TEMPERATURE °CONTROLS

SPECIALISTS IN INDUSTRIAL TEMPERATURE MEASUREMENT

T °CA

Catalogue 5.2

www.temperature.com.au

•THERMOCOUPLES • RTD SENSORS •

THERMOWELLS • EXTENSION CABLES

TEMPERATURE °CONTROLS
AUSTRALIAN MADE / AUSTRALIAN OWNED
EX-STOCK TEMPERATURE SENSORS/ACCESSORIES

Quality System
Quality @ Endorsed Company
SAI Global
Lic No 14412
ISO 9001

About Us

Established in 1988 in Sydney, Australia, Temperature Controls Pty Ltd is an independent, management owned manufacturing company specialising in the production of temperature and level sensors for all industries and applications.

We have the largest capacity of any company in Australia manufacturing temperature sensors and thermowells.

Temperature Controls maintain Australia's largest stock of Thermocouples, RTD Sensors, Thermowells, Liquid Level Switches and Extension Cables in single, multi pair and steel wired armour configuration.

Temperature Controls are an official distributor for the Shinko range of temperature controllers from Japan.

In 2006 Temperature Controls became the first Australian manufacturer to have thermocouples and RTD sensors IECEx approved for use in the Hazardous Areas, Ex d Flameproof and Ex e Increased Safety. All these products are shown in this catalogue which details the model number, description and price. Almost all of these items are available for shipping on day of order, subject to prior sale.

To assist customers in deciding which style of Temperature or Level sensor will suit their application, we have over 800 drawings, instruction manuals and product data sheets available on our web site.

Temperature Controls supply CAD drawings of custom built assemblies if required and welcome any enquiry to provide a quotation.

Temperature Controls Pty Ltd have sites in Sydney, Melbourne and Brisbane.

Our Sefton facility in Sydney's south west is a modern, well equipped, 2200 m2 over 2 factories where design, manufacture, machining, mechanical assembly and testing of components is carried out to customers specifications and requirements.

Sefton is the Head Office where the majority of stock is maintained, along with calibration equipment for use from - 20 °C to +1200 °C. To compliment our manufacturing facility a specialised bulk warehouse facility is in place to maintain a large inventory of screw in Thermowells, male connectors, Multipair and SWA thermocouple cables.

Our Yarraville premises in Melbourne's inner west maintain a stock range as per our catalogue and raw material for limited production of temperature assemblies.

At both sites we have specialised equipment to perform precision machining, welding (TIG / MIG and Inverter Plasma) along with repetition work.

Our Archerfield premises in Brisbane's south maintain a comprehensive range of stock temperature sensors, connectors, cables and temperature controllers to service customers requirements.

Temperature Controls Pty Ltd are unique in the Australian market in that we manufacture screwed and flanged thermowells and fittings in-house using centre lathes, CNC lathes and gundrilling machines.

Prices in this catalogue are based on exchange rates and supplier prices at time of printing; prices may vary at time of order; prices quoted exclude GST.

Due to ongoing product development specifications may change from those listed at publication.

TEMPERATURE °CONTROLS

SD

SD Reference numbers are Sales Drawings or Data Sheets in A4 PDF format Available on Email request or visit www.temperature.com.au to download

Proudly Manufacturing In Australia

CONTENTS

TEMPERATURE CONTROLLERS

Temperature °Controls are an official **Shinko** distributor for Australia

DCL SD 1105
DIN-RAIL

MODEL	OUTPUT	INPUT	*OPTION	PRICE
DCL33ARM	RELAY	MULTI	24V DC	$ 221.00
DCL33ASM	SOLID STATE RELAY	MULTI	24V DC	$ 221.00
DCL33AAM	4—20mA	MULTI	24V DC	$ 221.00
DCL33AAMSR	4—20mA	4-20mA	24V DC	$ 240.00
DCL33AVM	0—10V	MULTI	24V DC	$ 269.00

- Supply Voltage 100-240 VAC
- 4 Digit Display
- PID Control Action

- Temperature Controller, Transmitter or Alarm Unit
- Multi Input K, J, R, S, B, E, T, N, RTD 4—20mA 0-1/5/10 Volt
- Alarm Output Standard 24 V DC Open Collector Option Relay Contact

BCS2 SD 1915
48 x 48

Made in
Japan Quality

- 9 Step Pattern standard
- PID Auto tune
- On/Off Control
- Space Saving 60mm Case
- Supply Voltage 100-240 VAC
- Optional Supply 24 V AC/DC

Options include
- Heating and Cooling Outputs
- 2 x Alarm outputs
- Event Input
- Serial Communications
- Heater Burnout
- Retransmission

Digital Indicating Controllers

- Simple Program Control
- Large 5 Digit display
- Simple Converter Function
- Drip Proof / Dust Proof IP66

MODEL	OUTPUT	INPUT	*OPTION	VOLTAGE	PRICE
BCS2R0000	RELAY	MULTI	NIL	100—240 AC	$ 175.00
BCS2S0000	SOLID STATE RELAY	MULTI	NIL	100—240 AC	$ 175.00
BCS2A0000	4—20 mA	MULTI	NIL	100—240 AC	$ 175.00
BCS2R0010	RELAY	MULTI	ALARM X2	100—240 AC	$ 194.00
BCS2S0010	SOLID STATE RELAY	MULTI	ALARM X2	100—240 AC	$ 194.00
BCS2A0010	4—20 mA	MULTI	ALARM X2	100—240 AC	$ 194.00
BCS2R1000	RELAY	MULTI	NIL	24 V AC/DC	$ 175.00
BCS2S1000	SOLID STATE RELAY	MULTI	NIL	24 V AC/DC	$ 175.00
BCS2A1000	4—20 mA	MULTI	NIL	24 V AC/DC	$ 175.00
BCS2R1010	RELAY	MULTI	ALARM X2	24 V AC/DC	$ 194.00
BCS2S1010	SOLID STATE RELAY	MULTI	ALARM X2	24 V AC/DC	$ 194.00
BCS2A1010	4—20 mA	MULTI	ALARM X2	24 V AC/DC	$ 194.00

BCR2 SD 1915
48 x 96

MODEL	OUTPUT	INPUT	*OPTION	VOLTAGE	PRICE
BCR2R0000	RELAY	MULTI	NIL	100—240 AC	$ 250.00
BCR2S0000	SOLID STATE RELAY	MULTI	NIL	100—240 AC	$ 250.00
BCR2A0000	4—20 mA	MULTI	NIL	100—240 AC	$ 250.00
BCR2R0010	RELAY	MULTI	ALARM X2	100—240 AC	$ 269.00
BCR2S0010	SOLID STATE RELAY	MULTI	ALARM X2	100—240 AC	$ 269.00
BCR2A0010	4—20 mA	MULTI	ALARM X2	100—240 AC	$ 269.00
BCR2R1000	RELAY	MULTI	NIL	24 V AC/DC	$ 250.00
BCR2S1000	SOLID STATE RELAY	MULTI	NIL	24 V AC/DC	$ 250.00
BCR2A1000	4—20 mA	MULTI	NIL	24 V AC/DC	$ 250.00
BCR2R1010	RELAY	MULTI	ALARM X2	24 V AC/DC	$ 269.00
BCR2S1010	SOLID STATE RELAY	MULTI	ALARM X2	24 V AC/DC	$ 269.00
BCR2A1010	4—20 mA	MULTI	ALARM X2	24 V AC/DC	$ 269.00

All the same features as the
BCS2 but in larger 48 x 96 mm
mounting.

TEMPERATURE CONTROLLERS

Shinko now offer 3 year warranty on Temperature Controllers.

Digital Indicating Controllers

BCD2 SD 1915
96 x 96

All the same features as the BCS2 but in larger 96 x 96 mm panel mounting.

MODEL	OUTPUT	INPUT	*OPTION	VOLTAGE	PRICE
BCD2R0000	RELAY	MULTI	NIL	100—240 AC	$ 295.00
BCD2S0000	SOLID STATE RELAY	MULTI	NIL	100—240 AC	$ 295.00
BCD2A0000	4—20 mA	MULTI	NIL	100—240 AC	$ 295.00
BCD2R0010	RELAY	MULTI	ALARM X2	100—240 AC	$ 314.00
BCD2S0010	SOLID STATE RELAY	MULTI	ALARM X2	100—240 AC	$ 314.00
BCD2A0010	4—20 mA	MULTI	ALARM X2	100—240 AC	$ 314.00
BCD2R1000	RELAY	MULTI	NIL	24 V AC/DC	$ 295.00
BCD2S1000	SOLID STATE RELAY	MULTI	NIL	24 V AC/DC	$ 295.00
BCD2A1000	4—20 mA	MULTI	NIL	24 V AC/DC	$ 295.00
BCD2R1010	RELAY	MULTI	ALARM X2	24 V AC/DC	$ 314.00
BCD2S1010	SOLID STATE RELAY	MULTI	ALARM X2	24 V AC/DC	$ 314.00
BCD2A1010	4—20 mA	MULTI	ALARM X2	24 V AC/DC	$ 314.00

ACS SD 1259
48 x 48

MODEL	OUTPUT	INPUT	*OPTION	*OPTION	PRICE
ACS13ARM	RELAY	MULTI	AL2	24V DC	$ 185.00
ACS13ASM	SOLID STATE RELAY	MULTI	AL2	24V DC	$ 185.00
ACS13AAM	4—20mA	MULTI	AL2	24V DC	$ 185.00

- Short Depth Controller 56 mm
- PV Display Indication only Option
- USB PC Communication 1 to 1 Programing / Setup
- IP66 Front Panel
- 4 Digit Display 100—240 VAC
- Display Status Indication by Colour

JIR INDICATOR
96 x 48

MODEL	OUTPUT	INPUT	POWER SUPPLY	PRICE
JIR301M	3 ALARM & 4—20mA RETRANSMISSION	MULTI	240V DC	$ 318.00
JIR301M1	3 ALARM & 4—20mA RETRANSMISSION	MULTI	24V AC/DC	$ 318.00

- 48 x 96 Panel Mount Indicator
- Multi Input

SD 1109

PCD SD 1284

Pattern Controller
96 x 96

MODEL	OUTPUT	INPUT	*STD	*OPTION	PRICE
PCD33ARM	RELAY	MULTI	A2	24V DC	$ 542.00
PCD33ASM	SOLID STATE RELAY	MULTI	A2	24V DC	$ 542.00
PCD33AAM	4—20mA	MULTI	A2	24V DC	$ 542.00

- PID Control Action
- 9 Step / 9 Pattern Controller
- Supply Voltage 100-240 VAC
- IP66 Front Panel
- Monitoring Software / Setup
- Multi Input K, J, R, S, B, E, T, N, RTD 4—20mA 0-1/5/10 Volt

TCA CONTROL BOX

SD 260

ABS Enclosure with stainless steel front and rear panels with fused IEC 3 pin 240 volt socket and 2 mtr 10 amp 3 pin plug lead. Shinko BCS2 Controller with PID control action and Solid State relay inside. Standard 3 pin 10 amp socket on rear to plug in your heater.
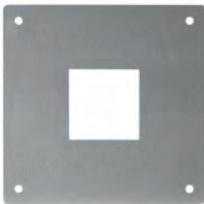
Standard unit supplied with 2 round pin large Thermocouple socket in front panel. Option for RTD PT 100 Ohm sensor input with 3 pin socket fitted to front panel

MODEL NUMBER	PRICE
TCCOBOXU	$455.00
TCCOBOXRTD	$465.00

HINGE WINDOWS AND MOUNTING PLATES

2 mm Thick S/Steel Panel 130 mm square

Laser Cut internal hole c/w 4 x 5 mm holes.

Ideal to cover odd size cut outs in old panels

MODEL	DESCRIPTION	PRICE
TC48PLATE	Suit 48 x 48 mm Controller	$28.00
TC48X96PLATE	Suit 48 x 96 mm Controller	$28.00

Screw down Window

MODEL	DESCRIPTION	PRICE
TCHINGE48	48 x 48mm Clip Lock Face	$98.00
TCHINGE48X96	48 x 96mm Clip Lock Face	$108.00
TCHINGE96	96 x 96mm Clip Lock Face	$128.00
TCWINDOW48	Window Screw Down 48 x 48 mm	$28.00

THERMOCOUPLE & RTD SWITCHES

SD 1763

FRONT

2 WIRE
Selector switch panel mounted No external power required

MODEL	CALIBRATION	CONTACTS	PRICE
TCKSW6	THERMOCOUPLE	6 WAY	$570.00
TCKSW12	THERMOCOUPLE	12 WAY	$570.00

REAR

3 Pole make before break switch silver plated contacts

MODEL	CALIBRATION	CONTACTS	PRICE
TCPSW12	RTD 3 WIRE	12 WAY	$716.00

NOVUS ELECTRONIC THERMOSTAT

Novus Panel mount electronic thermostats.

The Novus units that accept NTC Thermistors are compatible with Carel and Eliwell units.

Panel Mount with IP65 Protection (Cut out 70mm x 29mm)

Power Supply 100 to 240V AC or 12 to 24V DC

MODEL	INPUT	PRICE
TCN321NTC	Thermistor Input– 50 to 120 Deg C Range 100-240V AC	$73.00ea
TCN321NTC12V	Thermistor Input– 50 to 120 Deg C Range 12-24V DC	$76.00ea
Each Controller supplied complete with Thermistor 3000mm tails & 30 x 5mm Tip		
TCNTC10K3M	SPARE THERMISTOR WITH 3MTR CABLE –40 TO 80 Deg C 30 x 5mm TIP	$16.00ea
TCN321TC	Thermocouple Type J, K T-50 to 1000 Deg C 100-240V AC	$90.00ea
TCN321TC12V	Thermocouple Type J, K T-50 to 1000 Deg C 12-24V DC	$93.00ea
No Thermocouple supplied with Controller		
TCN321P	PT100 'Ω INPUT SUPPLY NO RTD SUPPLIED WITH THIS CONTROLLER	$84.00ea
Refrigeration Controller with Defrost Each Controller supplied complete with Thermistor 3000mm tails & 30 x 5mm Tip		
TCN321RNTC	Thermistor Input-50 to 120 Deg C Range 100-240V AC	$84.00ea
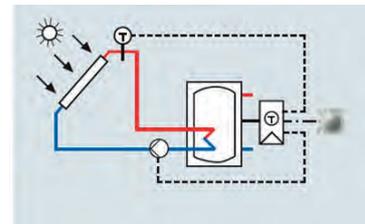
THERMISTOR PROBE   SOLAR HEATING APPLICATION

MODEL	INPUT	PRICE
TCN321S12V	2x THERMISTOR INPUTS DEFFERENTIAL CONTROLLER FOR SOLAR HEATING SUPPLIED C/W 2 X THERMISTOR SENSORS	$96.00ea

CAHO CONTROLLERS

Low Cost digital indicating / dial set Temperature Controllers with Relay output

MODEL	SIZE	INPUT	OUTPUT	ALARM	RANGE	PRICE
TCSRT901GKR01	96 x 96	K	RELAY	YES	0-800 °C	$199.00
TCSRT901EKR01	96 x 96	K	RELAY	YES	0-400 °C	$199.00
TCSRT701EKR01	72 x 72	K	RELAY	YES	0-400 °C	$189.00
TCSRT701EKRON	72 x 72	K	RELAY	NO	0-400 °C	$165.00
TCSRT701DKRON	72 x 72	K	RELAY	NO	0-200 °C	$165.00
TCSRT901EPRON	96 x 96	PT100'Ω	RELAY	NO	0-400 °C	$189.00
TCSRT701DPRON	72 x 72	PT100'Ω	RELAY	NO	0-200 °C	$165.00

72 x 72

Easy to use, no buttons.

Suitable for Plastic Machinery, Fryers & Food ovens.

SD 1215

96 x 96

THERMOCOUPLE PROJECT STYLES

Temperature Controls supply specialised sensors for Refinery, Chemical, Brick and Cement manufacturing.
Some examples are:

SD 012

SD 017

SD 020

SD 018

SD 176

Nipple Connection
- Offers Spring Loading or welded stem
- Provides fast response in thermowell or process

Nipple/Union/Nipple NUN Connection
- Offers Spring Loading
- Ability to remove probe without disconnecting wiring.

Pipe Nipple Extension PNE
- Offers Spring Loading
- Lagging extension so head termination is removed from heat source.

Ceramic Furnace Probe CFP
- Ceramic sheath over Thermocouple Element.
- Lagging extension so Lead termination is removed from heat source.
- Suitable for use to 1800°C

Metal Protection Probe MPP
- High Nickel Alloy Protection Sheath Over Element
- Strong - not easily broken.
- Inconel 600/601, 316, 446, 253 MA Stainless Steels

TCA STOCK PLASTIC INDUSTRY SENSORS

YM3 Plastic Industry
c/w BF4 1/8"
BSP adaptor

SD 006

SD 005

TC09 Barrel
Melt Assembly

TC08 Single Pin
1/8" BSP Adaptor

MODEL	CALIBRATION	DIAMETER	LENGTH MM	PRICE
TC08K1000	K	4.5	1000	$41.75
TC08K1500	K	4.5	1500	$45.50
TC08K2000	K	4.5	2000	$50.00
TC08K3000	K	4.5	3000	$58.50
TC08K4000	K	4.5	4000	$67.00
TC08K6000	K	4.5	6000	$84.00
TC08J1000	J	4.5	1000	$41.75
TC08J1500	J	4.5	1500	$45.50
TC08J2000	J	4.5	2000	$50.00
TC08J3000	J	4.5	3000	$58.50
TC08J4000	J	4.5	4000	$67.00
TC08J6000	J	4.5	6000	$84.00

MODEL	CALIBRATION	DIAMETER	LENGTH MM	PRICE
TC09K0075	K	3.0	75	$146.00
TC09K0150	K	3.0	150	$164.00
TC09J0075	J	3.0	75	$146.00
TC09J0150	J	3.0	150	$164.00

MODEL	LENGTH MM	PRICE
TC08BF4	29mm	$3.00
TC08BF6	50mm	$5.00
TC08BF8	75mm	$8.00

TCA THERMOCOUPLE SENSORS

Temperature Controls are able to manufacture Thermocouple sensors to suit your application.
Our scope of MIMs (Mineral Insulated Metal Sheath) thermocouples range from 0.5mm dia to 12.7mm dia with heavy wall,
We keep extensive stocks of single, duplex, triplex conductor configurations with special stainless steel and high nickel alloy sheath material. We can also manufacture plastic industry sensors to order and thermocouple wire cut to length and junctioned by TIG welding
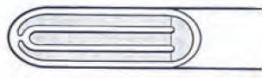Standard Assemblies have insulated junctions; bonded or exposed junctions on request.

