



Ningi Services
we set the standards

ALL TYPES OF MINING • POWER PLANTS •
PETROCHEMICAL • HEAVY INDUSTRY



SAFETY – NO COMPROMISE!

NINGI SERVICES - SOUTH AFRICA



22 LANGA CRESCENT
CORRIDOR HILL
EMALAHLENI
MPUMALANGA
SOUTH AFRICA

TOLL FREE CALL: 0800 000 400
SALES CALL: +27 (0) 13 656 3147
SUPPORT EMAIL: support@ningi.com
SALES EMAIL: sales@ningi.com



www.ningi.com
www.ningi.co.za

OUR NINGI FAMILY

Our Ningi Services family have spent the past 30+ years in the Mining, Petrochemical, Power and Heavy Industrial workplaces designing and manufacturing safety and monitoring equipment such as motor protection systems, devices and environmental monitoring systems and devices.

ONLY the very best components are utilized in our products and to ensure that product excellence continues we have a very dedicated highly professional team to execute product delivery from conception to manufacture.

We constantly strive to design new products to ensure that the most advanced methods and systems are adopted in our Original Equipment Manufacturing (OEM) processes.

Our dedicated team comprises of the following departments which make up our Ningi Family;



Ningi Research and Development (R&D)

Research and Development is critical for the future design and success for product delivery and lifecycle of each product, we have full R&D team and test facilities including wind tunnel test facilities in Witbank, South Africa whilst our R&D head office is in Ontario, Canada.

Ningi Manufacturing

Based in Witbank, we have a full manufacturing plant which comprises of our own Surface Mount Technology (SMT), Through Hole Technology (THT), Programming, Mold Design Workshops (including 3D/4D draughting), 3D Printing, Assembly and full Device Test Systems.

Ningi Services

Based in Witbank, our Services teams comprises of; Heavy Engineering (flameproof and non-flameproof panel design and manufacture), Technical Services and Support, Regional Operations and our Product Sales division

Ningi Management

Correct management principles are critical in our operations and product delivery. Our Head Office is in Witbank which manages African operations whilst our Canadian management team manages the Americas, Australasia and Europe and future global business regions.

250 UNIVERSITY AVENUE
ONTARIO
TORONTO
CANADA

TOLL FREE CALL: 0800 000 400
SALES CALL: +27 (0) 13 656 3147

SUPPORT EMAIL: support@ningi.com

SALES EMAIL: sales@ningi.com



www.ningi.com

www.ningi.co.za

NINGI R&D - CANADA



we set the standards

PRODUCTS

*ENVIRONMENTAL MONITORING DEVICES
AND HOLISTIC SOLUTIONS*



D50 DUST MONITOR

The D50 Dust Monitor is a specialized device which was designed to measure Particulate Matter smaller than 10 micrometers ($<10\mu\text{m}$) which are potentially airborne pollutants.

SPECIFICATIONS

- Sensor range $0.39\mu\text{m}$ to $16\mu\text{m}$
- Software bins 16
- Detection Limits (PM10) 0.01 to $1500\text{mg}/\text{m}^3$
- Operating temperature range -20°C to 50°C
- Response time <60 sec
- Wireless or RS485 communications
- Full SCADA compatibility
- Real-Time dust monitoring
- Intrinsic or non-Intrinsic models available

