4-20 MA OUTPUT, ISOLATED

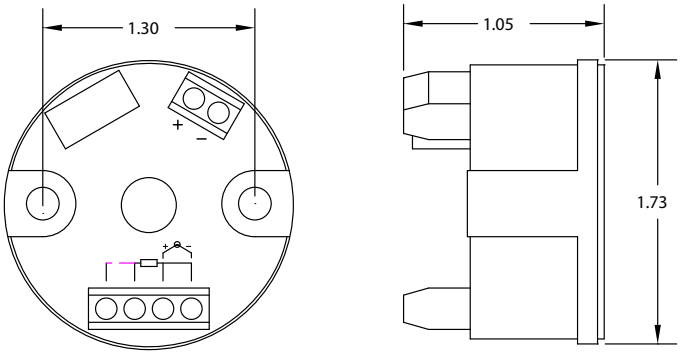
How to build a part number:

To order an Applied Sensor Technologies transmitter, select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Don't see exactly what you need? Give us a call!

TRANSMITTER TYPE	INPUT	RANGE	UNITS OF MEASURE	OPTION

TRANSMITTER TYPE*
UNI5-I – Isolated transmitter with single 4-20mA output for terminal head mounting

UNI5-I



INPUT
J – J type thermocouple
K – K type thermocouple
E – E type thermocouple
T – T type thermocouple
Pt100 – 100-ohm platinum RTD
Pt1000 – 1000-ohm platinum RTD
R – R type thermocouple
S – S type thermocouple
B – B type thermocouple
Ni100 – 100-ohm nickel RTD
Ni1000 – 1000-ohm nickel RTD

RANGE (specify minimum and maximum values, e.g., 0-100)*
– **Minimum Range Value** (temperature value that equals 4 mA)
– **Maximum Range Value** (temperature value that equals 20 mA)

UNITS OF MEASURE
Specify °F or °C

OPTION
DS01 – Downscale open circuit detection

Specifications

Input:	Thermocouple or 3-wire/4-wire RTD
Isolation (I/O):	1500 VAC galvanic
Supply Voltage:	6.5-36 VDC, polarity protected
Output:	4-20 mA or 20-4 mA
Sensor Lead Resistance:	RTD: 25 ohms max./wire T/C: 500 ohms max.
Maximum Load:	$R_{max} = (V_{supply} - 6.5)/0.022$
Linearity:	RTD ± 0.1% of span TC ± 0.2% of span
Stability:	0.01°C/°C
Ambient Temperature:	-40 to + 85°C
Housing:	PC/ABS
Open Circuit Detection:	Upscale standard

***Available sensor ranges and limitations**

Sensor Type	Min. Temp.	Max. Temp.	Min. Span
J T/C	-200°C	1000°C	2 mV
K T/C	-200°C	1350°C	2 mV
E T/C	-200°C	1000°C	2 mV
T T/C	-200°C	400°C	2 mV
R or S T/C	-50°C	1760°C	2 mV
B T/C	0°C	1820°C	2 mV
Pt100 RTD	-200°C	1000°C	10°C
Pt1000 RTD	-200°C	200°C	10°C
Ni100 RTD	-60°C	250°C	10°C
Ni1000 RTD	-100°C	150°C	10°C

Note: when used as an option in combination with a temperature sensor assembly, use option code **TR14** at end of assembly part #.

4-20 MA/HART® OUTPUT, ISOLATED

How to build a part number:

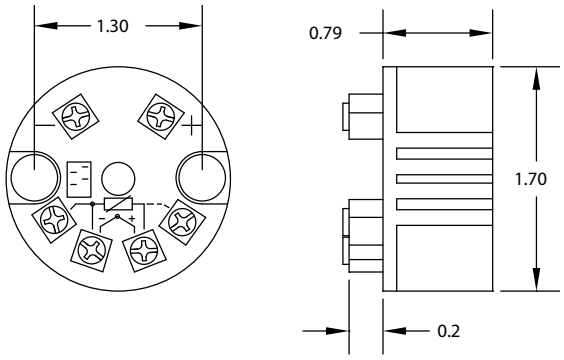
To order an Applied Sensor Technologies transmitter, select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Don't see exactly what you need? Give us a call!