SD 1457

Exposed
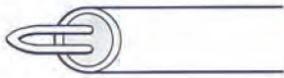
Fastest Response,
recommended For Air Temperature.

Grounded

Fast Response, rapid transfer of heat to junction. Not suited to non isolated transmitters or Data Loggers.

Insulated

Normal Response, Insulation resistance, typically 500V DC > 100m Ω Prevents stray voltages affecting measuring signal.

Cold end terminations include:

Mini Plug

Stainless Steel Armour

Threaded Pot Seal

Spring loaded Din Terminal block

Hot end terminations include:

Weld on Stainless Steel Pad
Mims

Weld on Stainless Steel Solid Tip
Mims

Hose Clamp fitted to Tip

Washer fitted to Tip

Precious Metal Thermocouples. Temperature Controls produce Thermocouples for high temperature furnace use above 1200 deg C using Platinum / Rhodium conductors Types R, S & B. These thermocouples are subject to market variations in price and need to be quoted on application. As a service to customers Temperature Controls accepts the return of *Platinum thermocouple wire for salvage* of the material and credits the value to the customer.

TCA STOCK THERMOCOUPLE

Small Aluminium Head

**Model TC01
SD 003**

IP65 rating
Stainless Steel Sheath

MODEL	CALIBRATION	SHEATH DIA	LENGTH MM	PRICE
TC01K010060	K	6.0	100	$67.00
TC01K015060	K	6.0	150	$68.00
TC01K020060	K	6.0	200	$68.00
TC01K030060	K	6.0	300	$70.00
TC01J010060	J	6.0	100	$67.00
TC01J015060	J	6.0	150	$68.00
TC01J020060	J	6.0	200	$68.00
TC01J030060	J	6.0	300	$70.00

**MIMS Thermocouple
Large Plug**

**Model TC07
SD 051**

MODEL	CALIBRATION	SHEATH DIA	LENGTH MM	PRICE
TC07K030060	K	6.0	300	$58.00
TC07K060060	K	6.0	600	$69.00
TC07K0100060	K	6.0	1000	$78.00

**MIMS Thermocouple
Basic**

**Model TC05
SD 050**

MODEL	CALIBRATION	SHEATH DIA	LENGTH MM	PRICE
TC05K015030	K	3.0	150	$36.00
TC05K030030	K	3.0	300	$38.00
TC05K015060	K	6.0	150	$41.00
TC05K030060	K	6.0	300	$44.00

2000mm
PVC/PVC tails

TEGO RANGE

Quick connect Plug in TEMP-SMART Sensors

SD 2008

A range of temperature sensors that can be plugged in using off the shelf DIN style connectors, or industry standard M12 proximity switch style leads. A 2 wire transmitter can be incorporated into the main body eliminating the requirement for a terminal head or screw onto existing M12 sensors.

This transmitter or plug assembly can suit most temperature probes manufactured by Temperature Controls.

EX STOCK M12 4 WIRE RTD / PT 100 OHM SENSORS

SD 689

PART NUMBER	DESCRIPTION	PRICE EACH
TCM12P15060	6MM DIA X 150 MM CLASS A RTD MAX TEMP 200 C	$ 104.00
TCM12P20060	6MM DIA X 200 MM CLASS A RTD MAX TEMP 200 C	$ 106.00
TCM12P30060	6MM DIA X 300 MM CLASS A RTD MAX TEMP 200 C	$ 110.00
TCCT20	INOR RTD INPUT 4– 20 Ma TRANSMITTER M12 CONNECTION	$ 139.00

Pricing on custom made assemblies available on request.

TCA DAIRY & PHARMACEUTICAL SENSORS

Assemblies with Triclover or BSM connections for Sanitary or CIP applications

Temperature Controls offer a range of made to order RTD temperature assemblies hygienic / CIP applications (clean in process) in pharmaceutical, chemical and food or beverage processing plants.

The sensors can feature a reduced tip to provide fast response and heavy duty support tube to ensure the terminal head is secure, making them suitable for use in vibration or hostile locations. The Triclover or BSM caps are welded both sides to 316 Stainless Steel bar and tube and are machined / polished to a finish that exceeds the minimum 0.4 uM surface finish required.
Optional Electro polish available at extra cost.
The wetted process surfaces are free of pits, crevices and weld pockets to prevent corrosion and bacteria growth.
Standard Construction:
PT100Ω @ 0°C As per DIN43760,
IEC60751 Alpha Value 0.003850
Class A tolerance 3 Wire

Terminal heads available include
Stainless Steel
Reinforced Bakelite
Polypropylene

SD 041

SD 044

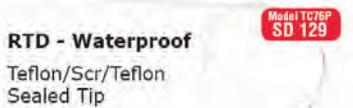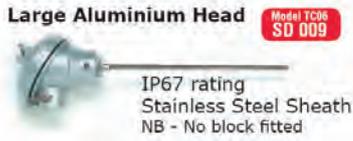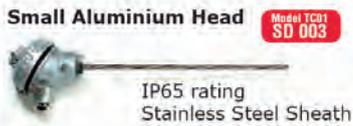All suitable to provide excellent resistance to acids, alkalines and moisture penetration.

Triclover Blank Cap

BSM Blank Cap

TCA STOCK RTD SENSORS

RTD SENSORS — EX Stock −50° to +200°C

MODEL	CALIBRATION	SHEATH DIA	LENGTH MM	PRICE
TC01P010060	RTD PT100	6.0	100	$83.00
TC01P015060	RTD PT100	6.0	150	$84.00
TC01P020060	RTD PT100	6.0	200	$86.00
TC01P030060	RTD PT100	6.0	300	$87.00
TC06P0150NB	RTD PT100	6.0	150	$84.00
TC06P0300NB	RTD PT100	6.0	300	$87.00

MODEL	CALIBRATION	SHEATH DIA	LENGTH MM	PRICE
TC02P015045	RTD PT100	4.5	150	$57.00
TC02P015060	RTD PT100	6.0	150	$57.00

MODEL	CALIBRATION	CABLE	LENGTH MM	PRICE
TC76P2000	RTD PT100	TEFLON	2M	$75.00
TC76P5000	RTD PT100	TEFLON	5M	$90.00
TCPSURFACE2	RTD PT100	TEFLON	2M	$112.00
TCPSURFACE5	RTD PT100	TEFLON	5M	$127.00

Small Aluminium Head — Model TC01 — SD 003 — IP65 rating Stainless Steel Sheath

Large Aluminium Head — Model TC06 — SD 009 — IP67 rating Stainless Steel Sheath NB - No block fitted

RTD - Flexible Teflon Tails — Model TC02 — SD 145 — 2000mm Teflon tails

RTD - Waterproof — Model TC76P — SD 129 — Teflon/Scr/Teflon Sealed Tip

RTD Flexible Surface Pad — Model TCP5 — SD 125

Resistance Temperature Detectors (RTD) offer the highest standard of accuracy and stability of any temperature sensor over the range −200 to 600 °C .

The standard type used is Platinum PT 100 ohm with PT 500 and PT 1000 Ohm sensors available for special purpose use.

Standard PT100 Ω @ 0°C As per DIN 43760, IEC 60751 Alpha Value 0.003850
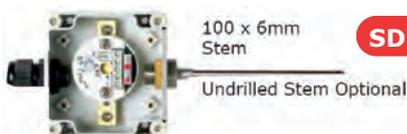
TCA STOCK HVAC RTD SENSORS

Indoor and Outdoor use RTD Sensors

Room Air Sensor RTD PT100
Surface Mount Case 70 x 70 x 28 mm
(Will accept Head Mounted Transmitter at extra cost)

SD 126

MODEL	TC11PDOM	PRICE	$69.00

SD 078TX — 100 x 6mm Stem — Undrilled Stem Optional

SD 078

RTD Industrial Air Sensor
Polycarbonate Enclosure 80 x 80 x 65 mm

(Will accept Head Mounted Transmitter at extra cost)

MODEL	DESCRIPTION	PRICE
TC11PIND	DRILLED TIP	$110.00
TC11PINDRE	REAR ENTRY DRILLED TIP	$116.00
TC11PINDNH	UNDRILLED TIP	$99.00
TC11PINDRENH	REAR ENTRY UNDRILLED	$110.00

DRILLED TIP

SD 596

REAR ENTRY

SPECIAL APPLICATION SENSORS

Thermal Ribbons are thin highly flexible RTD Sensors for surface measurement, offering fast time response. These are constructed using laminated silicon rubber / polyimide materials for use in extreme environments. Applications include tank or pipe surface temperatures

MODEL NO.	DESCRIPTION	PRICE
TCS386PD1236	PT 100 Ohm Class B 0.00385 Element 9.5 x 101.6 x 1.9mm thick. Silicon rubber with polymide backing with 3 x 24 AWG Teflon Tails 1000mm long. Temperature range –60 to 220 Deg C Time constant 0.6 seconds	$285.00
TCS667PDZ40AC	PT 100 Ohm Class B 0.00385 Element 5 x 15 x 2mm thick. Silicon rubber Elastomer cover & foil backing with 3 x 24 AWG silicon insulated tails 1000mm long *Water Resistant Temperature range –50 to +155 Deg C Time constant 1.3 seconds	$116.00
TCPSRPAD2	PT 100 Ohm Class B Element 50 x 10 x 1.8mm thick. Silicon rubber pad 3 x 24 AWG wires 2500mm long Temperature range –50 to 200 Deg C	$159.00

RTD Sensor Cables and Connectors

RTD Cables available in 3 or 4 wire in PVC, Teflon, Silicon Rubber, Fibreglass, Stainless Steel Braiding and SWA configurations. For details on our complete range of ex stock cables & special construction cables contact our office for more details.
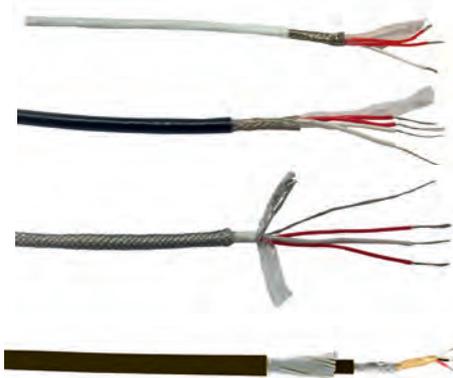
MODEL	CALIBRATION	SHEATH MATERIAL	CONDUCTOR SIZE
TCPPSP72/3	RTD 3 Wire	PVC / SCREEN / PVC	7 x 0.2
TCPPSP72/4	RTD 4 Wire	PVC / SCREEN / PVC	7 x 0.2
TCPTST72/3	RTD 3 Wire	TEFLON / SCREEN / TEFLON	7 x 0.2
TCPTST72/4	RTD 4 Wire	TEFLON / SCREEN / TEFLON	7 x 0.2
TCPTST72/6	RTD 6 Wire	TEFLON / SCREEN / TEFLON	7 x 0.2
TCPTSTB72/3	RTD 3 Wire	TEFLON / SCREEN / TEFLON / S/STEEL BRAID	7 X 0.2
TCPSRSR72/3	RTD 3 Wire	SILICON RUBBER / SILICON RUBBER	7 X 0.2
TCPSWA75/3	RTD 3 Wire	PVC/ SERVED WIRE ARMOUR / PVC	7 X 0.5

SD 1420
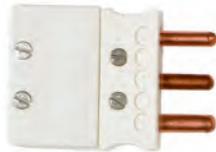
MARLIN LARGE 3 WAY ROUND PIN PLUG		
TCMA1061U	COPPER PINS	$ 25.00

MARLIN LARGE 3 WAY ROUND PIN SOCKET		
TCMA1011U	COPPER PINS	$ 35.00

MARLIN MINI 3 WAY FLAT PIN PLUG		
TCMA1261U	COPPER PINS	$ 19.00

MARLIN MINI 3 WAY ROUND PIN PLUG		
TCMA1211U	COPPER PINS	$ 26.00

HUMIDITY & TEMPERATURE TRANSMITTERS

The RHT series of wall & duct mount transmitters incorporate
high accuracy and great stability relative humidity and temperature sensors.
They convert the measured valves into linear 4-20mA or 0—10V output signal.
The RHT series are easily ranged using the PC Based interface.

WALL MOUNT   SD 1672

MODEL	DESCRIPTION	PRICE
TCRHTWM	Wall Mount 0—100 °C 12—30V DC 2 Wire Isolated 4—20mA outputs	$252.00
TCRHTWMV10	Wall Mount 0—100 °C 18—30V DC Supply Non Isolated 0—10V outputs	$260.00

DUCT MOUNT   SD 1672

MODEL	DESCRIPTION	PRICE
TCRHTDM250	Duct Mount 250mm Long x 14mm diameter 0—100 °C, 0—100%, 12—30V DC 2 wire Isolated 4—20mA outputs	$289.00
TCRHTDM400	Duct Mount 400mm Long x 14mm diameter 0—100 °C, 0—100 %,12—30V DC 2 wire Isolated 4—20mA outputs	$289.00
TCRHTDMV10	Duct Mount 250mm Long x 14mm diameter 0—100 °C, 0—100 %,18—30V Supply Non Isolated 0—10V outputs	$289.00

Humidity & Temperature Controller

N323RHT is a digital temperature and humidity controller with three relay out-
puts that may be individually configured to function as control or alarm outputs.

The controller comes complete with a humidity / temperature sensor
with 3 meter long cable.

100—240V AC or 12-24V DC / AC Supply
0—100% Humidity
-20 to 100 °C Temperature

SD 1829

MODEL	DESCRIPTION	PRICE
TCN323RHT	N323RHT Humidity / Temperature 240V	$265.00
TCN323RHT12	N323RHT Humidity / Temperature 12-24V DC	$280.00

LARGE LED DISPLAY / INDICATOR

This is a high performance universal digital indicator with 56mm high display for high
visibility at long distances.

- Accepts all Thermocouples, RTD PT100, 4-20mA
- -1999 to 9999
- 2 Alarm outputs
- 4—20 Ma Output
- 100-240 VAC or 12-24 VDC Supply
- 24V DC output for transmitters

MODEL	DESCRIPTION	PRICE
TCN1500G	N1500-G BIG DIGIT DISPLAY INDICATOR	$ 695.00

TCA HAZARDOUS AREA SENSORS IECEx CERTIFICATION

Thermocouples and RTD Sensors are a source of Ignition

Electrical equipment including temperature sensors for use in Hazardous Areas needs to be designed and constructed in such a way that it will not provide a source of ignition. This equipment should be fully tested and certified with a certificate of compliance issued by an Independent Authority. Temperature Controls Pty Ltd have developed a range of temperature sensors with Internationally recognized IECEx certification for Ex d Flameproof, Ex e Increased Safety and Ex tD Dust Ignition Proof. This approval covers the terminal head and the thermocouple or RTD sensor allowing Temperature Controls to supply a complete assembly with IECEx approval or fit any approved Transmitter Housing or Enclosure to our IECEx approved temperature element .

Temperature Controls are able to supply Thermocouples and RTD sensors with 4 x Types of Protection

Ex ia Intrinsically Safe Applications
Ex e Increased Safety Applications
Ex d Flame Proof Applications
Ex tD Protection by Enclosures in Dust

IECEx Certificate of Conformity

Our thermocouples and RTD sensors have IECEx Ex d/e Hazardous Area Certified

Ex ia " Intrinsically Safe " Protection *suitable for use in Zone 0, 1 & 2*

" *The electrical energy available in circuits and equipment, is limited to a level too low to ignite the most easily ignitable gas mixtures in a hazardous area. Intrinsically safe barriers, Zener or Transformer isolated Intrinsically safe barriers are installed in the circuit to limit current and voltage in the hazardous area to prevent sparking under fault conditions*"

RTD Sensors and thermocouples

RTD Sensors and thermocouples are considered to be simple apparatus and with appropriate barriers can be installed freely in IS circuits, (Ex ia) no further certification is required.

The RTD or Thermocouple must meet the requirements of the relevant IECEx Standard:

IEC 60079.11:2011 Explosive Atmospheres Part 11 Equipment Protection by intrinsic safety 'i '.

Section 6.3.12 Dielectric strength requirement

"500 VAC RMS Test Voltage of Insulation Resistance between Conductors or Conductors & Sheath for 2 Minutes"

All thermocouples and RTD sensors in the catalogue meeting these requirements can be offered.

The sensor will have a label attached .

Sensor Tested: Suitable for use

Ex ia

Temperature Sensors with Transmitters, 4—20 mA signals are the most commonly used signal in process control instrumentation; Temperature Controls have available multi input PC programmable head mount transmitters with IECEx Certificates of Compliance along with matching transformer isolating barriers with Certificates of Compliance.

Part No	Description	Price Each
TCIPAQC202X	PROGRAMMABLE RTD 3 WIRE PT100 OHM INPUT ONLY	$ 156.00

SD 1990
DATA SHEET

SD 1992
IECEX CERTIFICATE

Part No	Description	Price Each
TCIPAQC520X	PROGRAMMABLE UNIVERSAL INPUT HART COMPATIBLE , DUAL INPUT , SIL2 SAFETY -200 TO 850 DEG C RANGE EXIA IIC T6	$ 565.00

SD1588
DATA SHEET

SD1940
IECEX CERTIFICATE

Temperature Controls stock head mount transmitters and field mount indicating transmitters from leading suppliers, contact our office for further details.

