Input/Output Modules

Features That Make a Difference:

- Provides cost-effective expansion of input and output capacity
- Compatible with full range of Software House® iSTAR and apC access control panels
- Locate modules up to 1,220 m (4,000 ft) away from controllers using flexible two-wire RS-485 RM bus
- Reduces length of sensor and control wiring to save installation costs
- I8 provides eight Class A supervised inputs
- R8 provides eight Form C relay outputs
- I8-CSI, configurable supervised input model, allows use of existing input wiring without changing end-of-line (EOL) resistors
- Three status LEDs per input (red/yellow/green) and one per output enable quick diagnostics and troubleshooting
- Small, modular size requires minimal panel space
- Dedicated tamper input included on each module
- Optional UL-listed enclosure available

The Software House I8, R8, and I8-CSI modules provide a flexible, cost-effective means to expand the input and output functionality of any iSTAR or apC access controller. Common applications include alarm monitoring and control and elevator control.

The I8 input module provides eight Class A supervised inputs. Three LEDs per input help the installer commission and troubleshoot each input circuit – red if the input is in alarm, green for normal, and yellow for a supervision error. LEDs may be turned off via a DIP switch setting.

The I8-CSI module enhances the functionality of the standard I8 module by supporting numerous supervised circuit types and EOL resistance values. This allows the I8-CSI to accommodate existing field wiring without changing EOL resistors. More than 20 different circuit types are supported. The circuit type is selected via a bank of DIP switches and applies to all eight inputs on the I8-CSI.

The R8 output module provides eight Form C dry contact relay outputs. A red status LED per output shows the state of the relay.

All modules feature a dedicated input for an external cabinet tamper switch and mount easily in the Software House RM-CAN or RM-DCM-CAN enclosure. The modules communicate with iSTAR or apC controllers via the two-wire RM bus that allows total wiring distances of up to 1,220 m (4,000 ft). Up to eight I8s and eight R8s can be connected to each apC, iSTAR eX, and iSTAR Pro eight-reader model; up to 16 of each module can be connected to the iSTAR Pro 16-reader model.

The modules are fully compatible with both C•CURE® 800/8000 and C•CURE 9000.
I8 Input Module

- **Power Requirements**: 180 mA @ 12 VDC
- **Inputs**: Eight Class A supervised, configurable via DIP switch
- **LEDs per Input**: Red (alarm), green (normal) and yellow (supervision error)
- **Circuits Supported**: Single resistor: 1K, 5K, 10K
- **Double resistor**: 1K, 5K, 10K, 1K/2K, 6.8K/18K, 200/10K
- **Unsupervised Inputs**: NO, NC
- **Resistor Values**: 1K/2K, 6.8K/18K, 200/10K
- **Max. Component Height**: 1/2”
- **Weight**: 0.23 kg (8 oz)

I8-CSI Input Module

- **Power Requirements**: 180 mA @ 12 VDC
- **Inputs**: Eight Class A supervised, configurable via DIP switch
- **LEDs per Input**: Red (alarm), green (normal), and yellow (supervision error)
- **Circuits Supported**: Single resistor: 1K, 5K, 10K
- **Double resistor**: 1K, 5K, 10K, 1K/2K, 6.8K/18K, 200/10K
- **Unsupervised Inputs**: NO, NC

R8 Output Module

- **Power Requirements**: 45 mA @ 12 VDC plus 32 mA per active relay
- **Outputs**: Eight Form C dry contact relays
- **LED per Output**: Red (relay active)
- **Relay Contact Ratings**: .30 VDC, 2.0 A resistive, .30 VDC, 1.0 A inductive
- **Power Input Voltage**: 12 VDC +/- 10%

Optional Metal Enclosures with Tamper Switch

- **RM-DCM-CAN**: Dimensions: .356 x 305 x 89 mm (14 x 12 x 3.5 in)
- **Capacity**: 4 up to four input or output modules

Model Numbers

- **AS0073-000**: I8 input module
- **AS0073-CSI**: I8-CSI input module
- **AS0074-000**: R8 output module
- **RM-DCM-CAN**: Large metal enclosure with tamper switch
- **RM-CAN**: Small metal enclosure with tamper switch

### Wiring Summary

<table>
<thead>
<tr>
<th>Signal</th>
<th>From</th>
<th>To</th>
<th>Belden #</th>
<th>Gauge</th>
<th># of Pairs</th>
<th>Shielded</th>
<th>Maximum Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm (two-wire RS485)</td>
<td>apC/ISTAR</td>
<td>I8/R8</td>
<td>9841*</td>
<td>24</td>
<td>1</td>
<td>Yes</td>
<td>1,220 m (4,000 ft)</td>
</tr>
<tr>
<td>Power</td>
<td>apC/ISTAR</td>
<td>I8/R8</td>
<td>9841*</td>
<td>24</td>
<td>1</td>
<td>No</td>
<td>Based on voltage drop</td>
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<tr>
<td>Control Point</td>
<td>R8</td>
<td>Strike, Siren, etc.</td>
<td>8442/8461</td>
<td>18</td>
<td>1</td>
<td>No</td>
<td>Based on voltage drop</td>
</tr>
<tr>
<td>Supervised Input</td>
<td>I8</td>
<td>REX or Door Contact</td>
<td>8442/8461</td>
<td>22/18</td>
<td>1</td>
<td>No</td>
<td>610 m (2,000 ft)</td>
</tr>
</tbody>
</table>

### Wiring Configuration Diagram

#### Sample System Configuration: Combination Bus/Star Wiring Diagram

1. For plenum or underground applications, use Belden 89182 for one pair 22 AWG, 100 ohm 12.95 pf/ft.
2. Note: Control, supervised, and unsupervised input cables must be shielded for FCC Class B operation.
3. Product offerings and specifications are subject to change without notice. Actual products may vary from photos. Not all products include all features. Availability varies by region; contact your sales representative. Certain product names mentioned herein may be trade names and/or registered trademarks of other companies.

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