



工业热电阻 DIN



测 · 量
监 · 控
分 · 析

MWD



- 测量范围:
-198... +600 °C
- Pt100 sensor: class A,
class B, class 1/3,
class 1/10, or cryogenic
- 输出: 电阻 或 4...20 mA
- 选项: 变送器带 HART®
或 Profibus®/Fieldbus®,
显示
- 防护管 / 探杆材料:
不锈钢 1.4404, 其它
请另行咨询销售



T2

KOBOLD companies worldwide:

AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHINA, CZECHIA, FRANCE, GERMANY, GREAT BRITAIN, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, RUSSIA, SPAIN, SWITZERLAND, THAILAND, TUNISIA, TURKEY, USA, VIETNAM

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描述

KOBOLD 温度组件包括一个由不锈钢制成的坚固安装接头，带有螺纹、法兰或焊接工艺连接、连接头和测量元件。

测量元件中安装了符合IEC751 A、B、1/3 DIN 或 1/10 的 Pt100 温度传感器。根据要求，测量元件可以拆卸，因此，允许在不中断过程的情况下移除测量元件，因为定制的热电偶套管保留在安装中并密封。

这些传感器可以设计为单电阻或双电阻温度计，但4线版本除外，由于缺乏空间，只能使用一个Pt100。

电阻温度计可作为选件提供变送器，带标准4-20mA信号的变送器、HART® 协议 或 Profibus®/Fieldbus® 可供选择。

变送器

带变送器的电阻温度计必须在长距离传输中，不受任何干扰。封装在环氧树脂中的变送器位于连接头中，可提供4-20mA的温度线性输出信号。变送器可配备标准通信系统，如HART®协议或Profibus®/Fieldbus®。

应用领域

- HVAC
- 机械
- 化工和石化行业
- 加热/冷却 工艺
- 一般工业

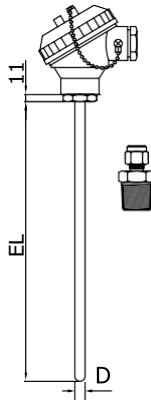
带螺纹和法兰连接的电阻温度计非常适合用于液体、固体和气体介质的温度测量。这些表压和真空安装方法的可靠水密性是选择的重要标准。

技术细节

测量原理:	热电阻
测量范围:	-70...+250 °C -70...+400 °C -70...+600 °C -198 ...+100 °C
传感器:	Pt100 单或双传感器 (1 x Pt100 or 2 x Pt100) IEC 751
精度:	class A, class B, 1/3 DIN, 1/10 DIN
环境温度:	-40...+150 °C 带陶瓷端子台 (不带变送器) -40...+85 °C (带变送器) -20...+70 °C (带LCD显示) -20...+80 °C (带LED显示)
连接头:	BR screwed cover, with chain, DIN B cover with two screws, BUZ, hinged cover BUZ-H, high model hinged cover and others
电气连接:	标准M20x1.5(其他另行咨询)
材料:	
传感器:	不锈钢 1.4404
连接头:	铝, 涂漆, 不锈钢, 和 PP (其他另行咨询)
端子台:	陶瓷 (不带变送器)
过程连接:	
螺纹:	G ¼, G½, G¾, G 1 male, ¼" NPT, ½" NPT, ¾" NPT, 1" NPT male
DIN-法兰:	DN 15, 20, 25, 32, 40, 50 PN 10, 16, 40
ANSI 法兰:	½", ¾", 1", 1½", 2" class 150, class 300
最大压力:	30 bar
传感器线:	2, 3 or 4-wire
输出:	电阻值
防护等级:	连接头 IP 54 ... 68 取决于线缆护套

型号	测量插件可更换	防护管 / Pmax
MWD-C, E, D	yes	yes / 30 bar
MWD-F, G, W ¹⁾	yes	no / P _{atm}
MWD-A, B, L	no	yes / 30 bar

