

Change-over Terminal Unit






TUA711-AIO16

User manual

IM23H61-E

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Symbol Definition	
	WARNING: Indicates information that a potentially hazardous situation which, if not avoided, could result in serious injury or death.
	RISK OF ELECTRICAL SHOCK: Indicates information that Potential shock hazard where HAZARDOUS LIVE voltages greater than 30V RMS, 42.4V peak, or 60V DC may be accessible.
	ESD HAZARD: Indicates information that Danger of an electro-static discharge to which equipment may be sensitive. Observe precautions for handling electrostatic sensitive devices
	ATTENTION: Identifies information that requires special consideration.
	TIP: Identifies advice or hints for the user.

Security& Caution Symbols

The following table lists Security& Caution symbols used on equipments.














No.	Symbol	Description
1		Direct current (DC)
2		Alternating current (AC)
3		Ground (Earth) terminal
4		Protective earth (ground) terminal
5		Reference ground (Earth) terminal
6		Frame or chassis
7		Equipotentiality
8		On (power)
9		Off (power)
10		Caution, risk of electric shock
11		Caution, hot surface
12		Caution, risk of danger
13		Electrostatic sensitive devices (ESD)

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Change-over Terminal Unit TUA711-AIO16

Section 1 Overview

TUA711-AIO16 is an analog change-over terminal unit of 16 channels, and mainly applied with wiring in change-over mode. When working with the base MB745-S11, TUA711-AIO16 can connect a non-redundant AI713 or AO713. When working with the base MB746-S11, it can connect a pair of redundant AI713 or AO713.

This terminal unit applies DIN rail installation and supports inlet wire of single side.

Section 2 Specifications

Table 2-1 Specifications

Parameter		Instruction
Model		TUA711-AIO16
Type		Analog Change-over Terminal Unit
Channel		16
Temperature	Work	(-20~70)°C
	Storage	(-40~85)°C
Humidity	Work	10%RH~90%RH, No Condensation
	Storage	5%RH~95%RH, No Condensation
Dimension (L x W x H)		200mm x 45mm x 55mm

Section 3 Usage

3.1 Appearance

The appearance of TUA711-AIO16 is shown in Figure 3-1.

In TUA711-AIO16, DB01 is the interface of the wire DB37, and J01 corresponds to the terminal of module connecting DB01. TUA711-AIO16 can connect the system module via DB37, and connect the field device via the terminals J01 and J02.

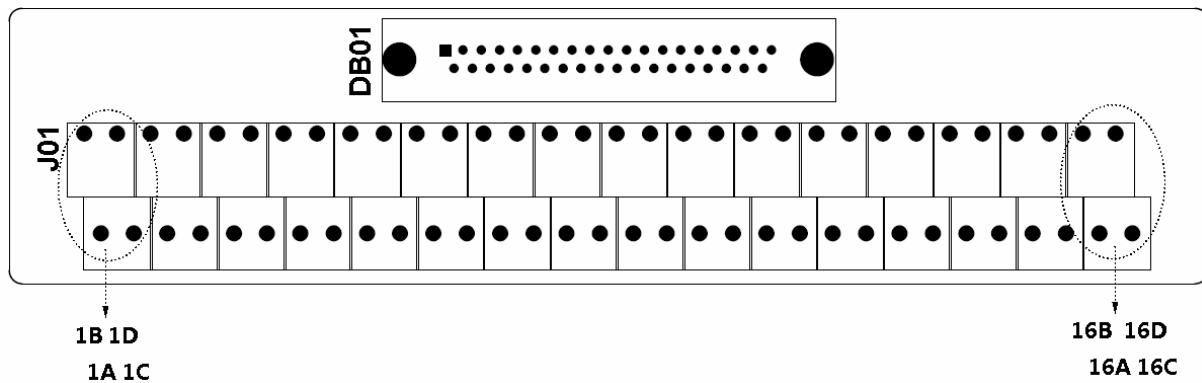


Figure 3-1 Appearance of TUA711-AIO16

3.2 Connectors

Table 3-1 Connectors

Sign	Instruction
DB01	DB37 Interface of Module
J01	Field Terminal Corresponding to Module

3.3 Interface Features

When TUA711-AIO16 connects module, each channel has 4 terminals.

The field circuit when TUA711-AIO16 connecting AI713 is shown in Figure 3-2 (arrows indicate the current direction). In the figure, the wiring is introduced by the channel 1 (CH1), channel 2 (CH2) of module.

