# SCADAlink I/O Modules

## Installation, Maintenance, and Operation Manual

(Controlled document Excerpt for Hazloc certification)

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### Overview

The SCADALink I/O Modules are general purpose I/O modules which interface to the RIO900 and RIO100, RIO series Transcievers as well as the IP100 and DC100 Series 100 controllers.

Model Descriptions:

| | |
|---|---|
| AI4 Module: | 4 point Analog input (4-20mA) module |
| AO4 Module: | 4 point Analog Output (4-20mA) module. |
| DI8 Module: | 8 point Digital Input module. |
| DO8 Module: | 8 point Digital Output module. |
| COMBO-IO: | Combination multipoint I/O module containing 1 Analog input (4-20mA), 1 Analog Output (4-20mA), 2 digital Inputs, and 2 Digital Outputs in a single I/O card. |
| ESD Variants: | |
| DI-ESD-M: | 2 point Digital Input module for broadcast signals |
| DO-ESD-R: | 4 point Digital Output module for receiving Digital broadcast signals |
| COMBO-ESD-M: | Combination module for transmitting broadcast signals. |
| COMBO-ESD-R: | Combination module for receiving broadcast signals. |

# Safety

## Important Safety Information

- **WARNING: EXPLOSION HAZARD** - DO NOT CONNECT OR DISCONNECT WHEN ENERGIZED.
- **ATTENTION:** Do not open - no user serviceable parts inside. Contact the manufacturer for service.
- **ATTENTION:** SW1 is only to be used when the area is known to be non-hazardous.
- **ATTENTION:** The equipment must be installed in an area providing at least pollution degree 2 environment in a tool entry enclosure with a minimum Type 4/4X rating / IP54.
- **ATTENTION:** All external power supply connections to the equipment must be supplied by an approved class 2 [100VA] power supply.

## Renseignements importants sur l'innocuité

- **AVERTISSEMENT: RISQUE D'EXPLOSION**. NE PAS BRANCHER NI DÉBRANCHER SOUS TENSION.
- **AVERTISSEMENT**: ne pas ouvrir - pas de pièces remplaçables par l'utilisateur. Contactez le fabricant pur le service.
- **ATTENTION**: SW1 ne doit être utilisé que lorsque la zone est connue pour être non dangereuse.
- **ATTENTION:** L'équipement doit être installé dans une zone offrant au moins un environnement de degré de pollution 2 dans un boîtier d'entrée d'outil avec une cote minimale de type 4/4X / IP54.
- **ATTENTION**: Toutes les connexions d'alimentation externe à l'équipement doivent être fournies par un bloc d'alimentation approuvé de classe 2 [100VA].

Electrical Specifications:

| General Specifications (All Modules) | |
|---|---|
| Supply Power | 10-30VDC |
| Power Connector | 4 position Removable Terminal Block |
| Supply Current Max | 2A |
| Operating Temp | -40 to +70 °C |
| Approvals | Class I Div 2, Groups C&D, T3<br>Class I Zone 2, Groups IIB, T3 |

| Mechanical Specifications (All Modules) | |
|---|---|
| Enclosure | DIN Rail mount vertical vented plastic |
| Dimensions<br>Height<br>Width<br>Thickness | <br>4.5in (114mm)<br>4.25in (108mm)<br>0.9in (23mm) |
| Terminal Blocks<br>Type<br>Wire Size Accepted<br>Connection Method | <br>4 position pluggable/removable<br>24AWG to 12AWG<br>Screw |

| AI4 Module | |
|---|---|
| Quiescent Current (@24V) | 7mA – 109mA |
| **Analog Inputs:** | |
| Input Voltage Max | 36VDC |
| Input Current | 4-20mA |
| Input Current Absolute Max | 30mA |

| AO4 Module | |
|---|---|
| Quiescent Current (@24V) | 25mA – 113mA |
| **Analog Outputs:** | |
| Output Voltage Max | 36VDC |
| Output Current | 4-20mA |
| Output Current Absolute Max | 30mA |

| DI8 Module & DI-ESD-M Module | |
|---|---|
| Quiescent Current (@24V) | 4mA |
| **Digital Inputs:** | |
| Input Voltage | 5-36V AC/DC |
| Input Current | 2mA |
| Input Impedance | 20K |

| DO8 Module & DO-ESD-R Module | |
|---|---|
| Quiescent Current (@24V) | 6mA – 70mA |
| **Digital Outputs:** | |
| Output Voltage Max | 30VDC |
| Output Current | 2A |
| Output Power Max | 60W |

| COMBO-IO Module & COMBO-ESD-M & COMBO-ESD-R | |
|---|---|
| Quiescent Current (@24V) | 8mA - 110mA |
| **Analog Input:** | |
| Input Voltage Max | 36VDC |
| Input Current | 4-20mA |
| Input Current Absolute Max | 30mA |
| **Analog Outputs:** | |
| Output Voltage Max | 36VDC |
| Output Current | 4-20mA |
| Output Current Absolute Max | 30mA |
| **Digital Inputs:** | |
| Input Voltage | 5-36V AC/DC |
| Input Current | 2mA |
| Input Impedance | 20K |
| **Digital Outputs:** | |
| Output Voltage Max | 30VDC |
| Output Current | 2A |
| Output Power Max | 60W |