TRANSMITTER TYPE	INPUT	RANGE	UNITS OF MEASURE	OPTION

TRANSMITTER TYPE
UNI5-H – Isolated transmitter with single 4-20mA/HART® output for terminal head mounting

INPUT
J – J type thermocouple
K – K type thermocouple
E – E type thermocouple
T – T type thermocouple
Pt100 – 100-ohm platinum RTD
Pt250 – 250-ohm platinum RTD
Pt500 – 500-ohm platinum RTD
Pt1000 – 1000-ohm platinum RTD
R – R type thermocouple
S – S type thermocouple
B – B type thermocouple
Ni100 – 100-ohm nickel RTD
Ni500 –500-ohm nickel RTD
Ni1000 – 1000-ohm nickel RTD
Cu10 – 10-ohm copper RTD
Cu100 – 100-ohm copper RTD

UNI5-H



RANGE (specify minimum and maximum values, e.g., 0-100)*
– **Minimum Range Value** (temperature value that equals 4 mA)
– **Maximum Range Value** (temperature value that equals 20 mA)

UNITS OF MEASURE
Specify °F or °C

OPTION
DS01 – Downscale open circuit detection

Specifications

Input:	Thermocouple or 3-wire/4-wire RTD
Isolation (I/O):	500 VDC
Supply Voltage:	10-40 VDC, polarity protected
Output:	4-20mA or 20-4 mA
Digital Output:	HART® protocol
Sensor Lead Resistance:	RTD: 500 ohms max. T/C: 10,000 ohms max. Effect: 0.001°C/ohm
Maximum Load:	$R_{max} = (V_{supply} - 10)/20$ mA
Stability:	Zero drift = 0.02°C/°C Span drift = 0.01 °C/ °C
Ambient Temperature:	-40 to + 85°C
Start-Up Time Warm-Up Time	5 sec. 5 min.
Housing:	Epoxy-coated zinc alloy
Open Circuit Detection:	Upscale standard

***Available sensor ranges and limitations**

Sensor Type	Min. Temp.	Max. Temp.	Min. Span
J T/C	-200°C	1200°C	50°C
K T/C	-270°C	1370°C	50°C
E T/C	-270°C	1000°C	50°C
T T/C	-270°C	400°C	50°C
R or S T/C	-60°C	1760°C	250°C
B T/C	0°C	1820°C	600°C
Pt100, Pt250, Pt500 and Pt1000 RTD	-200°C	850°C	25°C
Ni100, Ni, 500 and Ni1000 RTD	-60°C	250°C	25°C
Cu10 and Cu100 RTD	-200°C	250°C	25°C

Note: when used as an option in combination with a temperature sensor assembly, use option code **TR13** at end of assembly part #.

4-20 MA OUTPUT, ISOLATED

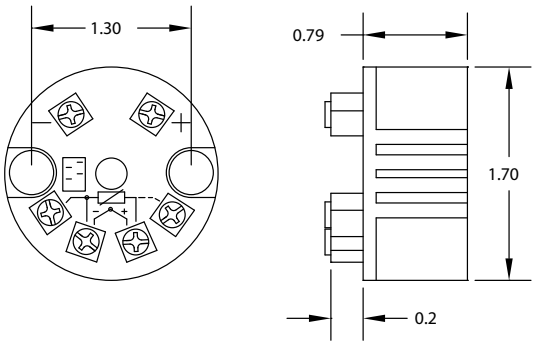
How to build a part number:

To order an Applied Sensor Technologies transmitter, select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Don't see exactly what you need? Give us a call!

TRANSMITTER TYPE	INPUT	RANGE	UNITS OF MEASURE	OPTION

TRANSMITTER TYPE*
UNI5-S – Isolated transmitter with single 4-20mA output for terminal head mounting

UNI5-S



INPUT
J – J type thermocouple
K – K type thermocouple
E – E type thermocouple
T – T type thermocouple
Pt100 – 100-ohm platinum RTD
Pt250 – 250-ohm platinum RTD
Pt500 – 500-ohm platinum RTD
Pt1000 – 1000-ohm platinum RTD
R – R type thermocouple
S – S type thermocouple
B – B type thermocouple
Ni100 – 100-ohm nickel RTD
Ni500 – 500-ohm nickel RTD
Ni1000 – 1000-ohm nickel RTD
Cu10 – 10-ohm copper RTD
Cu100 – 100-ohm copper RTD

RANGE (specify minimum and maximum values, e.g., 0-100)*
– **Minimum Range Value** (temperature value that equals 4 mA)
– **Maximum Range Value** (temperature value that equals 20 mA)

