

Unisafe II gas detection system



Sabroe/ - Get refrigeration right



Overview detectors

Detectors for Ammonia (NH₃)

<u>Measuring principle</u>	<u>Standard range</u>	<u>Types</u>	<u>Output</u>
Semi-conductive	0-4000ppm	Gx230-(NH ₃), Gx24-(NH ₃) Gx2.0-(NH ₃) MP-series	Three relays Two relays Summary alarm (monitoring unit)
Chemosorption (S-C)	0-1000ppm	CS21-NH ₃	4-20mA
Charge Carrier Injection	300-10000ppm 30-1000ppm	CI21-10000 (Harsh conditions) CI21-1000 (Harsh conditions)	4-20mA 4-20mA
Catalytic	300-20000ppm	CEX-300-(NH ₃)	Depending on monitoring unit
Electrochemical	0-1000ppm	OLCT40-(NH ₃)	4-20mA
IR absorption	0-30000ppm	IRLDS 8 / IRLDS 16	0...5V per channel Two alarm relays

Detectors for HFC (HCFC) and mixtures

<u>Measuring principle</u>	<u>Standard range</u>	<u>Types</u>	<u>Output</u>
Semi-conductive	0-5000ppm	Gx230-HFC Gx24-HFC Gx2.0-HFC MP-series	Three relays Two relays Summary alarm (monitoring unit)
Chemosorption (S-C)	0-5000ppm	CS21-HFC	4-20mA
IR absorption	0-5000ppm	IRLDS 8 / IRLDS 16	0...5V per channel Two alarm relays

Detectors for flammable gases (HC)

<u>Measuring principle</u>	<u>Standard range</u>	<u>Types</u>	<u>Output</u>
Semi-conductive	0-100% LEL	GS230-Propane, GS24-Propane GS2.0-Propane GJ-EX-Propane MP-DS-Propane	Three relays Two relays Depending on monitoring unit Summary alarm (monitoring unit)
Chemosorption (S-C)	0-100% LEL	CS21-Methane	4-20mA
Catalytic	0-100% LEL	CEX300	Depending on monitoring unit

Detectors for carbondioxid (CO₂)

<u>Measuring principle</u>	<u>Standard range</u>	<u>Types</u>	<u>Output</u>
IR absorption	0-5000ppm	aSense-5000-R-D (Room IP21)	4-20mA / (0-10V), relay
IR absorption	0-5000ppm	aSense-5000-R-D-54 (Room IP54)	4-20mA / (0-10V), relay
IR absorption	0-5000ppm	UG-aSense-5000-R-D (Duct)	4-20mA / (0-10V), relay
IR absorption	0-5000ppm	aSense-5000-R-Fr (Freezing rooms)	4-20mA / (0-10V), relay

Detector for oxygen (O₂)

<u>Measuring principle</u>	<u>Standard range</u>	<u>Types</u>	<u>Output</u>
Electrochemical	0-30%	CTX300	Depending on monitoring unit

Alarm levels (factory settings)

Refrigerant	Detectors	Measuring ranges (ppm)	Alarm levels (ppm)
Ammonia	GD230/24-(NH3)-1000	50-1000	150/300/500
	GS230/24-(NH3)-1000	50-1000	150/300/500
	GR230/24-(NH3)-1000	50-1000	150/300/500
	GK230/24-(NH3)-1000	50-1000	150/300/500
	GSR230/24-NH3-1000	50-1000	150/300/500
	GD230/24-(NH3)-4000	100-4000	150/500/3000
	GS230/24-(NH3)-4000	100-4000	150/500/3000
	GR230/24-(NH3)-4000	100-4000	150/500/3000
	GK230/24-(NH3)-4000	100-4000	150/500/3000
	GSR230/24-(NH3)-4000	100-4000	150/500/3000
	GD2.0-(NH3)	50-1000	150/500
	GS2.0-(NH3)	50-1000	150/500
	GR2.0-(NH3)	50-1000	150/500
	GJ-EX-NH3-4000 (with G27C)	100-4000	150/3000
	GJ-EX-NH3-4000 (with MPU)	100-4000	150/500/3000
	MP-D-NH3-1000 (MPU Monitoring unit)	50-1000	150/300/500
	MP-DS-NH3-1000 (MPU Monitoring unit)	50-1000	150/300/500
	MP-DR-NH3-1000 (MPU Monitoring unit)	50-1000	150/300/500
	MP-D-NH3-4000 (MPU Monitoring unit)	100-4000	150/500/3000
	MP-DS-NH3-4000 (MPU Monitoring unit)	100-4000	150/500/3000
	MP-DR-NH3-4000 (MPU Monitoring unit)	100-4000	150/500/3000
HFC (HCFC) and mixtures	GD230/24-HFC	50-5000	100/1000/2000
	GS230/24-HFC	50-5000	100/1000/2000
	GR230/24-HFC	50-5000	100/1000/2000
	GK230/24-HFC	50-5000	100/1000/2000
	GSR230/24-HFC	50-5000	100/1000/2000
	GD2.0-HFC	50-5000	1000/2000
	GS2.0-HFC	50-5000	1000/2000
	GR2.0-HFC	50-5000	1000/2000
Propane, Butane etc.	GS230/24-Propane	0-100%	5/10/20% LEL
	GJ-EX-Propane (with G27C)	0-100%	10/20% LEL
	MP-DS-Propane (MPU Monitoring unit)	0-100%	5/10/20% LEL
Carbondioxid (CO ₂)	aSENSE-5000 (all models)	0-5000	2000
Oxygen (O ₂)	CTX300-(O2)	0-30%	Monitoring unit

