



Temperature Transmitter



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TYPE	TR210 Series	TR220 Series
	Non-Isolation	Isolation
Input : RTD、TC、Rohm		

Function Summary

Features:

Power Supply(Vdc)	12~36 Vdc (Loop Power)	24 VDC ± 20%
Ambient temperature range(°C)	-40~85	-40~85
Isolation	N/A	1500Vac
Channels	1	1
CJC Accuracy(°C)	± 1	± 1

Input:

PT100 Span /min. span(°C)	-200~850 / 10	-200~850 / 10
PT1000 Span /min. Span(°C)	-200~850 / 10	-200~850 / 10
Rohm Span /min. Span(Ω)	0~400 or 0~4000 / 10	0~400 or 0~4000 / 10
TC types	B, E, J, K, N, R, S, T	B, E, J, K, N, R, S, T

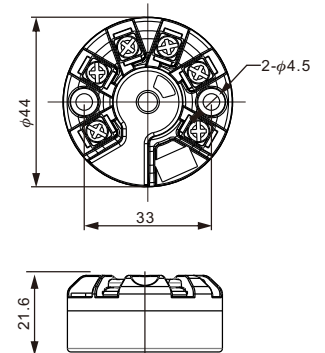
Output:

Loop Power 2-wire output	4~20mA or 20~4mA	4~20mA or 20~4mA
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Technical Summary

	Basic Accuracy	Temperature Coefficient
PT100-2Wiers/PT1000-2Wiers	± 1°C	± 0.005% / °C
PT100-3Wiers/PT1000-3Wiers	± 0.5°C	± 0.005% / °C
PT100-4Wiers/PT1000-4Wiers	± 0.5°C	± 0.005% / °C
TC type: E, J, K, N, R, S	± 1.5°C	± 0.01% / °C
TC type: B	± 2°C	± 0.04% / °C
TC type: T	± 1°C	± 0.01% / °C
Rohm	± 0.1Ω	± 0.005% / °C

Dimensions



(Unit: mm)

Ordering Information

TR2□□-□□□-□X□□-□

Type	10: None isolation 20: Isolation 1.5KV
Explosion	0: None
Communication	0: None
Output	0: 4~20mA 1: 20~4mA
Input type	T : Thermocouple/RTD D : RTD C : Thermocouple
Input range	On right
Unit	0: °C 1: °F

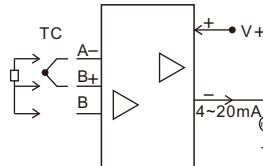
Input type	Unit	Input range		Input type	Unit	Input range					
C	°C	00	All Type By Type or PT100 2/4 Wires	T	°C	00	All Type By Type or PT100 2/4 Wires				
		01	All Type By Type or PT1000 2/4 Wire			01	All Type By Type or PT1000 2/4 Wire				
		02	All Type By Type or PT100 3 Wire			02	All Type By Type or PT100 3 Wire				
		03	All Type By Type or PT1000 3 Wire			03	All Type By Type or PT1000 3 Wire				
		10	K Type -200°C ~ 1370°C			10	K Type -200°C ~ 1370°C				
		11	K Type -90°C ~ 320°C			11	K Type -90°C ~ 320°C				
		20	J Type -210°C ~ 1200°C			20	J Type -210°C ~ 1200°C				
		21	J Type -90°C ~ 320°C			21	J Type -90°C ~ 320°C				
		30	T Type -200°C ~ 400°C			30	T Type -200°C ~ 400°C				
		40	E Type -200°C ~ 1000°C			40	E Type -200°C ~ 1000°C				
		50	R Type -50°C ~ 1760°C			50	R Type -50°C ~ 1760°C				
		60	S Type -50°C ~ 1760°C			60	S Type -50°C ~ 1760°C				
		70	B Type -250°C ~ 1820°C			70	B Type -250°C ~ 1820°C				
		80	N Type -200°C ~ 1300°C			80	N Type -200°C ~ 1300°C				
		D	°C			A0	PT100 2/4 wires -200°C ~ 850°C	T	°C	A0	PT100 2/4 wires -200°C ~ 850°C
						A1	PT100 3 wires -200°C ~ 850°C			A1	PT100 3 wires -200°C ~ 850°C
B0	PT1000 2/4 wires -200°C ~ 850°C			B0	PT1000 2/4 wires -200°C ~ 850°C						
B1	PT1000 3 wires -200°C ~ 850°C			B1	PT1000 3 wires -200°C ~ 850°C						



TYPE

**TR160 Series
Economical type**

Input : RTD, TC, Rohm,
mV, Linear Current,
Linear Voltage



Function Summary

Features:

Power Supply(Vdc)	18~36V
Ambient temperature range(°C)	-40~85
Isolation	None
Channels	1
CJC Accuracy(°C)	± 1
Input:	
PT100 Span /min. span(°C)	-200~850 / 10
Rohm Span /min. Span(Ω)	0~400 / 5
TC types	B, E, J, K, N, R, S, T
Linear Current, signal range	0~20mA, 4~20mA
Linear Voltage, signal range	0~0.5V, 0~1V, 0~5V, 0~10V, 0~20V

