



## SM15K - Interface modules

Models	Description
INT MOD CON	Isolated contacts interface
INT MOD SER	Multi-protocol serial interface
INT MOD DIG	Digital I/O interface
INT MOD SIM-2	Simulation interface SM15K
INT MOD M/S-2	Master/Slave interface SM15K
INT MOD ANA	Isolated analog interface

### General Features

- Plug and play for the SM15K series power supplies
- Multiple interfaces possible per power supply
- Isolated from the output voltage  
Working voltage 1000V
- Floating with respect to earth

### Features INT MOD CON

#### Isolated contacts

- 4 relays with make-and-break contacts
- Additional (floating) Interlock with 24V enable system
- Programmable via Ethernet

### Features INT MOD SER

#### Serial controller interface

- Multi protocol RS232, RS485, RS422, USB
- Web based configuration
- Speeds up to 115.2 kbps

### Features INT MOD DIG

#### Digital (user) I/O

- 8 inputs Logic high = 2.5 ... 30V, Logic low = 0V
- 8 Open Drain outputs 0 - 30V, max. 200mA
- Programmable via Ethernet or sequences

### Features INT MOD SIM-2

#### Simulation Interface SM15K

- Under development.

### Features INT MOD M/S-2

#### Master Slave Interface SM15K

- Under development.

### Features INT MOD ANA

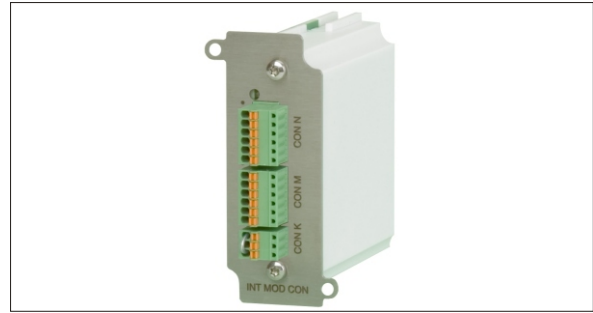
#### Analog controller interface

- Under development.

## Isolated Contacts

### Typical Applications

- Trigger an external safety alarm
- Interact in automated processes
- Switch the output On/Off with a remote 24Vdc signal
- Using a floating signal for triggering the Interlock function



### Specifications

<b>Relay contacts 1... 4</b> Contact voltage Contact current Maximum switching capacity	60 V 2 A 60 W
<b>Floating Interlock</b> Open circuit voltage	5 V
<b>Floating Enable</b> Nominal input voltage Input voltage range Input impedance	24VDC 15 - 30VDC 12kOhm
<b>Insulation</b> prog. connectors - internal circuits prog. connectors - earth	1000 VDC Reinforced isolation acc. EN60950-1 / EN61010-1 max. 60VDC
<b>Safety</b>	EN 60950 / EN 61010
<b>Operating Temperature</b>	- 20 to + 50 °C
<b>Humidity</b>	max. 95% RH, non condensing, up to 40 °C max. 75% RH, non condensing, up to 50 °C
<b>Storage temperature</b>	- 40 to + 85 °C
<b>Mounting</b>	Pluggable, SM15K interface slots 1, 2, 3 and 4. See paragraph 'Hardware Installation' in this manual. Maximum 4 per unit.
<b>Programming connector</b>	Relay 1 & 2, via a 6 pole push wire or so-called push in connector. Relay 3 & 4, via a 6 pole push wire / push in connector. Interlock and Enable via a 3 pole push wire / push in connector. For all 3 connectors there's a contra header supplied.
<b>Weight</b>	0.14 kg

## Serial interface (multi-protocol)

### Typical Applications

- RS232 Programming
- Balanced RS422 Programming
- USB Programming
- Balanced RS485 Bi-directional Programming



### Specifications

<b>Communication speeds (bps)</b>	2400, 4800, 9600, 19200, 38400, 57600, 115200
<b>Insulation</b> prog. connectors - internal circuits prog. connectors - earth	1000 VDC Reinforced isolation acc. EN60950-1 / EN61010-1 max. 60VDC
<b>Safety</b>	EN 60950 / EN 61010
<b>Operating Temperature</b>	- 20 to + 50 °C
<b>Humidity</b>	max. 95% RH, non condensing, up to 40 °C max. 75% RH, non condensing, up to 50 °C
<b>Storage temperature</b>	- 40 to + 85 °C

<b>Mounting</b>	Pluggable, SM15K interface slots 1, 2, 3 and 4. See paragraph 'Hardware Installation' in this manual. Maximum 4 per unit.
<b>Programming connector</b>	RS422 & RS485 wires via push wire or so-called push in connector (contra header supplied) RS232 via 9 pole D-connector (female), USB socket type B.
<b>Weight</b>	0.14 kg

## Digital User I/O

### Typical Applications

- Hardware triggering of sequences
- Interaction with other equipment
- Stand-alone automation
- Safety or Alarm indications



### Specifications

<b>Logic inputs 1... 8</b> Input range Input impedance Load current +5V	2 - 30V Rin = 22kOhm 100mA
<b>Logic outputs 1 ... 8</b> Output type Output impedance	Open Drain (True = 0V, False = open) 7 Ohm (max 30V/200mA)
<b>Insulation</b> prog. connectors - internal circuits prog. connectors - earth	1000 VDC Reinforced isolation acc. EN60950-1 / EN61010-1 max. 60VDC
<b>Safety</b>	EN 60950 / EN 61010
<b>Operating Temperature</b>	- 20 to + 50 °C
<b>Humidity</b>	max. 95% RH, non condensing, up to 40 °C max. 75% RH, non condensing, up to 50 °C
<b>Storage temperature</b>	- 40 to + 85 °C
<b>Mounting</b>	Pluggable, SM15K interface slots 1, 2, 3 and 4. See paragraph 'Hardware Installation' in this manual. Maximum 4 per unit.
<b>Programming connector</b>	User Outputs via 15 pole D-connector High Density (female), User Inputs via 15 pole D-connector High Density (female).
<b>Weight</b>	0.14 kg