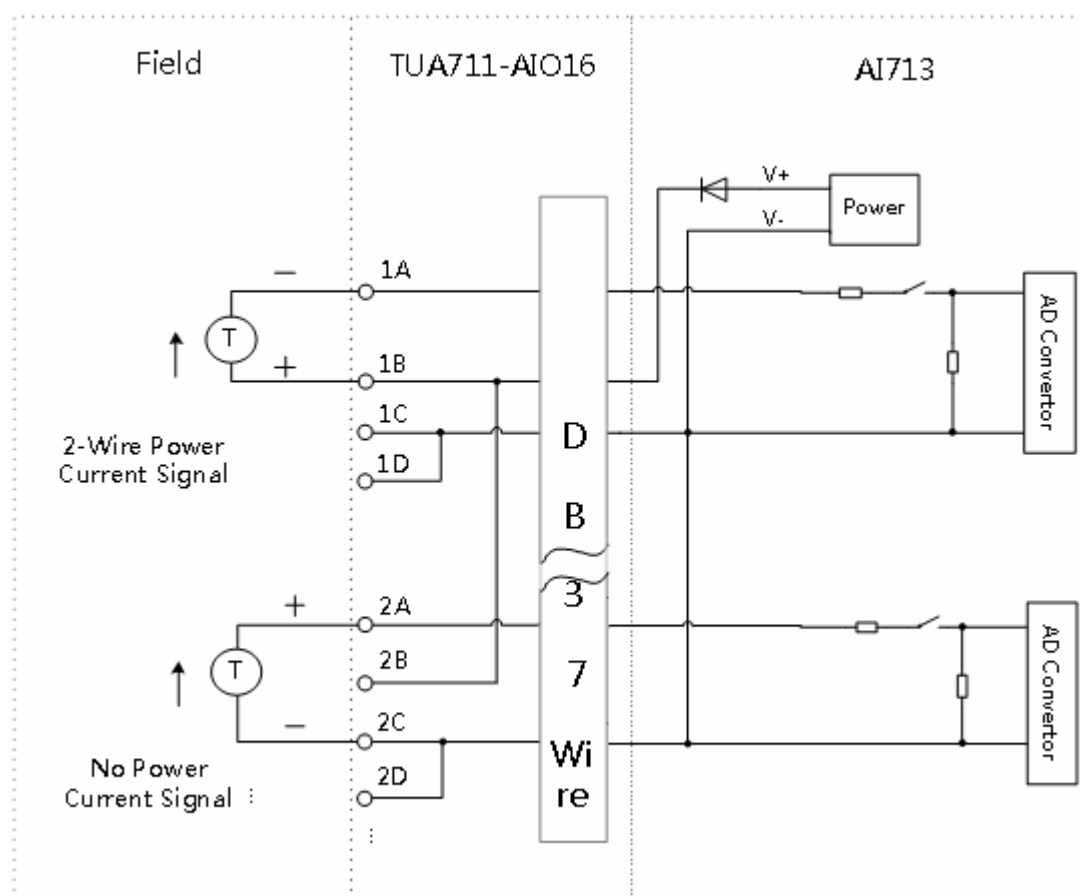


Figure 3-2 Circuit when connecting AI713

The field circuit when TUA711-AIO16 connecting AO713 is shown in Figure 3-3. In the figure, the wiring is introduced by the channel 1 (CH1) and channel 2 (CH2) of module.

