RIA-AO-02

RS3™ - Interface Adapter for migration toward a new system

Description :

The RS3 Interface Adapter **RIA-AO-02-1** allows to easily connect an existing 16-channels Analog Input RS3 Termination Panel to an Analog Output card of a Digital Control System (DCS), or a Programmable Logic Controller (PLC).

The signals provided to the RS3 Termination Panel are 4-20mA

It is easy to install the **RIA-AO-02-1** on the existing RS3 termination panel.
It replaces the Field Interface Module (FIM) on the existing panel.

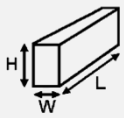
The connection to the new Analog Input cards is done using a shielded cable, with a D-SUB37F connector at one end, and labeled flying wires or a suitable connector matching with the new system Discrete Output card used at the other end.

The power supply of the existing RS3 Termination panel is no longer necessary for the power supply of the RIA.

Product options :

Option -1 : RIA-AO-02-1

Technical specifications :

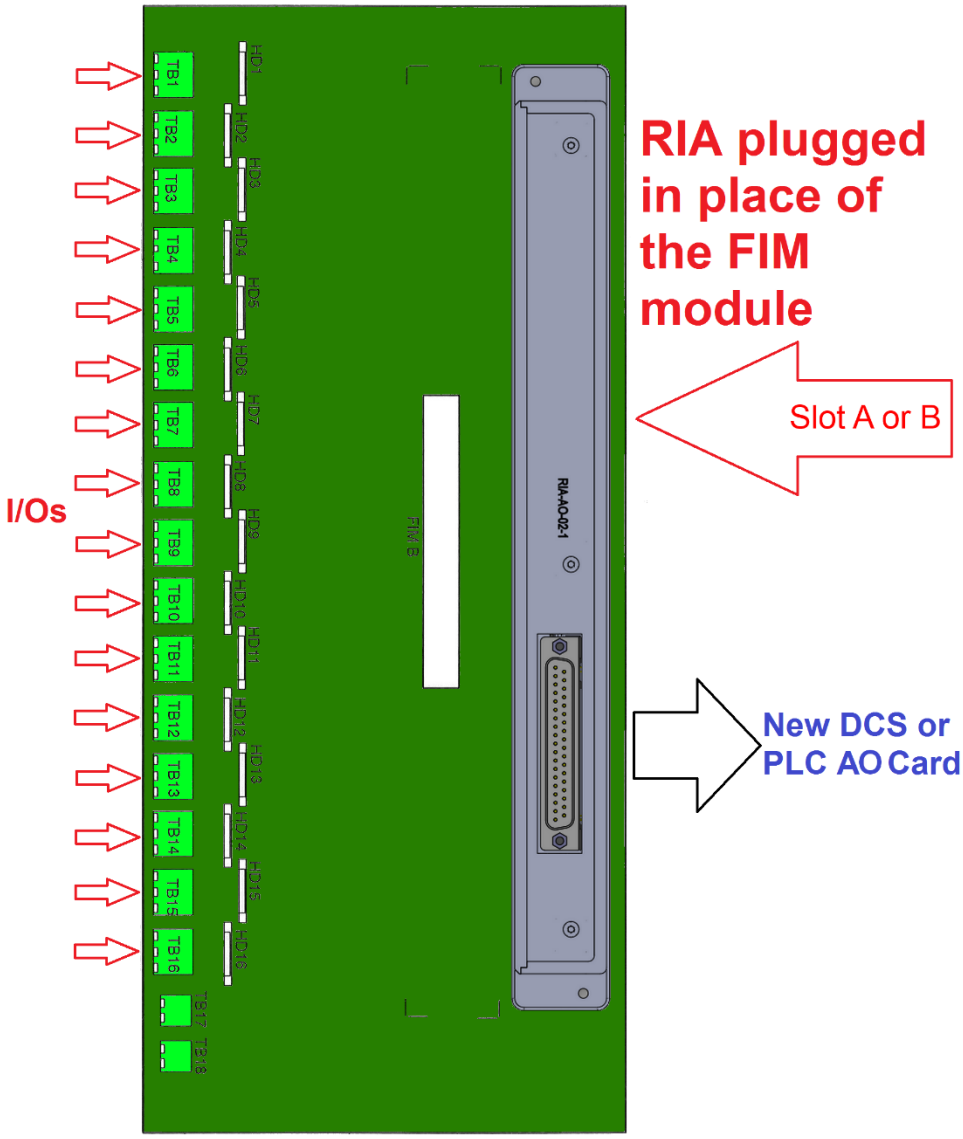
Dimensions :	**Mounting :**
Length : 446,2 mm Width : 34 mm Height : 93 mm 	Plugged on the existing RS3 panel in place of the FIM module
Weight :	**Channel characteristics :**
400 g	**Loop Power supply :** +24Vdc provided by DCS or PLC Power Supply, with channel-by-channel current limitation of the DCS or PLC Input card (refer to the input card specifications)
Temperature range :	**Channel configuration :**
Operating : 0°C to 50°C Storage : -20°C to 60°C	Selection of "2 wire" or "4 wire" transmitter is done using internal jumpers (see RIA installation procedure within next pages.)
Humidity :	**Fuse protection :**
Up to 90% (no condensation)	Each input is protected by a 100mA removable fuse

