



Integrated Control & Management System (ICMS)

The Bramco Electronics Integrated Control and Management System (ICMS) provides a cost effective electronic control for mining systems such as conveyor control packages. The ICMS offers a variety of features linked to a microprocessor-based controller incorporating advanced modular software to provide a totally flexible and powerful system. In many instances, it may be married directly to a PLC to provide status information for overall control and/or management.

A highly desirable feature of the ICMS, is the step by step upgrade capability. This allows you to invest in a simple low cost system and cost effectively upgrade to a number of specific features or a complete package.

The ICMS introduces the BRAMBUS, a predominantly digital communications bus. The system uses up to six wires, two power conductors, two data communication conductors, one control conductor and one audio conduction. With a secure interrogation and acknowledgement data communication strategy we are able to offer what we feel is a safe method for disabling power to a system for simple maintenance tasks or quick power isolation in event of danger over a long system.

Our Integrated Control and Management System, ICMS, provides reliable technology and safety features as well as the very latest in system diagnosis and control.

When designing the ICMS, our design team has taken into account the numerous mining conditions including the requirements of 103 Scheme Mine Maintenance, and statutory requirements including testing.

All equipment is designed to Fail-to-Safety and is equipped with self-diagnostics that facilitate rapid fault finding if the need arises.

The ICMS is designed to function on a single six cored cable which doubles as the pullwire, or stop mechanism when used to control conveyors. This system offers the least cost of any equivalent package for Hardware, Programming materials and labour to install.

The design of the Remote Elements of the ICMS facilitates a system length of at least 5km where the need for Intrinsic Safety is required and over 10km on other systems from a single power source.

No other package currently available offers the flexibility and features of our integrated system particularly for hazardous/gaseous environmental areas.

Bramco Electronics has a range of accessories to suit the specific application of your ICMS system. These are included in the individual catalogue literature sheets for the various applications.

Bramco Contacts

Head Office

Bramco Electronics
ABN 49 327 604 798
Unit 2&3/2 Callistemon Close
Warabrook NSW 2304
PO Box 241 Hunter Region MC
NSW 2310 AUSTRALIA

Telephone +61 2 4014 4444
Facsimile +61 2 4967 4100
Email sales@bramco.com.au
www.bramco.com.au

Distributor Locations Australia

- Newcastle NSW
- Wollongong NSW
- Cairns QLD
- Brisbane QLD
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USA:

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BRAMCO
ELECTRONICS

ABN 49 327 604 798
PO Box 241
Hunter Region MC
www.bramco.com.au

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Features

- Single six cored cable which doubles as the conveyor pullwire or stop mechanism.
- Signaling (Stop/Start) and time controlled sequencing or remote starting.
- Complete mains power isolation of the system from any stop/start station or location along the system.
- Over 120 monitored location stations with up to sixteen points of either analogue or digital form per location/station.
- Broadcast Communication System with monitored amplifier status or readiness.
- Pre-Start Warning individually monitored on each amplifier.
- Multi-point temperature monitoring and/or control.
- Option of voice synthesiser for fault broadcast activated either automatically or from each amplifier.
- Optional PABX dial facility from each amplifier.
- Remote power supplies for Flameproof Installations.
- Fail Safe operation.
- Identification of any and all faults on the system at any one time.
- Approved/Certified for use in hazardous (gaseous) areas.
- PLC and monitoring system compatible.
- Gas warnings in both visible and audible forms along the system.
- Multi-remote screens available along the system for interrogation, system status and control.
- Hardwire backup for stop/start stations and emergency stop requirements utilising the sixth wire.

ICMS Applications

Conveyors

- Control, Monitoring, Pre-Start Warning and Communication System.

Traffic Control

- Block Signal Light Traffic Controls.

Remote Control

- Remote Control Monitoring System.

Voice Communication

- Voice Communication and Broadcast Warning System.

Process Control

- Process Controls in coal preparation plants, ore processing plants, cotton gins.

Emergency Stop

- Emergency Stop, Control and Monitoring Systems.

ICMS Specifications

Control Module

- Input Power Supply 240/110vAC 50/60Hz
- Module Size 115w x 240h x 160d

Remote Screen

- Size 145w x 95h x 140d
- Cut Out Size 138w x 92h
- Projection Behind Panel 100

Barrier

- Input Voltage Max 32vDC
- Output I.S 850mA at 21vDC
- 450mA at 24vDC
- Output non - I.S 32vDC @ 2 Amps
- Size 100w x 75h x 110d

Ordering Information

ICMS details are available from Bramco.

Approvals/Conformance's

Certification: AUS Ex 3214X
Approvals: MDA Exi 14110
Compliances: AS 2380 1989
AS 2380.7 1987

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