

MT-DA02 – TECHMAR DEVICENET MODULE WITH TWO 0-10 VOLT OUTPUTS

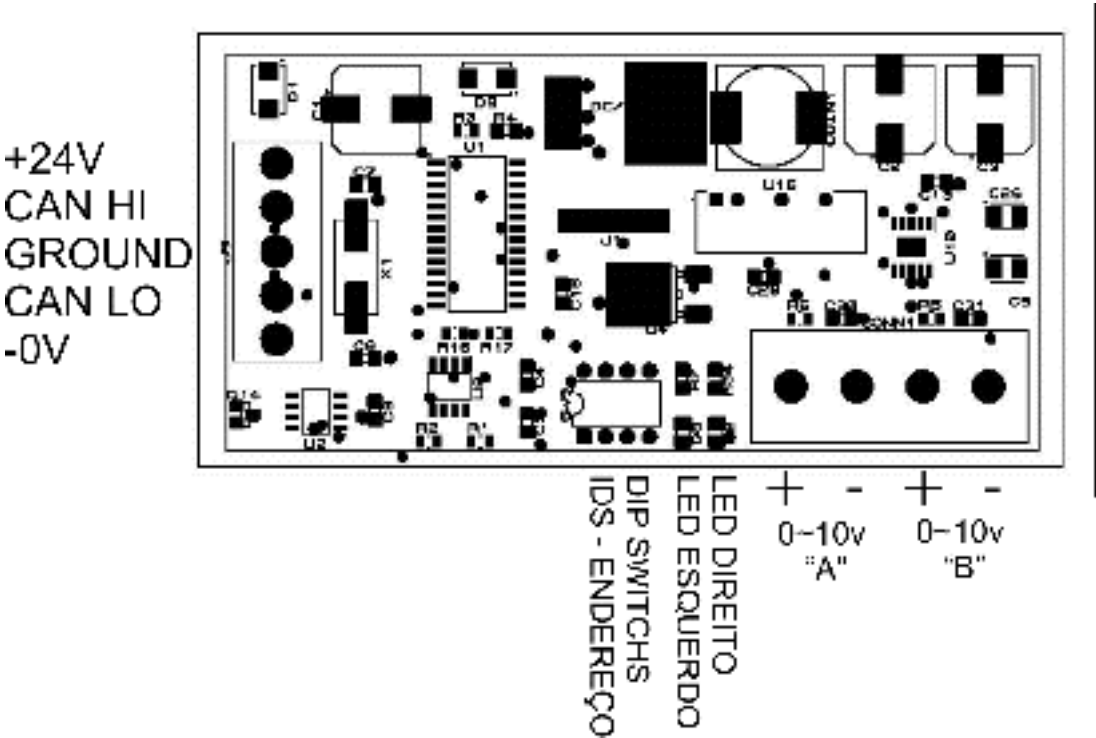
INTRODUCTION

In order to provide fast and long-term technical support for customers using XCMG XDN-xxx-HL drilling machines, and considering the increasing difficulty in obtaining replacement parts for the original Omron DRT2-DA02 modules, Techmar developed the MT-DA02 module.

Omron discontinued the production of this module in November 2021 – DRT2-Analog-Discontinuation_EN_202111_PH-222.pdf.

The MT-DA02 operates exclusively in 0–10 V mode and was designed with galvanic isolation between the analog outputs and the power supply by using an isolated DC/DC converter. As a result, there is no common 0 V reference between the green DeviceNet connector (5-wire CANBUS) and the 0–10 V analog outputs, significantly reducing problems related to electrical interference, noise, and ground potential differences.

In addition, the MT-DA02 emulates all responses expected by the DeviceNet Master, ensuring communication compatibility and transparent integration with the machine’s original systems.



DEVICENET ADDRESS CONFIGURATION

DIP 4 VIAS – CHAVE DA DIREITA = BIT MENOS SIGNIFICATIVO

OFF = 0 ON = 1

DIP SWITCH	ID
☐ ☐ ☐ ☐	0
☐ ☐ ☐ ☒	1
☐ ☐ ☒ ☐	2
☐ ☐ ☒ ☒	3
☐ ☒ ☐ ☐	4
☐ ☒ ☒ ☐	5
☐ ☒ ☐ ☒	6
☐ ☒ ☒ ☒	7

DIP SWITCH	ID
☒ ☐ ☐ ☐	8
☒ ☐ ☐ ☒	9
☒ ☐ ☒ ☐	10
☒ ☐ ☒ ☒	11
☒ ☒ ☐ ☐	12
☒ ☒ ☐ ☒	13
☒ ☐ ☐ ☒	14
☒ ☒ ☐ ☒	15

Unlike the original DRT2-DA02, the MT-DA02 does not use rotary switches for ID configuration. It uses 4 DIP switches to configure 15 addresses (1~15).