TCA HAZARDOUS AREA SENSORS IECEx CERTIFICATION

Thermocouples and RTD Sensors are a source of Ignition

Ex e " Increased Safety " Protection   *suitable for use in Zone 1 & 2*
" All electrical connections and equipment incorporate special measures to reduce the probability of excessive temperatures and the occurrence of arcs and sparks in normal service"
Ex d " Flameproof Enclosure " Protection   *suitable for use in Zone 1 & 2*
" *All electrical connections and equipment are enclosed in a housing strong enough to contain any explosion and by using flame paths prevent any transmission outside the enclosure."*
DIP " Dust Ignition Proof " Protection
There are 3 Zones for Dust , Zone 20; 21 & 22 Equipment must meet the requirements as per IEC 60079-31 :2013
" Electrical equipment protected by enclosure and surface temperature limitation for use in explosive dust atmospheres"
Protection by enclosures tD "for use in these zones.
Temperature Controls have a large number of IECEx approved assemblies and options to ensure a product complies.

TERMINAL HEADS AVAILABLE

Aluminum Enclosure
Certificate of Compliance
1/2" NPT Process Entry
M20 Cable Entry
IP66 Rated

316 Stainless Steel Enclosure
1/2" NPT Process Entry
M20 Cable Entry
IP 66 Rated

COMPLETE TEMPERATURE ASSEMBLIES

IECEx TSA 09.0045X

Certificate of Conformance
for complete assembly

6.0 mm Dia Mineral Insulated
Thermocouple / RTD Sensor

Fixed Stem Assembly available in Ex e or Ex d Protection
No Thermowell required, suitable for air temperature or remote mount terminal head applications. Model TC20FIXTA

IECEx TSA 09.0045X

Certificate of Conformance
for complete assembly

6.0 mm Dia Mineral Insulated
Thermocouple / RTD Sensor

Spring loaded Stem Assembly available in Ex de and Ex tD Type of Protection. Thermowell required to maintain IP protection rating. Model TC20SPRTA

SD 1369

TEMPERATURE SENSOR PROBES TO SUIT CERTIFIED ENCLOSURES / TRANSMITTERS

6.0 mm Dia Mineral Insulated
Thermocouple / RTD Sensor

Fixed Stem Element available in Ex de and Ex tD type of Protection
Must be fitted to approved Transmitter Housing or enclosure.
No Thermowell required, suitable for air temperature or remote mount terminal head applications. Model TCFIX Ex

6.0 mm Dia Mineral Insulated
Thermocouple / RTD Sensor

Spring loaded Stem Element available in Ex de and Ex tD Type of Protection
Must be fitted to approved Transmitter housing or enclosure.
Thermowell required to maintain IP protection rating. Model TCSPR EX

SD 1368

THERMOCOUPLE EXTENSION CABLES

SD 1420 ANSI Colour Code and Calibration Standard stocked

It is important that the correct thermocouple extension cable is used to connect from the thermocouple to the measuring junction to ensure no loss of EMF signal. Use screened cables with drain wire connected to ground for installations with AC voltage interference.
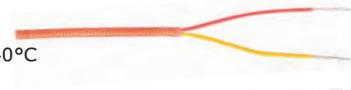
A. PVC / PVC max 105°C
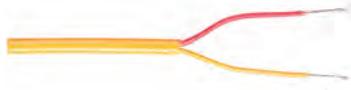
B. PVC / Screened / PVC max 105°C

C. Teflon / Teflon max 260°C

D. Fibreglass / Fibreglass max 540°C

E. Stainless overbraided
   Fibreglass / Fibreglass max 540°C plus

MODEL	CALIBRATION	CONDUCTOR SIZE	PRICE / MTR
PVC / PVC			
TCKPP72	K	7 x .2	$2.10
TCJPP72	J	7 x .2	$1.60
TCTPP72	T	7 x .2	$1.60
TCNPP72	N	7 x .2	$2.80
PVC / SCREEN / PVC			
TCKPSP142	K	14 x .2	$4.20
TCJPSP142	J	14 x .2	$2.80
TCTPSP142	T	14 x .2	$4.20
TCNPSP142	N	14 x .2	$4.90
TEFLON / TEFLON			
TCKTT72	K	7 x .2	$4.50
TCJTT72	J	7 x .2	$3.60
TCTTT72	T	7 x .2	$3.60
TCNTT72	N	7 x .2	$4.00
GLASS / GLASS			
TCKGG120	K	20 AWG	$4.70
TCJGG120	J	20 AWG	$3.20
TCTGG120	T	20 AWG	$3.20
TCNGG120	N	20 AWG	$6.50
STAINLESS STEEL OVERBRAIDED GLASS / GLASS			
TCKGGB72	K	7 X .2	$5.90
TCJGGB72	J	7 X .2	$4.90
TCKGGB73	K	7 x .3	$7.90
TCJGGB73	J	7 x .3	$6.90

THERMOCOUPLE CABLE SIZE

CONDUCTOR DIAMETER	SOLID AWG	APPROXIMATE STRANDING
0.079 mm	40	
O.203 mm	32	
0.254 mm	30	
0.320 mm	28	
0.511 mm	24	7x .2
0.813 mm	20	14x .2 7 x .3
1.290 mm	16	24 x .2
1.630 mm	14	
3.260 mm	8	

TOLERANCE
Above cables supplied in Standard tolerance K, J & N
± 2.2°C or ± 0.75% (whichever is greater)

This page lists the most popular ranges of cables stocked. If you require a special wire size or insulation material please contact our office or view our stock list at **www.temperature.com.au**

SPECIAL TOLERANCE EXTENSION CABLES

Temperature Controls stock special limit cables in the following calibrations and insulation materials
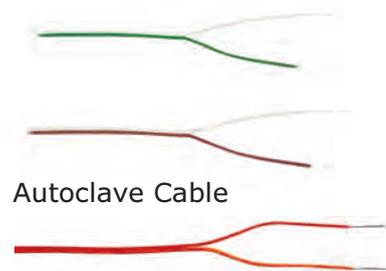
Autoclave Cable

Teflon / Teflon

MODEL	CALIBRATION	SHEATH MATERIAL	CONDUCTOR SIZE	PRICE / MTR
TCKAC127SL	K	TEFLON AUTOCLAVE	27 AWG	$12.90
TCTAC127SL	T	TEFLON AUTOCLAVE	27 AWG	$14.50
TCKPP124SL	K	PVC / PVC	24 AWG	$2.60
TCTPP124SL	T	PVC / PVC	24 AWG	$1.30
TCKTT124SL	K	TEFLON / TEFLON	24 AWG	$3.60
TCTTT124SL	T	TEFLON / TEFLON	24 AWG	$3.60
TCKGG124SL	K	GLASS / GLASS	24 AWG	$3.50
TCTGG124SL	T	GLASS / GLASS	24 AWG	$2.80

Special Tolerance
Type K = +/- 1.1 °C or +/- 0.4%
Type T = +/- 0.5 °C or =/- 0.4%
which ever is greater.
Each roll supplied with certificate of calibration conformance if requested at time of order.

TCA MULTIPAIR THERMOCOUPLE CABLE

Other configurations / calibrations and individual pair Screen available.
Temperature Controls can supply many different cable configurations from our large stock holdings and pleased to source custom specification cables to meet your application

Model No	Pairs	Price / Meter
Type K		
TCKPSP120/2	2 x 20 AWG	$8.00
TCKPSP120/4	4 x 20 AWG	$14.00
TCKPSP120/8	8 x 20 AWG	$28.00
TCKPSP120/12	12 x 20 AWG	$42.00
Type T		
TCTPSP120/4	4 x 20 AWG	$10.00
TCTPSP120/8	8 x 20 AWG	$17.00
Type J		
TCJPSP120/4	4 x 20 AWG	$ 10.00
TCJPSP120/8	8 x 20 AWG	$17.00

Multipair Thermocouple Extension cable Ex stock

SD 1250

- 20 AWG Solid conductors
- ANSI MC96.1 colour code
- Flame retardant PVC Sheath
- Overall Mylar screen
- Tinned copper drain wire
- 105 Deg C 300V rating
- UV stabilized sheath for outdoor use

TCA SWA THERMOCOUPLE CABLE

**SWA Served Wire Armour Thermocouple Extension Cable
Ex Stock**

SD 1255

Model No	Pairs	Calibration	Price / Mtr
TCTSWA120/1	1 x 20 AWG	T	$14.00
TCTSWA116/1	1 x 16 AWG	T	$16.00
TCJSWA120/1	1 x 20 AWG	J	$16.00
TCKSWA120/1	1x 20 AWG	K	$12.00
TCKSWA116/1	1 x 16 AWG	K	$28.00
TCKSWA120/2	2 x 20 AWG	K	$27.00
TCKSWA120/4	4 x 20 AWG	K	$27.00
TCKSWA120/8	8 x 20 AWG	K	$57.00
TCKSWA120/12	12 x 20 AWG	K	$78.00

- UL listed 300V cable
- 105 Deg C flame retardant PVC sheath
- Galvanised steel served wire armour
- Tin copper drain wire
- UV stabilized sheath for outdoor use
- ANSI MC96.1 colour code

QUIKTIP THERMOCOUPLE JUNCTIONS

Thermocouple wire can be fabricated into accurate and dependable temperature sensors by joining the thermocouple conductors at the sensing end by using the Quiktip Thermocouple crimp junctions. Made of pure Nickel the crimp junctions are suited to field / site use of 24 or 20 AWG Thermocouple wires.
Cut the wire to length, strip the end and crimp the Quiktip.

MODEL	DECRIPTION	PRICE
TC128543	20 AWG Bottle of 100	$400.00
TC128540	24 AWG Bottle of 100	$400.00
TCMACRIMPT	Crimp Junction Tool	$810.00

SD 1788

MARLIN & TCA MINI CONNECTORS

Connectors 2 pole Flat Pin with Body in ANSI colour code   **SD 1397**

Standard Temperature   205°C continuous 260°C Intermittent

MARLIN MINI PLUG FLAT PINS		
TCMA1260K	Type K	$7.50
TCMA1260J	Type J	$7.50
TCMA1260T	Type T	$7.50
TCMA1260N	Type N	$9.00
TCMA1260R	Type R/S	$9.00

MARLIN MINI SOCKET		
TCMA1210K	Type K	$9.00
TCMA1210J	Type J	$9.00
TCMA1210T	Type T	$9.00
TCMA1210N	Type N	$10.00
TCMA1210R	Type R/S	$10.00

MARLIN PANEL MOUNTING MINI SOCKET		
TCMA1231K	Type K	$24.00
TCMA1231J	Type J	$24.00
TCMA1231T	Type T	$24.00
TCMA1231N	Type N	$26.00
TCMA1231R	Type R/S	$26.00

Continuous 175 ° C
Intermittent 205 ° C

TCA PANEL MOUNTING MINI SOCKET		
TCMH132K	Type K	$15.00
TCMH132J	Type J	$15.00
TCMH132T	Type T	$15.00
TCMH132N	Type N	$15.00
TCMH132R	Type R/S	$15.00

High Temperature 2 pole with body in Brown colour. 425°C continuous 540°C Intermediate.

TCA HIGH TEMP MINI PLUG		
TCKMPHT	Type K	$18.00
TCJMPHT	Type J	$18.00
TCNMPHT	Type N	$18.00

TCA HIGH TEMP MINI SOCKET		
TCKMSHT	Type K	$20.00
TCJMSHT	Type J	$20.00
TCNMSHT	Type N	$20.00

Ceramic 2 pole with body in bone colour up to max 650°C

TCA CERAMIC MINI PLUG		
TCKMPCER	Type K	$48.00

TCA CERAMIC MINI SOCKET		
TCKMSCER	Type K	$48.00

CABLE CLAMP suit Plug and socket		
TCMA1280		$4.80

RUBBER BOOT		
TCRBS	PAIR	$15.00

TCA STRIP PANELS

Continuous 175 ° C
Intermittent 205 ° C

Large Socket Panels available from stock in K,J,T,N,R/S   *Specify Calibration

No. of Circuits	No. of Rows	Dimensions L x H mm	Model	Price Each
4	1	120 x 80	TCSPL4*	$52.00
6	1	140 x 80	TCSPL6*	$73.00
8	1	200 x 80	TCSPL8*	$95.00
12	1	275 x 80	TCSPL12*	$140.00

Mini Socket Panels available from stock in K,J,T,N,R/S   *Specify Calibration

No. of Circuits	No. of Rows	Dimensions L x H mm	Model	Price Each
4	1	105 x 60	TCSPM4*	$52.00
6	1	135 x 60	TCSPM6*	$73.00
8	1	175 x 60	TCSPM8*	$95.00
12	1	225 x 60	TCSPM12*	$140.00

Laser cut stainless steel panel supplied as kit with sockets and screws.

MARLIN & TCA LARGE CONNECTORS

Connectors 2 pole Round Pin with Body in ANSI colour code
Standard Temperature   205°C continuous 260°C Intermittent

MARLIN LARGE ROUND PIN PLUG		
TCMA1060K	Type K	$8.00
TCMA1060J	Type J	$8.00
TCMA1060T	Type T	$8.00
TCMA1060N	Type N	$9.00
TCMA1060R	Type R/S	$9.00

MARLIN LARGE SOCKET		
TCMA1010K	Type K	$12.00
TCMA1010J	Type J	$12.00
TCMA1010T	Type T	$12.00
TCMA1010N	Type N	$13.00
TCMA1010R	Type R/S	$13.00

MARLIN PANEL MOUNT LARGE SOCKET		
TCMA1031K	Type K	$28.00
TCMA1031J	Type J	$28.00
TCMA1031T	Type T	$28.00
TCMA1031N	Type N	$30.00
TCMA1031R	Type R/S	$30.00

Continuous 175 ° C
Intermittent 205 ° C

TCA PANEL MOUNTING LARGE SOCKET		
TCMH32K	Type K	$13.00
TCMH32J	Type J	$13.00
TCMH32T	Type T	$13.00
TCMH32N	Type N	$13.00
TCMH32R	Type R/S	$13.00

High Temperature 2 pole with body in Brown colour. 425°C continuous 540°C Intermediate.

MARLIN HIGH TEMP LARGE PLUG		
TCMAH1060K	Type K	$19.00
TCMAH1060J	Type J	$19.00
TCMAH1060T	Type T	$19.00
TCMAH1060N	Type N	$21.00
TCMAH1060R	Type R/S	$21.00

MARLIN HIGH TEMP LARGE SOCKET		
TCMAH1010K	Type K	$28.00
TCMAH1010J	Type J	$28.00
TCMAH1010T	Type T	$28.00
TCMAH1010N	Type N	$30.00
TCMAH1010R	Type R/S	$30.00

CABLE CLAMP suit Plug and Socket		
TCMA1080		$4.50

MARLIN TUBE ADAPTOR		
TCMA1070125	3.0mm	$9.50
TCMA1070187	4.5mm	$9.50
TCMA1070250	6.0mm	$9.50

Ceramic 2 pole with body in bone colour up to max 650°C

TCA CERAMIC PLUG		
TCCSPCKA	Type K	$55.00

TCA CERAMIC SOCKET		
TCCSJCKA	Type K	$55.00

MARLIN LARGE PLUG STRIP PANELS
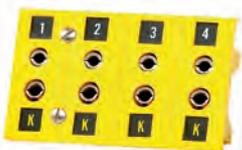
Standard Temperature
205 C continuous
260 C Intermittent

Model No.	No. of Circuits	No. of Rows	External Dimensions L X H mm	Price Each
TCMA10322K	2	1	38 x 45	$32.00
TCMA10324K	4	1	76 x 45	$64.00
TCMA10326K	6	1	115 x 45	$96.00
TCMA10328K	8	1	152 x 45	$132.00
TCMA103212K	12	1	229 x 45	$199.00

Type K stocked other calibrations available on request.

High temperature versions also available

TCA SOLID STATE RELAY

Solid State relays with 10, 25 and 40 amp output ratings.
Standard features include LED indicator when on.
Suitable heat sinks optional.
Relays output must be de-rated if no heatsink fitted.

