

# Temperature module - AXL SE UTH4 EF



1182068

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Axioline Smart Elements, Temperature recording module, Analog inputs: 4 (Inputs for thermocouples or linear voltage), connection technology: 2-conductor (shielded, twisted pair), External cold junction (can also be used as an additional Pt 100 sensor input): 1, connection technology: 4-conductor, degree of protection: IP20

## Product Description

You can integrate Axioline Smart Elements into systems with the Smart Element interface. This Smart Element acquires signals from standard thermocouples in industrial applications. The Smart Element supports various types of thermocouple conforming to DIN EN 60584-1 and DIN 46710 as well as linear voltages from -100 mV to +100 mV. You can use the Pt 100 input as a sensor input or as an external cold junction.

## Your advantages

- 4 analog input channels to connect thermocouples or linear voltages from -100 mV to +100 mV
- Connection of sensors in 2-conductor technology
- A Pt 100 sensor with 4-conductor technology can be connected as an external cold junction sensor or additional RTD measuring channel
- Internal detection and compensation of cold junction temperature (can be parameterized)
- Device rating plate stored

## Commercial Data

Item number	1182068
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	DRIB43
Product Key	DRIB43
GTIN	4063151371005
Weight per Piece (including packing)	40.75 g
Weight per Piece (excluding packing)	38.05 g
Customs tariff number	85437090
Country of origin	DE

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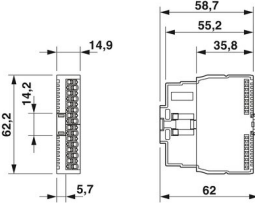


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## Technical Data

### Dimensions

Dimensional drawing	
Width	14.9 mm
Height	62.2 mm
Depth	62 mm

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Material specifications

Color	traffic grey A RAL 7042
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### Interfaces

#### Smart Element interface

Number of interfaces	1
Connection method	Card edge connector
Transmission speed	See system in which you use the Smart Element.
Start time until ready to operate	< 500 ms

### System properties

#### Module

Input address area	10 Byte
Output address area	10 Byte
Required parameter data	21 Byte
Required configuration data	6 Byte

### Input data

#### Analog

Input name	Analog inputs
Description of the input	Inputs for thermocouples or linear voltage
Number of inputs	4 (Inputs for thermocouples or linear voltage)
Connection method	Push-in connection

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Connection technology	2-conductor (shielded, twisted pair)
Sensor types that can be used (TC)	B, C, E, J, K, L, N, R, S, T, U, W, HK, mV input
Measured value representation	16 bits (15 bits + sign bit)
Input filter time	40 ms
	60 ms
	100 ms
	120 ms (adjustable)
Protective circuit	Surge protection
	Transient protection

## Analog

Input name	External cold junction (can also be used as an additional Pt 100 sensor input)
Number of inputs	1
Connection method	Push-in connection
Connection technology	4-conductor
Sensor types (RTD) that can be used	Pt 100
Input filter time	120 ms

## Product properties

Type	modular
Product type	I/O component
Mounting position	See the system in which the Smart Element is used.

## Insulation characteristics

Overvoltage category	II (IEC 60664-1, EN 60664-1)
Pollution degree	2 (IEC 60664-1, EN 60664-1)

## Electrical properties

### Potentials: Communications power supply of the Smart Elements ( $U_{SE}$ )

Supply voltage	using card edge connectors
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### Potentials: I/O supply ( $U_P$ )

Supply voltage	24 V DC (using card edge connectors)
Supply voltage range	19.2 V DC ... 30 V DC (including all tolerances, including ripple)
Current draw	max. 28 mA
	typ. 22 mA
Current consumption	min. 16 mA (without connected peripherals)
Power consumption	max. 0.67 W
	min. 0.38 W (without connected peripherals)
Protective circuit	Surge protection; See the system in which the Smart Element is used.
	Reverse polarity protection; Polarity protection diode

## Connection data

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## Connection technology

Connection name	I/O
Note on the connection method	Please observe the information provided on conductor cross sections in the "AxioLine Smart Elements" user manual.

## Conductor connection

Connection method	Push-in connection
Conductor cross section solid	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Stripping length	8 mm

## I/O

Connection method	Push-in connection
Note on the connection method	Please observe the information provided on conductor cross sections in the "AxioLine Smart Elements" user manual.
Conductor cross section, rigid	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 16
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Stripping length	8 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Degree of protection	IP20
Air pressure (operation)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Permissible humidity (storage/transport)	5 % ... 95 % (non-condensing)

## Standards and regulations

Protection class	III (IEC 61140, EN 61140, VDE 0140-1)
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## Mounting

Mounting type	Smart Element slot
Mounting position	See the system in which the Smart Element is used.

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## Classifications

### ECLASS

ECLASS-9.0	27242601
ECLASS-10.0.1	27242601
ECLASS-11.0	27242601
ECLASS-12.0	27242601

### ETIM

ETIM 8.0	EC001596
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### UNSPSC

UNSPSC 21.0	32151600
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