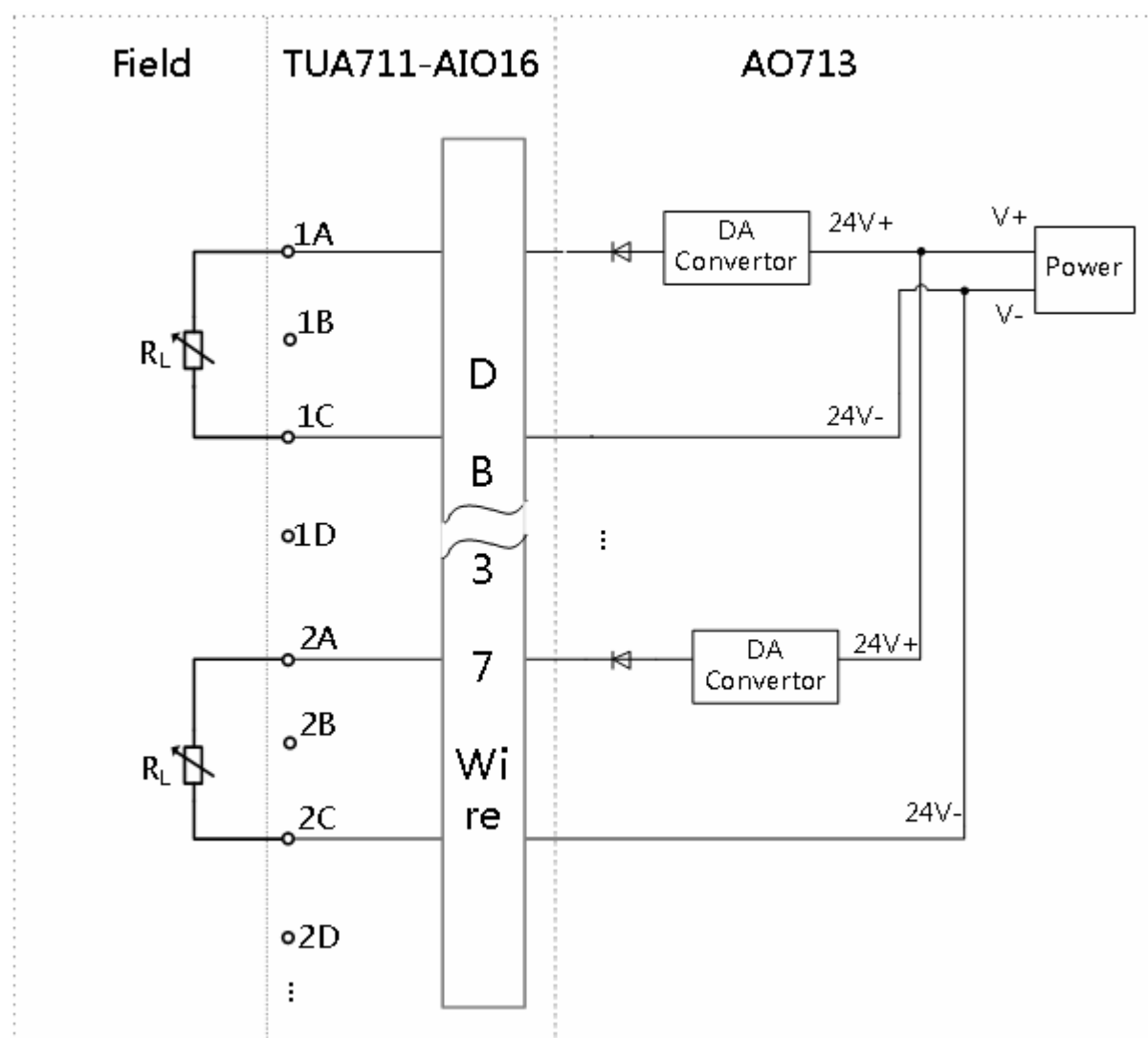


Figure 3-3 Circuit when connecting AO713

The maximum section of wire allowed to connect the terminal in TUA711-AIO16 is 2.5mm^2 . The wires with sections of 1mm^2 or 1.5mm^2 , the wire stripping length of 8mm and the tightening torque of (0.5~0.6)Nm are recommended.

3.4 Terminal Definition and Wiring

When TUA711-AIO16 connects module, each channel has 4 terminals. In the figures below, “n” refers to 1~16 and numbers the channels. For example, the 4 terminals of the 8th channel are 8A, 8B, 8C and 8D. The C and D of every channel are connected in the terminal unit, and are equal to one terminal.

Table 3-2 Wiring when connecting module

Wiring	CH1~8	Terminal	CH9-16	Terminal
Work with AI713:	CH1	1A	CH9	9A

Wiring	CH1~8	Terminal	CH9-16	Terminal
<p>2-Wire Power Current Signal</p> <p>○ nC ○ nD</p>	CH2	1B	CH10	9B
		1C		9C
		1D		9D
<p>No Power Current Signal :</p> <p>○ nB ○ nD</p>	CH3	2A	CH11	10A
		2B		10B
		2C		10C
	CH4	2D	CH12	10D
		3A		11A
		3B		11B
	CH5	3C	CH13	11C
		3D		11D
		4A		12A
	CH6	4B	CH14	12B
		4C		12C
		4D		12D
<p>Work with AO713:</p> <p>○ nB ○ nD</p>	CH7	5A	CH15	13A
		5B		13B
		5C		13C
	CH8	5D	CH16	13D
		6A		14A
		6B		14B
	CH9	6C		14C
		6D		14D
		7A		15A
	CH10	7B		15B
		7C		15C
		7D		15D
	CH11	8A		16A
		8B		16B
		8C		16C
	CH12	8D		16D

Section 4 Revision

Table 4-1 Retrofit list of the version

Document Version	Applicable Product Version	Remarks
V1.0(20131012)	TUA711-AIO16 V10.00.00 and later versions	The first version.
V1.1(20140418)	TUA711-AIO16 V10.00.00 and later versions	Modify interface features
V1.2(20161116)	TUA711-AIO16 V10.00.00 and later versions	Add code