WARNING

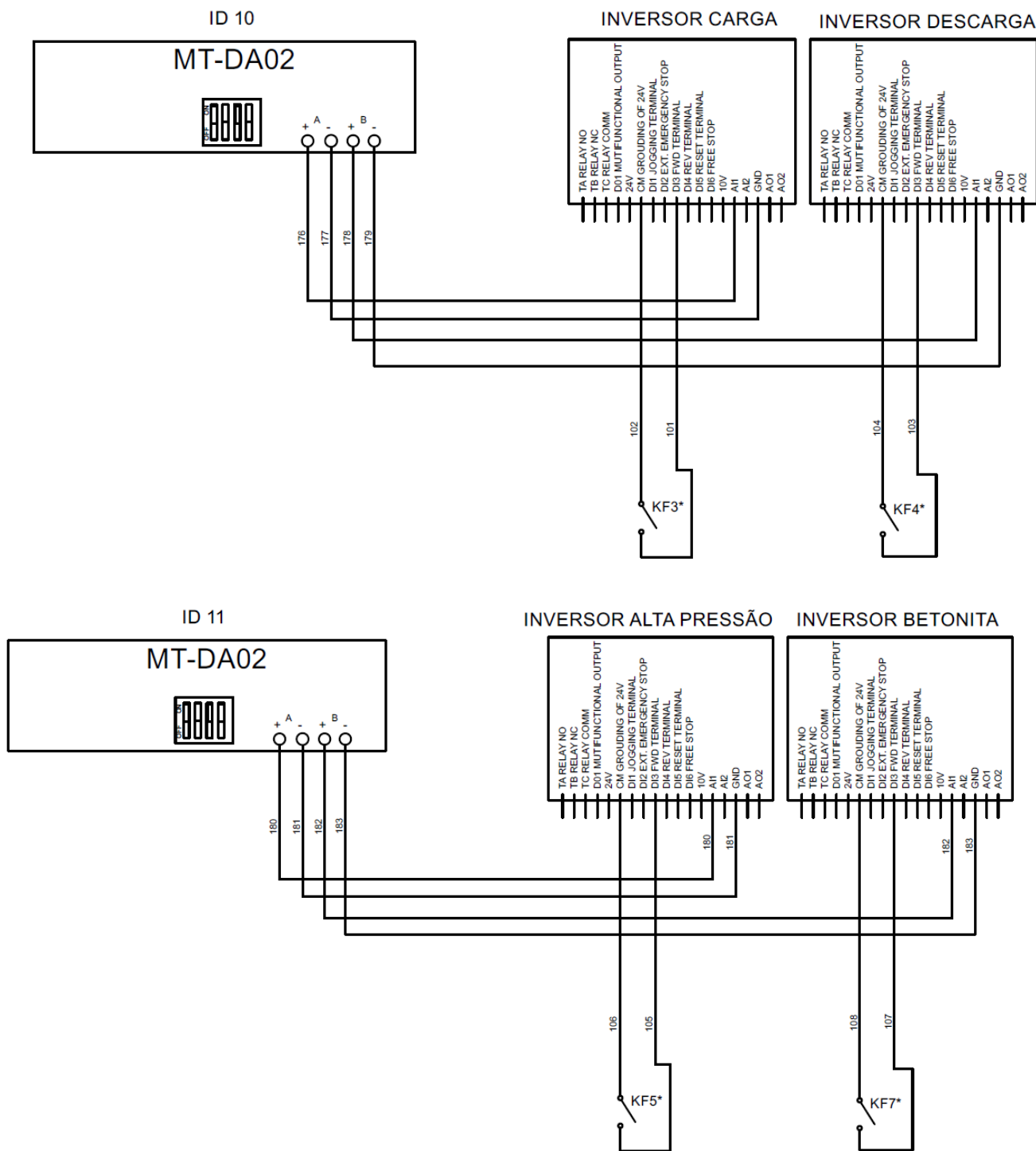
Use address 0 (ID0) only for testing with the analog outputs disconnected.

In test mode:

- Analog output “A” is fixed at 5 VDC
- Analog output “B” is fixed at 10 VDC

The left and right LEDs blink alternately to indicate test mode operation.

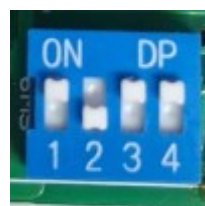
In test mode, the module does not transmit or receive data on the DeviceNet network.



ID 10: Switches 1 and 3 ON



ID11: Switches 1, 3 and 4 ON



TECHNICAL SPECIFICATIONS

Power Supply	: 12~27 VDC
Current Consumption	: < 200 mA
Dimensions	: 121 mm x 61 mm
Protocol	: DeviceNet 125 Kbps (fixed cloned mode operates only in 0~10 V mode)