Note:

Detector aSense is available with other measuring ranges.

Monitoring units



Single point unit

- G27C is a one channel unit for DIN-rail mounting.
- The unit have LED status indication with two alarm thresholds and fault.
- Manual/auto alarm reset.
- Built-in alarm test function.
- Three alarm relays with 24 volt rated SPST contacts.
- Fault alarm with failsafe relay operation on loss of power.
- Factory calibrated.

Connectable detector models:

G(x)2.0-series and **GJ-EX** (ATEX classified).

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
20-200	G27C	one channel	12V AC/DC



Multipoint unit

- The MPU4C or MPU6C is a monitoring unit for four or six channels (detectors)
- The unit is microprocessor controlled and have independent Channel LED status indication with three independent alarm thresholds per channel
- Alarm delay and Manual/auto alarm reset on each channel
- Built-in service function and self test program
- Four alarm relays with 230 volt rated SPDT contacts
- Failsafe relay operation on loss of power
- Built-in audible alarm
- Factory calibrated
- Optional battery back-up
- 24VDC/150mA output for external buzzer or flashlight.

Connectable detector models:

MP-D (room mounting IP21), **MP-DS** (room mounting IP54), **MP-DR** (outlet tubes), **G(x)2.0-series**, **GJ-EX** (ATEX classified) and detectors with 4-20mA or 0-10V outputs signal.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
20-300	MPU4C	Four channels	230VAC / 24VDC
20-305	MPU6C	Six channels	230VAC / 24VDC



Multi channel units

- LAN63-PKT (12DI) and LAN64-PKT (24DI) is monitoring units for detectors with relay output.
- The units have LED indication and chooseable time delay for each digital input.
- Each input can be set up as A or B-alarm.
- Two alarm relays A or B, with 24 volt / 1A rated SPDT contacts.
- Failsafe relay operation on loss of power
- Manual alarm reset

Connectable detector models:

G(x)2.0-series and **G(x)24/230-series**.



<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
81-100	LAN63PKT	12 (DI)	230V AC
81-200	LAN63/64-PKT	24 (DI)	230V AC

Monitoring units



MX32 monitoring unit

- Wall mounted unit for one or two channels.
- Digital display
- Relay output for gas alarm and fault alarm.
- Power supply: 230V AC (or 115VAC)

Connectable detector models:

Detectors type **CEX300** and **CTX300**

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
22-110	MX32-1	one channel	230V AC
22-115	MX32-2	two channels	230V AC



MX42A monitoring unit

- Wall mounted unit with four channels.
- Digital display
- Relay output for gas alarm and fault alarm.
- Power supply: 230V AC (or 115VAC, 24V DC)

Connectable detector models:

Detectors type **CEX300** and **CTX300**

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
22-120	MX42a	Four channels	230V AC



IRLDS-Sampling system using Infra Red absorption

- Suitable for detection of HFC (HCFC) refrigerants, Ammonia and ethylene.
- Two models available with either 8 or 16 channels.
- Independent measuring channels.
- Each channel configurable with name, refrigerant type, sampling time etc.
- Two alarm thresholds configurable between 15 and 30000ppm.
- Two off configurable relays with volt free contacts and optional failsafe operation.
- 16 off digital outputs to interface with auxiliary equipment for individual channel alarms.
- RS 485 communications with optional PC web browser card.
- Alarms and historic data logged.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
82-102	IRLDS-8-HFC	8 channel	230 or 115V AC
82-104	IRLDS-16-HFC	16 channel	230 or 115V AC
82-106	IRLDS-8-(NH3)	8 channel	230 or 115V AC
82-108	IRLDS-16-(NH3)	16 channel	230 or 115V AC

Detectors - For Ammonia, HFC, (HCFC, mixtures) and flammable.



