

We measure it.



CO warning instruments and gas spillage detectors

For safety & service

testo 315-1

testo 315-2

testo 317-3


testo 317-1



Versatile CO measurement – For safety and service

testo 315-1

CO warning and servicing instrument for gas heating systems, with battery and calibration protocol



Part no. 0632 0315

testo 315-1 provides you with all the measurement functions needed to service gas heating systems. While measuring draught, pressure difference or temperature, the instrument can also simultaneously show the CO level in ambient air. In this way, you always have the system's safety under your watchful eye.

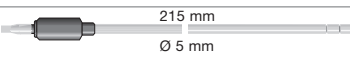


- Reliable CO warning
- Three alarm thresholds are freely adjustable
- Audible and visual alarm
- Automatic zero point adjustment
- Two temperature sockets to compare flow and return temperature
- Compensation of deviations in readings due to temperature
- TopSafe case protects from dirt, water and impact (optional)

Sensor types	ppm CO	hPa	hPa	°C	µA
Meas. range	0 to +2.000 ppm CO	-200 to +200 hPa	-40 to +40 hPa	-40 to +600 °C	-100 to +100 µA
Accuracy ±1 digit	±10 ppm CO (0 to +100 ppm CO) ±10% of mv (+100 to +2000 ppm CO)	±0.5 hPa (-49.9 to +49.9 hPa) ±1.5 hPa (-200 to -50 hPa) ±1.5 hPa (+50 to +200 hPa)	±1.5% of mv (-40 to -3 hPa) ±1.5% of mv (+3 to +40 hPa) ±0.03 hPa (-2.99 to +2.99 hPa)	±0.5 °C (0 to +99 °C) ±0.5% of mv (+100 to +600 °C)	±3 µA
Resolution	1 ppm CO	0.1 hPa	0.01 hPa	0.1 °C	1 µA

General technical data

Storage temp.	-20 to +50 °C	Weight	400 g
Oper. temp.	+5 to +45 °C	Dimensions	215 x 68 x 47 mm
Display	LCD, 2 lines	Material/Housing	ABS
Battery type	9V block battery	Warranty	Measuring instrument: 1 year
Battery life	16 h		

Accessories

Probes testo 315-1	Dimensions Probe shaft/probe shaft tip	Measuring range	Genauigkeit	t ₉₀	Part no.
Pressure set with flue draught probe consisting of:	 215 mm Ø 5 mm				0554 3150
Pipe wrap probe with velcro strip; for temperature measurement on pipes with diameter up to max. 120 mm; Tmax. +120 °C; TC Type K, Fixed cable	 395 mm 20 mm	-50 to +120 °C	Class 1	90 s	0628 0020
Pipe wrap probe for pipe diameter 5 to 65 mm, with exchangeable measuring head. Meas. range short-term to +280°C, TC Type K, Fixed cable		-60 to +130 °C	Class 2*	5 s	0602 4592

CO warning instrument

testo 315-2

testo 315-2 CO warning instrument, incl. battery and calibration protocol

Part no. 0632 0317



Use testo 315-2 to check the CO level in ambient air. Even low concentrations of the highly poisonous gas are detected. In this way, you can judge whether the burner flue gases are being fully drawn off.

- Safe CO warning
- Adjustable alarm thresholds
- Audible & optical alarm
- Automatic zero-point adjustment
- Data documentation on site with the fast printer (option)
- TopSafe cover protects from dirt, water and impact (option)

Sensor type	ppm CO
Meas. range	0 to +2.000 ppm CO
Accuracy ± 1 digit	± 10 ppm CO (0 to +100 ppm CO) $\pm 10\%$ of mv (+100 to +2.000 ppm CO)
Resolution	1 ppm CO

General technical data

Alarm limits	50/100/500 ppm (Factory setting)
Zero point adjustment	Automatically when switched on
Oper. temp.	+5 to +45 °C
Storage temp.	-20 to +50 °C
Display	LCD, 2 lines
Battery type	9V block battery

Weight	400 g
Dimensions	215 x 68 x 47 mm
Material/Housing	ABS
Warranty	Measuring instrument: 1 year

Accessories testo 315-1 / testo 315-2

Part no.

