

## IN-ATK01\_XXX-000

## Temperature amplifier (Typ K)

### Function

Temperature amplifier for Typ-K sensors

- IN-ATK01\_050-000:  
Temperature amplifier (TypK) 0-500°C
- IN-ATK01\_100-000:  
Temperature amplifier (TypK) 0-1000°C



### Technical specifications

#### Electrical characteristics

Supply voltage.....	12 V
Measurement range:	
type 100.....	0 - 1000 °C
type 050.....	0 - 500 °C
Nominal gain.....	
type 100.....	5 mV / °C
type 050.....	10 mV / °C
Absolute accuracy.....	± 1 %
Calibration error@25 °C.....	± 1 °C
Cut-off frequency type 050 & 100...	20 Hz

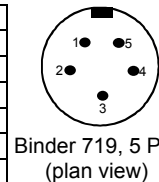
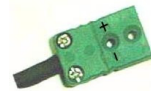
#### Connections

Amplifier input:

temperature cable.. [ + ] [ - ]  
                                   green white

Amplifier output:

Pin	Name	Color
1	AGND	black
2		
3	+12V	red
4		
5	Signal	white



Optional with open wires

Cable (=output)

type..... PUR  
 wire cross section.. 4xAWG26  
 length..... 1200 mm

Cable (temp. cable)

type..... Type-K  
 wire cross section.. 2xAWG24  
 length..... 800 mm

#### Mechanical characteristics

Dimensions.....	35 x 10 x 15 mm <sup>3</sup>
Weight.....	30 g
Cable:	
amplifier output:	
wire cross section..	4 x 0.14 mm <sup>2</sup>
type.....	PUR
length.....	1200 mm
sensor input:	
type.....	Typ K special
length.....	max. 1 m

#### Ordering information

Art.No.:

IN-ATK01\_XXX-000 temp range 500°C / 1000°C  
 ↳ type 050 or 100

---

**IN-ATK01\_XXX-000****Temperature amplifier (Typ K)**

---

---

**Calibration data**

---

For high precision measurements you have take care of the non linearity of type-K elements. Use the following table to compensate the non linearity of the elements.

°C	Type 050 (500°C) Output voltage [mV]	Type 100 (1000°C) Output voltage [mV]
0	2.7	1.35
25	250	125
100	1015	507.5
200	2015	1007.5
300	3022	1511
400	4057	2028.5
500	5107	2553.5
600	-	3080.5
700	-	3603
800	-	4116
900	-	4616.5
1000	-	5104.5