Din Rail Mounted Heat Sink

MODEL NO	RATING	PRICE
TCHSA	10 AMP	$17.00
TCHSB	25 AMP	$27.00
TCHSC	40 AMP	$35.00
TCHSCLIP	Mounting clip for DIN rail	$3.00

Variable Voltage Output Control

DC Input Control

MODEL NO	INPUT	OUTPUT	PRICE
TCSSRD3810	DC 3-32V	AC 24-380 V 10AMP	$28.00
TCSSRD3825	DC 3-32V	AC 24-380 V 25 AMP	$38.00
TCSSRD3840	DC 3-32V	AC 24-380 V 40AMP	$47.00
TCSSRD4825	DC 3-32V	AC380-440V 25AMP	$49.00
TCSSRD4840	DC 3-32V	AC380-440V 40AMP	$59.00

AC Input Control

MODEL NO	INPUT	OUTPUT	PRICE
TCSSRA3810	AC 90-250V	AC 24-380 V 10AMP	$28.00
TCSSRA3825	AC 90-250V	AC 24-380 V 25 AMP	$38.00
TCSSRA3840	AC 90-250V	AC 24-380 V 40AMP	$47.00
TCSSRA4825	AC 90-250V	AC380-440V 25AMP	$49.00
TCSSRA4840	AC 90-250V	AC380-440V 40AMP	$59.00

Variable Voltage Output

MODEL NO	INPUT	OUTPUT	PRICE
TCSSRR2540	OHMS	UP TO 380 V AC	$62.00

3 Phase Solid State Relay

MODEL NO	INPUT	OUTPUT	PRICE
TC3D4820	DC 10-32 V	AC 220-480 V 20 AMP	$ 139.00
TC3D4830	DC 10-32 V	AC 220-480 V 30 AMP	$ 155.00

POWER REGULATORS

- Power Supply 240V 50/60 HZ
- 20A / 30A / 40A loads
- 0-97% output voltage
- Resistive Load
- 4—20mA / 1-5VDC Input
- Heat sink cooling

SD 1353

Single Phase Power Regulator

MODEL NO.	RATING	PRICE EACH
TCPR1202	20A	$185.00
TCPR1203	30A	$230.00
TCPR1204	40A	$265.00

- Power supply 440VAC
- 30 / 40 / 60 / 80 / 100A load
- 0-97% output voltage
- Resistive Load
- 4-20mA / 1—5VDC Input
- Fan cooled

SD 1353

Three Phase Power Regulator

MODEL NO.	RATING
TCPR3403	30A
TCPR3404	40A
TCPR3406	60A
TCPR3408	80A

SURFACE MEASUREMENT THERMOCOUPLES

PAD STYLE
WELD ON SURFACE
VIBRATION LOOP
SHOWN
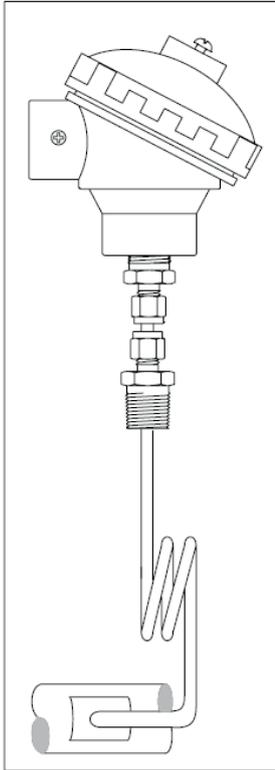
REF : SD 152

PAD STYLE
WELD OR STRAP
SURFACE MOUNT
HEAD

L
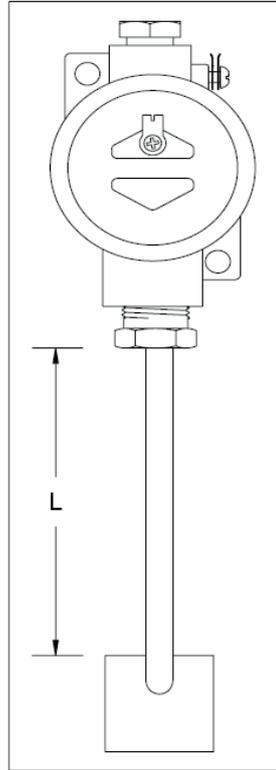
REF : SD 153

PAD STYLE
MALE CONNECTOR
FOR BULKHEAD
CONNECTION

A

L
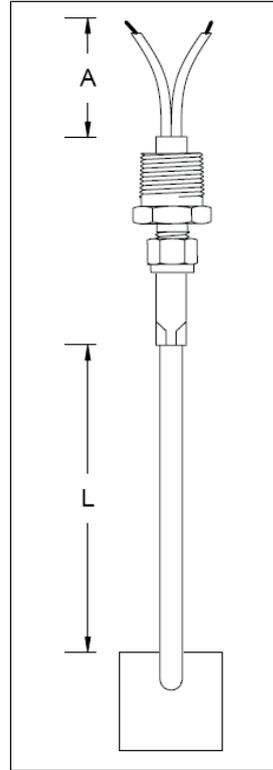
REF : SD 163

FLEXIBLE SILICON
RUBBER PAD RTD
MAXIMUM
TEMPERATURE 175

L
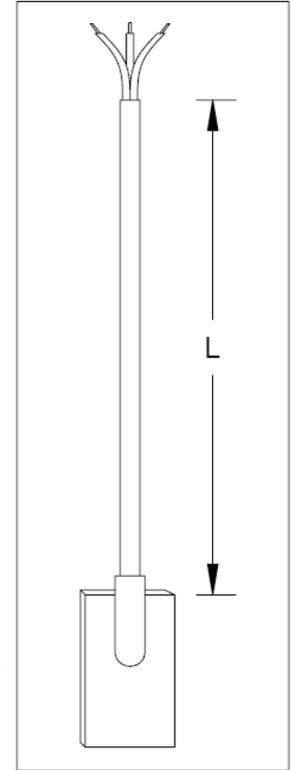
REF : SD 125

IECEx HAZARDOUS AREA SENSORS

IECEx Ex de DIP
CLASS 1 ZONE 1
FLAME PROOF
N/U/N ASSEMBLY
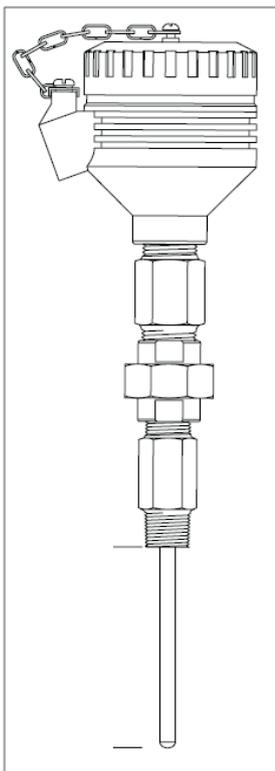
REF : SD 575

IECEx Ex de DIP
CLASS 1 ZONE 1
FLAME PROOF
FIXED SENSOR

L

NO THERMOWELL REQUIRED
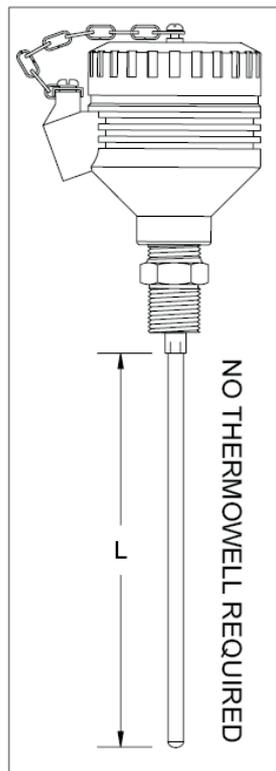
REF : SD 569

IECEx Ex de DIP
CLASS 1 ZONE 1
FLAME PROOF
SPRING LOADED

L
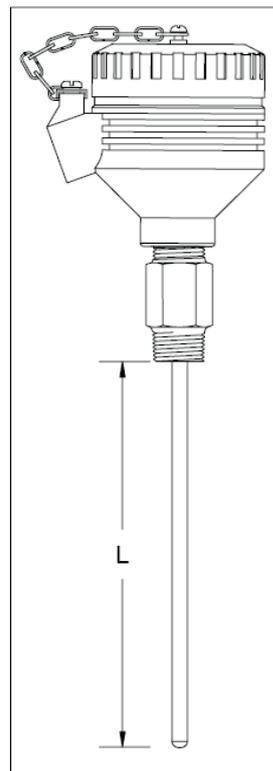
REF : SD 572

IECEx Ex de DIP
CLASS 1 ZONE 1
FLAME PROOF
S/STEEL HEAD

IECEx TSA 08.0008U

L

REF : SD 748

21
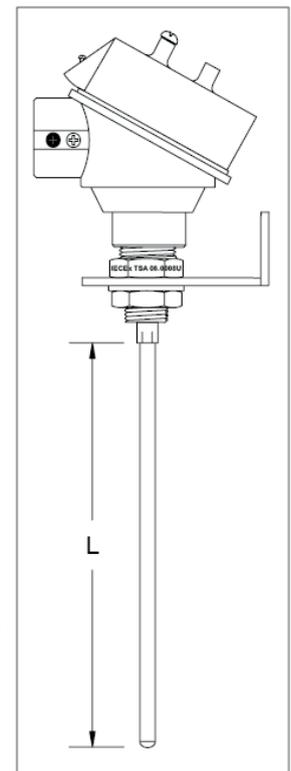
THERMOCOUPLE AND RTD SENSORS

BASIC MIMS THERMOCOUPLE C/W POT SEAL

L

REF : SD 050

BASIC RTD ASSEMBLY NO POT

L

REF : SD 145

LARGE PLUG AND TUBE ADAPTOR FITTED TO THERMOCOUPLE

L

REF : SD 051

MINI PLUG FITTED TO THERMOCOUPLE

L
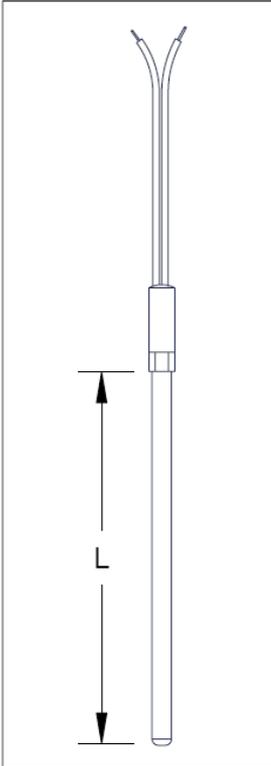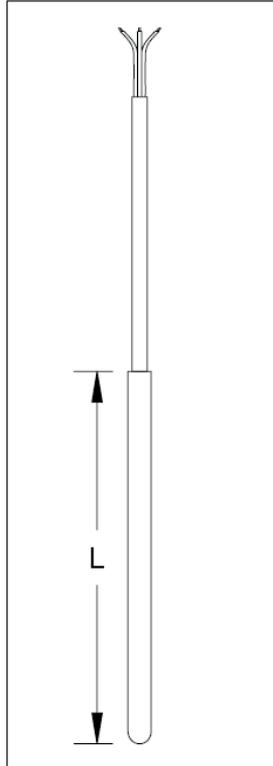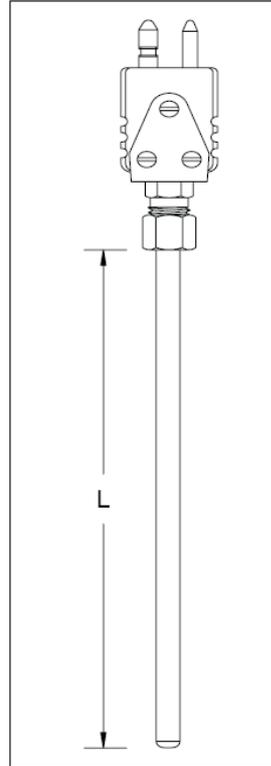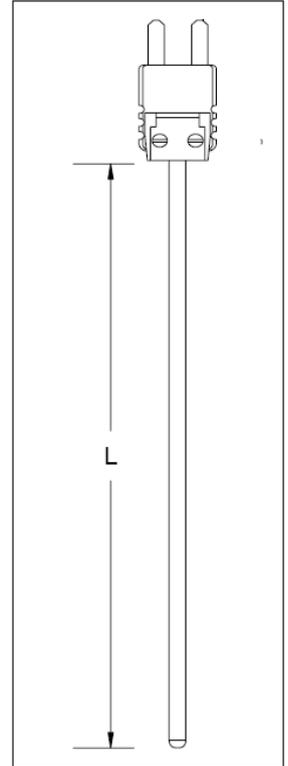
REF : SD 148

THERMOCOUPLE AND RTD SENSORS

BASIC MIMS THERMOCOUPLE C/W CONNECTING TAILS

L

REF : SD 147

BASIC RTD SENSOR C/W 3 CORE TAILS

L

REF : SD 146

BASIC THERMOCOUPLE C/W FIXED PROCESS CONNECTION

L

REF : SD 052

BASIC MIMS WITH LARGE PLUG

L
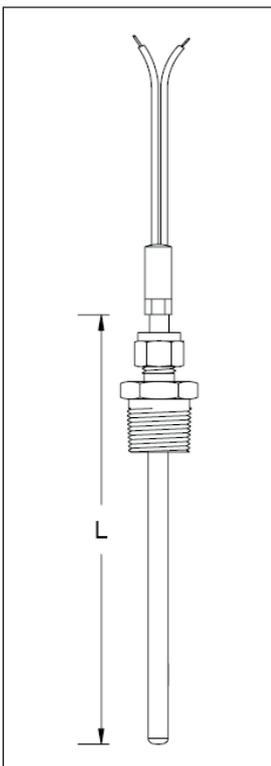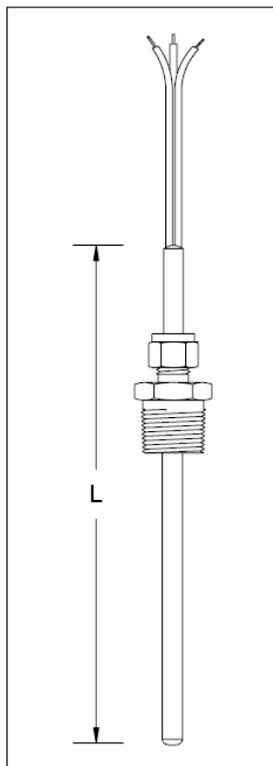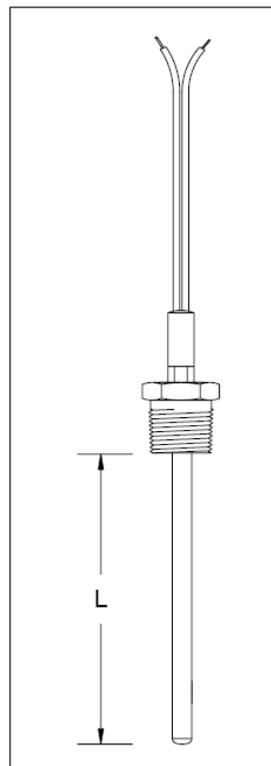
REF : SD 225
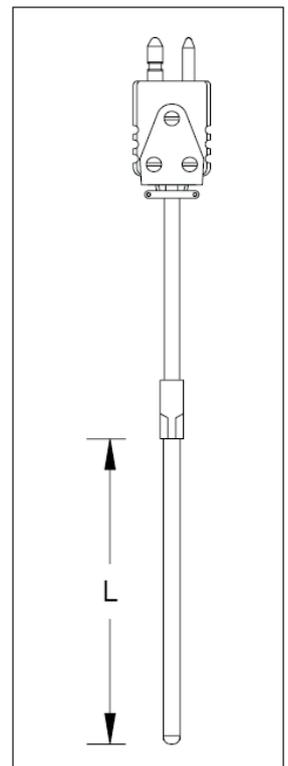
PLASTIC INDUSTRY THERMOCOUPLES

ADJUSTABLE YM3 BAYONET CAP THERMOCOUPLE C/W ADAPTOR

L
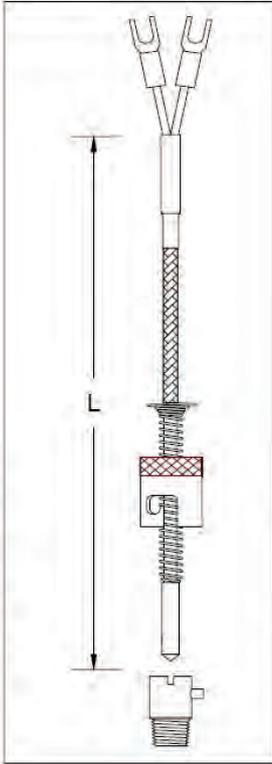
REF : SD 006

LARGE PLUG FITTED TO BAYONET CAP THERMOCOUPLE

L
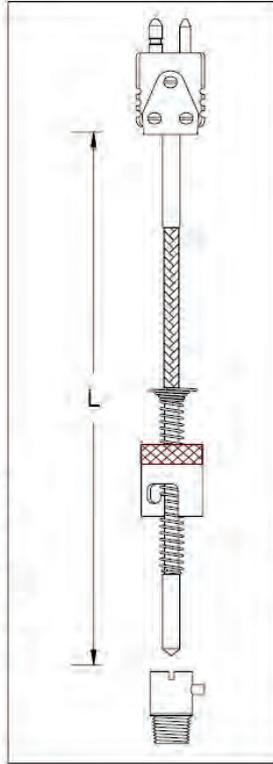
REF : SD 007

WASHER STYLE SENSOR TO BOLT ONTO SURFACE

L
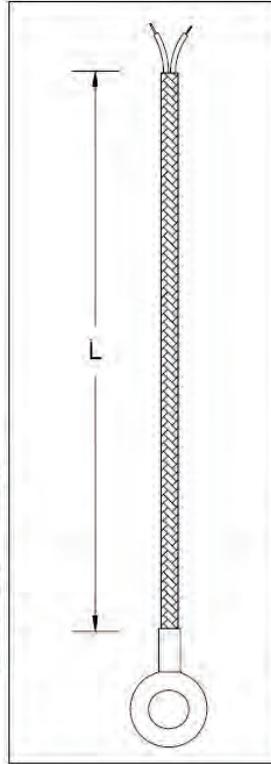
REF : SD 117

LEAF STYLE SENSOR TO FIT UNDER HEATING ELEMENT

L
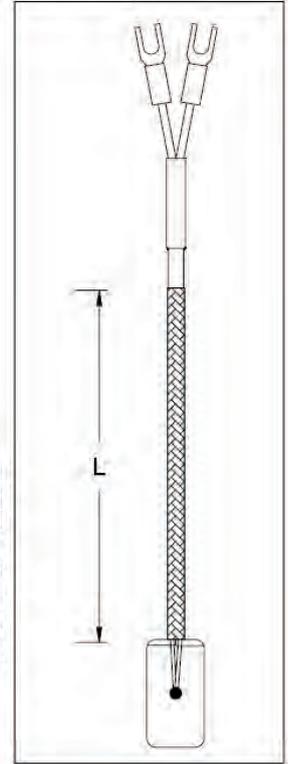
REF : SD 116

PLASTIC INDUSTRY THERMOCOUPLE

BOLT IN SENSOR YM4 STAINLESS STEEL BRAIDED TAILS

L
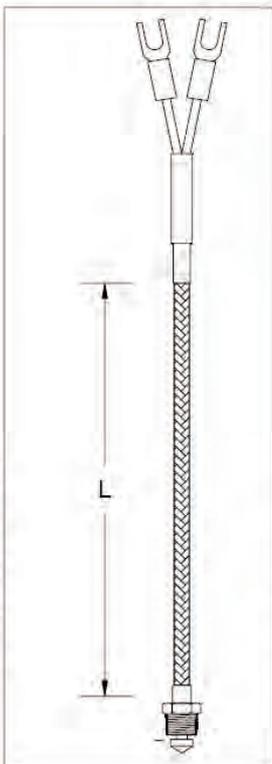
REF : SD 013

HOSE CLAMP SENSOR

L

REF : SD 046

A
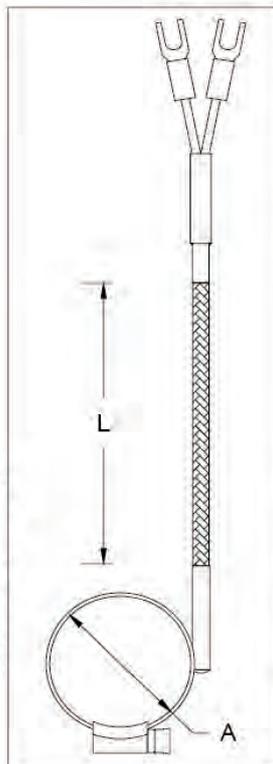
NOZZLE THERMOCOUPLE 1mm SHIM

L

REF : SD 066

A
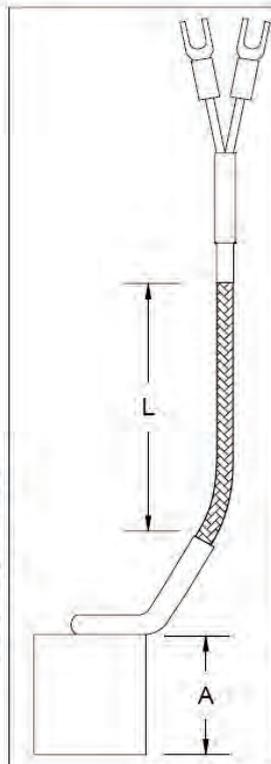
BASIC WIRE THERMOCOUPLE WITH 90 DEG BEND

