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CANopen Slave device 8 digital inputs + 8 PNP outputs

DAT 7188







FEATURES

- Field Bus data acquisition
- CAN open protocol
- Baud rate and ID Node programmable by dip-switch
- 8 digital inputs
- 8 digital outputs, PNP type
- Led of signalling for inputs and outputs status
- Over-temperature and over-current protection
- Four ways 2000 Vac galvanic isolation

CANopen Slave device Digital Outputs and Inputs

- EMC compliance CE Mark
- In compliance to EN-50022 DIN rail mounting

GENERAL DESCRIPTION

The device DAT 7188 is able to acquire up to 8 digital inputs and to drive up to 8 transistor outputs. The data are transmitted by the CANopen protocol. The 2000 Vac galvanic isolation between inputs, outputs, power supply and data line eliminates the effects of all ground loops eventually existing and allows the use of the device in heavy environmental conditions found in industrial applications.

The DAT 7188 is housed in a rough self-extinguishing plastic enclosure of 22.5 mm thickness, suitable for DIN rail mounting in compliance with the EN 50022 standard

COMMUNICATION PROTOCOLS

On the DAT7000 modules the following communication protocol is implemented:

CANopen Protocol: one of the most used standard communication protocol; it allows to interface the modules of DAT7000 series directly to the CAN Controllers that accept devices in compliance with the CiA DS 301 and CiA DS 401 standards. For communication setting, refer to the User manual.

OPERATING INSTRUCTIONS

Before to install the device, please read carefully the "Installation instructions" section.

Connect the power supply, the data line and the I/O signals as shown in the "Wiring" section.

Refer to the "Led signalling" section to verify the correct working of the device.

To make easy the maintenance or the substitution of the device, it is possible the "hot swap" of the terminals.

INSTALLATION INSTRUCTIONS

The device DAT 7188 is suitable to be mounted on DIN rail, in vertical position.

For a correct working and a long life of the device, read the following indications.

In case of the devices are mounted side by side, please leave about 5mm between in the following situations:

- Temperature in the cabinet higher than 45 °C and high supply voltage (>27Vdc).

Avoid to place raceways or other objects which could obstruct the ventilation slits. It is suggested to avoid that devices are mounted above appliances generating heat; their ideal place should be in the lower part of the panel.

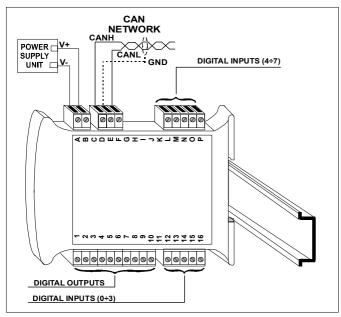
Avoid to install the devices in a site where vibrations are present.

It is recommended to use shielded cable for connecting signals. The shield must be connected to an earth wire provided for this purpose. Moreover it is suggested to avoid routing conductors near power signal cables.

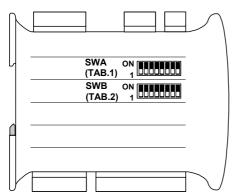
TECHNICAL SPECIFICATIONS (Typical @ 25 °C and under nominal conditions)

Device profile	Digital Inputs		Power supply	
In compliance with the CiA DS 301 and CiA DS 401 standard.	Channels 8 Input voltage (bipolar) OFF State 0 ÷ 3 V		Supply Voltage Current consumption Reverse Polarity protection	10 30 Vdc 45 mA @ 24 Vdc 60 Vdc max
	ON State N° of counters Min. Pulse width	10 ÷ 30 V 8 @ 300 Hz 1 ms	Isolation Voltage	2000 Vac 50 Hz, 1 min. (Inputs/Outputs/Can Network/Power supply)
	Impedance	4.7 ΚΩ	Fundamental Canditions	,
	Digital Outputs		Environmental Conditions Operative Temperature	-10°C +60°C
	Channels	8	Storage Temperature Humidity (not condensed)	-40°C +85°C 0 90 %
	Туре	PNP	Maximum Altitude Installation Category of installation	2000 m Indoor
	Voltage Max. Load	10.5÷30 Vdc 500 mA per channel(*)	Pollution Degree	II 2
		1 A per module	Mechanical specifications	:
	Inductive Load	48 Ω – 2H max	Material	Self-extinguish plastic
	(*) Protection against over-current and over-temperat Short circuit current 1.7 A max.		IP Code Wiring	IP20 wires with diameter 0.8÷2.1 mm² /AWG 14-18
	Sample time	5 ms	Tightening Torque	0.8 N m
	Data Transmissi		Mounting	in compliance with DIN rail standard EN-50022
	Baud rate	up to 1 Mbps	Weight	about 150 g.
	Max. Distance	in function of the Baud rate	EMC (for industrial environments)	
		Dada Tato	Immunity	EN 61000-6-2
			Emission	EN 61000-6-4

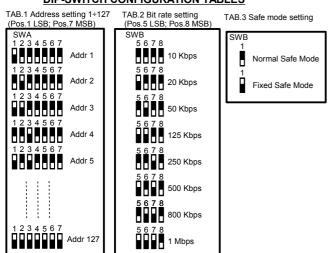
<u>CABLING</u> <u>WIRING</u>



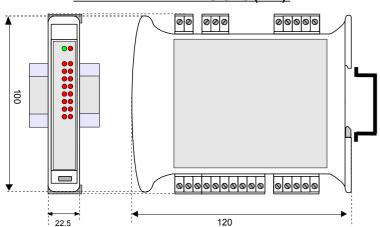
DIP SWITCH POSITION

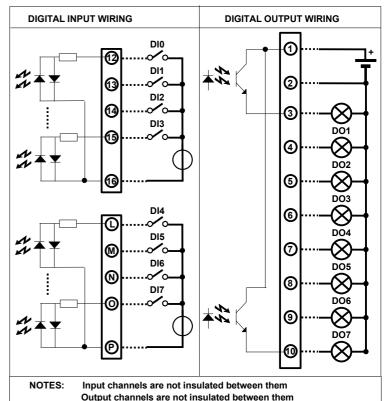


DIP-SWITCH CONFIGURATION TABLES

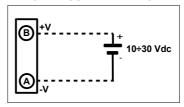


MECHANICAL DIMENSIONS (mm)

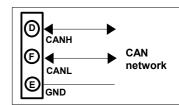




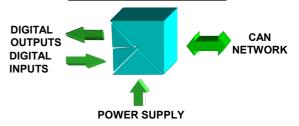
POWER SUPPLY WIRING



CAN NETWORK WIRING



ISOLATION STRUCTURE



LED SIGNALLING

LED	COLOR	STATE	DESCRIPTION
RUN	GREEN	ON	Device in Operational mode
		BLINKING	Device in Pre-Operational mode
		SLOW BLINKING	Device stopped
ERR	RED	OFF	No error
		ON	Bus off
		BLINKING	Invalid configuration
l n	RED	ON	State 1Digital Inputs.
		OFF	State 0 Digital Inputs.
O n	RED ON		State 1Digital Outputs.
		OFF	State 0 Digital Outputs.

HOW TO ORDER DAT 7188



The symbol reported on the product indicates that the product itself must not be considered as a domestic waste.

It must be brought to the authorized recycle plant for the recycling of electrical and electronic waste.

For more information contact the proper office in the user's city, the service for the waste treatment or the supplier from which the product has been purchased.