Connection to the DCS or to the PLC :

To an Analog Input Card :

By the D-SUB 37 pin male connector with UNC 4-40 female lock on front face of the RIA and shielded suitable cable

1. INSTALLATION PROCEDURE FOR EXISTING RS3 PANEL TYPE 1984-4383-0001 OR 10P54770001(CE) OR 10P54770002(CE) (MAIO (16) TERMINATION PANEL) :



1.1. POWER SUPPLY CONNECTORS, TERMINALS AND JUMPERS

Connector J974 : Can remain plugged but no longer necessary for panel power supply.

Terminals TBA : Can remain wired but no longer necessary for panel power supply.

Terminals TB17 : Can remain wired but no longer necessary for panel power supply.

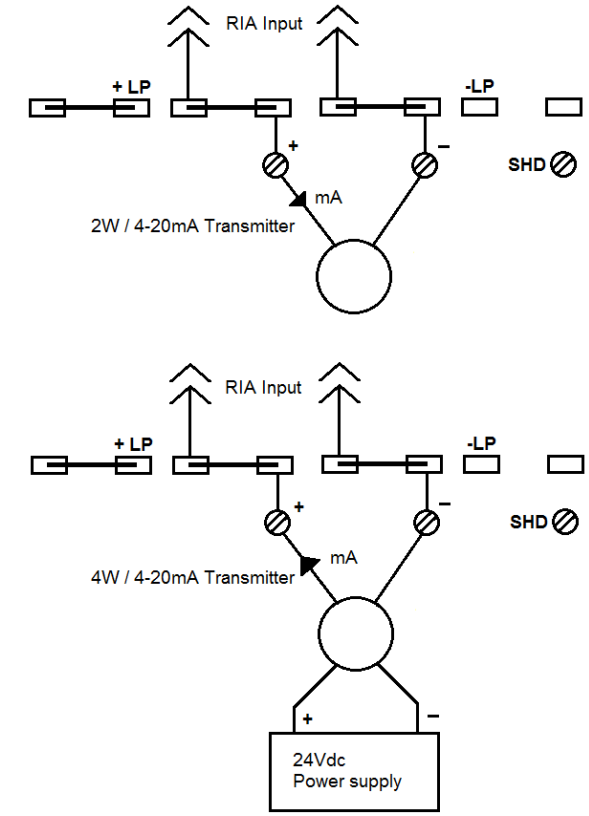
Terminals TB18 (SH - CH) : No change of existing wiring, jumper has to remain in place.

Terminals TB19 - TB20 - TB21 - TB22 : Remove all jumpers

1.2. LPM (LOOP POWER MODULE(S)
Remove LPM from its/their connector(s).

1.3. FIM MODULE(S)
Remove FIM modules from its/their connector(s)

1.4. JUMPER CONFIGURATION ON THE TERMINATION PANEL
Jumpers on the panel must be configured as follow : HD1 to HD16 placed in "Full Left Position" corresponding to the "Self-Power Input Point" of the RS3 documentation.



