PRODUCT DATA SHEET

GASCHECK G3 GAS LEAK DETECTOR

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GasCheck G3 Advanced gas leak detector with improved sensitivity.

Developed from the popular GasCheck 3000, the new model G3 features an improved Micro Thermal Conductivity sensor for enhanced sensitivity. At the heart of the instrument is a sensor which can detect any gas with a different thermal conductivity to that of air. Leaks can be located and the gas leak rate can be displayed in a choice of convenient units.

Where several measurements are to be taken, the G3 can log 10 readings with a date and time stamp. The battery powered instrument is supplied in a rugged carrying case with a short probe, nozzle and a long probe.

Features and benefits

- Detect leaks with automatic and direct display of gas leak rate.
- New, simple, intuitive and easy to interpret graphical icon display menu
- Choice of readings in cc/sec, mg/m^{3}h^{-1} or ppm
- Rapidly detects almost any known gas – particularly sensitive to ammonia, argon, butane, helium
- Data-logging facility – 10 data points with date and time stamp
- Rugged and portable – back-lit display for improved visibility in restricted light levels - typical battery life 40 hours

Typical applications

- Leak detection of welds, joints, seams and gaskets on components that are pressurised with a traceable gas such as helium or carbon dioxide
- Leak testing refrigeration plants
- Leak check on cylinders and aerosols
- Used in mass spectrometry and gas chromatography
- It is also available for work in magnetic fields

Technical data

Detector	Micro thermal conductivity detector - poison resistant with over-range protection
Operation	Battery type 4 x alkaline AA size or NiMH (rechargeable), typically 40 hours life
Response time	
Detection time to T90	1 sec (short probe), 9 sec (long probe)
Clear down time	1 sec (short probe), 9 sec (long probe)
Accuracy	+/- 5% displayed reading one digit
Indication	Flashing LED and audible sounder
Data logging	10 data points with date and time stamp
Calibration	Calibrated to UKAS/NIST standards
Operating range	0 to 60 °C
Humidity	0 to 99% RH (non-condensing)
Dimensions	
Case	420 x 320 x 97 mm, 1.6 kg
Instrument with probe	390 x 60 x 49 mm, 0.45 kg
Ingress ratings (min)	IP20

Smallest detectable leak levels

Name	Abbreviation	Minimum sensitivity cc/sec
Hydrogen	H_2	7.7 E-6 cc/sec
Helium	He	1.0 E-5 cc/sec
Refrigerant R12	R12	2.7 E-5 cc/sec
Refrigerant R1301	R1301	2.4 E-5 cc/sec
Refrigerant R134a	R134a	5.8 E-5 cc/sec
Refrigerant R22	R22	2.6 E-5 cc/sec
Refrigerant R11	R11	3.2 E-5 cc/sec
Sulphur Hexaflouride	SF6	2.2 E-5 cc/sec
Carbon dioxide	CO_2	4.0 E-5 cc/sec
Methane	CH4	2.9 E-5 cc/sec
Argon	Ar	3.5 E-5 cc/sec
Oxygen	O_2	2.9 E-4 cc/sec
Refrigerant R502	R502	3.0 E-5 cc/sec
Refrigerant R404a	R404a	3.2 E-5 cc/sec
Refrigerant R407c	R407c	3.3 E-5 cc/sec
Refrigerant R410a	R410a	3.2 E-5 cc/sec
Refrigerant R507	R507	3.8 E-5 cc/sec

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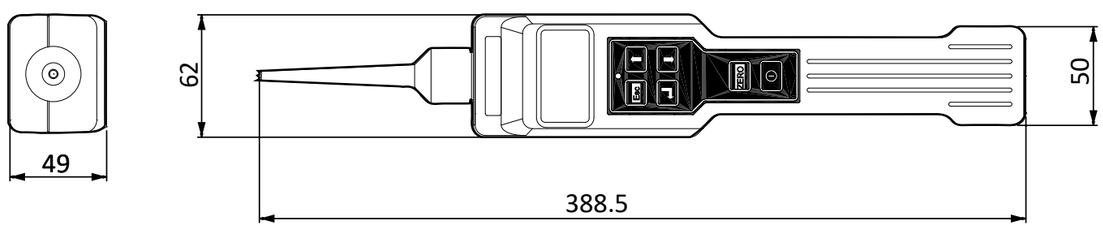
Ordering information