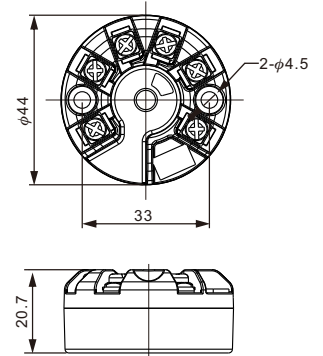
Output:

Loop Power 2-wire output	4~20mA/20~4mA
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Technical Summary

	Basic Accuracy	Temperature Coefficient
PT100	± 0.5°C	± 0.005°C
Rohm	± 0.4Ω	± 0.005°C
TC type: E, J, K, N, T	± 4°C	± 0.04°C
TC type: B	± 3°C	± 0.01°C
TC type: R, S	± 3°C	± 0.04°C
TC type: T	± 2°C	± 0.01°C
Voltage	± 0.1mV	± 0.005°C

Dimensions



(Unit: mm)

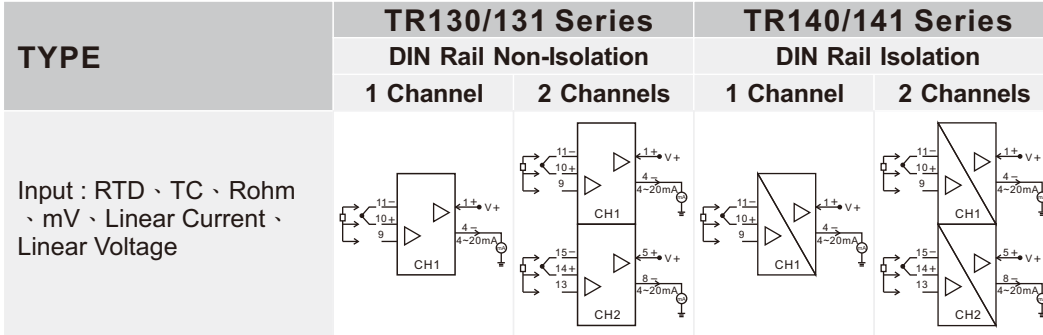
Ordering Information

TR160-00-□□□□-□

Input type	V---Voltage I---Current	T---Thermocouple/RTD R---Ohm
Display unit	0---°C 1---°F 9---Other	
Input	On right	
Range	0---4-20mA 1---20-4mA	

Input type	Unit	Input range
V	V	01 DC Voltage 0~0.5V
		02 DC Voltage 0~1V
		03 DC Voltage 0~5V
		04 DC Voltage 0~10V
		05 DC Voltage 0~20V
I	mA	01 DC Current 0~20mA
		02 DC Current 4~20mA
R	Ohm	01 Resistance 0~400Ohm

Input type	Unit	Input range
T	°C	00 All Type BY Type
		01 K Type -200°C~1370°C
		11 K Type -90°C~320°C
		02 J Type -210°C~1200°C
		12 J Type -90°C~320°C
		03 T Type -200°C~400°C
		04 E Type -200°C~1000°C
		05 R Type -50°C~1760°C
		06 S Type -50°C~1760°C
		07 B Type 250°C~1820°C
08 N Type -200°C~1300°C		
09 PT100 -200°C~850°C		



Function Summary:

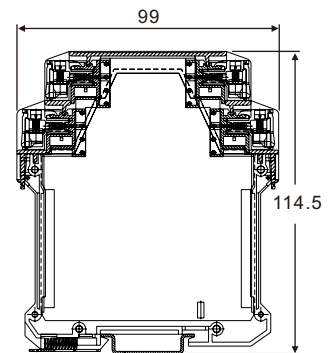
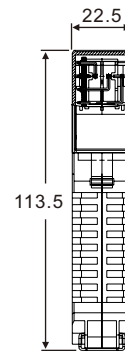
Features:	TR130/131 Series	TR140/141 Series
Power Supply(Vdc)	18~32V(Loop-Powered)	18~32V(Loop-Powered)
Ambient temperature range(°C)	-20~60	-20~60
Isolation	None	1500Vac
Channels	1 or 2	1 or 2
CJC Accuracy(°C)	≤± 1(Internal)	≤± 1(Internal)
Input:		
PT100 Span /min. span(°C)	-200~850 / 10	-200~850 / 10
Rohm Span /min. Span(Ω)	0~400 / 5	0~400 / 5
TC types	B, E, J, K, N, R, S, T	B, E, J, K, N, R, S, T
Linear Current, signal range	0~20mA, 4~20mA	0~20mA, 4~20mA
Linear Voltage, signal range	0~0.5V, 0~1V, 0~5V, 0~10V, 0~20V	0~0.5V, 0~1V, 0~5V, 0~10V, 0~20V
Output:		
2-wire output	4~20mA	4~20mA

Technical Summary:

