



应用

- 线性温度测量
Pt100...Pt1000, Cu50...Cu100, Ni100...Ni1000
or TC 热电偶 (Type B, E, J, K, N, R, S, T)
- 把线性的阻值信号转换成标准电流信号
- 把MV信号转换成标准的电流信号

特点

- 通用的输入 (RTD/TC/mV/Ω)
- 通过电脑软件自由设定量程
- 两线制技术, 4-20mA输出
- 环境温度下高精度 :
0.02% Pt100
0.1% TC
- 探头断路或短路情况下会产生错误信号
NAMUR NE 43
- 热电偶输入变送器内部做温度补偿
- 变送器厚度只有 12.6mm DIN-rail mounting

技术参数

输入	类型	测量范围	最小测量范围
热电阻 (RTD)	Pt100	-200 to 850 °C (-328 to 1562 °F)	10°C
	Pt500	-200 to 250 °C (-328 to 482 °F)	10°C
	Pt1000	-200 to 250 °C (-328 to 482 °F)	10°C
	<i>acc. to IEC 60751 (α = 0.00385)</i>		
	Cu50	-50 to 150 °C (-58 to 302 °F)	10°C
	Cu100	-50 to 150 °C (-58 to 302 °F)	10°C
阻值	Ni100	-60 to 180 °C (-76 to 356°F)	10°C
	Ni500	-60 to 180 °C (-76 to 356°F)	10°C
	Ni1000	-60 to 150 °C (-76 to 302 °F)	10°C
	<i>acc. to DIN 43760 (α = 0.006180)</i>		
连接类型	Widerstand Ω	0 to 400 Ω 0 to 2000 Ω	10 Ω 10 Ω
连接类型 : 2-, 3- or 4- 线制		元件电流 : < 0.5 mA	