Product description	Order No.
GasCheck G3 leak detector Supplied in carrying case with short probe, long probe, nozzle, box-spanner and spare battery holder	D14132000
G3 Magshield	D14133001
Accessories and spares	
Short probe for GasCheck G3	D14128801
Long probe for GasCheck G3	D14128802
Nozzle Use with short probe – provides 10-fold dilution of gas stream entering the detector	D14130800
Spare battery holder	D14130802

Dimensions



Gascheck G Gas Table

Gas Name	Trade Name	Formula	Molecular Weight	Gas Group
Air				
GAS GROUP 1			4	
GAS GROUP 2			120	
GAS GROUP 3			80	
GAS GROUP 4			50	
GAS GROUP 5			40	
Helium		He	4	1
Hydrogen		H2	2.02	1
Ammonia		NH3	17.03	2
Butane		C4H10	58.12	2
Krypton		Kr	83.8	2
Methane		CH4	16.04	2
Neon		Ne	20.18	2
Sulfur dioxide		SO2	64.07	2
Sulfur hexa fluoride		SF6	146.06	2
Trichloromethane		CHCl3	119.38	2
1,1,2-Trichlorotrifluoroethane	R113	C2Cl3F3	187.37	2
1,2-Dichlorotetrafluoroethane	R114	C2Cl2F4	170.92	2
Dichlorodifluromethane	R12	CCl2F2	120.91	2
Bromotrifluoromethane	R1301	CBrF3	148.9	2
Chlorodifluromethane	R22	CHF2Cl	86.47	2
refrigerant R 502	R502	CHClF2, CClF2HCF3	111.6	2
Xenon		Xe	131.29	2
Acetone		C3H6O	46.07	3
Argon		Ar	39.95	3
refrigerant R 404a	R404a	R125:143a:134a = 44:52:4	97.6	3
refrigerant R 407c	R407c	R134a: R125: R32 = 40:40:20	86.2	3
refrigerant R 410a	R410a	R125:R32 = 50:50	72.6	3
refrigerant R 507	R507	CF3CH3:CF3CHF2 = 50:50	104	3
refrigerant R 245FA	R245FA	CF3CH2CHF2	134	3
Boron trifluoride		BF3	67.81	3
Carbon dioxide		CO2	44.01	3
Deuterium oxide		D2O	20.04	3
Diethyl ether		C4H10O	74.12	3
Ethanol		C2H5OH	46.07	3
Hexane		C6H14	86.17	3
Hydrogen chloride		HCL	36.46	3
Hydrogen sulphide		H2S	34.08	3
Methanol		CH4O	32.04	3
Nitrous oxide		N2O	44.01	3
Pentane		C5H12	72.15	3
Perfluorocyclobutane	C318	C4F8	200.03	3
Tetra fluoromethane	R14	CF4	88	3
Trichlorofluromethane	R11	CFCl3	137.37	3
Water		H2O	18.02	3
Acetylene		C2H2	26.04	4
Ethane		C2H6	32.08	4
Ethylene oxide		C2H4O	54	4
Ethylene		C2H4	28.05	4
Isobutane	R600a	C4H10	58.12	4
Propane		C3H8	44.09	4
Tetrafluoroethane	R134a	C2H2F4	102.03	4
Carbon monoxide		CO	28.01	5
Nitric oxide		NO	30.01	5
Nitrogen		N2	28.01	5
Oxygen		O2	32	5

For indication only. If in doubt, please contact Edwards quoting chemical name, and CAS number

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