TRIDENT
MINING SYSTEMS

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R-1000 Radio Remote Control

Trident R-1000 radio remote control system is engineered and manufactured in close co-operation with our worldwide based customers. The radio remote control systems are engineered to ensure safe and efficient operations. Our systems have been designed based on the most advanced technology and components.

R-1000 with support strap

R-1000

- Digital functions up to 64 and analogue functions up to 19
- Uses two batteries for a connection that allows for battery replacement without switching off the terminal (Hot Swap). Essential for continuous operation.
- Pefect use for applications with many interconnected processes with the guarantee of non-interrupted operation
- Suitable for harsh environment including the maritime conditions
- High mechanical and chemical resistance due to the specific moulded housing design

R-1000 uses two batteries (hot swap)

TYPICAL APPLICATIONS

- Mining: LHD equipment, drag lines, shovels, stackers, reclaimers, overhead cranes, crushers
- Off shore: oil skimmers, drilling rigs, catwalks, raiser chutes, roughnecks, BOP, ROV systems, pipe handlers, A-frames
- General industry: forestry winches, recovery vehicles, concrete pumps, conveyor belts, fire fighting systems, fuelling systems
- Railway: locomotives

R-1000 customised layout and labelling

FUNCTIONS

- The R-1000 can be fitted with analogue or digital joysticks, pushbuttons, toggle switches and rotary switches.
- Safety features with start & stop pushbutton, On/Off switch
- Operator terminal layouts are configured according to the application and customer requirements.
- Optional: LEDs and displays for feedback information

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TECHNICAL CHARACTERISTICS & OPTIONS

Operating Terminal R-1000

- Operations 100% under control with an unique signal encoding preventing any unintended handling
- Activity check on start up to guarantee safe operations
- Stop relay activation in only 50 mS
- Digital and analogue feedback
- Redundant radio solution
- License free frequency with low power outputs; European ISM band width
- 434.050 MHz - 434.775 MHz (other frequencies available on request)
- PLC functionality for interlocking, sequencing and timing functions programmed directly without additional hardware Base Unit/Receiver Unit R-1000

Base Unit/Receiver Unit R-1000

- The R-1000 base unit is very flexible as it can have multiple digital and analogue inputs and outputs
- Easy use with direct connections to most available fieldbus systems: ProfiBus, ModBus RTU, CANopen, J1939, Device Net, Modbus Plus, Modbus TCP, ControlNet, Ethernet IP, HostLink
- Back up solution with cable connection for programming and control
- Twin battery connection (Hot Swap) for continuous operation

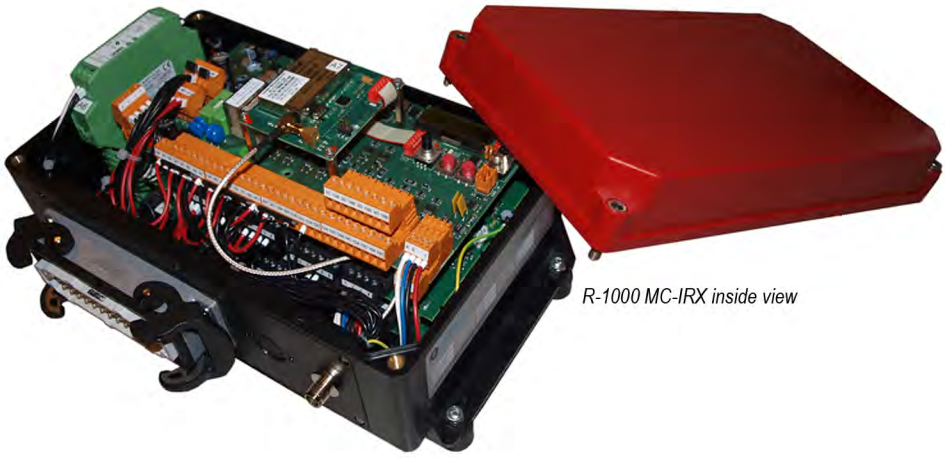
TECHNICAL DATA R-1000

General	Data:
Digital functions:	Up to 64
Analogue functions:	Up to 19
LED:	Red, Green, Yellow, Blue
Display:	Graphical or Character Display
Battery:	Rechargeable 7.2 V 1700 mAh Li-Ion
Battery Charger:	12-24 VDC, 110-230 VAC
Operating time:	Typical 20 hours, depending on configuration & temperature
Dimensions:	330 x 220 x 200 mm (12,99 x 8,66 x 7,87 inch)
Weight:	1.5 kg – 3.5 kg (depending on configuration)
IP:	IP65 standard, IP66/67 optional
Temperature:	-25 to +50 Celsius, -13 to 122 Fahrenheit
Operating distance:	Approx 200 m line of sight
Frequency:	According to local authority guidelines

R-1000 MC-IRX

Supply voltage receiver:
12 / 24 VDC
110-240 / 389 VAC 50/60Hz
Receiver size:
IRX: 255 x 180 x 115mm
10 x 7.1 x 4.5in
Components:

- Safe Zone Base Unit to be mounted internally in customer's explosion proof enclosure.
- Standard I/O connections
- Base Unit to be supplied 12/24 VDC
- 20 Solid State Relay Outputs
- 5 Amps
- Proportional Control Module
- Duplicated Monitored Emergency Stop
- Pre-wired Connector with matching Hood
- Miniflex Antenna TNC
- Antenna Cable Aircell5 5 meters



R-1000 MC-IRX inside view