



Emission Tester Range



Tecalemit Emission Testers for Petrol and Diesel Engines

Technical data:

Display	High-resolution LC display, graphics capability with background lighting
Printer	Internal stylus printer
Keyboard	Internal function keys, socket for PC keyboard
Interface	RS 232, PCMCIA
Operating temperature	5 ... 45 °C
Operating voltage	230 V AC ± 10 % / 110 V AC ± 10 %
Power consumption DiCom, DiGas, DiSmoke, DiGas Light	150 VA, 90 VA, 90 VA, 90 VA
Standards/approvals	OIML R99, ISO 3930, ECR R 24, IEC 801-1/2/3/4, UK MOT all classes
Dimensions DiCom, DiGas, DiSmoke (W x H x D)	432 x 230 x 470 mm
Dimensions DiGas Light (W x H x D)	355 x 216 x 370 mm
Weight DiCom, DiGas, DiSmoke, DiGas light	17.7kg, 16.0kg, 11.0kg, 12.0kg
Opacity Chamber Dimensions (W x H x D)	395 x 285 x 136 mm
Weight	3.5kg

Measurement data

4 Gas Analysers

	Measurement range:	Resolution:
CO	0 ... 10 % Vol.	0.01 % Vol.
CO2	0 ... 20 % Vol.	0.1 % Vol.
HC	0 ... 20,000 ppm Vol.	1 ppm
NOx	0 ... 5,000 ppm Vol.	1 ppm
O2	0 ... 25 % Vol.	0.01 % Vol.
λ-calculation	0 ... 9,999	0.001
λ-sensor voltage*	0 ... 5.0 V	0.04 V
Engine speed	250 ... 9,990 rpm	10 rpm
Oil temperature	0 ... 150 °C	1 °C
Ignition angle TDC sensor	- 60 ... 100 °c.a.	0.1 °c.a.
Ignition angle stroboscope	0 ... 60 °c.a.	0.1 °c.a.
Dwell angle*	0 ... 100 %	1.0 %

Smoke Meter

	Measurement range:	Resolution:
Opacity	0 ... 100 %	0.1 %
Absorption (K value)	0 ... 99.99 m ⁻¹	0.01 m ⁻¹
Acceleration time	0 ... 5 s	0.05 s
Engine speed	250 ... 9,990 rpm	10 rpm
Oil temperature	0 ... 150 °C	1 °C
Ignition angle TDC sensor	- 60 ... 100 °c.a.	0.1 °c.a.
Ignition angle stroboscope	0 ... 60 °c.a.	0.1 °c.a.

*With the exception of TG DiGas 5400 Light

Part Number & Ordering Information

Product Description	Part Number
4 Gas Analyser, Approved for all Classes of MOT Testing – Upgradeable to Combined Emission Tester	TG DiGas 5400
VOSA Approved 4 Gas Analyser	TG DiGas 5400 Light
Diesel Engine Smoke Meter, Approved for all classes of MOT Testing	TD DiSmoke 5430
Combined Emission Tester. Including 4 Gas analyser and Diesel Smoke Meter. Approved for all Classes of MOT Testing	TGD DiCom 5480

Options & Accessories:

Di Speed 490 Engine speed measurement tool for use with all emission testers	TD 3250 / 9
Mobile Cabinet. Castor wheel mounted cabinet suitable for all DiGas, DiCom & DiSmoke emission testers – Finished in RAL 5002 Blue	OA 60401
Infra Red Remote Control, For use with all Tecalemit DiGas, DiSmoke & DiCom Emission Testers	TD 3250 / 7
Cable remote control with LCD screen	TD 3250 / 6
Smoke chamber pole. For use when testing vehicles with vertical stack exhaust systems	TD 3250 / 8
Diagnosis Plus communication cable	OA 60398
Emission Expert communication cable	OA 60399
Stroboscope light	OA 60397

Tecalemit After Sales Support

All Tecalemit emission testers are supported throughout the UK by factory trained Tecalemit Service Engineers. All Tecalemit Engineers are fully certified through Tecalemit's own UKAS accredited laboratory. In addition to annual calibration Tecalemit offers a comprehensive range of extended service and maintenance packages – please contact your supplier for information. For emission tester users outside mainland UK Tecalemit is able to offer a 'return to base' service or on-site service subject to additional call out and travel costs.