	Basic Accuracy	Temperature Coefficient
PT100	≤± 0.5°C	≤± 0.005% / °C
Rohm	≤± 0.04Ω	≤± 0.005% / °C
TC type: E, J, K, N, T	≤± 2°C	≤± 0.01% / °C
TC type: B	≤± 5.5°C	≤± 0.04% / °C
TC type: R, S	≤± 3°C	≤± 0.04% / °C
Voltage	≤± 0.01mV	≤± 0.005% / °C

Dimensions

TR130/ 131/ 140/ 141 Series



(Unit: mm)

Ordering Information

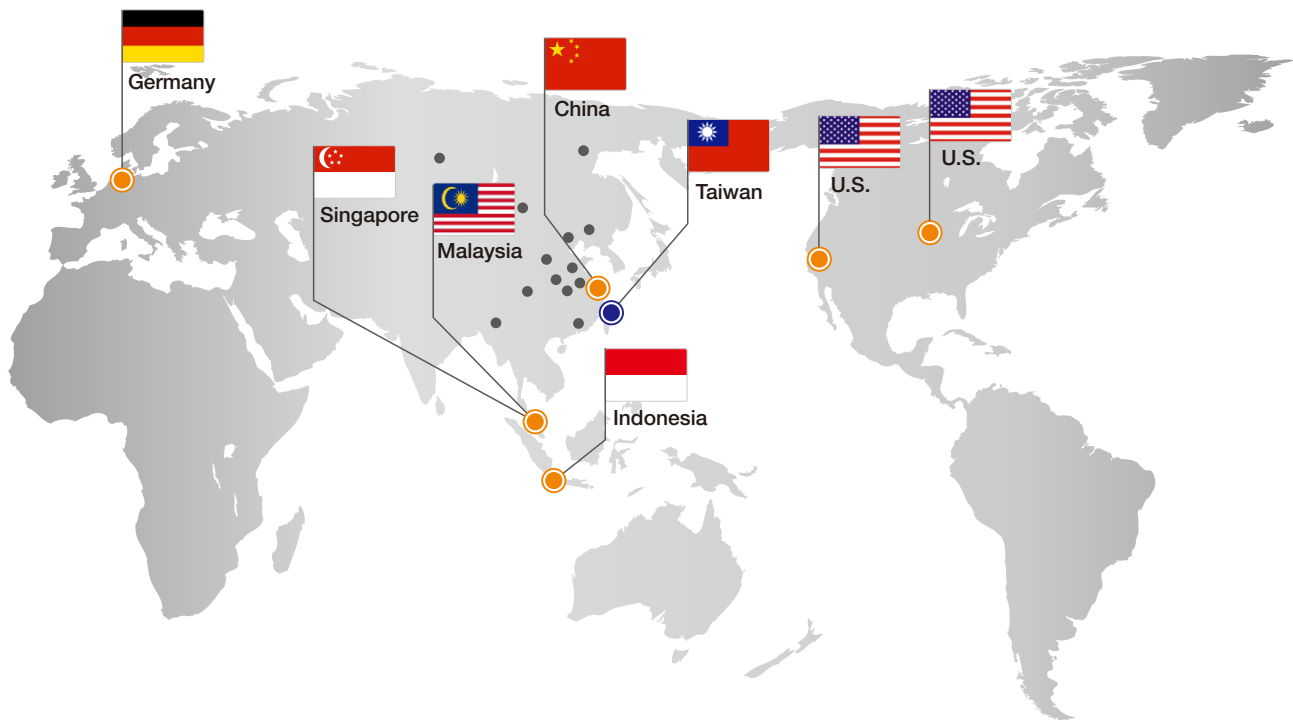
TR1□□-0□-□□□□-□

Type	30: DIN Rail none isolation (1 Channel) 31: DIN Rail none isolation (2 Channels) 40: DIN Rail isolation 1.5KV (1 Channel) 41: DIN Rail isolation 1.5KV (2 Channels)
Communication	0: none
Input type	V : DC Voltage T : Thermocouple/RTD I : DC Current R : ohm
Unit	0: °C 1: °F 9: Other
Input range	on right
Output	0: 4-20mA

Input type	Unit	Input range
V	V	01 DC Voltage 0~0.5V
		02 DC Voltage 0~1V
		03 DC Voltage 0~5V
		04 DC Voltage 0~10V
		05 DC Voltage 0~20V
I	mA	01 DC Current 0~20mA
		02 DC Current 4~20mA
R	Ohm	01 Resistance 0~400Ohm

Input type	Unit	Input range
T	°C	00 All Type BY Type
		01 K Type -200°C~1370°C
		11 K Type -90°C~320°C
		02 J Type -210°C~1200°C
		12 J Type -90°C~320°C
		03 T Type -200°C~400°C
		04 E Type -200°C~1000°C
		05 R Type -50°C~1760°C
		06 S Type -50°C~1760°C
07 B Type 250°C~1820°C		
08 N Type -200°C~1300°C		
09 PT100 -200°C~850°C		

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