SmartStack Modular I/O

Powerful Controller

High Performance Graphical Display

Single Programming Software

OPC Server

Dual Processors

Remote Mounting I/O System

Stackable, Expandable I/O System...

The Horner OCS family of controllers provides a high degree of innovation. One of the most highly innovative components is SmartStack I/O.

Compact & Rugged

Unlike traditional PLC I/O, SmartStack I/O is not a rack-based design. SmartStack I/O can be expanded simply by "stacking" modules onto the controller, and then onto each other. A maximum of 4 modules are supported per stack. The result is an I/O system that utilizes a very small amount of space for the amount of I/O provided. The SmartStack I/O modules are designed with a high degree of ruggedness. The modules are mechanically very solid, meeting stringent standards for vibration (IEC 68-2-6,1G) and shock (IEC 68-2-27, 15G). The SmartStack modules are housed in a metal case, adding to their solid, rugged construction.

Many I/O Options

Currently, there are over 40 SmartStack I/O modules available. This includes an array of mixed I/O modules, offering a combination of inputs and outputs, digital and analog that will closely match application requirements. The result is a reduction in the number of I/O modules required, reducing cost. In addition to analog and digital offerings, SmartStack has a strong selection of specialty modules. High Speed Counter (1 MHz), Stepper Indexer, ASCII BASIC, and AC Power Monitoring modules are included in the offering. A full complement of temperature input modules are also available (Thermocouple, RTD, Thermister). All this specialisation expands the capability of the OCS controller, eliminating external control components, such as transducers and transmitters, reducing cost.

SmartStack I/O has strong communications capabilities, including Ethernet TCP/IP and DeviceNet Scanner support.

Expandable

There are many ways to expand the number of SmartStack modules in an application. Connecting a miniRCS over CsCAN adds support for one more SmartStack module; connecting an RCS adds up to 4 more SmartStacks. For large memory OCS models, including the Colour-Touch OCS, a plastic fiber optic I/O expansion system allows up to 20 SmartStack modules to be mounted remotely.

Custom

Custom I/O configurations are available at an added cost. Contact your local sales representative for details.

all in one control solutions

HORNER
APG

Many I/O Options

Integrated Fieldbus Network

Optional Ethernet Communication

Selection Guide

SmartStack Communication Modules

HE800ETN100	Ethernet Interface Module. Support 10baseT, TCP/IP with Ethernet Global Data Protocol
HE800DNT450	DeviceNet Scanner Module. Configuration performed using Cscape.

SmartStack Digital Combo Modules

HE800DIQ612	8 DC Inputs (12/24vdc, pos/neg logic), 6 Relay Outputs (250vac, 30vdc, 4.0A)
HE800DIQ616	8 DC Inputs (12/24vdc, pos/neg logic), 8 DC Outputs (5/12/24vdc, 0.5A, pos logic with ESCP)
HE800DIQ622	8 AC Inputs (120 vac, 6 Relay Outputs (4.0A per point)
HE800DIQ624	8 AC Inputs (120vac), 8 AC Outputs (80-250vac, 0.5A)
HE800DIQ627	8 AC Inputs (120/240vac), 8 AC Outputs (80-250vac, 2.0A)
HE800DIQ712	14 DC Inputs (12/24vdc), 10 Relay Outputs (250vac, 30vdc, 4.0A)
HE800DIQ716	16 DC Inputs (12/24vdc), 12 DC Outputs (5/12/24vdc, 0.5A pos. logic with ESCP)
HE800DIQ722	14 AC Inputs (120vac), 10 Relay Outputs (250vac, 30vdc, 4.0A)
HE800DIQ935	32 DC inputs (5/12/24vdc pos logic), 40 DC Outputs (5/12/24vdc, 50mA, neg logic with ESCP). Recommended for pushbutton/pilot light duty.

SmartStack Digital I/O Modules

HE800DIM210	8 DC Inputs (12/24vdc, pos/neg logic).
HE800DIM310	16 DC Inputs (12/24vdc, pos/neg logic)
HE800DIM410	32 DC Inputs (12/24vdc, pos/neg logic)
HE800DQM202	8 Relay Outputs (250vac, 30vdc, 4.0A)
HE800DQM902	20 Relay Outputs (250vac, 30vdc, 2.0A)
HE800DQM306	16 DC Outputs (5/12/24vdc, 0.5A pos logic with ESCP)
HE800DQM406	32 DC Outputs (5/12/24vdc, 0.5A pos logic with ESCP)