GD230(24)-(xx)

- Detectors for different types of refrigerants.
- Microprocessor controlled unit with built in service mode, self-test and "Fail-safe" function.
- Three alarm levels with relays (230V, 5A)
- Power supply 230V AC or 12-24V AC/DC
- **Room mounting IP21.**

Connectable to monitoring unit **LAN63-PKT, LAN63/64-PKT** or to other system accepting a relay contact function.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
37-255	GD230-(NH3)-1000	NH3 up to 1000ppm	230V AC
37-257	GD230-(NH3)-4000	NH3 up to 4000ppm	230V AC
37-225	GD230-HFC	HFC (HCFC, CFC)	230V AC
37-250	GD24-(NH3)-1000	NH3 up to 1000ppm	12-24V AC/DC
37-252	GD24-(NH3)-4000	NH3 up to 4000ppm	12-24V AC/DC
37-220	GD24-HFC	HFC (HCFC, CFC)	12-24V AC/DC



GS230(24)-(xx) (Splash proof)

- Detectors for different types of refrigerants.
- Microprocessor controlled unit with built in service mode, self-test and "Fail-safe" function.
- Three alarm levels with relays (230V, 5A)
- Power supply 230V AC or 12-24V AC/DC
- **Room mounting IP54.**

Connectable to monitoring unit **LAN63-PKT, LAN63/64-PKT** or to other system accepting a relay contact function.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
37-455	GS230-(NH3)-1000	NH3 up to 1000ppm	230V AC
37-457	GS230-(NH3)-4000	NH3 up to 4000ppm	230V AC
37-425	GS230-HFC	HFC (HCFC, CFC)	230V AC
37-495	GS230-propane	propane, (LPG)	230V AC
37-450	GS24-(NH3)-1000	NH3 up to 1000ppm	12-24V AC/DC
37-452	GS24-(NH3)-4000	NH3 up to 4000ppm	12-24V AC/DC
37-420	GS24-HFC	HFC (HCFC, CFC)	12-24V AC/DC
37-490	GS24-propane	propane, (LPG)	12-24V AC/DC



GR230(24)-(xx) (for outlet tubes)

- Detectors for different types of refrigerants.
- Microprocessor controlled unit with built in service mode, self-test and "Fail-safe" function.
- Three alarm levels with relays (230V, 5A)
- Power supply 230V AC or 12-24V AC/DC
- Standard cable length 1,5m.
- **Room mounting IP54.**

Connectable to monitoring unit **LAN63-PKT, LAN63/64-PKT** or to other system accepting a relay contact function.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
37-657	GR230-(NH3)-4000	NH3 up to 4000ppm	230V AC
37-625	GR230-HFC	HFC (HCFC, CFC)	230V AC
37-652	GR24-(NH3)-4000	NH3 up to 4000ppm	12-24V AC/DC
37-620	GR24-HFC	HFC (HCFC, CFC)	12-24V AC/DC

Detectors - for Ammonia, HFC, (HCFC, mixtures) and flammable.



GK230(24)-(xx) (Duct mounting)

- Detectors for different types of refrigerants.
- Microprocessor controlled unit with built in service mode, self-test and "Fail-safe" function.
- Three alarm levels with relays (230V, 5A)
- Power supply 230V AC or 12-24V AC/DC
- Standard cable length 1,5m.