¹⁾ 型号 F/G/W 只有套管 TWL-0



MWD-A 可拆卸接头

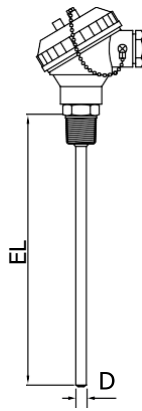
规格:
 传感器元件: Pt 100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 电气连接: M20x1.5
 最大压力: 30 bar (at 20 °C) 防
 护管: according to DIN 43772, 氧化镁 (MgO)
 材料: 不锈钢 1.4404 (316L)

型号	防护管直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-A	4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 9 = tube Ø9 A = tube Ø10 C = tube Ø12 X = special options	000 = none K15 = compression fitting G½-M C15 = compression fitting ½" NPT-M XXX = special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART® transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4 - 20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus®/Fieldbus® D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明 »EL«



MWD-L 螺纹连接

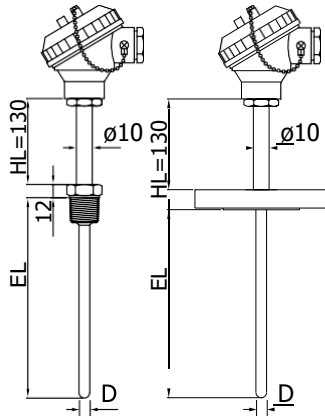
规格:
 传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 电气连接: M20x1.5
 最大压力: 30 bar (at 20 °C)
 防护管: according to DIN 43772, 氧化镁 (MgO)
 材料: 不锈钢 1.4404 (316L)

型号	防护管直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-L	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 9 = tube Ø9 A = tube Ø10 C = tube Ø12 X = special options	G08 = G ¼-M G15 = G ½-M G20 = G ¾-M G25 = G1-M N08 = ¼" NPT-M N15 = ½" NPT-M N20 = ¾" NPT-M N25 = 1" NPT-M XXX= special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART® transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4 - 20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus®/Fieldbus® D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 0 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明 »EL«



MWD-B 螺纹 或 法兰 连接

规格:
 传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 Neck pipe HL: 130 mm
 电气连接: M20x1.5
 最大压力: 30 bar (at 20 °C) 防
 护管: according to DIN 43772, 氧化镁 (MgO)
 材料: 不锈钢 1.4404 (316L)

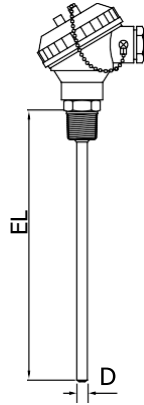
型号	防护管直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-B	4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 9 = tube Ø9 A = tube Ø10 C = tube Ø12 X = special options	G08 = G 1/4"-M G15 = G 1/2"-M G20 = G 3/4"-M G25 = G 1"-M	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART® transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4-20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4-20 mA with HART® protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus®/Fieldbus® D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications
		N08 = 1/4" NPT-M N15 = 1/2" NPT-M N20 = 3/4" NPT-M N25 = 1" NPT-M F15 = DN15 PN16 F20 = DN20 PN16 F25 = DN25 PN16 F32 = DN32 PN16 F40 = DN40 PN16 F50 = DN50 PN16 H15 = DN15 PN40 H20 = DN20 PN40 H25 = DN25 PN40 H32 = DN32 PN40 H40 = DN40 PN40 H50 = DN50 PN40 A15 = 1/2" CL150 RF A20 = 3/4" CL150 RF A25 = 1" CL150 RF A40 = 1 1/2" CL150 RF A50 = 2" CL150 RF B15 = 1/2" CL300 RF B20 = 3/4" CL300 RF B25 = 1" CL300 RF B40 = 1 1/2" CL300 RF B50 = 2" CL300 RF XXX = special options					

¹⁾ 只有变送器选项 0 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明 »EL«

No responsibility taken for errors;



MWD-C 螺纹连接 可拆卸测量镶件

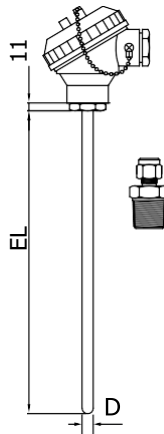
规格:
 传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 电气连接: M20x1.5
 最大压力: 30 bar (at 20 °C)
 防护管: according to DIN 43772
 材料: 不锈钢 1.4404 (316L)
 测量镶件: 氧化镁 (MgO)