SmartStack Analog Input Modules

HE800ADC020	2 channel Analog Inputs, Current (0-20mA, 4-20mA)
HE800ADC120	4 channel Analog Inputs, Current (0-20mA, 4-20mA)
HE800ADC010	2 channel Analog Inputs, Voltage (0-5vdc, +/-5vdc, 0-10vdc, +/-10vdc)
HE800ADC110	4 channel Analog Inputs, Voltage (0-5vdc, +/-5vdc, 0-10vdc, +/-10vdc)
HE800ADC920	12 channel Analog Inputs (4-20mA, 0-5vdc, thermister) ch-by-ch selectable
HE800THM000	2 channel Thermocouple Inputs (J, K, T, E, +/-25mV, +-50mV, +/-100mV)
HE800THM100	4 channel Thermocouple Inputs (J, K, T, E, +/-25mV, +-50mV, +/-100mV)
HE800RTD000	2 channel RTD Inputs (Pt-100, Pt-200, Pt-500, Pt-1000)
HE800RTD100	4 channel RTD Inputs (Pt-100, Pt-200, Pt-500, Pt-1000)

SmartStack Analog Output Modules

HE800DAC002	2 channel Analog Outputs, Current (4-20mA)
HE800DAC102	4 channel Analog Outputs, Current (4-20mA)
HE800DAC001	2 channel Analog Outputs, Current (4-20mA)
HE800DAC101	2 channel Analog Outputs, Current (4-20mA)
HE800DAC202	8 channel Analog Outputs, Current (4-20mA) ch-by-ch selec.

SmartStack Mixed Discrete and Analog Modules

HE800MIX111	2 channel Voltage (+/- vdc) Inputs, 2 channel Voltage (+/-10vdc) Outputs
HE800MIX122	2 channel Current (4-20mA) Inputs, 2 channel Current (4-20) Outputs
HE800MIX901	8 DC Inputs (12/24vdc), 8 DC Outputs (5/12/24vdc,0.5A pos. logic with ESCP) and 4 channels Analog Inputs, voltage (0-5vdc, +/-5vdc, 0-10vdc, +/-10vdc), 12 bit; 2 channels Analog Outputs, voltage (+/- 10vdc)
HE800MIX902	8 DC Inputs (12/24vdc), 8 DC Outputs (5/12/24vdc,0.5A pos. logic with ESCP) and 4 channels Analog Inputs, current (0-20ma, 4-20ma), 12 bit; 2 channels Analog Outputs,current (4-20ma)
HE800MIX912	8 DC Inputs (12/24vdc), 8 DC Outputs (5/12/24vdc,0.5A pos. logic with ESCP) and 4 ISOLATED (500V) channels Analog Inputs, current (0-20ma, 4- 20ma), 12 bit; 2 channels ISOLATED (500V) Analog Outputs,current (4-20ma)
HE800MIX963	Temperature Controller I/O Board. 4 temperature inputs (RTD/Thermocouple) selectable ch-by-ch, 2 channels Analog Outputs, current (4-20mA), 2 Relay Outputs (250vac, 30vdc, 5.0A), 2 DC Outputs (5/12/24vdc, 0.5A neg logic with ESCP)

SmartStack Specialty Modules

HE800ACM200	AC Power-line Monitor. Supports connection to three CTs (5A) and three PTs (120Vac). Providesa variety of Power data to the OCS/RCS
HE800ASC100	ASCII BASIC coprocessor module. Module features 1 RS-232 and 1 RS-232/RS- 485 port. 64K program/data memory. Features an interpreted BASIC. Module may be used for Datalogging, complex serial communications.
HE800STP100	Stepper Indexer. Module generates trapezoidal motion profiles. For use with Stepper Motor Drives compatible with 5V/TTL/Line Driver inputs. Supports step frequencies up to 245kHz. Supports optional Encoder feedback. Capable of Relative, Absolute, and Registration (Index) moves.
HE800HSC600	High Speed Counter/PWM. Module features 8 Digital Inputs (0/5/12/24vdc, poslogic) and 8 Digital Outputs (5-30vdc, net logic). 1or 2 Inputs may be used as High Speed Counters, and 1 or 2 outputs may be used as PWM Outputs. Max Freq 500KHz.
HE800HSC601	High Speed Counter/PWM. Module features 8 Digital Inputs (0/5/12/24vdc, poslogic) and 8 Digital Outputs (5-30vdc, pos logic).1 or 2 Inputs may be used as High Speed Counters, and 1 or 2 Outputs may be used as PWM Outputs. Max Freq 500KHz.

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