Connectable to monitoring unit **LAN63-PKT, LAN63/64-PKT** or to other system accepting a relay contact function.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
37-855	GK230-(NH3)-1000	NH3 up to 1000ppm	230V AC
37-857	GK230-(NH3)-4000	NH3 up to 4000ppm	230V AC
37-825	GK230-HFC	HFC (HCFC,CFC)	230V AC
37-850	GK24-(NH3)-1000	NH3 up to 1000ppm	12-24V AC/DC
37-852	GK24-(NH3)-4000	NH3 up to 4000ppm	12-24V AC/DC
37-820	GK24-HFC	HFC (HCFC,CFC)	12-24V AC/DC



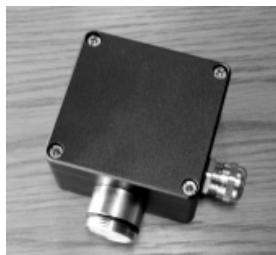
GSR230(24)-(xx) (With remote sensor)

- Detectors for different types of refrigerants.
- Microprocessor controlled unit with built in service mode, self-test and "Fail-safe" function.
- Three alarm levels with relays (230V, 5A)
- Power supply 230V AC or 12-24V AC/DC
- Standard cable length 5m.

Connectable to monitoring unit **LAN63-PKT, LAN63/64-PKT** or to other system accepting a relay contact function.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
37-955	GSR230-(NH3)-1000	NH3 up to 1000ppm	230V AC
37-957	GSR230-(NH3)-4000	NH3 up to 4000ppm	230V AC
37-925	GSR230-HFC	HFC (HCFC,CFC)	230V AC
37-950	GSR24-(NH3)-1000	NH3 up to 1000ppm	12-24V AC/DC
37-952	GSR24-(NH3)-4000	NH3 up to 4000ppm	12-24V AC/DC
37-920	GSR24-HFC	HFC (HCFC,CFC)	12-24V AC/DC

Detectors - for Ammonia, HFC, (HCFC, mixtures) and flammable.



CS21

- Detector for Ammonia, HFC (HCFC, CFC) and flammable gases.
- Housing IP54
- Ambient temperature -30 - +50°C.
- Output 4-20mA
- Remote sensor optional.

Order code	Model	Description	Power supply
35-120	CS21-NH3	Ammonia 30-1000ppm	10-32V
35-130	CS21-HFC	HFC etc. 50-5000ppm	10-32V
35-140	CS21-Methane	Flammable gases	10-32V.



GJ-EX

- ATEX-classified detector (zone 1, 21 or 2, 22) for explosive and flammable gases including Ammonia.
- Power supply from monitoring unit.
- Always connected to a monitoring unit e.g. **MPU4C, MPU6C or G27C.**

Order code	Model	Description	Power supply
35-320	GJ-EX-Propane	Propane, (LPG), Butane etc	
35-321	GJ-EX-NH3-4000	NH3 up to 4000ppm	



GD2.0-(xx)

- Detector for different types of refrigerants.
- Two alarm levels with relay output (24V, 1A).
- Room mounting **IP21.**

Normally connected to monitoring units G27C, LAN63-PKT, LAN63/64-PKT, MPU4C, MPU6C or to other system accepting a relay contact function.

Order code	Model	Description	Power supply
33-250	GD2.0-(NH3)	NH3 up to 1000ppm	12V AC/DC
33-220	GD2.0-HFC	HFC (HCFC, CFC)	12V AC/DC



GS2.0-(xx)

- Detector for different types of refrigerants.
- Two alarm levels with relay output (24V, 1A).
- Room mounting **IP54.**

Normally connected to monitoring units G27C, LAN63-PKT, LAN63/64-PKT, MPU4C, MPU6C or to other system accepting a relay contact function.

Order code	Model	Description	Power supply
33-450	GS2.0-(NH3)	NH3 up to 1000ppm	12V AC/DC
33-420	GS2.0-HFC	HFC (HCFC, CFC)	12V AC/DC



GR2.0-(xx) (for outlet tubes)

- Detector for different types of refrigerants.
- Two alarm levels with relay output (24V, 1A).
- Standard cable length 1,5m.
- Room mounting **IP54.**

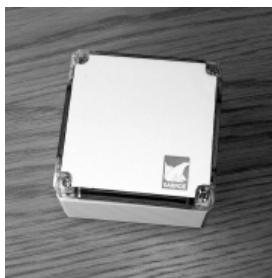
Normally connected to monitoring units G27C, LAN63-PKT, LAN63/64-PKT, MPU4C, MPU6C or to other system accepting a relay contact function.

Order code	Model	Description	Power supply
33-650	GR2.0-(NH3)	NH3 up to 1000ppm	12V AC/DC
33-620	GR2.0-HFC	HFC (HCFC, CFC)	12V AC/DC

Detectors - to Multipoint unit.

Detectors for Ammonia, HFC (HCFC) and mixtures.