Accessories and spare parts		
9V rech. battery for instrument, instead of battery	0515 0025	
Recharger for 9V rechargeable battery, for external recharging of 0515 0025 battery	0554 0025	
Transport and Protection		
testo 312 / testo 315 TopSafe; protection case with bench stand; protects instrument from dirt and impact	0516 0443	
testo 312 Case for secure storage of measuring instrument, for secure storage of measuring instrument	0516 0191	
Transport case; plastic; for transport and secure storage of measuring instrument and accessories	0516 3120	
Printer and Accessories		
Testo fast printer IRDA with wireless infrared interface; 1 roll thermal paper; 4 AA batteries; for printing out measurements on site	0554 0549	
External fast charger for 1-4 AA rech. batteries, incl. 4 Ni-MH rech. batteries with individual cell charging and charge control display, incl. impulse trickle charging, integrated discharge function, with built-in international mains plug, 100-240 V, 300 mA, 50/60 Hz	0554 0610	
Spare thermal paper for printer (6 rolls), permanent ink, measurement data documentation legible for up to 10 years	0554 0568	
Calibration Certificates		
ISO calibration certificate/CO, CO probes; calibration points 0; 80 ppm	0520 0039	

Ambient carbon monoxide warning

testo 317-3

testo 317-3, testo 317-3 CO monitor, incl. carrying case with belt clip, headphones, wrist strap, sampler and calibration protocol

Part no. 0632 3173



The testo 317-3 CO monitor detects the presence of carbon monoxide in the surrounding area and warns the user both visually and audibly about dangerous gas concentrations e.g. when installing and servicing gas heaters.

- 3 year warranty on CO sensor
- No zero phase, instrument can be used immediately
- Adjustable alarm threshold
- CO zeroing at site

General technical data

Meas. range	0 to +1999 ppm
Accuracy ± 1 digit	± 10 ppm (0 to +99 ppm) ± 10 % (+100 to +499 ppm) ± 20 % (>+500 ppm)
Resolution	1 ppm
Oper. temp.	-5 to +45°C

Battery type	2 batteries Type AAA
Battery life	150 h (with beeper switched off)
Reaction time	40 s
Warranty	1 year on the instrument 1 year on the CO sensor

Flue gas spillage detector

testo 317-1

testo 317-1 spillage detector with flexible probe, incl. battery

Part no. 0632 3170



The testo 317-1 flue gas spillage detector reliably detects escaping heating gases. The practical instrument immediately gives off a visual and audible alarm. It is therefore not necessary to actually see the detector. The bendable probe facilitates applications in confined areas.

- Reliable recognition of escaping flue gases
- Bendable measurement probe for points which are difficult to access
- Audible and visual alarm

General technical data

Measuring medium	Ambient air
Reaction time	2 s
Display	Visual/audible
Battery type	3 AAA micro batteries

Weight	300 g
Dimensions	128 x 46 x 18 mm
Diameter/Probe pipe tip	\varnothing 10 mm
Length of probe pipe tip	35 mm
Length of probe pipe	200 mm
Warranty	Measuring instrument: 1 year



Gas leak detectors

For a quick overview

- testo 317-2
- testo 316-1
- testo 316-2
- testo gas detector
- testo 316-Ex



- CH₄
- C₃H₈
- H₂

Gas leak testing

Over and over again, devastating explosions and fires are caused by leaky gas pipelines. However, even smaller leaks in the gas pipelines, some of which cannot be detected by odour, lead directly to higher consumption and, in the long run, increase the risk of accidents.

How do leaks occur?

Leaks can be caused, for example, by hairline cracks (cracks which are hardly identifiable with the naked eye) in the pipelines. The often used hemp sealant can also, after many years of use, become leaky.

Fast testing

Thanks to technological developments, it is today possible to use a test instrument to carry out a gas pipeline test (leak quantity test) in a very short time. If a leak is determined, the site of the gas leak can be identified very quickly and reliably with the help of the gas leak detector.

Overview Testo gas leak detectors

Measuring instrument	testo 317-2	testo 316-1	testo 316-2	testo gas detector	testo 316-EX
	The convenient gas leak detector for beginners	The detector for leaks in natural gas pipes	The gas leak detector with integrated pump for fast check measurements	Gas detector	Gas detector with EX-protection
					
