## Product datasheet Characteristics

# TM7BAO4VLA





#### Main

Intanti	
Range of product	Modicon TM7
Product or component type	Analog I/O expansion block
Range compatibility	Modicon LMC058 Modicon M258
Enclosure material	Plastic
Bus type	TM7 bus
System Voltage	24 V DC
Input/output number	4
Input/output number of splitter box	40

## Complementary

Analogue output number	4	
Analogue output type	Voltage	
Analogue output range	+/- 10 V	
Sensor power supply	24 V, 500 mA for all channels with overload, short-circuit and reverse polarity protection	
Analogue output resolution	11 bits + sign	
Electrical connection	1 male connector M8 - 4 ways power IN 1 female connector M8 - 4 ways power OUT 1 male connector M12 - B coding - 4 ways bus IN 1 female connector M12 - B coding - 4 ways bus OUT 4 female connectors M12 - A coding - 5 ways actuator	
Local signalling	2 LEDs bus diagnostic 2 LEDs sensor/actuator power supply status	
Operating position	Any position	
Fixing mode	By 2 screws	
Product weight	0.44 lb(US) (0.2 kg)	

## Environment

standards	IEC 61131-2
product certifications	C-Tick CURus GOST-R ATEX II 3g EEx nA II T5
marking	CE
ambient air temperature for operation	14140 °F (-1060 °C)
ambient air temperature for storage	-13185 °F (-2585 °C)
relative humidity	595 % without condensation or dripping water
pollution degree	2 conforming to IEC 60664
IP degree of protection	IP67 conforming to IEC 61131-2
operating altitude	06561.68 ft (02000 m)
storage altitude	09842.52 ft (03000 m)
vibration resistance	7.5 mm constant amplitude (f = $28$ Hz) conforming to IEC 60721-3-5 Class 5M3 2 gn constant acceleration (f = $8200$ Hz) conforming to IEC 60721-3-5 Class 5M3 4 gn constant acceleration (f = $200500$ Hz) conforming to IEC 60721-3-5 Class 5M3
shock resistance	30 gn 11 ms conforming to IEC 60721-3-5 Class 5M3
resistance to electrostatic discharge	8 kV in air conforming to EN/IEC 61000-4-2 6 kV in contact conforming to EN/IEC 61000-4-2
resistance to electromagnetic fields	9.14 V/yd (10 V/m) (f = 0.082 Hz conforming to EN/IEC 61000-4-3



	0.91 V/yd (1 V/m) (f = 22.7 Hz conforming to EN/IEC 61000-4-3
resistance to fast transients 1 kV shielded cable conforming to EN/IEC 61000-4-4   2 kV power supply conforming to EN/IEC 61000-4-4   1 kV input/output conforming to EN/IEC 61000-4-4	
surge withstand	1 kV power supply (common mode) conforming to EN/IEC 61000-4-5 0.5 kV power supply (differential mode) conforming to EN/IEC 61000-4-5 1 kV unshielded links (common mode) conforming to EN/IEC 61000-4-5 0.5 kV unshielded links (differential mode) conforming to EN/IEC 61000-4-5 1 kV shielded links (common mode) conforming to EN/IEC 61000-4-5 0.5 kV shielded links (differential mode) conforming to EN/IEC 61000-4-5
electromagnetic compatibility	EN/IEC 61000-4-6
disturbance radiated/conducted	CISPR 11

## **Offer Sustainability**

Green Premium product	Green Premium product
Compliant - since 1039 - Schneider Electric declaration of conformity	Compliant - since 1039 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available
WARNING: This product can expose you to chemicals including:	WARNING: This product can expose you to chemicals including:
Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.p65warnings.ca.gov	For more information go to www.p65warnings.ca.gov

## Contractual warranty

Warranty period

18 months

## **Analog Output Block**

#### Description



- (A) TM7 bus IN connector
- (B) TM7 bus OUT connector
- (C) 24 Vdc power IN connector
- (D) 24 Vdc power OUT connector
- (1) Output connectors
- (2) Status LEDs

#### **Connector and Channel Assignments**

Output connectors	Channel type	Channels
1	Output	Q0



2	Output	Q1
3	Output	Q2
4	Output	Q3

## TM7 Block, Size 1

#### Dimensions



## **Spacing Requirements**

mm in.



- 1 Straight cable
- 2 Elbowed cable

## **Installation Guidelines**

TM7 Block on an Aluminium Frame



NOTE: Maximum torque to fasten the required M4 screws is 0.6 N.m (5.3 lbf-in).







#### TM7 Block Directly on the Machine



(1) Size 1

(2) Size 2

The thickness of the base plate should be taken into consideration when defining the screw length.





NOTE: Maximum torque to fasten the required M4 screws is 0.6 N.m (5.3 lbf-in).

## **Wiring Diagram**

#### Pin Assignments for Output Connectors

Connection	Pin	M12 Output
1 2	1	Analog output +
5	2	24 Vdc actuator supply
Ve V	3	Analog output - (0 Vdc)
4 3	4	0 Vdc
	5	Shield

## Wiring the Power Supply

When you provide power to a TM7 I/O block using the 24 VDC Power OUT connector of the preceding I/O block, both blocks occupy the same 24 Vdc I/O power segment. However, if you connect an external isolated power supply to the 24 Vdc Power IN connector of a TM7 I/O block, you establish a new 24 Vdc I/O power segment beginning with that I/O block.

I/O block wired with one external 24 Vdc power supply:



(3) External fuse, Type T slow-blow, 8 A max., 250 V PS2 External isolated I/O power supply, 24 Vdc





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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