UNITS OF MEASURE
Specify °F or °C

OPTION
DS01 – Downscale open circuit detection

Specifications

Isolation (I/O):	500 VAC galvanic
Supply Voltage:	5-40 VDC, polarity protected
Sensor Lead Resistance:	RTD: 500 ohms max. T/C: 10,000 ohms max. Effect: 0.005°C/ohm
Maximum Load:	$R_{max} = (V_{supply} - 5V)/20$ mA
Stability:	Zero drift: 0.02°C/°C Span drift: 0.02°C/°C
Ambient Temperature:	-40 to + 85°C
Housing:	Epoxy-coated zinc alloy
Start-Up Time:	5 seconds
Warm-Up Time:	2 minutes
Open Circuit Detection:	Upscale standard

***Available sensor ranges and limitations**

Sensor Type	Min. Temp.	Max. Temp.	Min. Span
J T/C	-200°C	1200°C	50°C
K T/C	-270°C	1370°C	50°C
E T/C	-270°C	1000°C	50°C
T T/C	-270°C	400°C	50°C
R or S T/C	-60°C	1760°C	250°C
B T/C	0°C	1820°C	600°C
Pt100, Pt250, Pt500, and Pt1000 RTD	-200°C	850°C	25°C
Ni100, Ni500 and Ni1000 RTD	-60°C	250°C	25°C
Cu10 and Cu100 RTD	-200°C	250°C	25°C

Note: when used as an option in combination with a temperature sensor assembly, use option code **TR11** at end of assembly part #.

4-20 MA OUTPUT, NON-ISOLATED

How to build a part number:

To order an Applied Sensor Technologies transmitter, select the requirements for the categories listed below and fill in the corresponding boxes with your selection. Don't see exactly what you need? Give us a call!

TRANSMITTER TYPE	INPUT	RANGE	UNITS OF MEASURE	OPTION

TRANSMITTER TYPE
TC2 – Non-isolated transmitter with thermocouple input and single 4-20 mA output for terminal head mounting
RTD2 – Non-isolated transmitter with RTD input and single 4-20 mA output for terminal head mounting

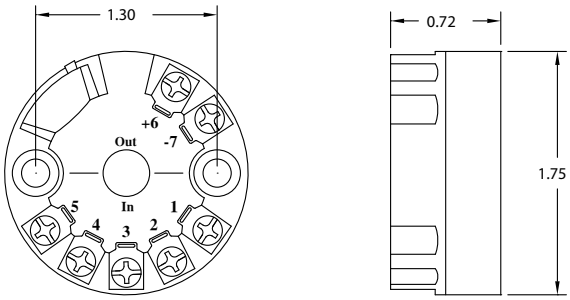
INPUT
J – J type thermocouple
K – K type thermocouple
E – E type thermocouple
T – T type thermocouple
Pt100 – 100-ohm platinum RTD
Pt500 – 500-ohm platinum RTD
Pt1000 – 1000-ohm platinum RTD
R – R type thermocouple
S – S type thermocouple
B – B type thermocouple
Ni100 – 100-ohm nickel RTD
Ni1000 – 1000-ohm nickel RTD
Cu10 – 10-ohm copper RTD
Ni120 – 120-ohm nickel RTD

RANGE (specify minimum and maximum values, e.g., 0-100)*
– **Minimum Range Value** (temperature value that equals 4 mA)
– **Maximum Range Value** (temperature value that equals 20 mA)

UNITS OF MEASURE
Specify °F or °C

OPTION
DS01 – Downscale open circuit and short circuit detection

RTD2 AND TC2



Specifications

Input:	Thermocouple or 3-wire/4-wire RTD
Supply Voltage:	8-32 VDC, polarity protected
Maximum Load:	$R_{max} = (V_{supply} - 8V)/0.022$
Linearity:	RTD ± 0.1% of span TC ± -0.2% of span
Stability:	0.01 °C/°C
Output:	4-20 mA temperature linearized
Ambient Temperature:	-40 to + 85 °C
Housing:	PC/ABS
Open Circuit Detection:	Upscale standard

Note: when used as an option in combination with a temperature sensor assembly, use option code **TR12** at end of assembly part #.

***Available sensor ranges and limitations**

Sensor Type	Min. Temp.	Max. Temp.	Min. Span
J T/C	-200°C	1000°C	2 mV
K T/C	-200°C	1350°C	2 mV
E T/C	-200°C	1000°C	2 mV
T T/C	-200°C	400°C	2 mV
R or S T/C	-50°C	1750°C	2 mV
B T/C	0°C	1800°C	2 mV
Pt100 RTD	-200°C	1000°C	10°C
Pt1000 RTD	-200°C	200°C	10°C
Ni100 RTD	-60°C	250°C	10°C
Ni120 RTD	-70°C	300°C	10°C
Ni1000 RTD	-100°C	150°C	10°C
Cu10 RTD	-200°C	260°C	100°C