L

REF : SD 113

B

A
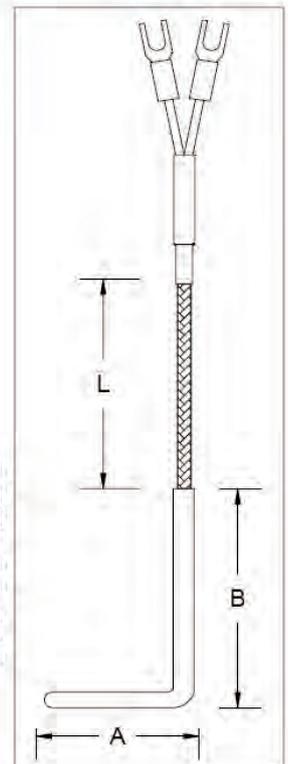
THERMOCOUPLE AND RTD SENSORS

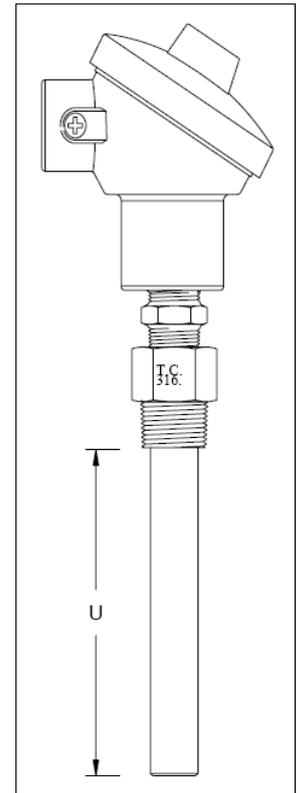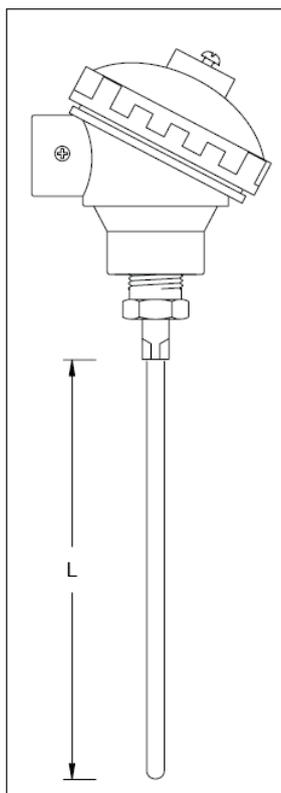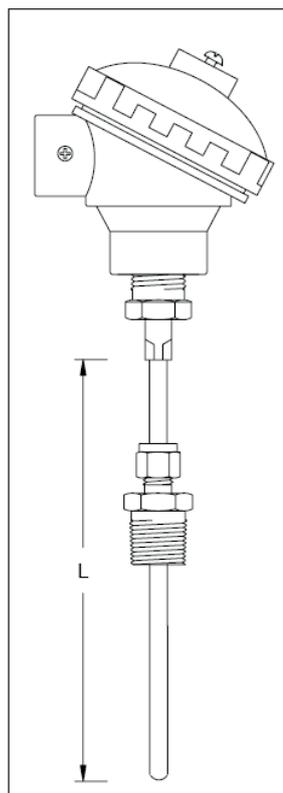| BASIC ASSEMBLY SMALL ALUMINIUM TERMINAL HEAD MODEL TC01	MODEL TC01 C/W MALE CONNECTOR BRASS/ STAINLESS STEEL NPT/BSP THREAD	HEX NIPPLE CONNECTION FIXED / WELDED SPRING LOADED	HEX NIPPLE CONNECTION WITH BARSTOCK THERMOWELL
REF : SD 003	REF : SD 001	REF : SD 002	REF : SD 004
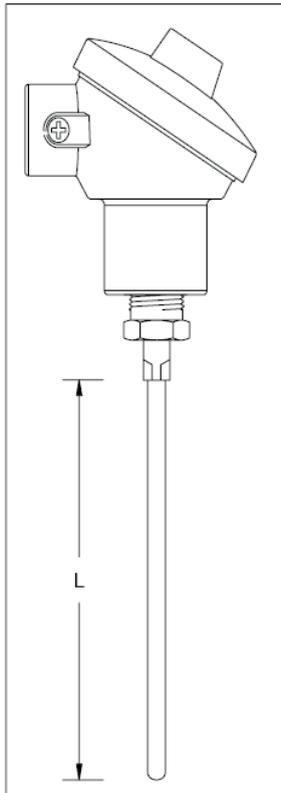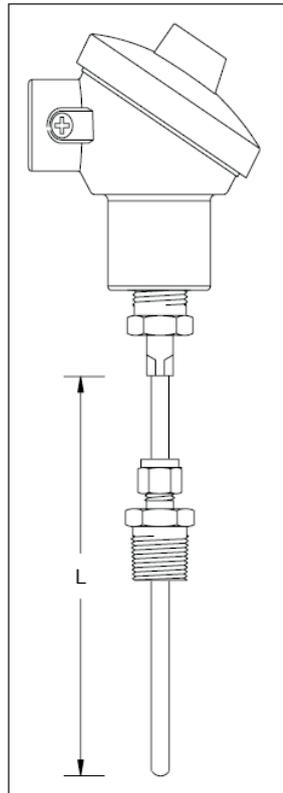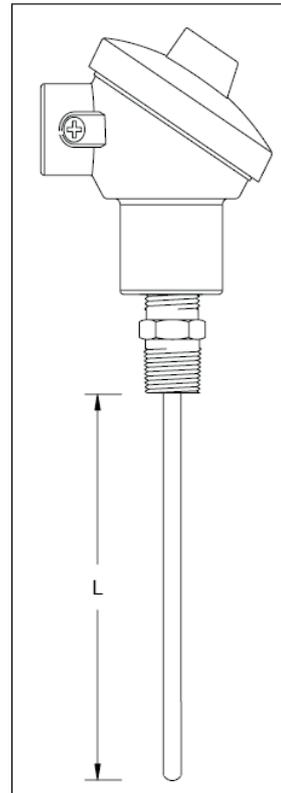
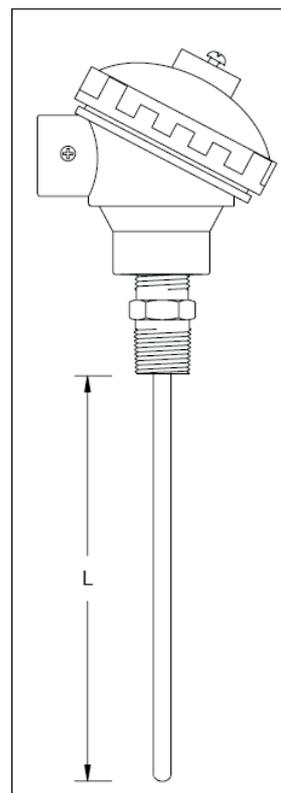# THERMOCOUPLES AND RTD SENSORS

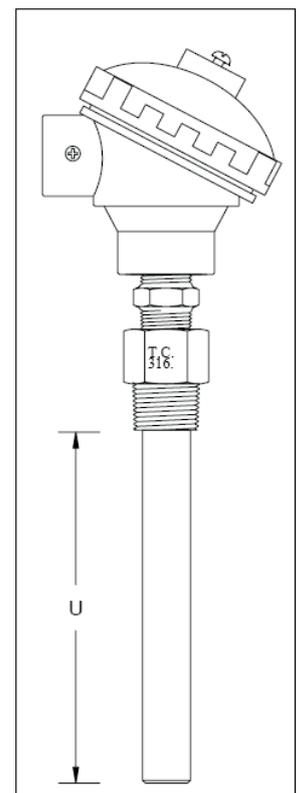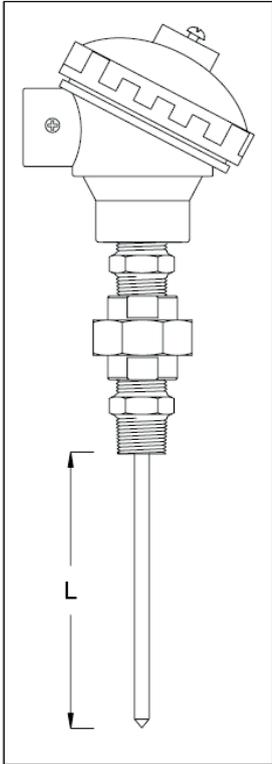| MODEL TC06 BASIC ASSEMBLY LARGE ALUMINIUM TERMINAL HEAD	MODEL TC06 C/W MALE CONNECTOR BRASS/STAINLESS STEEL NPT/BSP THREAD	HEX NIPPLE CONNECTION FIXED/WELDED SPRING LOADED	HEX NIPPLE CONNECTION WITH BARSTOCK THERMOWELL
REF : SD 009	REF : SD 010	REF : SD 012	REF : SD 011

THERMOCOUPLE AND RTD SENSORS

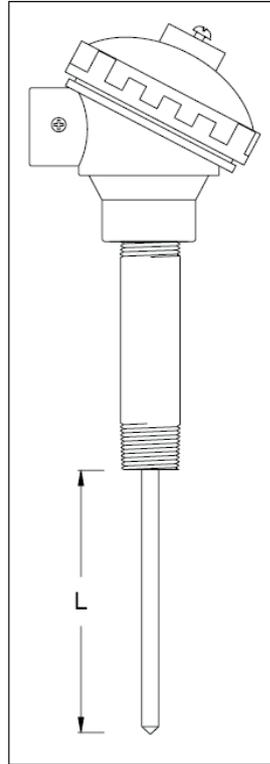**SPRING LOADED NIPPLE/UNION/NIPPLE CONNECTION FOR EASY REMOVAL**

REF : SD 017

SPRING LOADED OR WELDED HEX NIPPLE CONNECTION
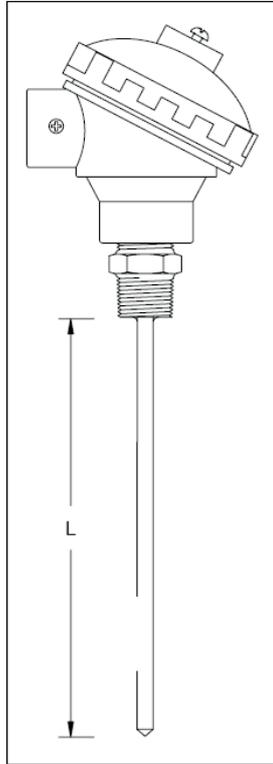
REF : SD 012

SPRING LOADED OR WELDED PIPE NIPPLE CONNECTION
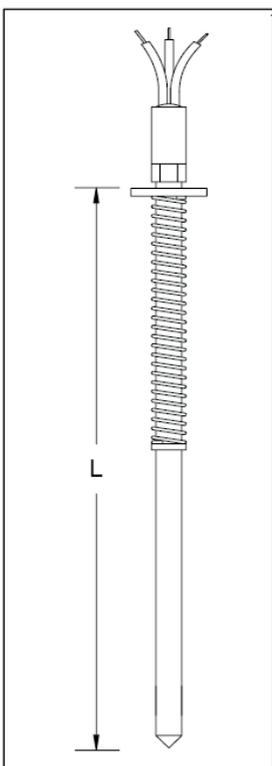
REF : SD 020

MIMS REMOTE MOUNT S/STEEL BRACKET 316SS - 310SS INCONEL 600
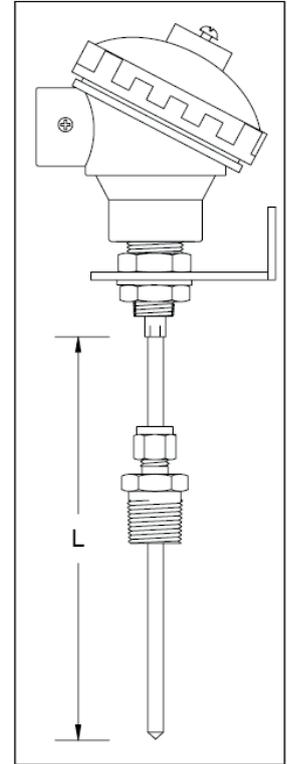
REF : SD 392

SPRING LOADING STYLES

REPLACEMENT ELEMENT TO SUIT NIPPLE/UNION/NIPPLE

REF : SD 026

HEX NIPPLE CONNECTION SPRING LOADING CONTAINED IN NIPPLE
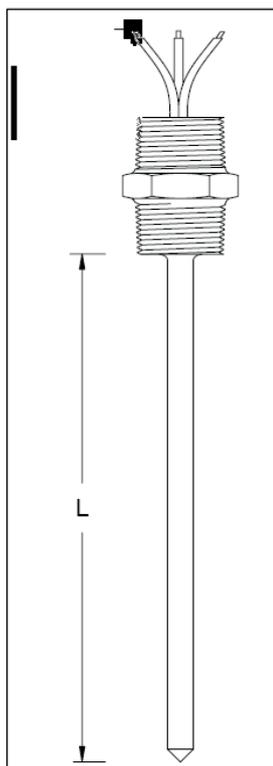
REF : SD 028

PIPE / LAGGING EXTENSION NIPPLE
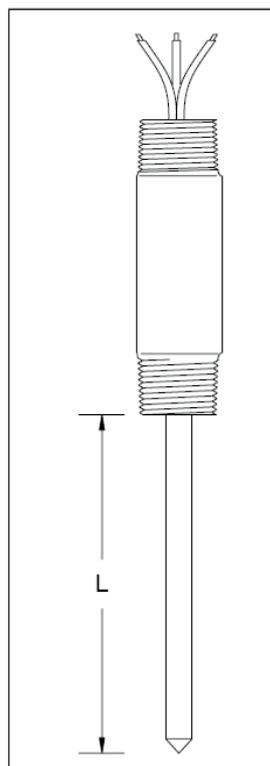
REF : SD 150

SPRING LOADED TERMINAL BLOCK SUITS 33mm CENTRES

REF : SD 027

25
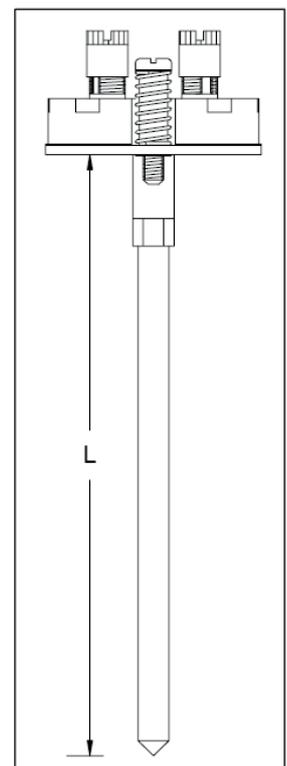
THERMOWELLS - SCREWED

TAPERED STEM BAR STOCK THERMOWELL

REF : SD 036
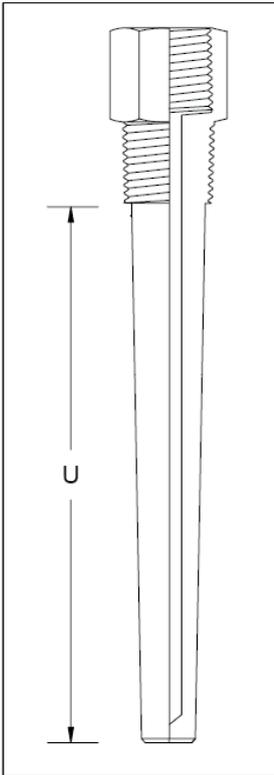
PARALLEL STEM BAR STOCK THERMOWELL