The MP-series is a range of gas detectors to be used with monitoring units MPU4C or MPU6C.



Type MP-D

- Detectors for different types of refrigerants.
- Power supply from the monitoring unit .
- **Room mounting IP21.**

- Always connected to a monitoring unit e.g. **MPU4C, MPU6C (or G27C).**

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
38-250	MP-D-(NH3)-1000	NH3 up to 1000ppm	
38-252	MP-D-(NH3)-4000	NH3 up to 4000ppm	
38-220	MP-D-HFC	HFC (HCFC, CFC)	



Type MP-DS (Splash proof)

- Detectors for different types of refrigerants.
- Power supply from the monitoring unit .
- **Room mounting IP54.**

- Always connected to a monitoring unit e.g. **MPU4C, MPU6C (or G27C).**

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
38-450	MP-DS-(NH3)-1000	NH3 up to 1000ppm	
38-452	MP-DS-(NH3)-4000	NH3 up to 4000ppm	
38-420	MP-DS-HFC	HFC (HCFC, CFC)	
38-490	MP-DS-propane	Propane, (LPG), Butane etc	



Type MP-DR (for outlet tubes)

- Detectors for different types of refrigerants.
- Power supply from the monitoring unit .
- **Outlet tube mounting IP54.**

- Always connected to a monitoring unit e.g. **MPU4C, MPU6C (or G27C).**

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
38-462	MP-DR-(NH3)-4000	NH3 up to 4000ppm	
38-620	MP-DR-HFC	HFC (HCFC, CFC)	

Please note.

Any type of transmitters with a 4-20mA or 0-10V output may be connected to the MPU in combination with the detectors shown above. This makes it possible to detect for example Ammonia and Carbondioxid at the same time and in the same monitoring unit.

Other Ammonia detectors



CI21

- Detector for high concentration of Ammonia (up to 10000ppm) and especially developed for harsh conditions for example Marine applications with huge temperature and humidity changes..
- 4-20mA output signal
- Room mounting IP54.
- Remote sensor optional
- Ambient temperature -30 - +50°C.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
35-100	CI21-1000	30-1000ppm	10-32V
35-110	CI21-10000	30-10000ppm	10-32V



CEX-300-(NH3)

- Detector for high concentration of Ammonia.
- Catalytic sensor.
- ATEX classified zone 1, 21 or 2, 22.

Always connected to a monitoring unit e.g. **MX32** or **MX42A**.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
35-300	CEX300-(NH3)	1000-20000ppm	Monitoring unit



OLCT 40

- Ammonia transmitter with electrochemical sensor.
- ATEX classified zone 1, 21 or 2, 22.
- Also available with remote sensor for EX-zone 0, 20.
- 4-20mA output signal

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
35-330	OLCT40-(NH3)	0-1000ppm	10-30V DC

Detectors for Carbondioxid (CO₂).



aSense-5000-R-D

- (CO₂) detector (room mounting IP21 or IP54) with relay and display.
- Infrared absorption detection and long-time stability.
- Output: Relay, **0-10V or 4-20mA output**.
- Measuring range 0-5000ppm.
- Short reaction time and easy to calibrate.

Relay contact, factory set to close at 2000ppm and open again at 1800ppm.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
36-120	aSense-5000-R-D	0-5000ppm	24V AC/DC
36-122	aSense-5000-R-D-IP54	0-5000ppm	24V AC/DC



UG-aSense-5000-R-D

- (CO₂) detector for duct mounting with relay and display.
- Infrared absorption detection and long-time stability.
- Output: Relay, **0-10V or 4-20mA output**.
- Measuring range 0-5000ppm.
- Short reaction time and easy to calibrate.

Relay contact, factory set to close at 2000ppm and open again at 1800ppm.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
36-125	UG-aSense-5000-R-D	0-5000ppm	24V AC/DC



aSense-5000-R-Fr

- (CO₂) detector for installation in freezing rooms.
- Ambient temperature down to -30°C.
- Infrared absorption detection and long-time stability.
- Output: Relay, **0-10V or 4-20mA output**.
- Measuring range 0-5000ppm.
- Short reaction time and easy to calibrate.

Relay contact, factory set to close at 2000ppm and open again at 1800ppm.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
36-130	aSense-5000-R-Fr	0-5000ppm	24V AC/DC



Detector for oxygen (O₂)-measuring

CTX300

- Detector with electrochemical sensor.
- Measuring range 0-30% (O₂).
- Also available with display as option.

