

TECHNICAL BULLETIN

[Issue No.] T11-0003

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[Title] Recommendation of change over to
A60MXTN/A60MXRN model from A60MXT/A60MXR

[Date of Issue] Feb., '03

[Relevant Models] A60MXTN, A60MXRN, A60MXT, A60MXR

Thank you for your continued support of Mitsubishi PLC MELSEC-A Series.

Due to environment conservation requirements, the Mercury relay inside the A60MXT and A60MXR modules have been replaced with a Photo MOS relay for the newer A60MXTN and A60MXRN isolated multiplexer modules. Therefore we recommend using the A60MXTN or A60MXRN modules as an environmentally friendly alternative.

1. Performance/Function Comparison

The following table shows the differences in performance/functions between A60MXTN/A60MXRN and former models. The functions of both models are equivalent except for the differences listed below.

Function/Performance comparison between A60MXTN and A60MXT

Specifications	A60MXTN	A60MXT
Isolation method	Between input terminals and PLC: Photocoupler isolation Between channels: Photo MOS relay isolation Not isolated when disconnection detection is selected (20MΩ insulation resistance)	Between input terminals and PLC: Photocoupler isolation Between channels: Mercury relay isolation Not isolated when disconnection detection is selected (20MΩ insulation resistance)
Channel isolation voltage	400V DC (Guaranteed: 100V DC)	500V DC (Guaranteed: 500V DC)
Relay life	No restriction (Photo MOS relay)	900 million operations (Mercury relay)
Internal current consumption 5V DC	0.64A	0.8A
Weight	950g	950g

Function/Performance comparison between A60MXRN and A60MXR

Specifications	A60MXRN	A60MXR
Isolation method	Between input terminals and PLC: Photocoupler isolation Between channels: Photo MOS relay isolation	Between input terminals and PLC: Photocoupler isolation Between channels: Mercury relay isolation
Channel isolation voltage	400V DC (Guaranteed: 400V DC)	500V DC (Guaranteed: 500V DC)
Relay life	No restriction (Photo MOS relay)	900 million operations (Mercury relay)
Internal current consumption 5V DC	0.35A	0.5A
Weight	560g	600g

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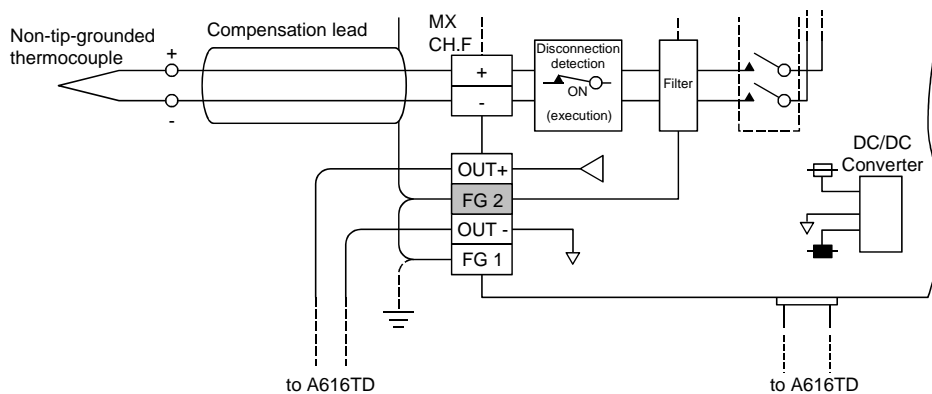
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2. Transition from former modules to A60MXTN/A60MXRN

(1) Transition from A60MXT to A60MXTN

- (a) The programs created for the A60MXT are usable without any modifications.
- (b) A60MXTN provides channel isolation of 400V DC (Guaranteed: 100V DC), while A60MXT provides 500V DC (Guaranteed: 500V DC).
- (c) The wiring for the A60MXTN needs to be modified, as it includes an additional terminal (FG2).



(2) Transition from A60MXR to A60MXRN

- (a) The programs created for the A60MXR are usable without any modifications.
- (b) A60MXRN provides channel isolation of 400V DC (Guaranteed: 400V DC), while A60MXR provides 500V DC (Guaranteed: 500V DC).
- (c) A60MXRN uses jumper setting pins instead of DIP switch for analog input switching.

(3) Advantage of Photo MOS Relay

By using the photo MOS relay, certain criterion do not have to be considered, such as relay life, and vibration/shock resistance, compared to the former model that uses mercury relay.