SMARTSTIX™ I/O FOR THE XL SERIES OCS

A New I/O for OCS
SmartStix™ I/O is a new terminal-block style I/O designed for use with the XL series Operator Control Station (OCS). It can be used to expand the I/O capacity of any OCS, and it is very cost effective as remote I/O. SmartStix I/O connects to any OCS CsCAN™ network port to provide the best I/O selection for the application. And, output modules feature Electronic Short-Circuit Protection (ESCP).

Compact, DIN-Rail Mounted
SmartStix I/O is extremely compact, providing 16 and 32 point digital I/O in a package only 39 mm (1.5”) deep and a footprint of 50 H x 116 W mm (2 x 4.5”) or 50 H x 177 W mm (2 x 7”). With its small footprint, SmartStix I/O takes up very little panel space whether located in the main control panel or tucked away in a remote location. SmartStix I/O has a barrier style terminal strip and can be mounted on a DIN-Rail. Plus, removable terminals make field replacement fast and convenient.

Expands I/O Capacity, Local or Remote
SmartStix I/O easily expands the I/O capacity of any OCS utilizing the CsCAN network port available with every model. It is especially cost effective when added to an XL Series OCS. SmartStix I/O offers fast response times without sacrificing robustness, with no need for a costly I/O interface unit. In addition to its peer-to-peer capabilities, CsCAN is used as a highly efficient method of distributing SmartStix I/O up to 1829 m (6000’) away.

Easy to Set Up
SmartStix require minimal time and complexity to configure. Just assign a unique ID, connect the 5-wire shielded cable and you will be up and running in no time.

SPECIFICATIONS
Bus Protocol: CsCAN (control station controller area network)
Bus Connector: 5-position terminal strip
Maximum Distance: 457 m (1500’) per segment; 4 segments max
Maximum Number of Total Nodes: 253
Module Configuration Method: Module ID set using two rotary switches
LED Indication: I/O status (one per point); power, module status, network status
Output Protection: Electronic short-circuit protection (16 and 32 output modules only)
Product Certifications: CE (all models), UL (digital only)

ANALOG INPUTS
Input Ranges: ±5V, ±10 Vdc, 4 to 20 mA, ±20 mA DC
Resolution: 14 bits
Accuracy@ 25°C: 0.1%
**Input Impedance**: 1 MΩ (voltage range), 150 Ω (mA range)
**Isolation**: 1000 Vdc IEC61010-1 300 VRMS
**Maximum Continuous Overload**: 150 Vac (±10V), ±30 mA (±20 mA), clamped at ±6V

**DIGITAL INPUTS**
- **Rated Input Current**: 7 mA
- **Rated Voltage**: 11 to 25 Vdc
- **ON Voltage Level**: 19 Vdc or less
- **OFF Voltage Level**: 6 Vdc or less
- **Input Characteristics Bidirectional Isolation Method**: Photo coupler
- **OFF to ON Response**: 0 to 3 ms or less
- **ON to OFF Response**: 0 to 3 ms or less

**ANALOG OUTPUTS**
- **Output Ranges**: ±5, ±10 Vdc, 4 to 20 mA, ±20 mA DC
- **Resolution**: 14 bits
- **Accuracy at 25°C**: 0.1%
- **Load Resistance**: 600 min (voltage), 500 max (mA)
- **Isolation**: 1000 Vdc, IEC61010-1 300 VRMS
- **Output Characteristic**: Sourcing

**DIGITAL OUTPUTS**
- **Operating Voltage**: 24 Vdc
- **Rated Load Voltage**: 24 Vdc
- **Output Type**: Sourcing
- **Maxload Current**: 0.5 A max per output 3 A per common

**OFF to ON Response**: 2 mS
**ON to OFF Response**: 2 mS

**RELAY OUTPUTS**
- **Rated Load Voltage**: 24 Vdc, 220 Vac
- **Minimum Load Voltage/Current**: 5 Vdc/1 mA
- **Maximum Load Current (Resistive)**: 2.0 A per channel, 5.0 A per common
- **OFF to ON Response**: 10 mS max
- **ON to OFF Response**: 12 mS max
- **Output Type**: NO

**Dimensions (Approx)**: 32 I/O, Analog I/O or Relay Output:
- 176 L x 48 D x 50 mm H (7 x 1.9 x 2”)
- 16 I/O (Not Relay):
- 115 L x 48 D x 50 mm H (4.5 x 1.9 x 2”)

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<tr>
<th>To Order</th>
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<tbody>
<tr>
<td><strong>DIGITAL I/O</strong></td>
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<tr>
<td><strong>MODEL NO.</strong></td>
<td><strong>DESCRIPTION</strong></td>
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<tr>
<td>HE559DIM610</td>
<td>16 DC inputs (24 Vdc positive/negative logic) I/O expander for CsCAN with removable field terminals</td>
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<tr>
<td>HE559DIM710</td>
<td>32 DC inputs (24 Vdc positive/negative logic) I/O expander for CsCAN with removable field terminals</td>
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<tr>
<td>HE559DIQ816</td>
<td>16 DC inputs (24 Vdc positive/negative logic) plus 16 DC outputs (pos logic) 0.5 A I/O expander for CsCAN with removable field terminals</td>
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<tr>
<td>HE559DQM602</td>
<td>16 relay outputs (250 Vac, 30 Vdc, 2 A) for CsCAN with removable field terminals</td>
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<tr>
<td>HE559DQM606</td>
<td>16 DC outputs (24 Vdc positive logic, 0.5 A) I/O expander for CsCAN with removable field terminals</td>
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<tr>
<td>HE559DQM706</td>
<td>32 DC outputs (24 Vdc, positive logic, 0.5 A) I/O expander for CsCAN with removable field terminals</td>
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<td><strong>ANALOG I/O</strong></td>
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<tr>
<td>HE559MIX577</td>
<td>4 analog inputs (±10V, ±20mA) 14-bit resolution plus 2 analog outputs (±10V, ±20mA) 14-bit resolution; channel-by-channel voltage/current selection for all channels; for CsCAN with removable field terminals</td>
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SmartStix I/O module comes with a 5-pin terminal style network connector. An optional M12 adaptor for M12 cable sets is available. SmartStix I/O have removable terminals and can be DIN-rail mounted.

**Ordering Example**: HE559DIM610, 16 DC input model.