

TN 2000-4



Features

TN2000-4 is a further development of our first Mobile Gas Detection System, which was designed for use on refineries and onshore plants. TN2000-4 portable gas detection system is especially designed for use on offshore installations for detection, alarm and shutdown in case explosive gases are present.

- The standard Mobile Gas Detection unit (MGD) is delivered with 4 IR gas detectors on drums with 40m cable, and 4 power outlets (total max. 16A) directly on the unit.
- As an option a separate Mobile Work Station (MWS) with larger power outlets (63Amps, 380-690VAC) can be provided.

- Electrical tools/welding equipment is connected directly to the MGD/MWS.
- If gas is detected, the system gives acoustic and visual local alarm, and power outlets are switched off.
- Frames, enclosures and cable drums are manufactured in stainless steel SS316. All cables are flame retardant.
- The units are certified for lifting.
- Custom-made solutions are available upon request.
- ATEX approval.

EEx dem Mobile Gas Detection system for Zone 1 and 2

Applications

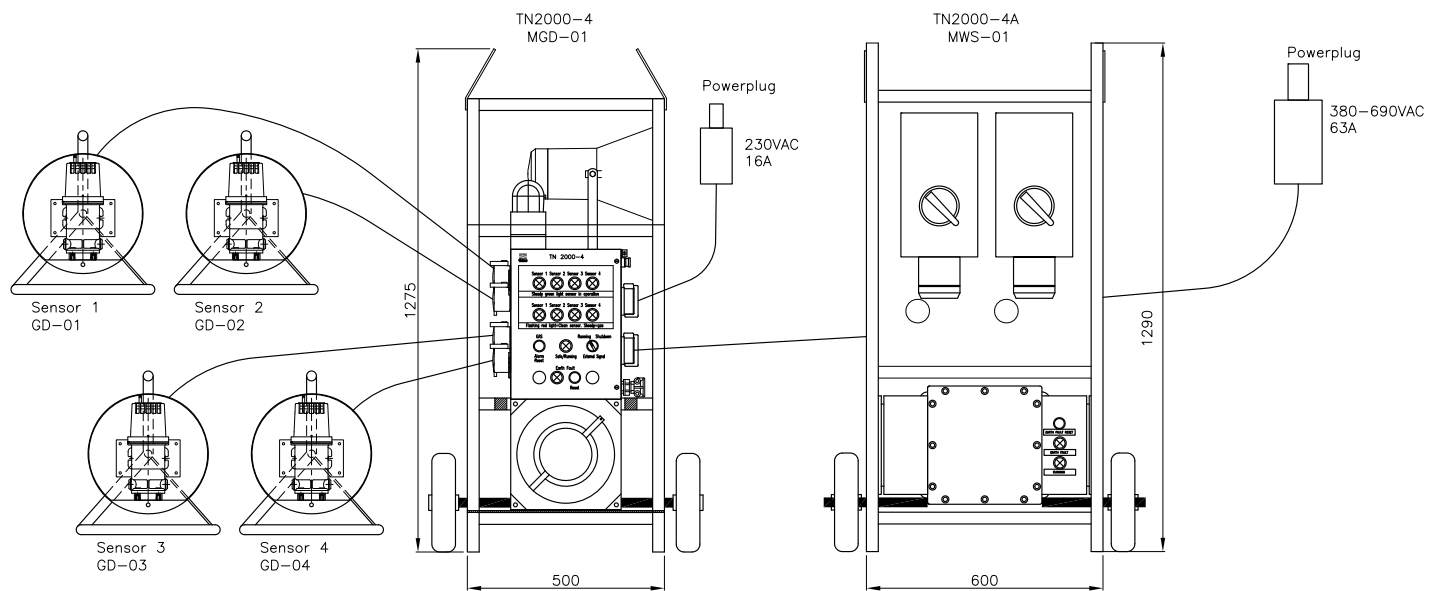
The Mobile Gas Detection System is especially designed for use in offshore installations where explosive gases may occur, and it is used in connection with hot work in Zones 1 and 2.

General Specifications

Ex protection control unit	EEx de IIC T5 ⊕ II 2 G
Ex protection sensor	EEx de IIC T6 ⊕ II 2 G
Operating temperature	-20°C to +40°C
Material sensor unit	Stainless steel DIN 1.4572/ SS316
Material trolley	SS316
Sensor cable	Radox GKW-LW/S EMC
Dimension trolley incl. equipment	H x W 1275 x 500mm
Total weight (control unit)	105 kg
Mobility (control unit)	Wheeled, lifted
PLC	OMRON
Sensor	Simrad Optronics GD10, other sensors upon request
Approval	For use in Zone 1
Certified lifting lugs	2
Rated voltage	220 - 240 VAC
Max. current	16A
Frequency	50/60 Hz
Gas monitoring	0 - 100% LEL
Earth fault monitoring/ shut off	30mA
Options	Upon request



EEx dem Mobile Gas Detection system for Zone 1 and 2



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Hazardous area information & terminology

ATEX Directive

The ATEX Directive, derived from the French "ATmosphères EXplosibles" and formally known as 94/9/EC, contains the ESR (Essential Safety Requirements) to which electrical equipment and protective systems used within potentially explosive atmospheres must conform.

The new ATEX Directive currently in place within the European Union was made mandatory on 1st July 2003. Primarily intended for manufacturers of hazardous area equipment for use in the presence of flammable gases, vapours, fumes or dusts, the new directive requires a quality management system to be implemented.

Procedures for the design, manufacture and verification of products are to be approved by a notified body (i.e. DNV, NEMKO, etc.) and all equipment conforming to the new directive will feature CE and Ex Marking.

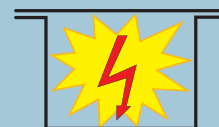
Zone Classification with the presence of GAS

Zone 1 (Category 2)	An area in which explosive gas is likely to be present during normal operation of the plant.
Zone 2 (Category 3)	An area in which explosive gas is not continuously present, but may exist for a short period of time.

Applicable EX protection

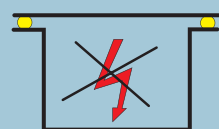
EEx d Protection

Parts, which can ignite a potentially explosive atmosphere, are surrounded by an enclosure, which are designed to withstand the pressure of an internal explosion and to prevent the propagation of the explosion to the atmosphere surrounding the enclosure.



EEx e Protection

for electrical components that do not spark under normal working conditions but where measures are applied to prevent high temperatures and the occurrence of arcs and sparks internally.



EEx m Protection

Parts that could ignite a potentially explosive atmosphere by means of heat or sparks are embedded in a sealing compound such that the potentially explosive atmosphere cannot be ignited. The compound is resistant to physical, electrical, thermal and chemical influences.