Contact Information

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DiGas 4 Gas Analysers

- Fully approved for all classes of UK MOT testing
- Single Annual Calibration
- Compact Design with Proven Technology
- Supplied with emission diagnostic software
- Upgradeable for 5 gas (NOx) measurement
- Approved by Vehicle Manufacturers
- Upgradeable to combined emission tester
- 3 Year warranty

DiSmoke Smoke Meter

- Fully approved for all classes of UK MOT, and RPC testing
- Patented linearity test - no weekly calibration
- Integral engine speed detection
- Supplied with emission diagnostic software
- Used by testing authorities throughout Europe
- Approved by Vehicle Manufacturers
- 3 Year Warranty

DiCom Combined Emission Tester

- Incorporates all features of DiGas & DiSmoke
- Single cabinet
- Single annual calibration for gas and smoke
- 3 Year Warranty

DiGas Light

- Fully approved for all classes of UK MOT testing
- Compact Design with Proven Technology
- 3 Year Warranty



www.tecalemit.co.uk

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VEHICLE EMISSION TESTING WITH TECALEMIT

The latest generation of Tecalemit vehicle emission testers represents by far the most advanced range of emission testing products available on the market today. Each measuring instrument in the range incorporates proven, market leading design technology, with the highest quality components and manufacturing.

The range is based on 2 core products, the TG DiGas 5400 4 gas analyser and the TD DiSmoke 5430 diesel engine smoke opacity meter, both units fully meet all UK statutory testing requirements and are approved for all classes of MOT testing.

In addition to these 2 core products Tecalemit offers the TG DiGas 5400 Light – a standalone 4 gas analyser with full UK approval using the same measurement technology as the TG DiGas 5400. Tecalemit also offers the TGD DiCom 5480, a combined emission tester incorporating all the features of both the TD DiSmoke 5430 and the TG DiGas 5400 in a single cabinet, providing an economical and space saving solution for all emission testing requirements.

A comprehensive range of optional accessories are available to ensure that whatever your requirement, measurement, testing or diagnosis the Tecalemit emission tester range offers a complete and unique solution.



Incomparable standards in emission measurement technology

This generation of Tecalemit instruments is designed for all-round performance without any compromise, with developments that go beyond current requirements. By systematically responding to customer requests, Tecalemit has built up a leading position in the market of emission diagnosis systems.

TG DiGas 5400

4-5 gas tester for emission analysis and diagnosis of petrol engines

- High precision and long-term stability of measurement technology
- Minimum maintenance requirements, once-a-year calibration
- Can be upgraded to TGD DiCom 5480
- "Emission Expert" and "Diagnosis Plus" included



TD DiSmoke 5430

Opacimeter for smoke measurement and diagnosis of diesel engines

- High accuracy
- Patented linearity test
- Compact, light-weight opacity measuring chamber requiring minimal maintenance
- Short warm-up time
- Exhaust probe for all exhaust pipe diameters (passenger cars, trucks)
- Adapter for attachment to exhaust pipes above truck cabin (optional)
- Quick response time due to compact diesel measurement chamber
- "Emission Expert" and "Diagnosis Plus" included



As light as possible

The Light series combines proven quality with compact design build. TG DiGas 5400 Light is precisely tailor made to meet all petrol emission testing requirements.

TG DiGas 5400 Light

- 4-Gas analyser for emission measurement of petrol engines
- Compact, stationary and mobile petrol emission tester
 - Incorporates superior measurement technology of DiGas 5400



DiSpeed 490

Future-oriented engine speed measurement for petrol and diesel engines

- No settings required for engine configuration
- Easy mounting with integrated permanent magnets
- Device operates independently of any electrical engine signals
- Can be connected to any emission tester
- For static and dynamic speed measurement
- For gasoline and diesel engines with the maximum coverage rate
- Automatic self-calibration and functional monitoring



Features

Emission-Tester

DiCom DiGas DiSmoke DiGas L

- CO, CO₂, HC, O₂
- K value, opacity
- Engine speed, oil temperature
- Determination of acceleration time
- Ignition angle, dwell angle
- Fuel feed start
- Petrol EOBD
- Diesel EOBD
- Menu-supported user guide
- "Diagnosis Plus"
- "Emission Expert"
- Easy maintenance
- Software update with memory card
- Vehicle database UK

Features

- Engine speed measurement with inductive trigger sensor or clamp-on transducer
- Engine speed measurement with DiSpeed 490
- Variety of engine speed measurement modes (optical measurement methods, OEM-specific, digital, analog sensors and W terminal)
- Trolley cabinet
- External keyboard
- Internal printer
- External printer
- IR remote control
- Cable remote control with display
- NO_x option

Emission-Tester

DiCom DiGas DiSmoke DiGas L

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o optional • standard - not supported

Further accessories on request..

TGD DiCom 5480

Combined emission tester for emission analysis and diagnosis of petrol and diesel engines

- Compact combined instrument
- Combines technical functions of TG DiGas 5400 and TD DiSmoke 5430
- Cost advantage due to combination unit