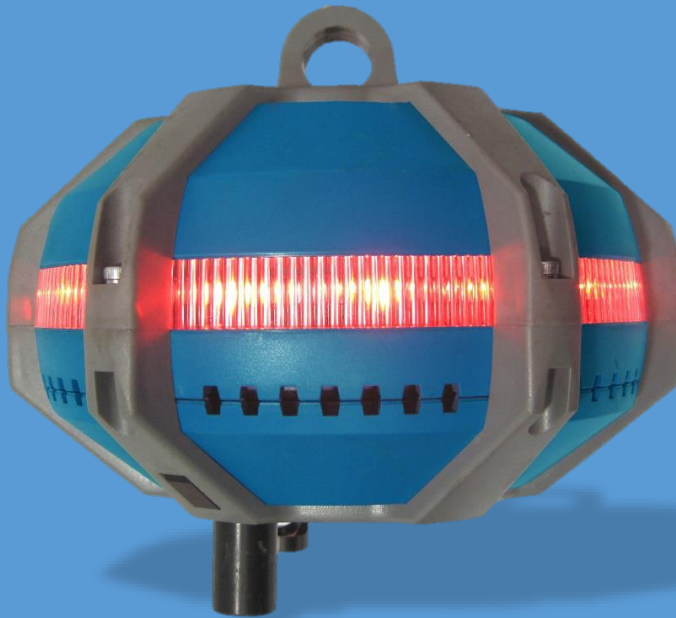


P50 ENVIRONMENTAL MONITOR

The P50 Environmental Monitor is a multi-functional environmental monitor which is designed to operate in extreme conditions such as explosive and/or gaseous atmospheres.

SPECIFICATIONS

- Air-Velocity (0-5m/s or 0-10m/s)
- Methane (CH₄) 0-5%
- Carbon Monoxide (CO) 0 -1000ppm
- Carbon Dioxide (CO₂) 0-50000ppm
- Oxygen (O₂) 0 -30%
- Barometric Pressure 300-1000mB
- Humidity 0 – 100%R/H
- Ambient Temperature -40°C – 125°C
- Volatile Organic Compounds (VOC's) 100-500ppm
- Hydrogen Sulphide (H₂S) 0-100ppm
- Hydrogen (H₂) 0 -1000ppm
- Wireless or RS485 communications
- Full SCADA compatibility
- Real-Time monitoring
- Intrinsic or non-Intrinsic models available





S50 SMOKE SENSOR

The S50 utilizes the very latest in smoke detection technology.

SPECIFICATIONS

- S02 Sensor
- NS50 Sensor
- Carbon Monoxide (CO) 0-1000ppm
- Wireless or RS485 communications
- Full SCADA compatibility
- Real-Time monitoring
- Intrinsic or non-Intrinsic models available





P60 ENVIRONMENTAL MONITOR

The P60 is a multi-functional environmental monitor which has been built for the harshest of environments. Built into high-grade 304 stainless steel; the P60 can withstand immense operational conditions.

SPECIFICATIONS

- Methane (CH₄) 0 -5%
- Oxygen (O₂) 0-30%
- Carbon Dioxide (CO₂) 0-30000ppm
- Carbon Monoxide (CO) 0-1000ppm
- RS485 Modbus RTU communication
- Full SCADA compatibility
- Real-Time monitoring
- Intrinsic or non-Intrinsic models available





NM NOISE MONITORS

Noise Monitoring has never been easier with our “NM” range of noise monitors which we have designed to suit any environment, from Intrinsic Safe to large industrial sized models, you can rest assured that when it’s time to wear your hearing protection; you’ll be informed quickly.

SPECIFICATIONS

- 200mm - 600mm+ (physical dimensions)
- Web service (trending) available NM30/60
- Remote sensors for wider range (NM30/60)
- TWA exposure level trending (NM30/60)
- RS485 Modbus RTU communication
- Full SCADA compatibility (>NM20 onwards)
- Real-Time monitoring
- Intrinsic Safe (NM20) or non-Intrinsic (NM30/60) models available





EMLIGHT

The Emlight is an emergency evacuation audible light indicator which in an emergency situation will sound its alarm and flash an LED pointer in the direction of the nearest emergency exit or safe refuge position.

The Emlight has a number of installation methods such as directly to a wall or attach to an existing lifeline.

SPECIFICATIONS

- 77mm x 50mm Dimensions
- Battery life 10 Years
- Audible tone 85(min) - 90db(max)
- Compatible to communicate with SCADA





FIRE PATROL TAG

The fire patrol is a preferred method of fire detection in some industries. As well as having smoke detector devices trained Fire Patrol personnel physically carry out inspections where visual checks are then signed off by means of a date/time stamp.

This method can prove to be a challenge when often the environment is hazardous or harsh.

For this purpose, the Fire Patrol Tag was developed to assist the fire patrol teams by means of a simple user friendly system of walking up to the nearest P50 or S50 control point and activating the button which in turn will automatically register the action, device, date and time and will be logged as such on the SCADA system.