型号	防护管直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-C	5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 9 = tube Ø9 A = tube Ø10 C = tube Ø12 X = special options	G08 = G ¼-M G15 = G ½-M G20 = G ¾-M G25 = G1-M N08 = ¼" NPT-M N15 = ½" NPT-M N20 = ¾" NPT-M N25 = 1" NPT-M XXX= special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART® transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4 - 20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus®/Fieldbus® D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 0 ²⁾ 订货时请书面写明测量范围³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明 »EL«



MWD-E 可拆卸螺纹接头 可拆卸测量镶件

规格:
 传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 电气连接: M20x1.5
 最大压力: 30 bar (at 20 °C) 防
 护管: according to DIN 43772
 材料: 不锈钢 1.4404 (316L)
 测量镶件: 氧化镁 (MgO)

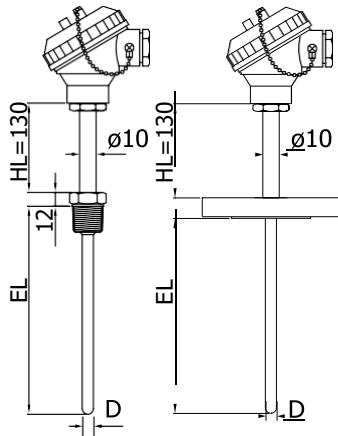
型号	防护管直径(D)	连接	传感器类型/种类	热电阻线	端子盒	变送器	选项
MWD-E	5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 9 = tube Ø9 A = tube Ø10 C = tube Ø12 X = special options	000 = none K15 = compression fitting G1/2"-M C15 = compression fitting 1/2" NPT-M XXX = special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART [®] transmitter included X = special options	0 = without, only with ceramic terminal A ^{2/4)} = 5333D transmitter 4 - 20 mA 2-wire B ^{2/4)} = 5337D transmitter 4 - 20 mA with HART [®] protocol 2-wire C ^{2/4)} = 5350A transmitter Profibus [®] /Fieldbus [®] D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线 »3«

注意: 订货时请书面写明 »EL«

No responsibility taken for errors;



MWD-D 可拆卸测量镶件和延伸杆

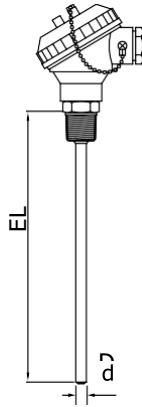
规格:
 传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 Neck pipe HL: 130 mm
 电气连接: M20x1.5
 最大压力: 30 bar (at 20 °C) 防
 护管: according to DIN 43772
 材料: 不锈钢 1.4404 (316L)
 测量镶件: 氧化镁 (MgO)

型号	防护管直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-D	6 = tube Ø6 8 = tube Ø8 9 = tube Ø9 A = tube Ø10 C = tube Ø12 X = special options	G08 = G ¼-M G15 = G ½-M G20 = G ¾-M G25 = G 1-M N08 = ¼" NPT-M N15 = ½" NPT-M N20 = ¾" NPT-M N25 = 1" NPT-M F15 = DN15 PN16 F20 = DN20 PN16 F25 = DN25 PN16 F32 = DN32 PN16 F40 = DN40 PN16 F50 = DN50 PN16 H15 = DN15 PN40 H20 = DN20 PN40 H25 = DN25 PN40 H32 = DN32 PN40 H40 = DN40 PN40 H50 = DN50 PN40 A15 = ½" CL150 RF A20 = ¾" CL150 RF A25 = 1" CL150 RF A40 = 1 ½" CL150 RF A50 = 2" CL150 RF B15 = ½" CL300 RF B20 = ¾" CL300 RF B25 = 1" CL 300 RF B40 = 1 ½" CL 300 RF B50 = 2" CL 300RF XXX = special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART [®] transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4 - 20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4 - 20 mA with HART [®] protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus [®] /Fieldbus [®] D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明 »EL«



