Connect your PRC19A Connector-Transmitter to your 3-Pole RTD probe and you have a 4-20mA output!

RTD probe

Shown with
PRC19AJ, *3-pole jack*

PRC19AJ (jack)

RTD input → Output

PRC19AP (plug)

RTD input → Output
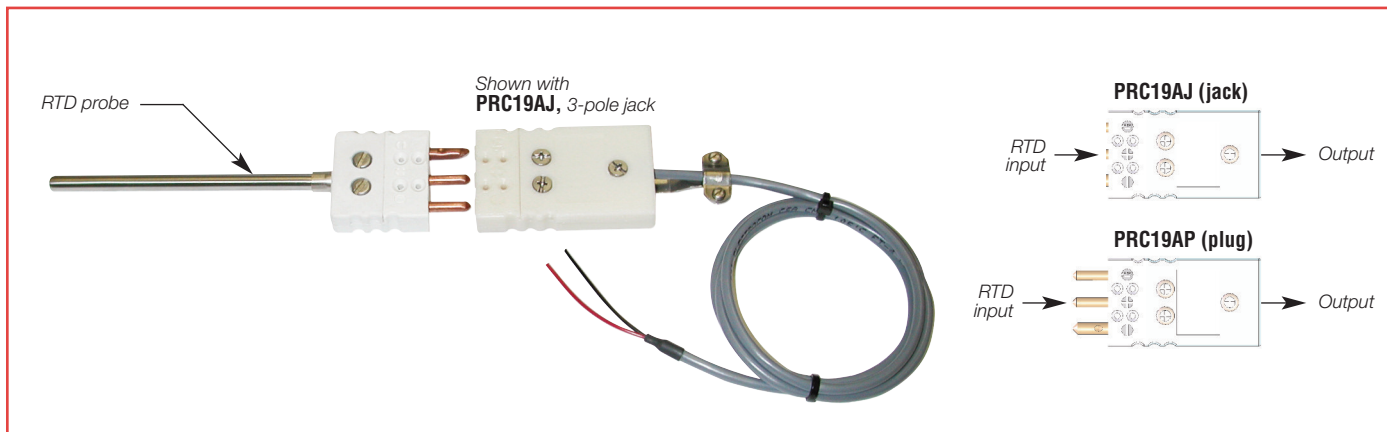
Install a 3-wire RTD probe to your PRC19B Connector-Transmitter and you have a 4-20mA output!

Install your RTD probe

Shown with
PRC19BP, *3-pole plug*

Standard connectors and cables available as accessories

PRC19BJ (jack)

RTD input → Output

PRC19BP (plug)

RTD input → Output

Dimensions

2.5"

1.4"

0.5"
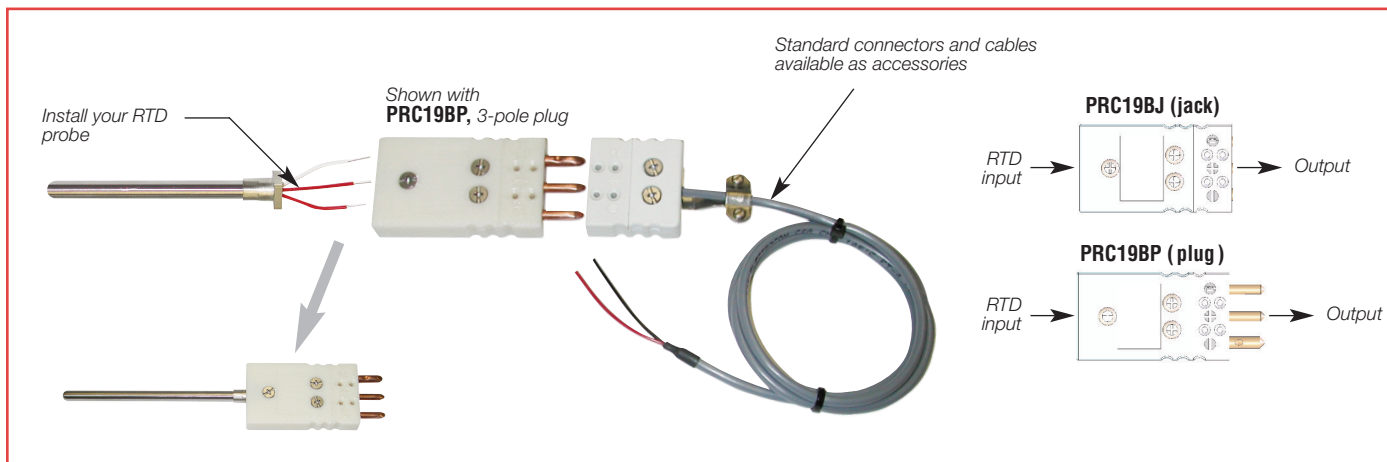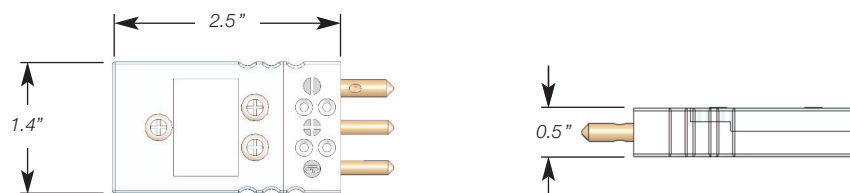
Product Features

- *Programmable 2-wire 4-20 mA or voltage output*
- *Standard 3-pole jack or plug RTD connector*
- *For Pt100 Ω 3-wire RTDs*
- *High accuracy, repeatability and stability*
- *Factory calibrated or customer calibrated*
- *Fully field re-programmable with module & PC based software*
- *For OEMs to assemble their own programmable probes*

Description

The INTEMPCO PRC™ Series is a high performance, low cost RTD Programmable Temperature Connector/Transmiter. Based on Intempco's patented MIST™ technology, the analog output can be re-scaled, recalibrated and reprogrammed to customer needs via a MIST-Pkit (PC interface module and software).