Always connected to a monitoring unit e.g. **MX32** or **MX42A**.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
35-310	CTX300-(O ₂)	w/o display	Monitoring unit



Detection of Ammonia in water and brine.



MiniCal III

- Design for monitoring of Ammonia in secondary cooling circuits.
- 2 x 4-20mA output.
- Measuring range NH_3 0,2 - 100ppm (NH_4 0,2 - 100ppm)
- Power supply: Controller 24V DC, Pump 230V AC.
- Pressure range 1.. 6 bars.
- Temperature range (in circuit) -30 - +80°C.
- Medium Water
 Brine mixtures, e.g. Ethylene, Tyfoxit, Hycool etc.
- Housing Stainless steel, for outdoor use IP65

<u>Order code</u>	<u>Model</u>	<u>Description</u>
	MiniCal III	Controller
	Electrode-NH3	Ammonia electrode

Portable detectors



TX2000 Ammonia

- Toxiometer fitted with a NH_3 sensor.
- Range 0-100ppm, dry batteries, autonomy 1000 hours and with belt clip.
- Range 0-1000 ppm also available.

<u>Order code</u>	<u>Model</u>
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50-200	TX2000-NH3 (0-100ppm)
50-210	TX2000-NH3 (0-1000ppm)



TX2000 (O_2)

- Toxiometer fitted with a O_2 sensor.
- Range 0-30% dry batteries, autonomy 1000 hours and with belt clip.

<u>Order code</u>	<u>Model</u>
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50-300	TX2000-O2
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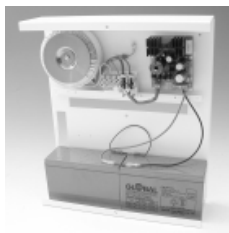
EX2000

- Pocket explosimeter with rechargeable NIMH battery pack, autonomy 12 hours.
- Options:
- Two positions regulated charger 220V
 - Simplified charger, power supply 220V, charging time 12hours.

<u>Order code</u>	<u>Model</u>
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50-400	EX2000 Explosimeter
50-900	Charger 220V
50-910	Simplified charger, 220v, 12 h

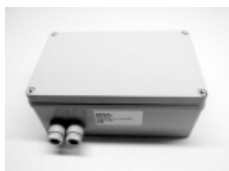
Auxiliary equipment



Battery back-up UPS 4000

Output: 6, 12 or 24V DC
 Maximal load: 4A
 Batteries: 12/7Ah (Battery to be ordered separately)
 Housing: Metal/IP21
 Dimensions: 370x15x95mm

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
40-220	UPS 4000	(excl. batteries)	230VAC
80-320	Battery 12V/7,2 Ah		



Battery back-up UPS 1000

Output: 13,8V DC
 Maximal load: 1,0A
 Battery: 12V / 2 Ah
 Housing: Plastic/IP67
 Dimensions: 230x140x95 mm

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
40-230	UPS 1000	incl 1 pc 12V/2Ah battery	230VAC



Transformer type PSS

Power supply: 230V AC
 Secondary: 12V AC or 24V AC
 Housing: IP30

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
40-510	PSS32/12V	12V / 32VA	230VAC
40-520	PSS60/24V	24V / 60VA	230VAC



Flashing lights

Colours: Red or amber (For other colours please contact us).

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
40-400	BE-A-12VDC	amber	12VDC
40-401	BE-R-12VDC	red	12VDC
40-4021	BE-A-24VDC	amber	24VDC
40-4022	BE-R-24VDC	red	24VDC
40-4031	BE-A-230VAC	amber	230VAC
40-4032	BE-R-230VAC	red	230VAC
40-415	SOCK-H-R	IP 65 socket	

Siren

- Programmable with DIP-switch for different sound.

<u>Order code</u>	<u>Model</u>	<u>Description</u>	<u>Power supply</u>
40-410	1992-R-LP	red (IP43)	9-28VDC
40-415	SOCK-H-R	IP 65 socket	



Serviceadapters

- **SA100**: Service tool for control and calibration of detectors type **GD/GS/GR2.0** and for monitoring unit type **G27C**.

- **SA200**: Service tool for control and calibration of detectors type **GD/GS/GR/GK230**, **GD/GS/GR/GK24** and for detectors connected to **MPU4C/6C**.

<u>Order code</u>	<u>Model</u>	<u>Description</u>
60-110	SA100	
60-120	SA200	





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