REF : SD 039
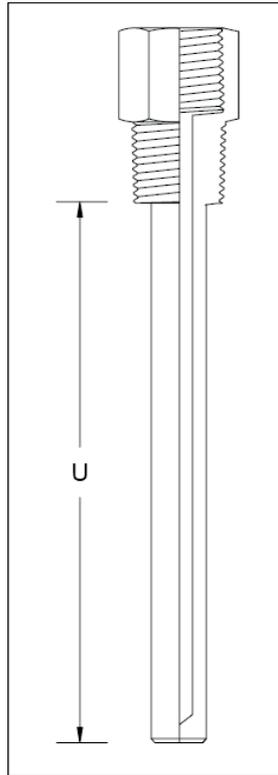
TAPERED STEM BAR STOCK THERMOWELL C/W LAGGING EXTENSION

T+E

U

REF : SD 035
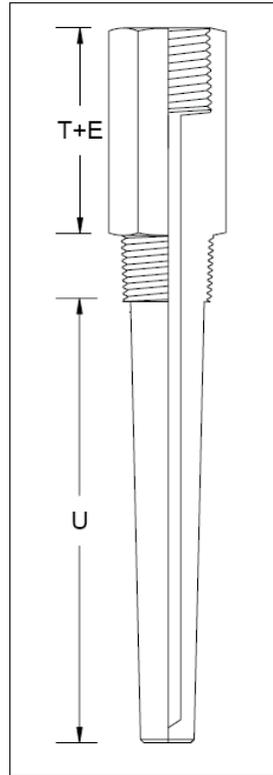
STEPPED STEM THERMOWELL FOR IMPROVED RESPONSE TIME

U
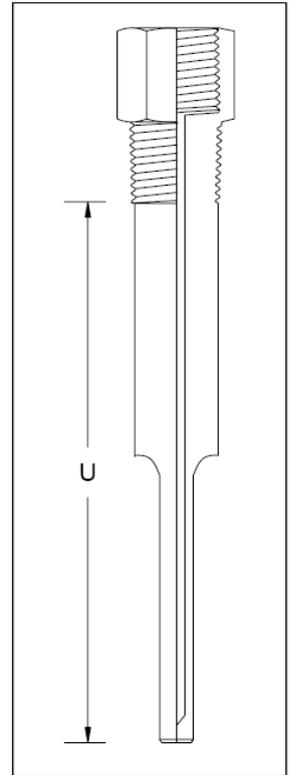
REF : SD 034

THERMOWELLS FLANGED - WELD IN

TAPERED STEM RAISED FACE FLANGED THERMOWELL

U
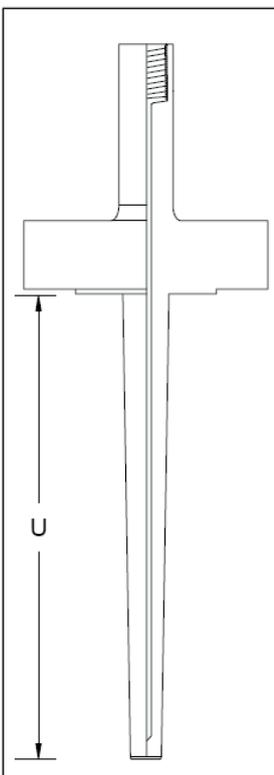
REF : SD 038

PARALLEL STEM RAISED FACE FLANGED THERMOWELL

U
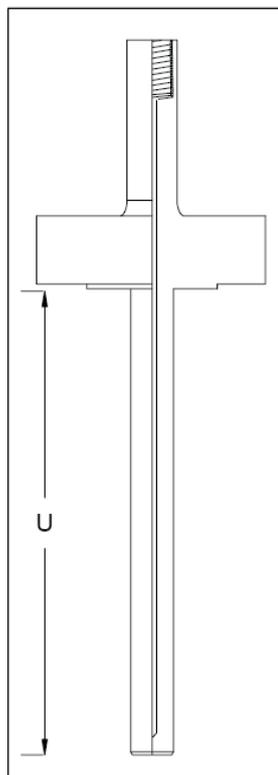
REF : SD 031

TAPERED STEM RJT RING JOINT TYPE FLANGED THERMOWELL

U
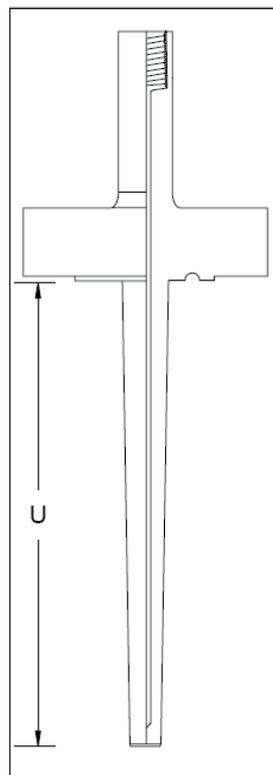
REF : SD 033

WELD IN CONNECTION BAR STOCK THERMOWELL

E

U
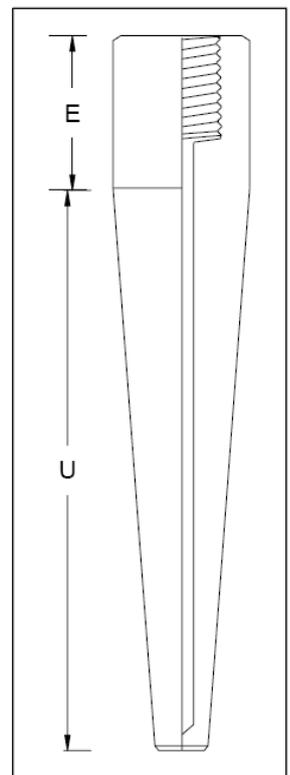
REF : SD 037

POTTERY KILN AND OVEN SENSORS
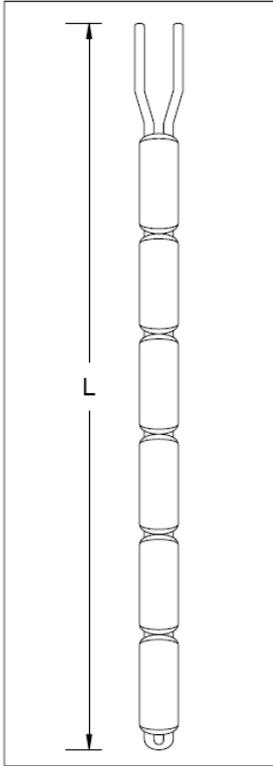
8 AWG OR 14 AWG BEADED THERMOCOUPLE	8 AWG OR 14 AWG BEADED THERMOCOUPLE WITH TERMINAL BLOCK	POTTERY PROBE C/W TERMINAL BLOCK HOLDING TUBE AND CERAMIC SHEATH	CERAMIC SHEATH PROBE WITH SMALL ALUMINIUM TERMINAL HEAD
L	L	L	L
REF : SD 054	REF : SD 055	REF : SD 056	REF : SD 053
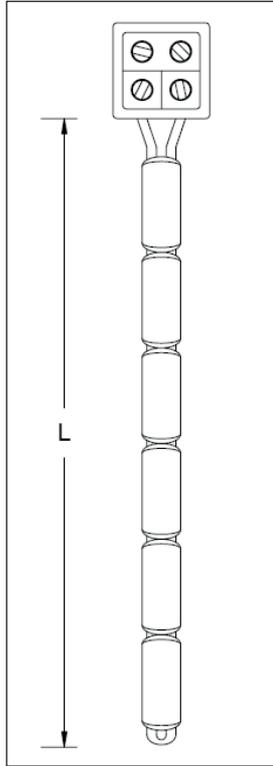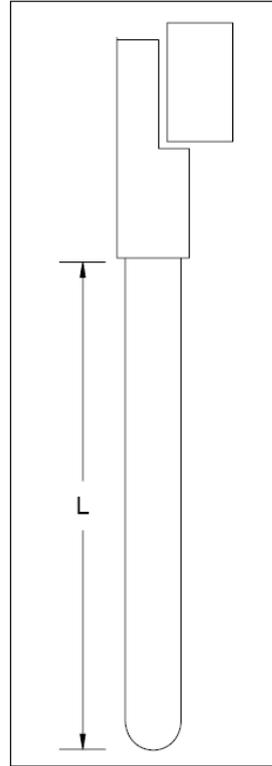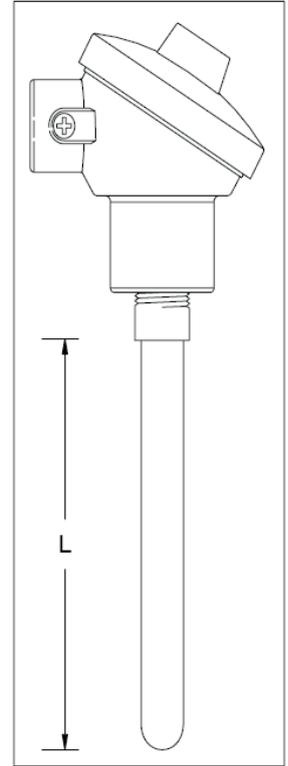
SPECIAL PURPOSE SENSORS

HANDI CLAMP PRODUCT SENSING THERMOCOUPLE	T- BAR THERMOCOUPLE OR RTD SENSOR	FOOD INDUSTRY HAND PROBE ARMOURED TAILS	MAGNETIC THERMOCOUPLE OR RTD
	L	L	L
REF : SD 065	REF : SD 047	REF : SD 048	REF : SD 080
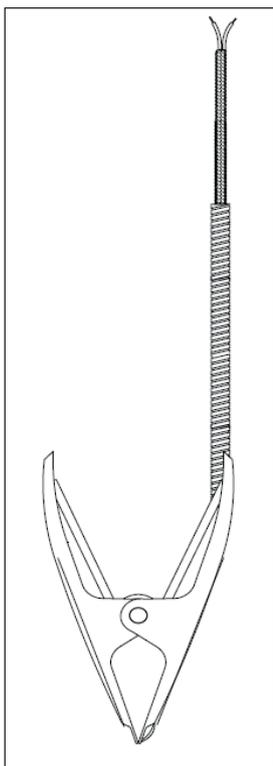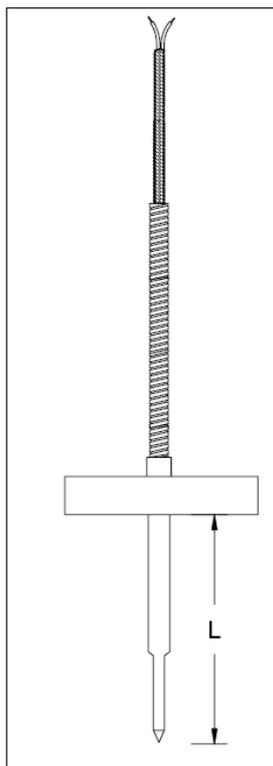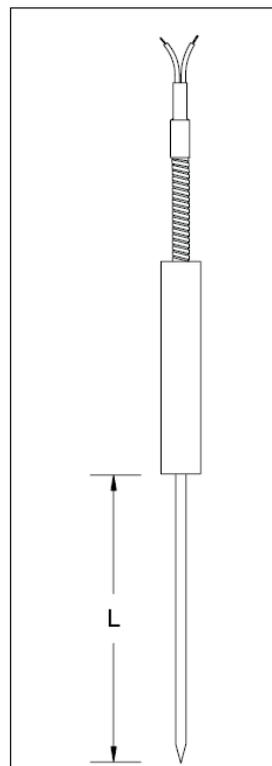
27
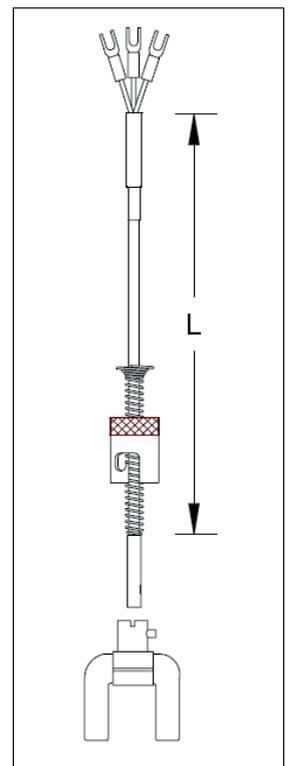
FURNACE / HIGH TEMPERATURE SENSORS

HIGH TEMPERATURE THERMOCOUPLE CERAMIC SHEATH AND HOLDING TUBE

X
OL
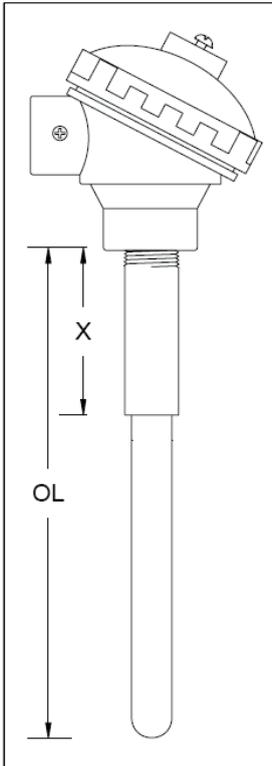
REF : SD 018

HIGH TEMPERATURE THERMOCOUPLE C/W ADJUSTABLE FLANGE

OL
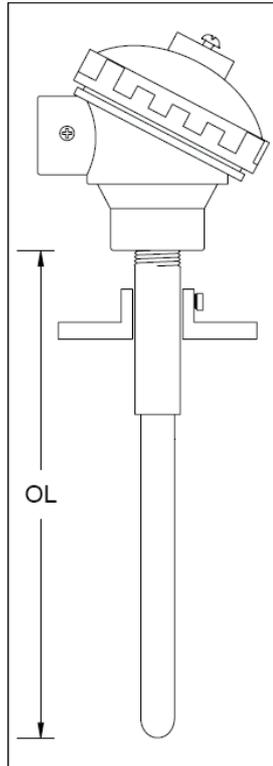
REF : SD 151

HIGH TEMPERATURE CERAMIC SHEATH WITH FLANGE
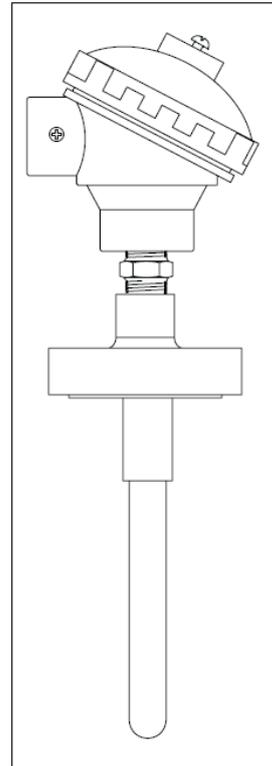
REF : SD 083

ASPHALT THERMOCOUPLE TUNGSTEN TIP
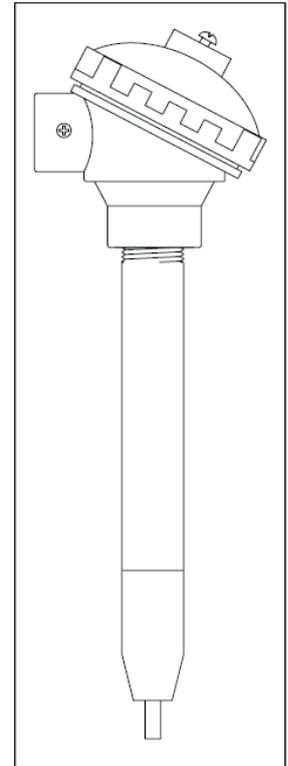
REF : SD 227

FOOD AND DAIRY INDUSTRY SENSORS

BSM PROCESS CONNECTION HYGIENIC WELDS REDUCED TIP

L
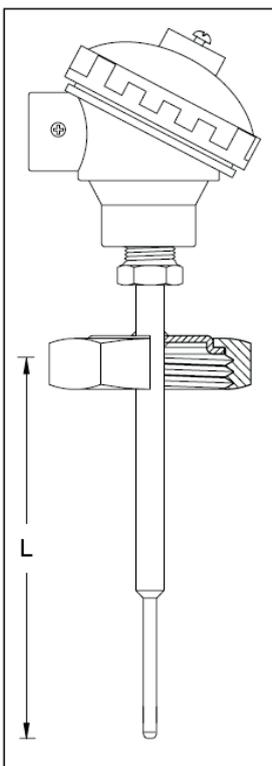
REF : SD 044

TRICLOVER PROCESS CONNECTION HYGIENIC WELDS REDUCED TIP

L
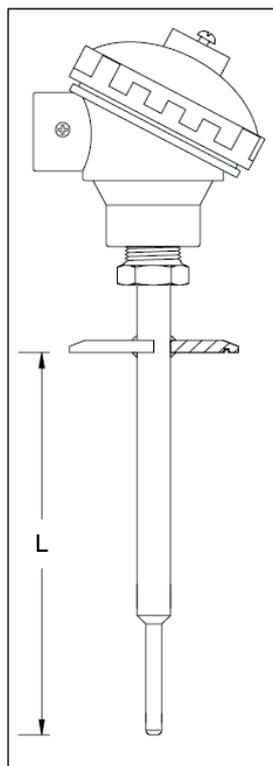
REF : SD 041

STAINLESS STEEL BAKELITE OR POLYPROPYLENE HEAD

L
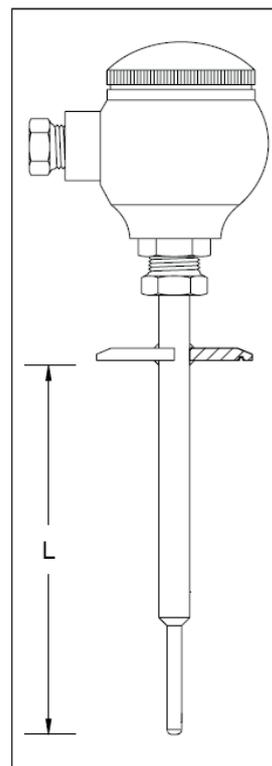
REF : SD 198

316SS THERMOWELL WITH TRICLOVER FLANGE

U
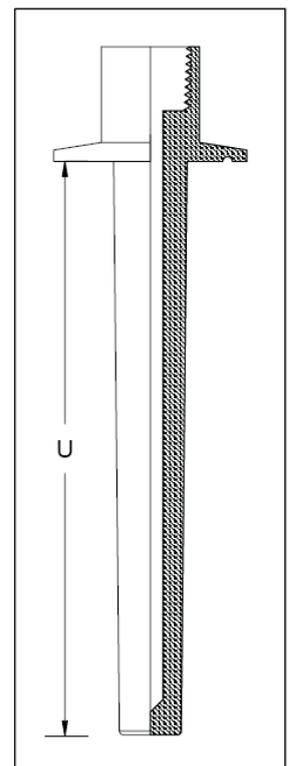
REF : SD 201

OPTRIS INFRARED THERMOMETERS

Optris offers a comprehensive and innovative product range of Infrared thermometers for use in many industrial applications

Compact Series: Small compact Infrared thermometers or stationery use in confined and hot surroundings

MODEL	DESCRIPTION
OPTCSTCLT15CB3	-40 to 1030 Deg C 15:1 3 mtr lead 0—10V output Temperature Range Optics

SD 1825

High Precision Series:

Stationary Infrared thermometers with high optical performance as well as double laser signal for measurement point adjustment.