The PRC features an encapsulated miniature signal conditioner built into a RTD standard 3-pole connector. This integral design converts resistive change of an RTD sensor or probe accross a programmable temperature range to an industry standard analog ouput. Your PRC Connector/Transmitter can be factory pre-calibrated to your specifications, which is the prefered method of most users. Optionally, by use of PRC-MIST Pkit, you can field reprogram the PRC™ yourself.

PRC19J, *3-pole jack*

PRC19P, *3-pole plug*

Specifications

@Vnom = 24 VDC, **T.ambient** = 25°C, **Span nom.** = 100 °C

Input :	Pt100Ω, 3-wire, $\alpha = 0.00385$, DIN EN 60751
Output :	4-20 mA 2-wire, 0-5VDC, 1-5VDC & 0-10VDC 3-wire, all linear to temperature
Ranges :	Software re-scalable between -200 °C to 600 °C. (min. span of 50 °C)
Output Resolution :	0.0005 mA (15 bits)
Power Supply :	12-32 Vdc, polarity protected
Supply Effect :	Less than 0.001 %/V
Long Term Drift :	≤ 0.1 % FS/Year
Excitation Current RTD :	0.2 mA
Sensor Lead Res. RTD :	RTD resistance +2 times lead wire resistance must be less than 4000 ohms
Accuracy :	• ±(0.10 °C + 0.10 % of span) with one-point calibration[1]. • ±(0.05 °C + 0.05 % of calibrated span) with two-point calibration[2].
Span/Zero Adjustment :	By software
Maximum Loop Res. :	Rmax. = [(Vsupply – 7.5) * 40] ohms
Warmup :	30 seconds
Sensor Open Circuit :	Upscale 24 mA or Downscale 2.5 mA (for 4-20 mA output only)
RFI Effect :	1 % of span or less
Temperature Effect :	± 0.002 °C/°C
Amb. Operating Temp. :	-40 °C.....85 °C (-40 °F....185 °F)
Storage Temperature :	-40 °C.....85 °C (-40 °F....185 °F)
Housing Materials :	ABS plastic, copper contacts, brass inserts, steel screws
Environmental Protection :	Body IP65, NEMA 4X (IEC529)
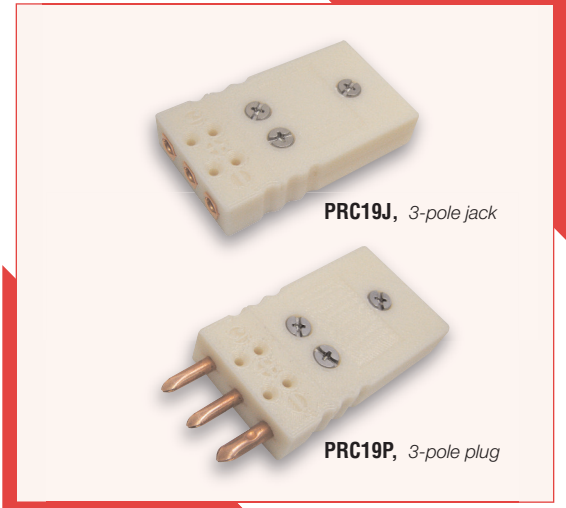
Temperature Standard Ranges		Input
°C	**(°F)**	**Pt100 (P)**
-50/+50	(-58/+122)	•
0/+50	(32/+122)	•
0/+100	(32/+212)	•
0/+150	(32/+302)	•
0/+200	(32/+392)	•
0/+300	(32/+572)	•
0/+400	(32/+752)	•
0/+600	(32/+1112)	•

For non-standard temperature ranges, specify range

Output	Code
4-20 mA loop, upscale burnout (std.)	LP
4-20 mA loop, downscale burnout	LD
0-5 VDC, 3-wire	VA
1-5 VDC, 3-wire	VB
0-10 VDC, 3-wire	VD

Custom Builder

Model	Input Code	Output Code	Range
PRC19AP			
PRC19AJ	P	LP, LD, VA, VB, VD	(___ /___)
PRC19BP			
PRC19BJ			

Ex.: **PRC19AP - P - LP - (0/100 ºC)**
Use above p/n and order **MIST-Pkit-2** *for connector re-programming*

[1] *Max. error on complete span. Error at calibration point ≤ 0.1 °C.*
[2] *Max. error on complete calibrated span. Error at calibration points ≤ 0.1 °C.*

- *Information furnished by Intempco is believed to be accurate and reliable. However, no responsability is assumed by Intempco for its use.*
- *Specifications subject to change without notice.*