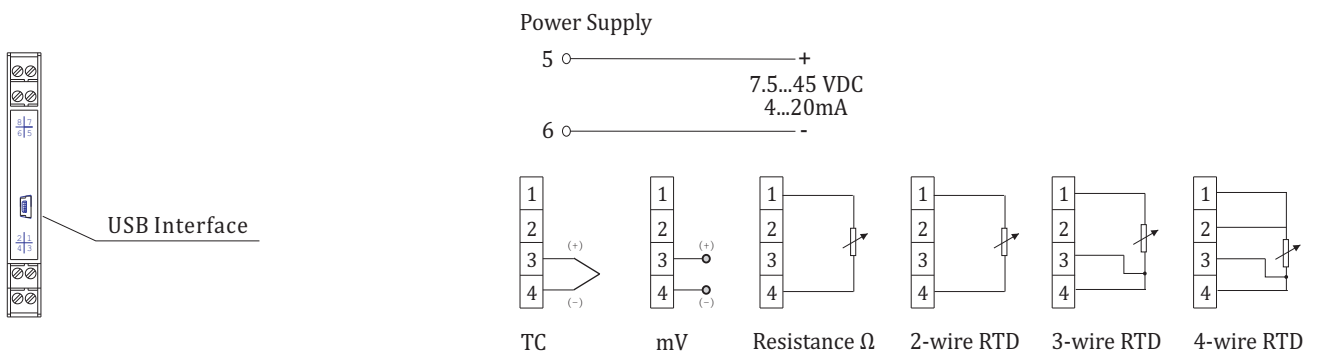
DIN 导轨高精度温度变送器

YST300

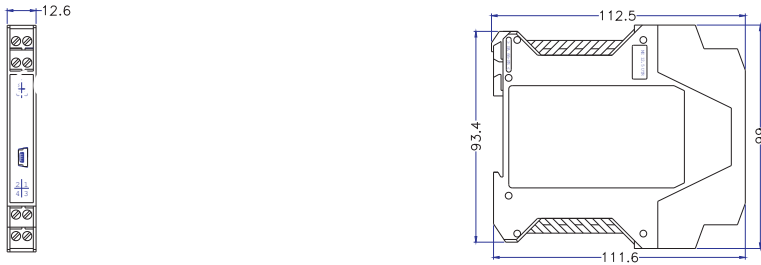
输入				
热电偶 (TC)	B (PtRh30-PtRh6)	0 to +1820 °C (32 to 3308 °F)	500°C	
	E (NiCr-CuNi)	-270 to +1000 °C (-454 to 1832 °F)	50°C	
	J (Fe-CuNi)	-210 to +1200 °C (-346 to 2192 °F)	50°C	
	K (NiCr-Ni)	-270 to +1372 °C (-454 to 2501 °F)	50°C	
	N (NiCrSi-NiSi)	-270 to +1300 °C (-454 to 2372 °F)	50°C	
	R (PtRh13-Pt)	-50 to +1768 °C (-58 to 3214 °F)	500°C	
	S (PtRh10-Pt)	-50 to +1768 °C (-58 to 3214 °F)	500°C	
	T (Cu-CuNi)	-270 to +400 °C (-454 to 752 °F)	50°C	
电压 (mV)	(mV)	-10 to 75mV	5mV	
		-100 to 100mV	5mV	
		-500 to 500mV	10mV	
		-1000 to 1000mV	20mV	
连接类型 : 2- 线制		元件电流 : < 0.5 mA		
供电电源				
供电电源		7.5 to 45V DC		
输出				
输出信号		4 ... 20 mA		
负载		$R_{max} = [(U_{supply} - 7,5) / 0,022] \Omega$		
信号报警	低于测量范围 : Linear drop to 3.8 mA			
	高于测量范围 : linear rise to 20.5 mA			
	传感器短路或断路 : 3.6 mA or 22.0 mA			
变送特性		温度线性, 阻值线性, 电压线性		
隔离		可选		
性能特点				
响应时间		0.25 s		
参考条件		校准温度 : +23 °C (73.4K) ± 5 K		
精度	输入	类型	精度	
		RTD	Pt100. Ni100	0.02%
			Pt500. Ni500	0.05%
			Pt1000. Ni1000	0.3%
			Cu50	0.2%
Cu100	0.3%			
TC	K, J, T, E	typ. 0.1%		
	N	typ. 0.1%		
	S, B, R	typ. 0.1%		
Ω	10 to 400 Ω	± 0.1 Ω or 0.02%		
	10 to 2000 Ω	± 1.5 Ω or 0.03%		
mV	-10 to 75mV	± 4 μV or 0.02%		
	-100 to 100mV	± 4 μV or 0.02%		
	-100 to 500mV	± 7.5 μV or 0.02%		
	-100 to 2000mV	± 7.5 μV or 0.02%		
开关延时		< 2 s		
供电电压影响		< ± 0.01%/V deviation from 24V		
环境温度影响		输入温度位移+输出温度位移 - Input 0 to 2000 Ω, typ. 0,0015% of measured value - Output 4 to 20mA, typ. 0,005% of measured value		

负载影响	± 0,02%/100Ω, Values refer to the full scale value
冷端影响 (for TC)	Pt100 DIN IEC 60751 Cl. B
长期稳定性	≤ 0,1 K/year oder ≤ 0,05%/year The % refer to the set span.
Self stability configuration	0 to 2%
Filter configurating	0 to 160μA
Resolution	0,3μA
环境条件	
安装结构	安装角度：不限
存储温度	
工作温度	-40 to +85 °C (-40 to 185 °F)
存储温度	-40 to +100 °C (-40 to 212 °F)
凝结	允许
防护等级	IP20
抗震	4g / 2 to 150Hz as per IEC 60068-26
电磁兼容 (EMC)	Interference immunity and interference emission according to IEC 61326-1 : 2006
其他	
尺寸	12.6 x 99 x 112.5mm
重量	Approx. 80g
材质	Housing: PC
认证	
CE-Mark	The device meets the legal requirements of the CE directives. B+B Technik confirms that the devices has been successfully tested by applying the CE mark.
其他	IEC 60529: Degree of protection provided by housing (IP-Code) IEC 61010: Safety requirements for electrical measurement, control and laboratory use. IEC 61326: Electromagnetic compatibility (EMC requirements) NAMUR: Standard working group for measurement and control technology in the chemical industry.

电气连接



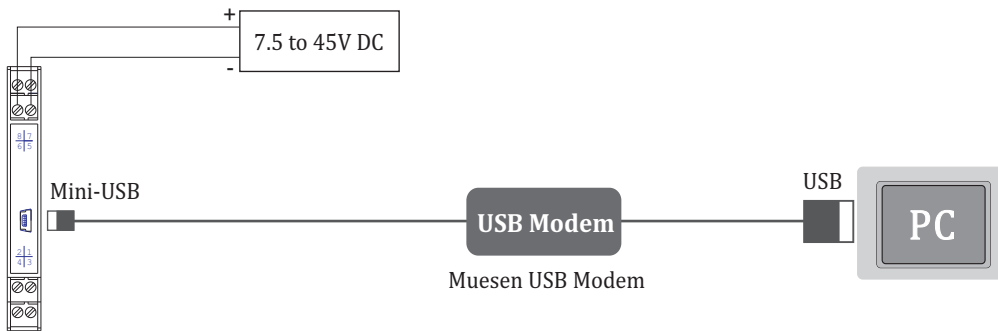
尺寸



Dimensions in mm

程序

With USB Modem



选型

Typ 300 series

Type					
Programmable Temperature DIN-rail transmitter	Typ 301				
Programmable Temperature DIN-rail transmitter 隔离	Typ 302				
HART® Programmable Temperature DIN-rail transmitter 隔离, with HART®-Protocol	Typ 303				
输入					
出厂设定 (Pt100, 3-Leiter, 0...100 °C)	1	0	0		
根据客户要求	9	9	9		
输出					
4...20mA, 2-wire				0	0
附加选项					
无					0 0
根据客户要求					9 9

选型举例

Type	Interface
Typ 301-100-00-00	USB
Typ 302-100-00-00	USB
Typ 303-100-00-00	HART®