# SMARTSTIX™ I/O FOR THE XL SERIES OCS



## HE559 Series



- Expands Analog and Digital I/O of Any OCS Using a CsCAN Network
- May be Used Locally or Remotely
- Extemely Compact
- Removable Screw Terminals

### A New I/O for OCS

SmartStix™ I/O is a new terminal-block style I/O designed for use with the 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.

\* Maximum distance is 457 m (1500') per segment, with up to 1829 m (6000') possible using repeaters.

## **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 M $\Omega$  (voltage range), 150  $\Omega$  (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@ 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")

To Order	
DIGITAL I/O	
MODEL NO.	DESCRIPTION
HE559DIM610	16 DC inputs (24 Vdc positive/negative logic) I/O expander for CsCAN with removable field terminals
HE559DIM710	32 DC inputs (24 Vdc positive/negative logic) I/O expander for CsCAN with removable field terminals
HE559DIQ816	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
HE559DQM602	16 relay outputs (250 Vac, 30 Vdc, 2 A) for CsCAN with removable field terminals
HE559DQM606	16 DC outputs (24 Vdc positive logic, 0.5 A) I/O expander for CsCAN with removable field terminals
HE559DQM706	32 DC outputs (24 Vdc, positive logic, 0.5 A) I/O expander for CsCAN with removable field terminals
ANALOG I/O	
HE559MIX577	4 analog inputs (±10V, ±20 mA) 14-bit resolution plus 2 analog outputs (±10V, ±20 mA) 14-bit resolution; channel-by-channel voltage/current selection for all channels; for CsCAN with removable field terminals

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.