



### **Safety First**



# WORLD'S ONLY FAIL-SAFE SIGN

All other signs will display old data on loss of mine communications. This is not safe and can lead to lost injury claims or unsafe working conditions.



# **Underground mining applications**

Communicate working conditions in real time

- Airflow rate
- Gas concentrations
- Safety Messages





# **Underground mining applications**



### Ventilation on Demand applications

- Airflow rate
- Available HP notifications



# **Underground mining applications**

### Ventilation on Demand applications

- Large Bright Tri-colour
- Reliable Safe Robust





# **Surface mining applications**



### Blast clearance Optimization

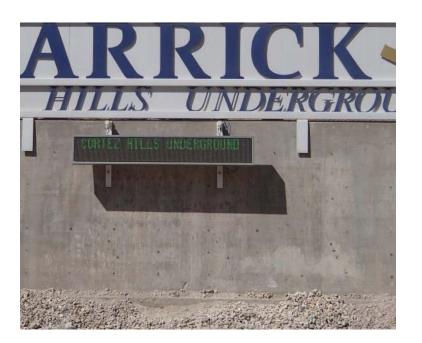
- Shaft collar surface
- Airflow rate
- Gas conditions



# **Surface mining applications**

### Portal Entry

- Safety Messages
- Environmental conditions





# **Additional applications**



**U/G Level Entry**Ventilation air conditions
Available level entry HP



U/G Level Entry
Real time tag board
Tagging system accessory



# **Additional applications**



**Collar House**Production figures
Cage Co-ordinates



Ore Pass Safety
Distance from grizzly
Ore pass inventory



# **Additional applications**



Blast Scheduling
Production figures
Cage Co-ordinates



**Dewatering**Pump flow rate
Sump levels
Slimes notification



# **Additional applications**

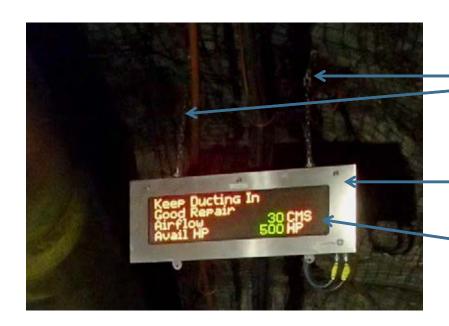




Ramp Traffic Control
Wait time
Traffic direction



### **Mine Hardened**



Easy chain hanger installation to Back

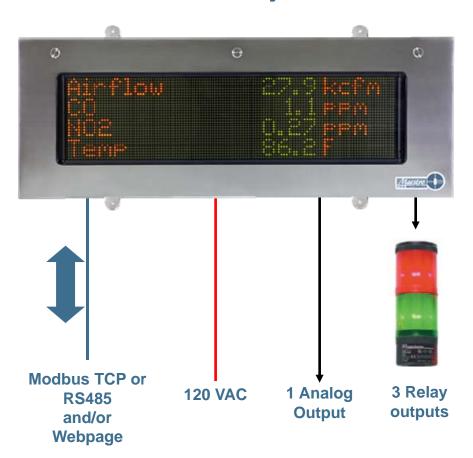
Rugged stainless steel NEMA 4X enclosure

Impact resistant Lexan® face



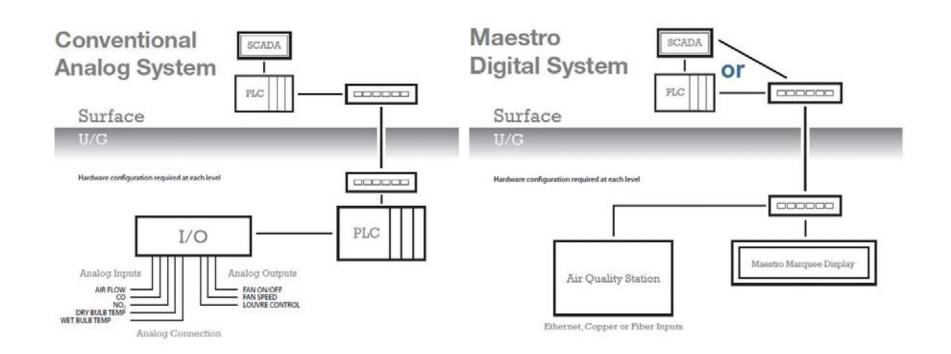
### Flexible communication connectivity

- Choice of information delivery to each line
  - Modbus TCP/IP or Modbus RS485 from remote PLC/DCS/SCADA/HMI
  - Text input by Webpage manual entry
  - HTTP post from other software applications
- Ethernet copper or fiber optic (single or multi-mode)
- Leaky feeder
- 2" high SuperBrite® Tri-colour LED characters
- Flashing or solid state characters
- Fail-safe on loss of communications





# Easy integration into existing infrastructure





#### **User comments**

"This marquee display has many 'plug and play' feature I have not seen in other displays. For example, it can be part of an automation solution (e.g Ventilation on Demand), while simultaneously being used as an operations messaging system using the web browser interface. A welcome and innovative product."

Erik Bartsch - Operations Technology Leader at Xstrata Nickel November 18, 2012









# **Maestro Major Users**



















Top twenty global miners by market cap (BHP, Rio Tinto, Vale, Glencore Xstrata, Freeport McMoran, Barrick Gold, Newmont, Anglo American, Potash Corp, Goldcorp, Mosaic, Anglo Plats, Teck)



# **Complete solutions for mine ventilation**









SUPERBRITE™ MARQUEE