MWD-F 螺纹连接 可拆卸测量镶件¹⁾，用于安装热电偶

规格：
 传感器元件： Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 过程连接： 螺纹
 电气连接： M20x1.5
 最大压力： Patm only with thermowell TWL-0
 测量镶件： according to DIN 43772, 氧化镁 (MgO)
 材料： 不锈钢 1.4404 (316L)

注意：热电偶订单细则请参见 TWL-0数据表。
 Without thermowell atmospheric pressure.

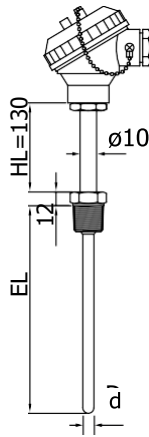
¹⁾ 无防护管

型号	测量镶件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-F	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	G08 = G ¼-M G15 = G ½-M G20 = G ¾-M G25 = G 1-M N08 = ¼" NPT-M N15 = ½" NPT-M N20 = ¾" NPT-M N25 = 1" NPT-M XXX = special options	A = 1x Pt100 class B (-70...+250 °C) B = 2x Pt100 class B (-70...+250 °C) C = 1x Pt100 class A (-70...+250 °C) D = 2x Pt100 class A (-70...+250 °C) E = 1x Pt100 class B (-70...+400 °C) F = 2x Pt100 class B (-70...+400 °C) G = 1x Pt100 class A (-70...+400 °C) H = 2x Pt100 class A (-70...+400 °C) I = 1x Pt100 class B (-70...+600 °C) J = 2x Pt100 class B (-70...+600 °C) K = 1x Pt100 class A (-70...+600 °C) L = 2x Pt100 class A (-70...+600 °C) M = 1x Pt100 class 1/3 DIN (-70...+250 °C) N = 1x Pt100 class 1/10 DIN (-70...+250 °C) O = 1x Pt100 class 1/3 DIN (-70...+400 °C) P = 1x Pt100 class 1/10 DIN (-70...+400 °C) Q = 1x Pt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART [®] transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4-20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4-20 mA with HART [®] protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus [®] /Fieldbus [®] D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 0 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意：订货时请书面写明 »EL«



MWD-G 螺纹连接带延长杆 可拆卸测量镶件¹⁾ 热电偶

规格:

传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others

Neck pipe HL: 130 mm

电气连接: M20x1.5

最大压力: Patm only with thermowell TWL-0

测量镶件: according to DIN 43772, 氧化镁 (MgO)

材料: 不锈钢 1.4404 (316L)

注意: 热电偶订单细则请参见 TWL-0数据表.

Without thermowell atmospheric pressure.

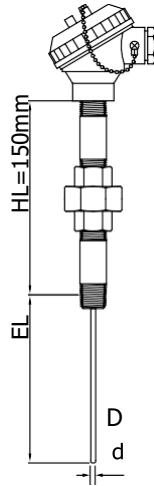
¹⁾ 无防护管

型号	测量镶件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-G	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	G08 = G 1/4-M G15 = G 1/2-M G20 = G 3/4-M G25 = G 1-M N08 = 1/4" NPT-M N15 = 1/2" NPT-M N20 = 3/4" NPT-M N25 = 1" NPT-M XXX= special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART® transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾⁴⁾ = 5333D transmitter 4-20 mA 2-wire B ²⁾⁴⁾ = 5337D transmitter 4-20 mA with HART® protocol 2-wire C ²⁾⁴⁾ = 5350A transmitter Profibus®/Fieldbus® D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 0 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明 »EL«



MWD-W 可拆卸测量镶件¹⁾ 延长杆 (螺纹对接), 热电偶

规格:

传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others

Neck pipe HL: 150 mm, (nipple union nipple)

电气连接: M20x1.5

最大压力: Patm only with thermowell TWL-0

测量镶件: according to DIN 43772, 氧化镁 (MgO)

材料: 不锈钢 1.4404 (316L)

注意: 热电偶订单细则请参见 TWL-0数据表。

Without thermowell atmospheric pressure.