SPECIFICATIONS

- Small hand-held device
- Intrinsically Safe
- Easy to set-up (SCADA)
- Easy to operate





P511 AIR VELOCITY MONITOR

The P511 Air Velocity Monitor is designed for use in hazardous/explosive atmospheres and utilizes digital signal processing to ensure accurate air velocity measurements are recorded even in harsh conditions.

SPECIFICATIONS

- Sensor range 0 -10m/s
- Operating range 0-10m/s
- Operating temperature range -10°C – 50°C
- Response time 30 sec (non-IS)
- Response time 120 sec (IS)
- RS485 Modbus RTU communication
- Full SCADA compatibility
- Real-Time monitoring



ADDITIONAL ENVIRONMENTAL SERVICES PROVIDED

ADDITIONAL PRODUCT BASE

For the full range of our environmental monitoring devices please visit www.ningi.com or www.ningi.co.za or drop us an email on support@ningi.com OR sales@ningi.com, alternatively use our on-line “contact us” page on our websites and we will get back to you regarding any query.

ADDITIONAL SERVICES

We care about environmental monitoring as much as you do which is why we invest large capital expenditure into ensuring we have the right equipment, the right qualified staff and the correct standards and procedures to fulfil our delivery commitment to you in the quality and correctness of our product designs.

Part of our services also encompass new projects and new unknown challenges which require research and development into different fields of discovery, for many years we have understood that having a dedicated research and development team has enabled us to lead our industry into advanced design technology and excel our delivery expectations in design.

Furthermore, likewise; we have also understood that having a dedicated team of technical support staff and environmental service technicians both on-site and off have proven its weight in gold when it comes to taking care of our customers, clients and their environmental needs, keeping them operational at all times and safely within the boundaries of operational standards.



HOLISTIC SOLUTIONS

CONCEPT TO DETAILED DESIGN

Our specialized team operates not on the basis of a product by product principles but rather on the holistic view from the outset of the initial query or concept planning.

It's imperative from the start that we ensure we offer the correct product to suit the operational conditions of our customer's industry, particularly in the case when it comes to Intrinsic Safety requirements (explosive and/or gaseous atmospheres or "IS").

We as an OEM (Original Equipment Manufacturer) of "IS" and also "non-IS" products are governed by standards, laws and bylaws to ensure that we comply at all times, and for this reason we have become accustomed to being involved from the start in holistic design layouts for environmental monitoring solutions, this in conjunction with our customers in their industry, this holistic method not only ensures that the environmental monitoring system is legal and compliant, but also safeguards our own initial design principles of keeping industry operating but operating as safely as possible knowing where and what the risks are and by limiting them as much as possible by adopting an "early warning system", which:

- Is a self-contained loop with no interference
- provides clear and precise early warnings
- is backed up by adequate IS power systems
- provides seamless critical data transfer and indications in real-time

this is what we in our industry continuously have externally professionally certified as "System Loop Approvals" and it is in our products that the highest known standard to date is applied at all times.



PRODUCTS

*ADVANCED MOTOR AND
ELECTRIC POWER PROTECTION*



M20E MOTOR PROTECTION RELAY

The M20E is a fully configurable relay which is designed to protect your equipment and personnel. It will detect earth faults, phase failures, current failures, contact failures, lock rotor protection plus many other features such as fully configurable start and stop features.

SPECIFICATIONS

- True RMS voltage up to 2500Vac
- True RS current up to 6500.0 Amps per phase
- Sensitive earth leakage protection 30mA - 6A
- Fully configurable by the end user via PC
- Three inputs (N/O or N/C)
- Four voltage free relays (configurable)
- Internal event buzzer
- Event LED's



M400 & M440 MOTOR PROTECTION MANAGEMENT RELAY

The M400 is a fully configurable relay which is designed to protect your equipment and personnel and has full remote control functionality to prevent risk of physical contact opening as this can be carried out under remote function.

SPECIFICATIONS

- Phase loss detection
- Phase sequence detection
- Dry run/under current (selectable level and time)
- Pump blockage/Over current protection
- Over voltage protection
- Under voltage protection
- No load detection
- Single phase protection between moto and contactor
- Motor short circuit protection (fixed curve)
- Earth leakage protection (fixed level)



M500 MOTOR PROTECTION AND MANAGEMENT CONTROLLER

The M500 protection and management controller is a compact, high quality, highly accurate measurement and detection controller.

