10 ns to 3 minutes

Measurement ranges

Distance between optical fibers	50 mm to 9999 mm
Velocity of detonation	Up to 15,000 m/s

Optical fiber

Cable	ESKA™ SK-40 simplex plastic optical fiber (POF)
Core diameter	1 mm
Outer diameter	2.2 mm



Power supply

Input	100–240 V AC, 50/60 Hz
Battery life	More than 9 hours of continuous use
Maximum charging time	2 h 30 min
Charger	Included: AC/DC mains adapter suited to your plug type. 65 W. Input: 100–240 V ~50–60 Hz 1.5 A. Output: 19 V 3.42 A.

Environment

Operating temperature	–30 °C to +80 °C
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Data, storage & software

Storage	SD card, CSV format
Backup	Internal memory card, restorable to an external SD card in the event of failure
Export format	.txt — readable in Word, Excel, Notepad, OpenOffice, TextEdit, Pages, Numbers, etc.
On-device review	The last 10 recorded results can be viewed directly on the instrument. Up to 50 VOD results can be read directly on the measuring instrument.
Internal results storage capacity	Approx. 100,000,000,000
Results organization	Each test is recorded individually and within a grouped data set. The time, date and year serve as a unique identifier for each VOD measurement, in the following format: 03.04.2026 / 15:46:29
Interface languages	French, English, Spanish, Portuguese, Russian, Polish

Indicators

Battery status	Charge level displayed as a percentage on screen
Date & time	On screen.
Outside temperature	On screen, in degrees Celsius

DETOMET 4 — MEASUREMENT CAPABILITIES

Detonator delay measurement

The Detomet 4 measures the delay of electric, electronic and pyrotechnic (non-electric) detonators, from the shortest instantaneous types to the longest long-period (LP) delays. Results are displayed in milliseconds, with the same accuracy as the instrument's VOD measurement chain.

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Parameter	Detomet 4 — Specification
Supported detonator types	Electric, electronic and pyrotechnic detonators (non-electric / shock tube)
Measured delay range	From the shortest instantaneous types to the longest long-period (LP) delays, covering the full range of electric, electronic and pyrotechnic detonators
Result unit	Milliseconds (ms)
Accuracy	± 10 nanoseconds (ns) — identical to the instrument's VOD measurement accuracy
Time resolution	0.01 µs (10 ns)
Timers	5 independent synchronous counters, started simultaneously by input X1
Typical applications	Electric detonator delay measurement · Shock tube detonator delay measurement · Surface detonator delay measurement · Blast sequence analysis · Verification of delays between successive detonations

Slow-Burning Products — Burn Rate Measurement

The Detomet 4 also measures the burn rate of slow-burning products such as safety fuses, propellants and oxidizers, for burn times of up to 3 minutes. Results are displayed in meters per second.

Parameter	Specification
Products measured	Slow-burning products: safety fuses / igniter cords, propellants, oxidizers
Measured quantity	Burn rate
Result unit	Meters per second (m/s)
Burn time measurement range	Up to 3 minutes

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Parameter	Specification
Accuracy	± 10 nanoseconds (ns) — identical to the instrument's VOD measurement accuracy
Time resolution	0.01 µs (10 ns)

ACCESSORIES

VOD Cables & Probes — Overview

Channels	System	Type	Product	Description
2 Channels	Duplex cable system	Reusable	Orange duplex cable	2 high-quality optical fibers in a flame-retardant jacket. Highly resistant to impact, torsion and fire. Length 50 m or more; can be buried for a permanent line installation.
2 Channels	Duplex cable system	Consumable	Pink duplex cable	Optical probes connected to the duplex cable system. Designed for VOD measurement in the blasthole. Ideal for VOD measurements in mines, quarries and underground works. Length 30 m or more.
6 Channels	Surface cable	Reusable	Orange 6-POF cable	Rugged, flame-retardant 6-fiber cable, length 50 m or more, for field measurements. Can be unrolled and rewound, or buried as a permanent line for recurring tests.
6 Channels	EasyProbe system	Consumable	Pink 6-POF cable	Optical probes connected to the surface cable, for VOD measurement directly in the blasthole. Ideal for VOD measurements in mines, quarries and underground works. Length 30 m or more.

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