Meas. range					
Methane	0 to 20.000 ppm CH ₄	0 to 10,000 ppm CH ₄	10 ppm to 4,0 Vol. % CH ₄	1 to 999 ppm CH ₄ 0,1 to 4,4 Vol. % CH ₄	0 ppm to 2.5 Vol. % CH ₄
Propane	0 to 10.000 C ₃ H ₈	–	10 ppm to 1,9 Vol. % C ₃ H ₈	1 to 999 ppm C ₃ H ₈ 0,1 to 1,9 Vol. % C ₃ H ₈	0 ppm to 1.0 Vol. % C ₃ H ₈
Hydrogen	–	–	10 ppm to 4,0 Vol. % H ₂	1 to 999 ppm H ₂ 0,1 to 4,0 Vol. % H ₂	0 ppm to 2.0 Vol. % H ₂
Lower response thresholds	100 ppm CH ₄ 50 C ₃ H ₈	100 ppm	10 ppm	10 ppm	–
1st alarm limit	10.000 ppm CH ₄ 5000 C ₃ H ₈ (20% LEL)	from 200 ppm CH ₄ (LED yellow)	200 ppm CH ₄ 100 ppm C ₃ H ₈ 200 ppm H ₂	–	–
2nd alarm limit	–	from 10.000 ppm CH ₄ (LED red)	10.000 ppm CH ₄ 5.000 ppm C ₃ H ₈ 10.000 ppm H ₂	–	–
Resolution	–	–	–	1 ppm / 0,1 Vol. %	1 ppm / 0,1 Vol. %
Display	8 segment trend display	LED (3 colour)	18 segment bar display	ppm display	–
Battery life	4 h (LR03)	> 5 h	6 h	> 8 h	to 10 h
Other features	audible signal	Semi-conductor sensor	Earphone socket	· extendable probe · Inherently safe sensor according to DMT	Protection class IP54 EU guideline 94/9/EG (ATEX) 2004/108/EG EX-protection II 2G EEx ib IIC T1 (Ex Zone 1)

The convenient gas leak detector for beginners

testo 317-2

testo 317-2 gas leak detector including case with belt clip and wrist strap and batteries

Part no. 0632 3172



Highly practical gas leak detector for fast checks on gas pipe connections, with visual bar display.

- Optical bar display
- Sensor self-test after switching on
- Rising alarm tone with increasing gas concentration
- Continuous tone when alarm threshold is exceeded
- Audible confirmation of readiness to operate
- Battery monitoring with optical display

Sensor types

	Methane	Propane
Meas. range	0 to 20.000 ppm CH ₄	0 to 10.000 C ₃ H ₈
Lower response thresholds	100 ppm CH ₄	50 C ₃ H ₈
1st alarm limit	10.000 ppm CH ₄ (20% LEL)	5000 C ₃ H ₈ (20% LEL)

General technical data

Storage temp.	-20 to +50 °C
Oper. temp.	-5 to +45 °C
Battery type	2 batteries type micro AAA 1.5 V (LR03)
Battery life	4 h (LR03)
Weight	< 300 g
Display	8 segment trend display

t90	< 5 s
Heat-up time	60 s
Other features	audible signal (85 dB(A))
Warranty	1 year

The detector for leaks in natural gas pipes

testo 316-1

testo 316-1 electronic gas leak detector with flexible probe and battery

Part no. 0632 0316



The testo 316-1 gas leak detector quickly detects even the smallest leaks.

- Flexible measurement probe for inaccessible pipes
- TopSafe case protects from dirt and impact (optional)
- Audible alarm if limit value is exceeded
- Optical alarm

Sensor types

	Methane
Meas. range	0 to 10,000 ppm CH ₄
Lower response thresholds	100 ppm
1st alarm limit	from 200 ppm CH ₄ (LED yellow)
2nd alarm limit	from 10.000 ppm CH ₄ (LED red)

General technical data

Storage temp.	-20 to +50 °C	Display	LED (3 colour)
Oper. temp.	+4 to +45 °C	t90	< 5 s
Oper. humidity	0 to 95 %RH	Heat-up time	< 30 s
Battery type	9V block battery	Other features	Semi-conductor sensor
Battery life	> 5 h	Warranty	1 year
Weight	Approx. 300 g		
Dimensions	190 x 57 x 42 mm (without sensors)		

Accessories

Part no.

Accessories for measuring instrument testo 316-1

testo 316-1 TopSafe; protection case, incl. stand, protects from dirt and impact	0516 0189	
Transport case; plastic;, for transport and secure storage of measuring instrument and accessories	0516 3120	

The gas leak detector with integrated pump for fast check measurements

testo 316-2

testo 316-2 electronic gas leak detector with flexible measurement probe, incl. case, mains charger and earphones

Part no. 0632 3162



The testo 316-2 is extremely user-friendly and ideally suited to fast check measurements thanks to its integrated pump, its optical presentation of the gas concentrations detected, and the integrated rechargeable battery.

- Optical and audible alarm with bar display for increasing and dangerous gas concentrations
- Trend display shows maximum leakage
- Integrated pump
- Flexible measurement probe for inaccessible places
- Earphone connection for secure leakage localization in loud surroundings
- High duration of use thanks to rechargeable battery

Sensor types

	Methane	Propane	Hydrogen
Meas. range	10 ppm to 4,0 Vol. % CH ₄	10 ppm to 1,9 Vol. % C ₃ H ₈	10 ppm to 4,0 Vol. % H ₂
Lower response thresholds	10 ppm	10 ppm	10 ppm
1st alarm limit	200 ppm CH ₄	100 ppm C ₃ H ₈	200 ppm H ₂
2nd alarm limit	10.000 ppm CH ₄	5.000 ppm C ₃ H ₈	10.000 ppm H ₂

General technical data

Storage temp.	-25 to +60 °C
Oper. temp.	-5 to +50 °C
Oper. humidity	20 to 80 %RH
Battery type	NiMH battery
Battery life	6 h
Weight	348 g
Dimensions	190 x 57 x 42 mm (without sensors)

Display	18 segment bar display
t90	< 2 s
Heat-up time	60 s
Other features	Earphone socket
Warranty	1 year

Accessories

Part no.