MODEL	DESCRIPTION
OPTCTLT20CB3	-50 to 975Deg C 22:1 3 mtr lead 0—10V 4-20mA outputs Temperature Range Optics

SD 1826

Infrared Cameras:

Compact Thermal Imagers for fast online applications including line scanning functionality.
Optris PI200 & PI400 Thermal Imager providing thermal images in real time.
Optris PI640 VGA Resolution for Industrial and R& D processes.
All Optris cameras come with software as standard
Applications include, Metals, Glass, Hotspot detection and drone UAV flight mounting.

SD 1827

TCA INFRARED THERMOMETERS

Fully featured Hand Held Infrared Thermometers

SD 1981

Part No	Description	Price Each
TCGM550E	Hand Held Digital Infrared Thermometer in Blister Pack only Measuring Range –50 to 550 Deg C Distance to Spot 12:1 Emissivity 0.1 to 1.0 Accuracy +/- 1.5 Deg C or +/- 1.5%	$65.00
TCGM900	Hand Held Digital Infrared Thermometer in Plastic carry case Measuring Range –50 to 900 Deg C Distance to Spot 12:1 Emissivity 0.1 to 1.0 Max/Min Dif/ Average Temperature Reading Hi/Lo Temperature Alarm Setting 12 Data Store / Recall Function Accuracy +/- 1.5 Deg C or +/- 1.5%	$115.00
TCGM1350	Hand Held Digital Infrared Thermometer in Plastic carry case Measuring Range –18 to 1350 Deg C Distance to Spot 50:1 Emissivity 0.1 to 1.0 Max/Min Dif/ Average Temperature Reading Hi/Lo Temperature Alarm Setting 12 Data Store / Recall Function Accuracy +/- 1.5 Deg C or +/- 1.5%	$345.00

TEMPERATURE CALIBRATION

AOIP MULTIFUNCTION FIELD SIGNAL CALIBRATOR

The CALYS 50 field multifunction calibrator is the perfect tool for advanced process maintenance and use on the test bench in all industries. Suitable for all field and laboratory measurements, it simultaneously measures and generates over two isolated channels various signals of temperature, resistance, process and frequency in one single instrument.

MODEL	DESCRIPTION
TCCALYS50	AOIP Field Temperature calibrator signal simulator and measure unit

INFRA-RED BLACK BODY CALIBRATOR

The BB500 is a portable calibrator for Infrared temperature devices.
Range 50 to 500 °C
Accuracy +/- 0.1 °C + 50 to +100 °C +/- 0.2 °C + 101 °C to 350 +/- 0.4°C + 351 to 500 °C
240V AC Supply

MODEL	DESCRIPTION
TCBB500	Portable Black Body Calibrator

ISOTECH CALIBRATION EQUIPMENT

Isotech manufacture temperature calibration equipment for industrial calibrations as well as providing many laboratories worldwide with both primary and secondary reference equipment.

Industrial Temperature Calibrators

The FAST-CAL range was developed to meet the needs of plants wanting to maintain their own calibration and test programmes of temperature sensors.
Available as a basic dry block calibrator or an ISO-9000 Calibration system where the
Sensor under test is compared to a calibrated standard, for true traceability. Optional PC
Interface, additional software is available for automatic calibration.

MODEL	FAST-CAL LOW	FAST-CAL HIGH
Range @ 20 Deg C	-35 Deg C to 140 Deg C	35 Deg C to 650 Deg C
Stability	0.02 Deg C	0.05 Deg C
Calibration Capacity	25mm DIA x 148mm	25mm DIA 148mm

SD 1220

Isocal 6 Advanced Series

- Stirred Liquid Bath
- Dry Block Bath
- Black Body Source for IR Thermometers
- Calibrator for Surface Sensors
- Range covers –40 Deg C to 250 Deg C

MILLIK PRECISION THERMOMETER

The milliK Precision Thermometer from Isotech sets a new standard for the high accuracy measurement and calibration of Platinum Resistance Thermometers, Thermistors, Thermocouple and Process Instrumentation (4-20mA) over the range -270°C to 1820°C. The milliK has two input channels for sensors and a third channel for current. It can be expanded to become a measuring system with up to 33 channels reading SPRTs,RTDs, Thermistors, or Thermocouples with the option to control calibration baths and log readings accurately.

Standard Thermometers

Standard Platinum resistance thermometers with metallic sheath suitable for use in the range –196 Deg Cto 670 Deg C supplied complete with certification.
Contact our office or visit www.temperature.com.au for more information.

DATALOGGERS

The Grant instruments Squirrel range of data loggers are easy to use, hand held, battery powered which can also be powered from a mains voltage supply.
The universal inputs can accept virtually any type of sensor, thermocouple, RTD or milliamp signals.
The Squirrel model range covers from 4 to 32 input channels and offer USB
connectivity with the Squirrel view configuration and analysing software allowing export of data to Excel.
Options available are WiFi or Ethernet connections.

MODEL
TCSQ2010

MODEL
TCSQ2020

- 4 differential Universal Inputs
- 8 Single Ended Inputs
- Carry Case
- USB Lead
- Squirrel view Software
- 2 Alarm outputs

- 8 differential Universal Inputs
- 16 Single Ended Inputs
- Carry Case
- USB Lead
- Squirrel view Software

NOVUS DATA LOGGERS

Dataloggers have wide applications in the fields of biology, chemistry, pharmacy, logistics and industry.

TagTemp-Stick is an electronic temperature data logger, compact and robust, that dispenses use of cables for configuration and data collecting. Plugs directly into a USB interface of a computer with Windows® to communicate with the application LogChart II, which is the configuration and data analysis software for data loggers from TagTemp series. The TagTemp-Stick has a high accuracy internal temperature sensor. It is ideal for temperature recording in the transport and storage of refrigerated and frozen products, such as vaccines, blood products and food. Range -20 to + 70 Deg C

TagTemp-USB is a small portable electronic temperature logger. Its internal sensor measures local environment temperature and logs such values in an electronic memory. Logged data, can be later viewed and analysed on a PC where they can be opened in tabular and graph forms. Range—20 to + 70 Deg C

LogBox-AA is an electronic data logger with two input analog channels. Input data is stored in the loggers internal memory, for later download to a PC for visualization and analysis in the form of tables or graphs. The data is easily exported to spreadsheets. The LogChart-II is the software used to configure the logger, download and visualize data. The logger configuration allows defining the logger operation mode, including programming the start/stop time of data acquisition.
Other parameters such as signal input type, logging interval, etc, are easily selected through the LogChart-II software. Inputs RTD, Thermocouple Types K,J,T,N,R,S,B 4– 20 mA , 0-20 mA & 0 –10 V

LogBox-RHT-LCD is dual channel data loggers with built-in temperature and relative humidity sensors. They use a high quality industrial grade humidity sensor for accurate and reliable operation in applications such as transportation, food and goods storage, process auditing, pharmaceutical, HVAC and others.
In the LogBox-RHT-LCD the temperature and humidity values are shown in the digital display.
You can also check on the display the Minimum and maximum recorded values.

FieldLogger is a versatile, powerful and yet cost effective data logger handling analog, digital and other types of variables with high resolution and speed. It is a high performance; high connectivity instrument easy to configure and operate. It has 8 configurable analog inputs that can read thermocouples, Pt100, Pt1000, voltage and current signals. It also has 2 relay outputs and 8 digital ports individually configurable as inputs or outputs. It has a 10/100 Mbps Ethernet interface that allows for access through a browser (HTTP), FTP (client and server), e-mails sending (SMTP), SNMP and Modbus TCP.

FieldLogger has one USB interface to be connected to a computer (for configuration, monitoring and data download) and another USB port for plugging a flash driver for data retrieval. The 512k logging basic memory is used to store data and it can be greatly expanded with an SD card

INOR TRANSMITTER

TCIPAQC520S Head Mounted HART Transmitter SIL2 PC Programmable: Isolated Input / Output **SD 1588**

1500 V Galvanic Isolation
PC Programmable USB Socket
Operating Voltage 10 —36 V DC
Output 4-20, 20-4 Customized Temperature
Linear for RTD & T/C
Minimum Span 10 °C RTD 2mV TC
33 mm Mounting Centre's
Suitable for 5—95% RH conditions

MODEL	INPUT	PRICE
TCIPAQC520S	RTD, Thermocouples & Resistance	$624.00

TCAPAQ-3H Head Mounted 0—10 Volt Output HVAC Applications **SD 1233**

4 Wire Separate Power
No Galvanic Isolation
Rangeable with Solder Pads
Operating Voltage 15 —30 V DC
0—10 V Output
Span 50 / 100 / 150 / 200 °C
33 mm Mounting Centre's

MODEL	INPUT	PRICE
TCAPAQ3HT	RTD PT 100 Ohm 3 Wire	$139.00
TCAPAQ3HD	RTD PT 1000 Ohm 3 Wire	$139.00

TCAPAQ-L Low Cost DIN Rail Mounted 2 Wire Transmitter **SD 1124**

2 Wire Loop Powered
No Galvanic Isolation
Rangeable with Solder Pads
Operating Voltage 6.5—32 V DC
4—20 mA Output
Only 17.5 mm Wide
Minimum Span 50 °C
Suits 35 mm Rail

MODEL	INPUT	PRICE
TCAPAQLR	RTD PT 100 Ohm 3 Wire	$175.00
TCAPAQLC	Thermocouple K,J,T & N	$175.00

TCMINIPAQ-L DIN Rail Mounted PC Programmable USB **SD 1068**

2 Wire Loop Powered
No Galvanic Isolation
PC Programmable USB Socket
Operating Voltage 8 —32 V DC
4—20 mA Output
Minimum Span RTD 10 °C, TC 2mV
Suits 35 mm Rail

MODEL	INPUT	PRICE
TCMINIPAQL	PT 100, 1000 Ohm All Thermocouple Types	$185.00

TCIPAQ-L DIN Rail Mounted PC Programmable : Isolated Input/ Output **SD 1087**

2 Wire Loop Powered
1500 V Galvanic Isolation
PC Programmable
Operating Voltage 6.5 —36 V DC
4—20 mA Output
Accuracy +/- 0.1 % of span
Minimum Span 10 °C RTD 2mV TC
Suits 35 mm Rail

MODEL	INPUT	PRICE
TCIPAQL	PT 100, 1000 Ohm All Thermocouple Types	$350.00

TCIPAQ-4L DIN Rail Mounted Multi Function Universal 4 Wire Transmitter **SD 1061**

4000 V Galvanic Isolation
PC Programmable
Inputs mV, Ohms, mA, up to 50 V
Outputs 0—20 mA 4—20 mA 0/1– 5 V 0 /1—10 V
Operating Voltage 90 - 240 v AC or 20—30 V DC
Accuracy +/- 0.1 % of span
Minimum Span 10 °C RTD 2mV TC
Suits 35 mm Rail

MODEL	SUPPLY VOLTAGE	PRICE
TCIPAQ4L	90—240 V AC	$590.00
TCIPAQ4L1	20—30 V DC	$590.00

ICON Programming Kit USB Connection **SD 1479**

Suits all PC Programmable INOR Head mount and DIN rail mount Transmitters.

MODEL		PRICE
TCICON	USB Programming	$528.00

TCISOPAQ11L DIN Rail Mounted Single Chanel Loop Powered Isolator **SD 1677**

2 Wire Loop Powered
Input to output Galvanic Isolation
0-20, 4-20mA Single input
High Accuracy Negligible additional measurement errors in the loop

MODEL		PRICE
TCISOPAQ11L	2 Channel loop isolator	$275.00

INOR TRANSMITTERS HEAD MOUNTED

TCAPAQ Low Cost Head Mounted In Head 2 Wire Transmitter

SD 1118

2 Wire Loop Powered
No Galvanic Isolation
Rangeable with Solder Pads
Operating Voltage 6.5—32 V DC
4—20 mA Output
Minimum Span RTD 50 °C
33 mm Mounting Centre's

MODEL No	INPUT	PRICE
TCAPAQHRF	RTD PT 100 Ohm 3 Wire	$110.00
TCAPAQHCF	Thermocouple K,J,T & N	$110.00

TCIPAQ-C202 Low Cost Head Mounted

SD 1990

2 Wire Loop Powered
No Galvanic Isolation
PC Programmable USB Socket
Operating Voltage 8.5—32 V DC
4—20 mA Output
Minimum Span 20 °C
33 mm Mounting Centre's
Suitable for 100% RH conditions

MODEL No	INPUT	PRICE
TCIPAQC202	RTD PT 100 Ohm 3 Wire	$110.00

TCIPAQ-H Head Mounted PC Programmable : Isolated Input/ Output

SD 1121

2 Wire Loop Powered
1500 V Galvanic Isolation
PC Programmable
Operating Voltage 6.5 —36 V DC
4—20 mA Output
Accuracy +/- 0.1 % of span
Minimum Span 10 °C RTD 2mV TC
33 mm Mounting Centre's

MODEL No	INPUT	PRICE
TCIPAQH	PT 100, 1000 Ohm All Thermocouple Types	$325.00

TCMINIPAQ Head Mounted PC Programmable USB

SD 1029

No Galvanic Isolation
PC Programmable USB Socket
Operating Voltage 8 —32 V DC
4—20 mA Output
Minimum Span 10 °C RTD 2mV TC
33 mm Mounting Centre's
Suitable for 100% RH conditions

MODEL No	INPUT	PRICE
TCMINIPAQH	PT 100, 1000 Ohm All Thermocouple Types	$125.00

NOVUS 2 WIRE TRANSMITTERS

TX Block Head Mounted Non—Isolated USB PC Programmable USB

SD 1922

Novus PC programmable head mount transmitter.
Input: RTD & Thermocouple
Output Loop powered 4—40 mA
12 to 30 Volt DC
Non Isolated Input / Output
Programmed with Micro-B USB

MODEL No	DESCRIPTION	PRICE
TCTXBLOCKUSB	HEAD MOUNT TRNSMITTER USB PROGRAMMABLE	$ 95.00

TX ISO Pack Head Mounted Isolated Input / Output PC Programmable

SD 1821

Novus PC programmable head mount transmitter.
Input: RTD & Thermocouple
Output Loop powered 4—40 mA
12—25 Volt DC
Isolated Input to Output 1000 v
Programmed with Micro-B USB

MODEL No	INPUT	PRICE
TCTXISOPACK	HEAD MOUNT TRNSMITTER USB PROGRAMMABLE	$ 155.00

TX RAIL USB DIN RAIL Mounted PC Programmable USB

Novus PC programmable DIN rail mount transmitter.
Input: RTD & Thermocouple
Output Loop powered 4—40 mA
12 to 30 Volt DC
Non Isolated Input / Output
Programmed with Micro-B USB

SD 2020

MODEL No	INPUT	PRICE
TCTXRAILUSB	DIN RAIL TRANSMITTER	$ 100.00

TX ISO RAIL DIN RAIL Mounted PC Programmable USB

SD 1820

Novus PC programmable DIN rail mount transmitter.
Input: RTD & Thermocouple
Output Loop powered 4—40 mA
12—25 Volt DC
Isolated Input to Output 1000 v
Programmed with Micro-B USB

MODEL No	INPUT	PRICE
TCTXISORAIL	DIN RAIL TRANSMITTER	$ 155.00

TCA EX STOCK BARSTOCK THERMOWELLS

Temperature Controls keep off the shelf an extensive range of screwed Barstock thermowells in large quantities to suit thermocouples, RTD's and Bimetal thermometers; listed below are the most popular, contact our sales office to confirm current stock range.

