

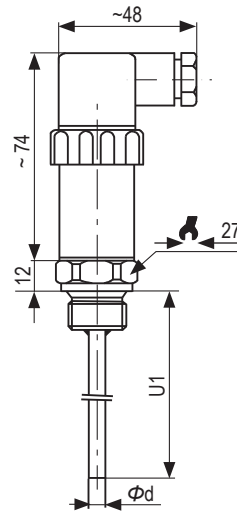


Resistance Thermometer 热电阻温度计

- Measuring ranges from -50°C to 200°C
- With transmitter, output 4 ... 20 mA
- Compact dimensions
- E-connection: L-Plug, M12×1 or cable outlet
- Process connection and sensor tube from 316L
- Process connection G1/2", 1/2NPT and others

- 测量范围从 -50°C 到 200°C
- 带变送器，输出 4 ... 20 mA
- 紧凑型尺寸
- 电气连接：L-Plug 插头，M12×1 插头或电缆输出
- 过程连接和探杆均为 316L 材质
- 过程连接为 G1/2"，1/2NPT 或其他

Drawing / 尺寸图



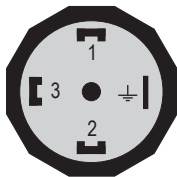
Legend / 图例:

U1 Insertion length / 插入深度

ϕd Thermowell diameter / 探杆直径

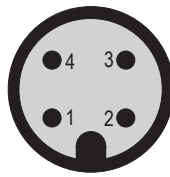
Wiring diagram / 接线图

L-Plug



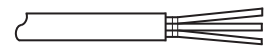
Pin / 针	4 ... 20 mA
1	U_b+
2	S+
3	---
\perp	---

M12 × 1



Pin / 针	4 ... 20 mA
1	U_b+
2	---
3	S+
4	---

Cable outlet / 电缆出线



Cable / 线缆	4 ... 20 mA
red / 红	U_b+
black / 黑	---
yellow / 黄	S+
white / 白	---

Series 8431 / 8431 系列

Resistance Thermometer / 热电阻温度计

Technical Specification / 技术规范		
Measuring range 测量范围	-50 ... +200	[°C]
Measuring element 测量元件	Pt100	
Measuring element tolerance value per IEC 60751 根据 IEC 60751 测量元件公差值	Class B、Class A B 级、A 级	
Accuracy @ 100°C 精度	0,5	[%]
Response time 响应时间	$t_{50} < 5$ 、 $t_{90} < 10$ (for sensor diameter 6 mm) $t_{50} < 5$ 、 $t_{90} < 10$ (适用于直径 6 毫米传感器)	[S]
Sensor diameter 探杆直径	6、8	[mm]
Sensor insertion length 传感器插入深度	50、100、120、150 (Max. 500)	[mm]
Fitting thread 螺纹连接	G1/2"、1/2NPT	
Tightening torque, recommended 拧紧扭矩, 推荐	20	[Nm]
Housing 外壳材质	Stainless Steel 316L / 不锈钢 316L	
Material of process connection 过程连接材质	Stainless Steel 316L / 不锈钢 316L	
Material of sensor tube 探杆材质	Stainless Steel 316L / 不锈钢 316L	
Effect of load 负载效应	± 0,05	[% / Ω]
Temperature units 温度单位	Configurable °C、°F、K 可选 °C、°F、K	
Output signal 输出信号	4 ... 20	[mA]
Supply voltage 供电电压	8 ... 36	[V DC]
Configuration and calibration data 配置和校准数据	Permanently stored in EEPROM 永久存储在 EEPROM	
Switch-on delay, electrical 开机延迟时间, 电气	< 10	[ms]
Measuring current 测量电流	0,1 ... 1,0	[mA]
Storage temperature 储存温度	-30 ... +85	[°C]
Ambient temperature 环境温度	-30 ... +85	[°C]
Vibration resistance acc. to IEC 60751 抗振动性 符合 IEC 60751	≤ 3	[g]
Electrical connection 电气连接	L-Plug、M12×1 or cable outlet L-Plug 插头、M12×1 插头或电缆出线	
Reverse polarity and short circuit protection 反极性和短路保护	Yes / 带	
Protection degree 防护等级	IP65 using L-Plug / L-Plug 插头为 IP65 IP67 using M12×1 or cable outlet/ M12×1 插头或电缆出线为 IP67	

Series 8431 / 8431 系列

Resistance Thermometer / 热电阻温度计

aumarg
SENSORS & CONTROLS

Specification key / 规格代码

8431 - [] - [] - [] - [] - [] - [] - [] - []

Measuring range / 测量范围	
006	0 ... 60 °C
008	0 ... 80 °C
010	0 ... 100 °C
012	0 ... 120 °C
016	0 ... 160 °C
020	0 ... 200 °C
210	-20 ... +100 °C
212	-20 ... +120 °C
505	-50 ... +50 °C
510	-50 ... +100 °C
515	-50 ... +150 °C
520	-50 ... +200 °C

Accuracy / 精度等级	
B	Class B / B 级
A	Class A / A 级

Output signal / 输出信号	
19	4 ... 20 mA

Options / 选项	
W	without / 无
B	2 m
E	5 m
K	10 m

E-connection / 电气连接	
51	L-Plug EN 175301-803-A / L-Plug 插头
64	M12 ×1 / M12 ×1 插头
71	Cable outlet / 电缆出线

Pressure fitting / 过程连接	
24	G1/2"
34	1/2NPT

Sensor insertion length / 插入深度	
050	50 mm
100	100 mm
150	150 mm

Sensor diameter / 探杆直径	
6	6 mm
8	8 mm

Sample:

8431-010-B-19-6-100-24-51-W

Resistance thermometer
Type: 8431
Measuring range: 0 ... 100°C
Accuracy: Class B
Output signal: 4 ... 20 mA
Sensor diameter: 6 mm
Sensor insertion length: 100 mm
Material of housing: stainless steel 316L
Wetted parts: stainless steel 316L
Pressure fitting: G1/2" EN 827
E-connection: L-Plug acc. to DIN EN 175301-803
Protection type: IP65

举例:

8431-010-B-19-6-100-24-51-W

热电阻温度计
型号: 8431
测量范围: 0 ... 100°C
精度等级: B 级
输出信号: 4 ... 20 mA
探杆直径: 6 mm
插入深度: 100 mm
本体材质: 不锈钢 316L
接液材质: 不锈钢 316L
过程连接: G1/2" EN837
电气连接: L-Plug 插头
防护等级: IP65