MODEL MaVIS-ICS-ARM

The Intelligent Cargo Scale is one of the most advanced multifunctional weighing electronics in the world. It has the following capabilities and configurations.

- 1 or 2 belt weighers or
- 1 or 2 bins scales, or
- 1 Belt weigher and 1 bin scale

plus

- 1 or 2 flow controllers
- High reliability dual in-line belt weigher
- Loss in weight systems
- Trade Certified Applications
- Integrated Laser Scanner for Bulk Density Measurement
- Communications protocols

Cargo Superintendent Scale

MODEL MaVIS-ICS-ARM

SOPHISTICATED VERSATILE BELTWEIGHER ELECTRONICS
# Cargo Superintendent Scale

## MODEL MaVIS-ICS-ARM

### STANDARD FEATURES
- Fully automated belt weigher electronics
- Programmable auto zero tracking
- 4 isolated analogue input/output slots (max6)
- 5 isolated digital input/output slots (max8)
- Standard outputs for rate, total and alarm
- RS232/RS485 duplex serial communications (modbus compatible)
- IP66 standard enclosure: powder coated, mild steel, viewing window, wiring direct to circuit board
- Bin scale controller functions
- 110/240 Vac power supply
- Up to 1000 cable metres to Load Cell and Tachometer
- Colour graphical touch screen user interface

### OPTIONS
- Laser scanner volume and density
- 316 stainless steel flat or sloping roof
- IP66 enclosures
- 316 stainless steel DIP enclosure
- Wiring via DIN rail mount terminals
- Intrinsic Safety (IS) Barriers
- DeviceNet interface or any other popular scada interface
- Event logging/Audit trail (trade certification approved) - span, alarm, zero and data changed events logged
- 24 Vdc power supply
- Uninterruptible power supply
- TCP/IP network access
- Printer Output
- Custom software and control functions
- Up to 6 isolated analogue I/O
- Up to 8 isolated digital I/O

### SPECIFICATIONS

#### ANALOGUE INPUT/OUTPUT SITES (TOTAL 4 ON BOARD) EXTRA 2 OPTIONAL ON ADDITIONAL SEPARATE BOARD ALL BI-DIRECTIONAL

<table>
<thead>
<tr>
<th>Module type</th>
<th>Analog Devices’ 7B Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranges</td>
<td>0 – 20mA, 4 – 20mA, 0 – 5Vdc, 1 – 5Vdc, RTD -100°C – +100°C</td>
</tr>
<tr>
<td>Isolation (Optical)</td>
<td>1500V rms</td>
</tr>
</tbody>
</table>

#### DIGITAL INPUT/OUTPUT SITES (TOTAL 5 ON BOARD) EXTRA 3 OPTIONAL ON ADDITIONAL SEPARATE BOARD

<table>
<thead>
<tr>
<th>Non Dedicated Inputs or Outputs</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Type</td>
<td>Opto 22</td>
</tr>
<tr>
<td>Ranges</td>
<td>3–60Vdc, 4–200Vdc, 24–140Vac, 24 – 280Vac</td>
</tr>
<tr>
<td>Relay Modules available</td>
<td>1A 0-100/0-120 Vdc/Vac or 5A 0-110/0-250 Vdc/Vac</td>
</tr>
<tr>
<td>Isolation (Optical)</td>
<td>4000Vrms for Opto 22, 1500Vac for Relay Modules</td>
</tr>
</tbody>
</table>

#### TACHOMETER INPUTS (TOTAL 2)

| Type                           | Specialised on-board, 2 x Universal 2 or 3 wire NPN |

#### COMMUNICATIONS

- Comm1 (RJ12 Port) 1 x RS232
- Comm2 (RJ12 Ports) 1 x RS232, Switchable to 2 x RS485 (for daisy chain)
- Anybus Industrial Networks: ASCII, ModBus RTU Mode, Ethernet, Optional TCP-IP, DeviceNet, Profibus, Profinet, CompoNet, ControlNet, USB, Bluetooth etc.

#### DISPLAY

- 800x480 Colour Graphic Touch Screen

| Optional | Remote transmission Display application run on PC or connected remotely via ethernet |

#### POWER SUPPLY

- Standard 110/240Vac (Switchable)
- Optional 24Vdc
- UPS Optional, 15min – 2 hour

### OPTIONS

- Laser Scanner
- For Volume and Bulk Density on belt
- Inclinator
- For weighers on variable incline booms
- Heater
- Where temperatures fall below -10°C
- Sunshade
- Where temperatures exceed +50°C
- Light
- Fluorescent with door activated switch
- Intrinsic Safety Barriers
- For weighers installed in hazardous atmospheres
- Printer
- Dot Matrix or Thermal
- *Remote Flow Rate Meter
- 3½1/2 digit (to 1999 tph) or 4½ digit (to 19999 tph) Loop, AC or DC powered
- *Remote Totaliser
- 8 Digit, LCD or LED display, Battery, AC or DC powered
- Temperature Compensation
- To compensate conveyor belt effect

* = Or Use Remote Display Application on PC or Device

### ENCLOSURES (ALL WITH GLASS VIEWING PANEL)

- Powder Coated Mild Steel, Flat Roof
  - Typical 400 x 400 x 155mm or 400 x 600 x 210mm
- 316 Stainless Steel, Flat Roof
  - Typical 380 x 380 x 210mm or 380 x 600 x 210mm
- 316 Stainless Steel, Sloping Roof
  - Typical 400 x 400 x 225mm or 600 x 400 x 225mm (excluding roof)
- 316 Stainless Steel, DIP
  - Typical 500 x 400 x 200mm

### ENVIRONMENTAL PROTECTION

- IP66

### TEMPERATURE RANGE

- Standard -10°C to +50°C
- Optional heater -40°C to +50°C
- Optional sunshade -10°C to +60°C

### TEMPERATURE STABILITY

- 15ppm/°C

### MAXIMUM CABLE LENGTH

- (as standard) 1 000 Metres

### WEIGHT

- 10 – 25kg
MaVIS MASS AND VOLUME INFORMATION SYSTEM

Export each ship load of cargo with confidence when using the CST Mass and Volume Information System. Knowing the Mass, Volume and Bulk density means you can be assured cargo fits before loading to avoid overfilling and material spills. With multiple options for viewing bulk density – real time, average per hold and average for the total ship - you can now complete each ship load in the minimum time with precise results.

The Laser scanner gathers the cross sectional area as well as centre of load, centre of belt, surcharge angle and more. See scanned result real time on screen as shown...
Control Systems Technology Pty Ltd service all brands of belt weighers at sites all over Australia and overseas.

Well trained technicians provide thorough recalibrations, trade verifications, audits and repairs to ensure equipment is performing as it should and to confirm the results are accurate.