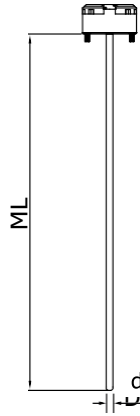
¹⁾ 无防护管

型号	测量镶件直径 (D)	连接	传感器类型/种类	热电阻线纜	端子盒	变送器	选项
MWD-W	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	N15 = 1/2" NPT-M XXX = special options	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ³⁾ = 4-wire	G = screw-cap with chain, aluminium I = screw-cap with chain, stainless steel 1.4401 P = screw-cap with chain, PP M ¹⁾ = mini head screw-cap with chain, aluminium K = head screw-cap, stainless steel 1.4401 B = DIN B screwed cover, aluminium Z = BUZ hinged cover, aluminium H = BUZ-H high model with hinged cover, aluminium E ¹⁾ = aluminium head with LCD display and HART [®] transmitter included X = special options	0 = without, only with ceramic terminal A ²⁾ 4) = 5333D transmitter 4-20 mA 2-wire B ²⁾ 4) = 5337D transmitter 4-20 mA with HART [®] protocol 2-wire C ²⁾ 4) = 5350A transmitter Profibus [®] /Fieldbus [®] D ⁴⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有变送器选项 0 ²⁾ 订货时请书面写明测量范围 ³⁾ 只有 1x Pt100

⁴⁾ 选项 A, B, C, D 选择热电偶线纜 »3«

注意: 订货时请书面写明 »EL«



MWD-M 测量镶件

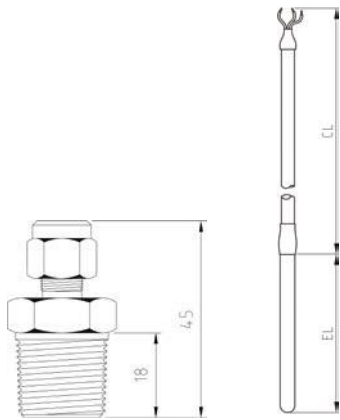
规格:
 传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
 变送器: 陶瓷端子台或变送器
 最大压力: 大气压
 测量镶件: according to DIN 43772, 氧化镁 (MgO)
 材料: 不锈钢 1.4404 (316L)

型号	测量镶件直径(D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-M	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	000 = without	A = 1xPt100 class B (-70...+250 °C) B = 2xPt100 class B (-70...+250 °C) C = 1xPt100 class A (-70...+250 °C) D = 2xPt100 class A (-70...+250 °C) E = 1xPt100 class B (-70...+400 °C) F = 2xPt100 class B (-70...+400 °C) G = 1xPt100 class A (-70...+400 °C) H = 2xPt100 class A (-70...+400 °C) I = 1xPt100 class B (-70...+600 °C) J = 2xPt100 class B (-70...+600 °C) K = 1xPt100 class A (-70...+600 °C) L = 2xPt100 class A (-70...+600 °C) M = 1xPt100 class 1/3 DIN (-70...+250 °C) N = 1xPt100 class 1/10 DIN (-70...+250 °C) O = 1xPt100 class 1/3 DIN (-70...+400 °C) P = 1xPt100 class 1/10 DIN (-70...+400 °C) Q = 1xPt100 class cryogenic (-198...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 ¹⁾ = 4-wire	0 = without	0 = without, only with ceramic terminal A ²⁾³⁾ = 5333D transmitter 4 - 20 mA 2-wire B ²⁾³⁾ = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire C ²⁾³⁾ = 5350A transmitter Profibus®/Fieldbus® D ³⁾ = prepared for subsequent mounting of transmitter	0 = without Y = acc. to specifications

¹⁾ 只有 1x Pt100 ²⁾ 订货时请书面写明测量范围, 线缆选项只有»3«

³⁾ 选项 A, B, C, D 选择热电偶线缆 »3«

注意: 订货时请书面写明长度 »ML«



MWD-S

规格:

最高温度取决于线缆

传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others

最大压力: 30 bar (at 20 °C) only metallic immersion

防护管: according to DIN 43763

材料: 不锈钢 1.4404 (316L)

线缆最高温度: PVC max. 80 °C
silicone max. 200 °C
PTFE max. 220 °C
fibreglass 350 °C

型号	测量镶件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-S	3 = tube Ø3 ¹⁾ 4 = tube Ø4 ¹⁾ 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	000 = without K15 = compression fitting G 1/2-M C15 = compression fitting 1/2" NPT-M XXX = special options	A = 1 x Pt100 class B (-70...+250 °C) B = 2 x Pt100 class B (-70...+250 °C) C = 1 x Pt100 class A (-70...+250 °C) D = 2 x Pt100 class A (-70...+250 °C) E = 1 x Pt100 class B (-70...+400 °C) F = 2 x Pt100 class B (-70...+400 °C) G = 1 x Pt100 class A (-70...+400 °C) H = 2 x Pt100 class A (-70...+400 °C) M = 1 x Pt100 class 1/3 DIN (-70...+250 °C) N = 1 x Pt100 class 1/10 DIN (-70...+250 °C) O = 1 x Pt100 class 1/3 DIN (-70...+400 °C) P = 1 x Pt100 class 1/10 DIN (-70...+400 °C) Q = 1 x Pt100 class cryogenic (-200...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 = 4-wire	S = silicone T = teflon P = PVC F = fibreglass with steel braid	0 = without X = special connector	0 = without 1 = with spring strain relief Y = according to specifications

¹⁾ 密封 Ø6 x 40 用于压接线缆

²⁾ 请书面写明防护管长度 »EL« 和线缆长度 »CL«



MWD-N

规格:

最高温度取决于线缆

传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others

最大压力: 30 bar (at 20 °C) 插入金属部分 according to DIN 43763

防护管: 螺纹

过程连接: 材料: 不锈钢 1.4404 (316L)

线缆最高温度: PVC max. 80 °C, silicone max. 200 °C
PTFE max. 220 °C, fibreglass 350 °C

型号	测量元件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-N	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	G08 = G ¼ M G15 = G ½ M G20 = G ¾ M G25 = G 1 M N08 = ¼" NPT-M N15 = ½" NPT-M N20 = ¾" NPT-M N25 = 1" NPT-M XXX = special options	A = 1 x Pt100 class B (-70...+250 °C) B = 2 x Pt100 class B (-70...+250 °C) C = 1 x Pt100 class A (-70...+250 °C) D = 2 x Pt100 class A (-70...+250 °C) E = 1 x Pt100 class B (-70...+400 °C) F = 2 x Pt100 class B (-70...+400 °C) G = 1 x Pt100 class A (-70...+400 °C) H = 2 x Pt100 class A (-70...+400 °C) M = 1 x Pt100 class 1/3 DIN (-70...+250 °C) N = 1 x Pt100 class 1/10 DIN (-70...+250 °C) O = 1 x Pt100 class 1/3 DIN (-70...+400 °C) P = 1 x Pt100 class 1/10 DIN (-70...+400 °C) Q = 1 x Pt100 class cryogenic (-200...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 = 4-wire	S = silicone T = teflon P = PVC F = fibreglass with steel braid	0 = without X = special connector	0 = without 1 = with spring strain relief Y = according to specifications

1) 请书面写明防护管长度 »EL« 和线缆长度 »CL«



MWD-I

规格:

最高温度取决于线缆

传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others

最大压力: 大气压

Handle: PVC material max. 80 °C

防护管: according to DIN 43763

材料: 不锈钢 1.4404 (316L)

