

I/O modules, series AES

R412018278

AVENTICS
Series AES
Field bus
modules

2023-08-31

AVENTICS Series AES Field bus modules

The AVENTICS Series AES fieldbus connection can be integrated into all AVENTICS fieldbus-compatible valve systems or can also be configured as a stand-alone solution. AES connects your AVENTICS valve system to all relevant fieldbus protocols and offers the integration of I/O-modules and enables optimized decentralized wiring of sensors. The integration of the Digital Twin enables users to be IIoT ready and use the AES to solve their interoperability challenges.



Technical data

Industry	Industrial
Version	I/O modules
Type	4AI4M12-E
E/A capable	connection with I/O
I/O module version	analog inputs/outputs
Number of I/O connections	4 inputs
Power plug IN type	Internal
Signal connection E/A type	Socket
Signal connection E/A thread size	M12x1
Signal connection E/A number of poles	5-pin
Signal connection E/A coding	A-coded
Analog inputs	0 ... 10 V 2 - 10 V 0 ... 20 mA 4 ... 20 mA
Min. ambient temperature	-10 °C
Max. ambient temperature	60 °C
Operational voltage electronics	24 V DC
Electronics voltage tolerance	-25% / +25%
Protection class	IP65

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Total current of sensors max.	0,5 A
Logic/actuator voltage	Galvanically isolated
Diagnosis	Short circuit
Generic emission standard in accordance with norm	EN 61000-6-4
Generic immunity standard in accordance with norm	EN 61000-6-2
Weight	0.11 kg

Material

Housing material	Polyamide fiber-glass reinforced
Part No.	R412018278

Technical information

You will find assignment schemes for the product in the operating instructions, or contact the nearest AVENTICS sales office.

The total current of all outputs (including valves) must not exceed 4 A in the overall system.

Voltage and short-circuit monitoring per LED.

The input channels have an input resistance of 120 ohms in the current range and 100 kilohms in the voltage range.

The output channels can drive a maximum ohmic load of 450 ohms in the current range. The minimum resistance in the voltage range is 1 kilohm.

The input circuit uses an 8-bit conversion.

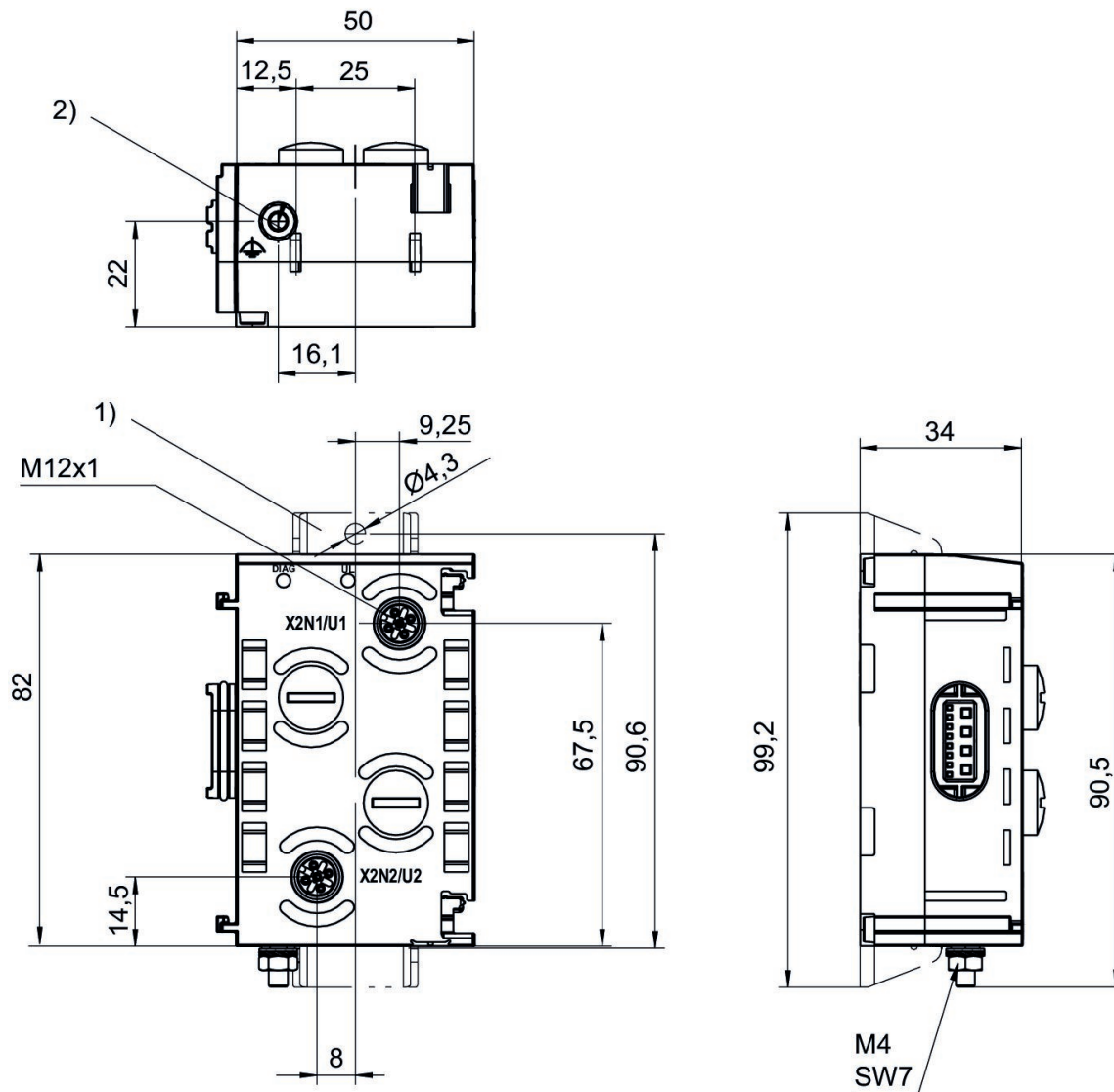
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Dimensions



- 1) Retaining bracket (optional)
- 2) Ground

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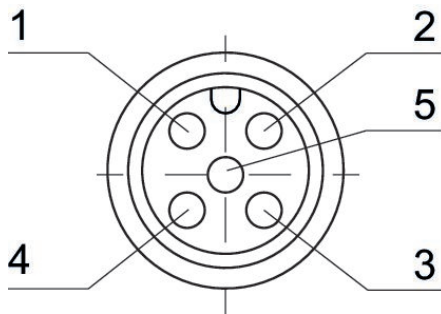
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Pin assignments

Socket (female)

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Pin	Socket (female) X2N1 - X2N2 2AI2M12-E	Socket (female) X2U1 - X2U4 4AI4M12-E	Socket (female) X2U1 - X2U2 2AO2M12-E
1	24 V DC	24 V DC	not assigned
2	Input signal (differential input, positive signal)	Input signal (differential input, positive signal)	Output signal
3	0 V DC	0 V DC	0 V DC
4	Input signal (differential input, negative signal, or connected externally to 0 V (pin 3))	Input signal (0 V, connected to pin 3 internally)	not assigned
5	Shield, connected internally with ground screw 2)	Shield, connected internally with ground screw 2)	Shield, connected internally with ground screw 2)