Accessories for measuring instrument testo 316-2

Earphones, black, with ear cushions	0554 5001	
Mains unit 12V / DC / 300 mA	0554 1093	

Gas detector

testo gas detector

testo gas detector incl. flexible probe extension, rechargeable battery and mains unit for mains operation and battery recharging, with calibration protocol

Part no. 0632 0323



According to DVGW leaflet G 465-4, gas detectors are approved for above-ground gas detection up to the "lower explosive limit (LEL)". Testo's gas detector is a multi-range gas detector for the gas types methane, propane and hydrogen. Gas concentrations are measured by the semi-conductor sensor in the ppm range and are shown in the display with a resolution of 1 ppm.

- Audible signals if approaching lower explosion limit
- Continuous tone and warning in display if explosion limit is reached
- Flexible probe extension for difficult-to-access points

Sensor types

	Methane	Propane	Hydrogen
Meas. range	1 to 999 ppm CH ₄ 0,1 to 4,4 Vol. % CH ₄	1 to 999 ppm C ₃ H ₈ 0,1 to 1,9 Vol. % C ₃ H ₈	1 to 999 ppm H ₂ 0,1 to 4,0 Vol. % H ₂
Lower response thresholds	10 ppm	10 ppm	10 ppm
Resolution	1 ppm / 0,1 Vol. %	1 ppm / 0,1 Vol. %	1 ppm / 0,1 Vol. %

General technical data

Storage temp.	-25 to +70 °C
Oper. temp.	-15 to +40 °C
Battery type	NiMH battery, 1600 mAh
Battery life	> 8 h
Weight	320 g
Dimensions	190 x 40 x 28 mm
Display	ppm display

t90	2-3 s
Heat-up time	40 s
Other features	· extendable probe · Inherently safe sensor according to DMT
Warranty	1 year on instrument 1 year on sensor

Gas detector with EX-protection

testo 316-EX

testo 316-EX, electronic gas leak detector with EX-protection, incl. batteries, cases, Allen key and calibration protocol

Part no. 0632 0336



Proof of gas and leakage localization on gas pipes and installations in indoor and outdoor areas

According to the DVGW information sheet, EX-protection is required in areas in which explosive gas mixtures have formed or are to be expected. The testo 316-EX, which conforms to the guideline 94/9/EG (ATEX), is a multi-range gas detector for the gases methane, propane and hydrogen. The gas concentrations are measured by the semi-conductor sensor in the ppm range and are shown in the display with a resolution of 1ppm.

- Flexible measurement probe for inaccessible pipes
- 1 ppm resolution on display
- Indicator suppression for comfortable locating of the leak
- 94/9/EG (ATEX) conform

Sensor types

	Methane	Propane	Hydrogen
Meas. range	0 ppm to 2.5 Vol. % CH ₄	0 ppm to 1.0 Vol. % C ₃ H ₈	0 ppm to 2.0 Vol. % H ₂
Trigger threshold	1 ppm	1 ppm	1 ppm
Resolution	1 ppm / 0,1 Vol. %	1 ppm / 0,1 Vol. %	1 ppm / 0,1 Vol. %

General technical data

Storage temp.	-10 to +50 °C	Weight	Approx. 200 g
Oper. temp.	0 to +40 °C	Dimensions	135 x 45 x 25 mm
Oper. humidity	20 to 80 %RH (not condensed)	Protection class	IP54
Voltage supply	2 x 1,5 V (Mignon) / AA Type permitted for use in areas with danger of explosion: Camelion Plus Alkaline LR6 (see order data, order no. 0515 0316)	EU guideline	94/9/EG (ATEX) 2004/108/EG
Battery life	to 10 h	EX-protection	II 2G EEx ib IIC T1 (Ex Zone 1)
t ₉₀	14 s	Warranty	1 year on the instrument 1 year on the sensor

Accessories

Part no.

Accessories for measuring instrument testo 316-EX

Sampling adapter for pressure test gas bottle	0554 0559	
Pressure test gas bottle 1 ltr., 1 Vol.% CH ₄	0554 0554	
Spare battery Camelion Plus Alkaline LR6 (AA), 1.5 V / 2600 mAh	0515 0316	