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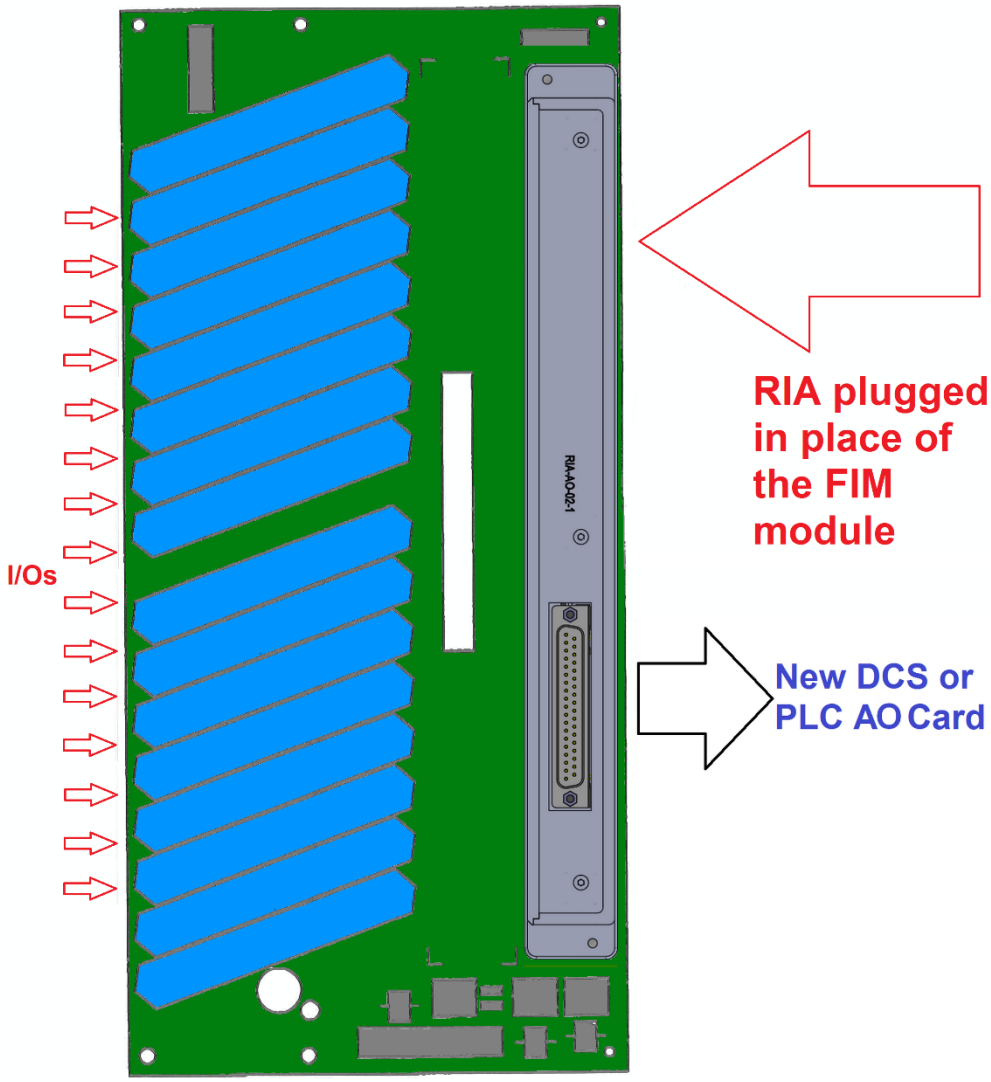
1.5. RIA CONFIGURATION
- Open RIA using screws
- Set jumpers on "Self-Position" for "4 wire" transmitter and on "System Position" for "2 wire" transmitter as indicated on the product, in accordance with the type (2 or 4 wire) of existing transmitters connected on the panel.

1.6. RIA INSTALLATION AND CONNECTION
- Unplug the Field Interface Module (FIM) from its/their socket(s) using front screws
- Plug the RIA either on connector J593 or J594 and secure it using its two screws
- Plug the D-SUB 37 female connector of the cable on the front D-SUB 37 male connector of the RIA.
- Connect the other end of the cable to the DCS or PLC AI card.

2. INSTALLATION PROCEDURE FOR EXISTING RS3 PANEL TYPE 10P5034000X (MAIO16 IS TERMINATION PANEL) :



2.1. POWER SUPPLY OF THE PANEL
Power supply connected to terminals TBA of the panel has to be kept

2.2. FIM MODULE(S)
Remove FIM modules from its/their connector(s)

2.3. JUMPER CONFIGURATION ON THE TERMINATION PANEL
No jumper configuration is required on the panel

2.4. RIA CONFIGURATION
- Open RIA adapter by unscrewing the screws from the case.
- Set all jumpers on "Self-Position" for "4 wire" transmitter as indicated on the product

2.5. RIA INSTALLATION AND CONNECTION
- Unplug the Field Interface Module (FIM) from its/their socket(s) using front screws
- Plug the RIA either on connector J639 or J640
- Plug the D-SUB 37 female connector of the cable on the front D-SUB 37 male connector of the RIA.
- Connect the other end of the cable to the DCS or PLC AI card