线缆最高温度: PVC max. 80 °C

silicone max. 200 °C

PTFE max. 220 °C

fibreglass 350 °C

型号	测量元件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-I	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	000 = PVC handle XXX = special options	A = 1 x Pt100 class B (-70...+250 °C) B = 2 x Pt100 class B (-70...+250 °C) C = 1 x Pt100 class A (-70...+250 °C) D = 2 x Pt100 class A (-70...+250 °C) E = 1 x Pt100 class B (-70...+400 °C) F = 2 x Pt100 class B (-70...+400 °C) G = 1 x Pt100 class A (-70...+400 °C) H = 2 x Pt100 class A (-70...+400 °C) M = 1 x Pt100 class 1/3 DIN (-70...+250 °C) N = 1 x Pt100 class 1/10 DIN (-70...+250 °C) O = 1 x Pt100 class 1/3 DIN (-70...+400 °C) P = 1 x Pt100 class 1/10 DIN (-70...+400 °C) Q = 1 x Pt100 class cryogenic (-200...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 = 4-wire	S = silicone T = teflon P = PVC F = fibreglass with steel braid	0 = without X = special connector	0 = without Y = according to specifications

1) 请书面写明防护管长度 »EL« 和线缆长度 »CL«



MWD-P

规格:

最高温度取决于线缆

传感器元件: Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others

最大压力: 大气压

Handle: PVC material max. 80 °C

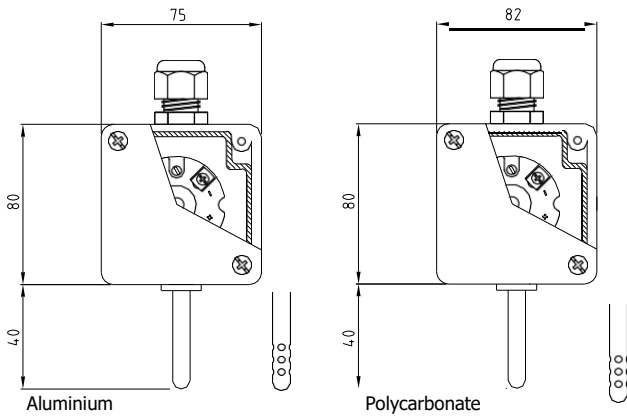
防护管: according to DIN 43763

材料: 不锈钢 1.4404 (SS316L)

线缆最高温度: PVC max. 80 °C
silicone max. 200 °C
PTFE max. 220 °C
fibreglass 350 °C

型号	测量管件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-P	3 = tube Ø3 4 = tube Ø4 5 = tube Ø5 6 = tube Ø6 8 = tube Ø8 X = special options	000 = PVC handle XXX = special options	A = 1 x Pt100 class B (-70...+250 °C) B = 2 x Pt100 class B (-70...+250 °C) C = 1 x Pt100 class A (-70...+250 °C) D = 2 x Pt100 class A (-70...+250 °C) E = 1 x Pt100 class B (-70...+400 °C) F = 2 x Pt100 class B (-70...+400 °C) G = 1 x Pt100 class A (-70...+400 °C) H = 2 x Pt100 class A (-70...+400 °C) M = 1 x Pt100 class 1/3 DIN (-70...+250 °C) N = 1 x Pt100 class 1/10 DIN (-70...+250 °C) O = 1 x Pt100 class 1/3 DIN (-70...+400 °C) P = 1 x Pt100 class 1/10 DIN (-70...+400 °C) Q = 1 x Pt100 class cryogenic (-200...+100 °C) X = special options	2 = 2-wire 3 = 3-wire 4 = 4-wire	S = silicone T = teflon P = PVC F = fibreglass with steel braid	0 = without X = special connector	0 = without Y = according to specifications

1) 请书面写明防护管长度 »EL« 和线缆长度 »CL«



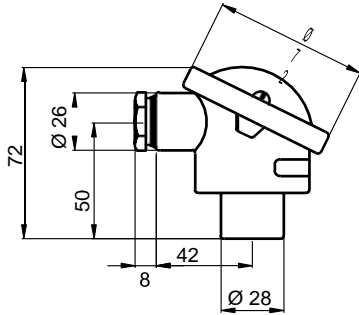
MWD-T

规格: Pt100 3-wire class B, A, 1/3, 1/10
 传感器元件: atmospheric pressure
 最大压力: 铝盒 或 树脂盒
 连接头: without holes outdoor installation
 防护类型: with holes indoor installation
 防护管: according to DIN 43763
 盒子最高耐温: 铝盒最高 80 °C
 树脂盒最高 80 °C