SPECIFICATIONS

- Star/Delta starting selectable
- Under/over/unbalance protection
- Phase loss/phase rotation detection
- Earth fault protection
- Pre-start warning
- Start-up protection
- Auto start/auto stop/auto restart functions
- Infra-red remote parameter adjustments
- Real-time clock/data logging on all events
- RS485/RS232 communications
- Three 10A 240Vac single pole N/O contacts
- Two 10A 240Vac single pole changeover contacts



M550/M560 MOTOR PROTECTION RELAY

The M550/M560 is a fully configurable protection and management relay which measures true RMS voltage and true RMS current with sensitive earth leakage detection built in.

SPECIFICATIONS

- Four true RMS voltage channels
- Four true RMS current channels
- Up to eleven binary N/O – N/C inputs
- Up to five 4-20mA or 0-5V inputs
- Three 4-20mA outputs
- Five voltage free relay contacts
- USB/RS485 or Profibus communications



INTRINSIC SAFE (IS) BARRIER

The IS (Intrinsic Safe) Barriers are designed to act as an electrical barrier between hazardous and non-hazardous locations. The barriers are passive units requiring no voltage to operate.

SPECIFICATIONS

- Non-IS A connection
- Non-IS B connection
- High Quality Earth (HQE)'
- IS A connection
- IS B connection



ADDITIONAL MOTOR PROTECTON SERVICES PROVIDED

ADDITIONAL PRODUCT BASE

For the full range of our motor protection devices please visit www.ningi.com or www.ningi.co.za or drop us an email on support@ningi.com OR sales@ningi.com, alternatively use our on-line “contact us” page on our websites and we will get back to you regarding any query.

ADDITIONAL SERVICES

Continuous development of motor protection allows us to offer the most advanced devices to the market, allows our customers to extend the life of their motors and protects against often dangerous situations to personnel where faults on electrical systems is present, thanks to our advanced designs in detection capabilities; our devices reduce these risks greatly.



PRODUCTS

PANEL TECHNOLOGY



FLAMEPROOF PANELS

The requirements of safety, standards and law in most countries ensure that strict and governed methods are put into place and strictly regulated when working with electrical items or devices in gaseous or explosive atmospheres to reduce the risk of explosion or fire.

Each element of any circuit or potential source of ignition is checked and sealed in such a manner that it is impossible for any potential source of ignition to cause influence in a dangerous atmosphere.

Ningi Services have researched, developed, designed and manufactured IS (Intrinsically Safe) devices for many years including Flameproof Panels to guarantee that any such potential for risk is eliminated.

By enclosing electrical equipment into a sealed, flameproof panel and only allowing IS approved power supplies out of the seal (through IS protective barriers) to feed the IS devices; this allows the safe operations in an explosive atmosphere of monitoring and protection equipment.

Our flameproof panels are built using only the highest quality panel technology and assembled, fitted and sealed as a connect and go unit to feed the devices contained in the System Loop.

Our flameproof panels are certified for operation under the System Loop Approval which is recognized as the highest quality standard for use in gaseous or explosive atmospheres.

Standard non -IS panels are also available.



FLAMEPROOF PANEL

The IS (Intrinsic Safe) panel design forms part of our System Loop Approval and supplies only IS power out for use in explosive or gaseous atmospheres.



POWER SUPPLIES AND COMMUNICATIONS

POWER SUPPLIES

For the full range of our power supplies (Intrinsic and non-Intrinsic) please visit www.ningi.com or www.ningi.co.za or drop us an email on support@ningi.com OR sales@ningi.com, alternatively use our on-line “contact us” page on our websites and we will get back to you regarding any query.

COMMUNICATIONS

For the full range of our communications systems and devices (Intrinsic and non-Intrinsic) please visit www.ningi.com or www.ningi.co.za or drop us an email on support@ningi.com OR sales@ningi.com, alternatively use our on-line “contact us” page on our websites and we will get back to you regarding any query.





Ningi Services
we set the standards

ALL TYPES OF MINING • POWER PLANTS •
PETROCHEMICAL • HEAVY INDUSTRIAL

SAFETY – NO COMPROMISE!

Email: support@ningi.com / sales@ningi.com

TOLL FREE CALL: 0800 000 400

SALES CALL: +27 (0) 13 656 3147