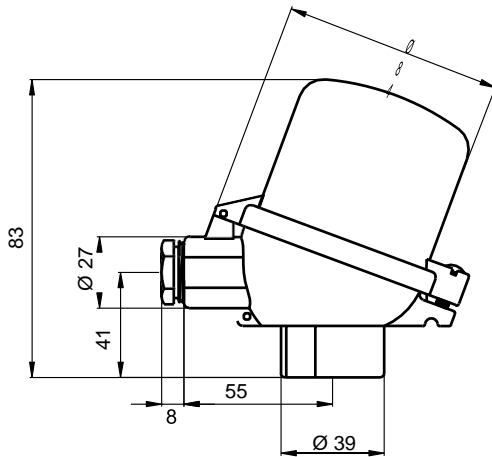
型号	测量元件直径 (D)	连接	传感器类型/种类	热电阻线缆	端子盒	变送器	选项
MWD-T	6 = tube Ø6 H = Ø6 with holes X = special options	000 = without	A = 1 x Pt100 class B (-40...+80 °C) B = 2 x Pt100 class B (-40...+80 °C) C = 1 x Pt100 class A (-40...+80 °C) D = 2 x Pt100 class A (-40...+80 °C) X = special options	2 = 2-wire 3 = 3-wire 4 = 4-wire	A = aluminium P = polycarbonate X = special options	0 = ceramic terminal A = 5333D transmitter 4...20 mA 2-wire B = 5337D transmitter 4...20 mA with HART® protocol 2-wire C = 5350A transmitter 4...20 mA Profibus®/Fieldbus® D = prepared for subsequent mounting of transmitter	0 = without Y = according to specifications

端子盒(续上文)

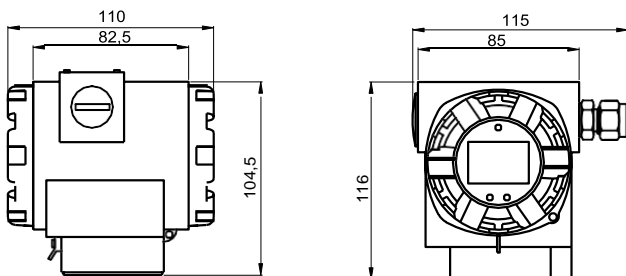
选项 B 外壳材料: 铝
防护等级: IP 54



选项 H 外壳材料: 铝
防护等级: IP 65



选项 E



主要特点

- 高精度 Pt100 满量程的0.02%
- 根据NAMUR NE 89 进行传感器错误检查
- 背光LCD显示

技术细节

外壳材料: 铝
电源电压: 7.5 ... 45 V_{DC}
输出信号: 4 ... 20 mA
负载: max. (V_{supply} 7.5 V)/0.022 A
报警信号: 下限: 3.8 mA
 上限: 20.5 mA
 开路: 3.6 mA or 22 mA
隔离电流: 2000 VAC (input/output)
响应时间: 1 s
稳定性: RTDs ±0.1% of reading or 0.1 °C
开关延迟: ≤5 s
环境影响: 可忽略
负载影响: 可忽略
电源影响: 可忽略
过滤配置: 0 ... 160 μA
分辨率: 0.3 μA
线缆入口: M20 内螺纹
环境温度: -40 ... +85 °C (-40 ... 185 °F)
储存温度: -40 ... +100 °C (-40 ... 212 °F)
结露环境: 允许
防护等级: IP 65
冲击和震动电阻: 4g/2to150Hz as per IEC 60068-26
LCD-Display, 带背光: 可视范围 32.5 x 22.5 mm;
 主显示: 5位, 7段, 字高8mm,
 范围: -19999 ... 99999
 附加显示: 8位 14段, 字高5mm
 显示传感器类型和单位

电气连接