Screwed Parallel Stem — SD 039

316 Stainless Steel

6.5 mm Dia Bore

Process Thread	Instrument Thread	U Length	Model	Price
1/2" BSPT	1/2" BSPT	50 mm	TC130050	$56.00
1/2" BSPT	1/2" BSPT	75 mm	TC130075	$65.00
1/2" BSPT	1/2" BSPT	100 mm	TC130100	$74.00
1/2" BSPT	1/2" BSPT	150 mm	TC130150	$92.00
1/2" BSPT	1/2" BSPT	200 mm	TC130200	$110.00
1/2" BSPT	1/2" BSPT	250 mm	TC130250	$128.00
1/2" BSPT	1/2" BSPT	300 mm	TC130300	$146.00
3/4" BSPT	1/2" BSPT	50 mm	TC140050	$68.00
3/4" BSPT	1/2" BSPT	75 mm	TC140075	$77.00
3/4" BSPT	1/2" BSPT	100 mm	TC140100	$87.00
3/4" BSPT	1/2" BSPT	150 mm	TC140150	$105.00
3/4" BSPT	1/2" BSPT	200 mm	TC140200	$124.00
3/4" BSPT	1/2" BSPT	250 mm	TC140250	$142.00
3/4" BSPT	1/2" BSPT	300 mm	TC140300	$162.00
1/2" NPT	1/2" NPT	50 mm	TC130050N	$56.00
1/2" NPT	1/2" NPT	75 mm	TC130075N	$65.00
1/2" NPT	1/2" NPT	100 mm	TC130100N	$74.00
1/2" NPT	1/2" NPT	150 mm	TC130150N	$92.00
1/2" NPT	1/2" NPT	200 mm	TC130200N	$110.00

Screwed Taper Stem — SD 036

Process Thread	Instrument Thread	U Length	Model	Price
1/2" BSPT	1/2" BSPT	50 mm	TC13T0050	$68.00
1/2" BSPT	1/2" BSPT	75 mm	TC13T0075	$78.00
1/2" BSPT	1/2" BSPT	100 mm	TC13T0100	$88.00
1/2" BSPT	1/2" BSPT	150 mm	TC13T0150	$108.00
1/2" BSPT	1/2" BSPT	200 mm	TC13T0200	$128.00
1/2" BSPT	1/2" BSPT	250 mm	TC13T0250	$148.00
1/2" BSPT	1/2" BSPT	300 mm	TC13T0300	$168.00
3/4" BSPT	1/2" BSPT	50 mm	TC14T0050	$80.00
3/4" BSPT	1/2" BSPT	75 mm	TC14T0075	$90.00
3/4" BSPT	1/2" BSPT	100 mm	TC14T0100	$101.00
3/4" BSPT	1/2" BSPT	150 mm	TC14T0150	$119.00
3/4" BSPT	1/2" BSPT	200 mm	TC14T0200	$142.00
3/4" BSPT	1/2" BSPT	250 mm	TC14T0250	$162.00
3/4" BSPT	1/2" BSPT	300 mm	TC14T0300	$184.00
1/2" NPT	1/2" NPT	50 mm	TC13T0050N	$68.00
1/2" NPT	1/2" NPT	75 mm	TC13T0075N	$78.00
1/2" NPT	1/2" NPT	100 mm	TC13T0100N	$88.00
1/2" NPT	1/2" NPT	150 mm	TC13T0150N	$108.00
1/2" NPT	1/2" NPT	200 mm	TC13T0200N	$128.00

TCA FABRICATED THERMOWELLS WITH MALE CONNECTOR

FABRICATED THERMOWELL WITH 1/2" BSPT Stainless Steel male connector welded to 9.5 mm diameter 316 stainless steel tube 1.2 mm thick wall.
Designed to suit TC01 style temperature sensors.
All units internal pressure tested during manufacture.

SD 350

Screwed Parallel Stem
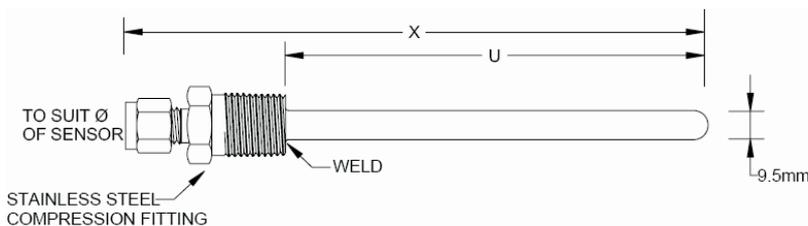
X LENGTH	U LENGTH	MODEL	PRICE
95 mm	50 mm	TC13CF50	$48.00
145 mm	100 mm	TC13CF100	$50.00
195 mm	150 mm	TC13CF150	$52.00
295 mm	250 mm	TC13CF250	$53.00

TCA THERMOWELLS BAR SROCK MACHINED

Thermowells are recommended for temperature sensors and thermometers in a process system to prevent damage to them from the pressure, velocity, abrasion and corrosive materials present in the process. The thermowell allows the removal and replacement of the temperature sensor without interference to the process gas or fluid. Temperature Controls specialise in the design and manufacture of thermowells, we have gun drilling and CNC machining capabilities to ensure a quality product; timely delivery and competitive pricing.

We can supply thermowells in the following materials.
316;316L ;321; 321H; 304; 304L Stainless Steels
Chrome Moly F11; F22
Duplex and Super Duplex Stainless steel
Inconel 600;601 or Incoloy
Hastelloy C or B
Monel 400
Titanium Gr 2 or 12

Gun Drill Tip

Option: Plug & Chain

Quality Assurance
Testing and Certification Available for thermowells includes
Material Certificates
Wake Frequency Calculations
Full Penetration Welding X Ray
Bore Concentricity
Pressure Test Internal / External
Dye Penetrant Testing of Welds
NACE
Weld WPS,PQR to ASME IX
Positive Material Identification
Hard Face Coatings available
Stellite
Tungsten Carbide
Hard Chrome

Screwed Reduced Tip Stem — SD 035
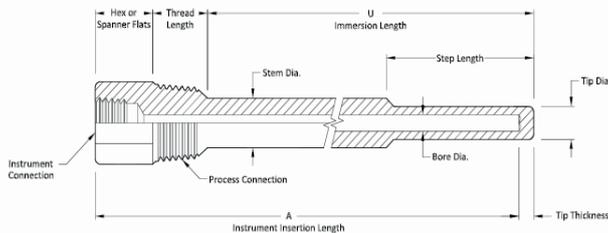
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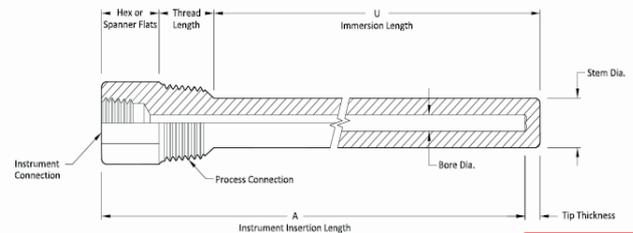
Socket Weld Reduced Tip — SD 743
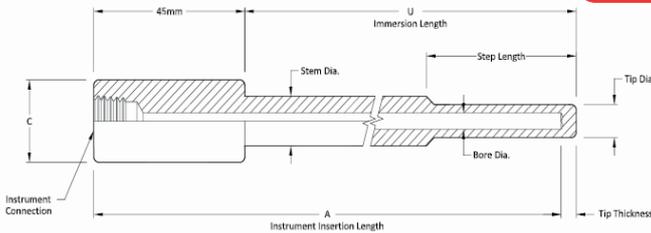
Screwed Taper Stem — SD 036FT
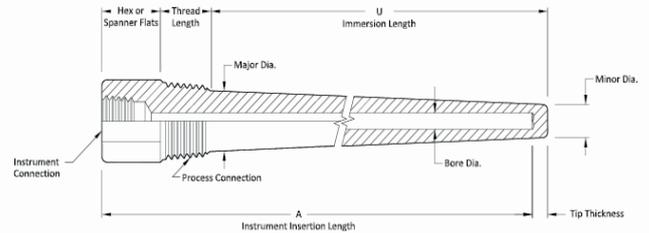
Weld in Taper Stem — SD 037
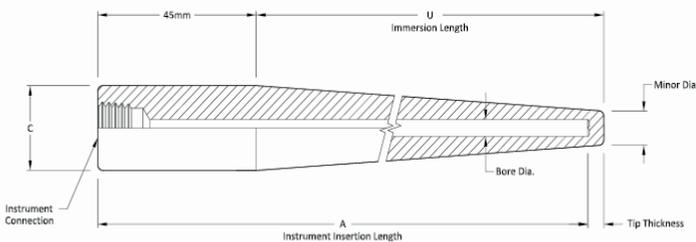
Welded Flange Taper Stem — SD 038FT
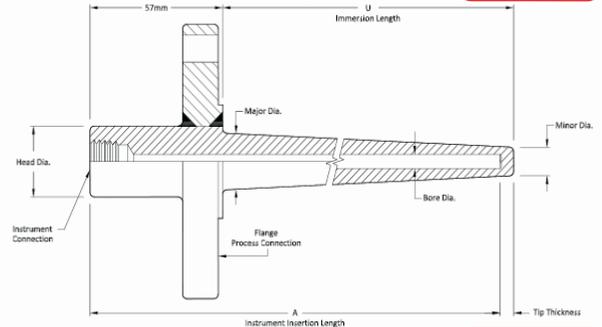
Sanitary Reduced Tip Stem — SD 744
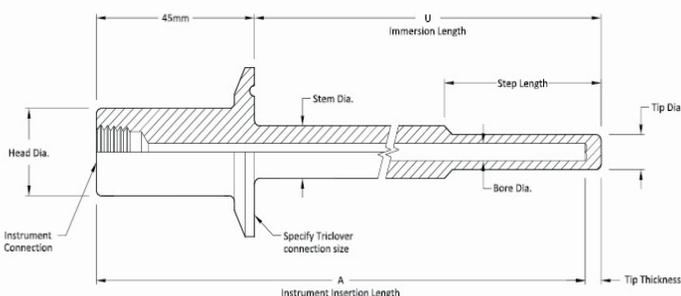
Van Stone Taper Stem — SD 667
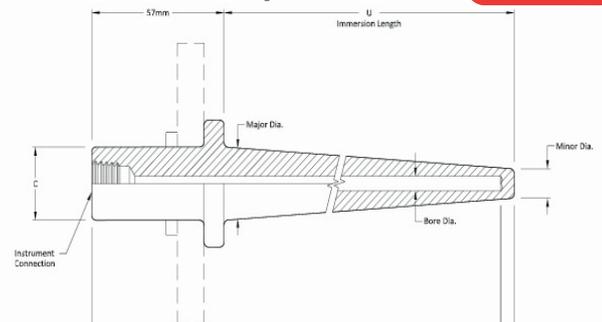
TEC GAS FILLED DIAL THERMOMETER

All Stainless Steel Gas Filled Dial Capilliary Thermometers
304 Stainless Steel Case and Capillary
100 mm dial as standard
12 mm diameter x 100 mm bulb with 1/8" dia x 3 mtr long capillary

Surface Mount

MODEL	ENTRY	RANGE	PRICE
TEC43120SM	Surface Mount	- 20 to 120 °C	$315.00
TEC43250SM	Surface Mount	0—250 °C	$315.00
TEC43600SM	Surface Mount	0—600 °C	$395.00

Options Include

Panel or Surface Mount in 4" and 6 " Dial
Single or Dual Electrical Contacts
Minimum / Maximum Drag Pointer
Extra Capillary or Stainless Steel Armour

Panel Mount

MODEL	DESCRIPTION	PRICE
TC22SWEC	1/2" BSPT S/S Compression Fitting on Stem	$55.00
TC22SCWEC	1/2" BSPT S/S Compression Fitting on Capillary	$63.00

Min / Max pointer

Optional electrical contacts

Single or dual
electrical contacts

Compression Fitting
for Stem or
1/8" dia Capillary

TEC GAS STEM THERMOMETER

Bottom Entry

MODEL	DESCRIPTION
TECHS4/200/-20-120	4" Dial 12mm diameter Stem All stainless steel case and stem standard range –20 to 120 deg C
TECHS4/200/0-250	4" Dial 12mm diameter Stem All stainless steel case and stem standard range 0 to 250 deg C
TECHS4/200/0-600	4" Dial 12mm diameter Stem All stainless steel case and stem standard range 0 to 600 deg C

Back Entry

MODEL	DESCRIPTION
TECHT4/200/-20-120	4" Dial 12mm diameter Stem All stainless steel case and stem standard range –20 to 120 deg C
TECHT4/200/0-250	4" Dial 12mm diameter Stem All stainless steel case and stem standard range 0 to 250 deg C
TECHT4/200/0-600	4" Dial 12mm diameter Stem All stainless steel case and stem standard range 0 to 600 deg C

MODEL	DESCRIPTION
TC22S1212SB	1/2" BSPT S/S Compression Fitting on Stem

A range of made to order Gas Actuated Thermometers 4" & 6" dial, stem diameters 12.0mm,
Range –40 to 600 Deg C, Typical delivery = 4 weeks from order

TEC BIMETAL THERMOMETERS

These thermometers comprise bimetallic strips coiled into spirals that expand with temperature, turning a needle to indicate process temperature. By coiling a very long strip it becomes much more sensitive to small temperature changes. The TEC Bimetal thermometers come with a 3" or 5" dial face; stainless steel body and 1/4" dia stem; 1/2" NPT fixed thread connection, reset adjustment screw and safety glass.

Back Connected 3" dial Size only
Model TCBL3 / Length / Range

Ranges available

-50—50 °C
-50—100 °C
-20—120 °C
0—50 °C
0—100 °C
0—150 °C
0—200 °C
0—300 °C
0—400 °C
0—500 °C
0 –600 °C

SD 1231

Every Angle Connection 3" & 5" dial
Model TCBA3 / Length / Range
Model TCBA5 / Length / Range

SD 1231
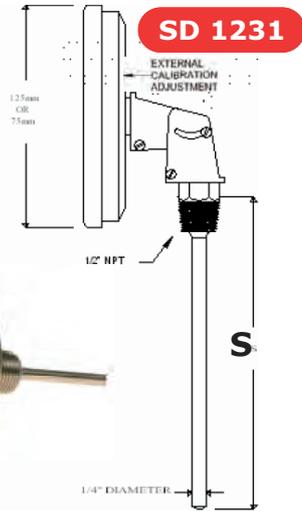
Stem Lengths available

Length **S** includes Thread

2 1/2"
4"
6"
9"
12"

Model	Stem Length	Price
3" Back Connect TCBL3	Up to 6"	$72.00
3" Every Angle TCBA3	Up to 6"	$191.00
5" Every Angle TCBA5	Up to 6"	$232.00
3" Back Connect TCBL3	9" or 12"	$79.00
3" Every Angle TCBA3	9" or 12"	$199.00
5" Every Angle TCBA5	9" or 12"	$240.00

Ex stock Bar Stock Thermowells to suit Bimetal Thermometers

Screwed Parallel Stem   **SD 039**

Instrument Connection 1/2" NPT

316 Stainless Steel
6.5 mm Dia Bore

Screwed Taper Stem   **SD 036**

Instrument Connection 1/2" NPT

PROCESS THREAD	THERMOWELL U LENGTH	MODEL	PRICE		SUIT BIMETAL	PROCESS THREAD	THERMOWELL U LENGTH	MODEL	PRICE
1/2" BSPT	26 mm	TC130026	$58.00		2 1/2"	1/2" BSPT	26 mm	TC13T0026	$64.00
1/2" BSPT	64 mm	TC130064	$69.00		4"	1/2" BSPT	64 mm	TC13T0064	$75.00
1/2" BSPT	115 mm	TC130115	$80.00		6"	1/2" BSPT	115 mm	TC13T0115	$88.00
1/2" BSPT	191 mm	TC130191	$98.00		9"	1/2" BSPT	191 mm	TC13T0191	$108.00
1/2" BSPT	267 mm	TC130267	$119.00		12"	1/2" BSPT	267 mm	TC13T0267	$131.00
3/4" BSPT	26 mm	TC140026	$68.00		2 1/2"	3/4" BSPT	26 mm	TC14T0026	$80.00
3/4" BSPT	64 mm	TC140064	$77.00		4"	3/4" BSPT	64 mm	TC14T0064	$90.00
3/4" BSPT	115 mm	TC14O115	$97.00		6"	3/4" BSPT	115 mm	TC14TO115	$109.00
3/4" BSPT	191 mm	TC140191	$119.00		9"	3/4" BSPT	191 mm	TC14T0191	$128.00
3/4" BSPT	267 mm	TC140267	$139.00		12"	3/4" BSPT	267 mm	TC14T0267	$151.00
1/2" NPT	26 mm	TC130026N	$58.00		2 1/2"	1/2" NPT	26 mm	TC13T0026N	$64.00
1/2" NPT	64 mm	TC130064N	$69.00		4"	1/2" NPT	64 mm	TC13T0064N	$75.00
1/2" NPT	115 mm	TC130115N	$80.00		6"	1/2" NPT	115 mm	TC13T0115N	$88.00
1/2" NPT	191 mm	TC130191N	$98.00		9"	1/2" NPT	191 mm	TC13T0191N	$109.00
1/2" NPT	267 mm	TC130267N	$119.00		12"	1/2" NPT	267 mm	TC13T0267N	$131.00

HAND HELD PROBES THERMOCOUPLE

Temperature Controls manufacture a stock range of probes to suit the hand held thermometers and will manufacture custom assemblies to suit your applications for Food, Air , Liquids, Surface, Compost and immersion temperature measurement.
All hand held probes fitted with 2 mtr Kurly Cord and moulded mini plug.

SD 069

Round Tip Immersion Probe Max Temp 1100 °C

TC15K013015	Fast Response Immersion 1.5 mm dia x 130 mm	$83.00
TC15K015030	Immersion Probe 3.0 mm dia x 150 mm	$83.00
TC15K030030	Immersion Probe 3.0 mm dia x 300 mm	$83.00

SD 070

Type K Chisel Point Stab Probe 4.5 mm dia x 150 mm Long stem
Max Temp 1100 °C

TC16K015045	Type K Hand Held Stab Probe	$87.00

SD 071

Type K Air Sensing Probe 6.0 mm dia x 250 mm Long stem
Exposed junction sensor inside drilled outer sheath Max Temp 300 °C

TC18K025060	Type K Hand Held Air Probe	$93.00

SD 072

15 mm dia Tip with Fast Response 3 Ribbon Element Max Temperature 400 °C   Option Single Ribbon 800°C

Type K Hand Held Surface Probes in straight and Right Angle Styles.

TC17K015060	Type K Surface Probe 6.0 mm x 150 mm	$135.00
TC17KR250	Type K Surface Probe Right Angle 250 mm	$149.00

SD 751

Type K Low Cost Surface Probe 150 mm Long PVC Grip Max 400°C

TC117K	Fast Response Type K Surface Probe	$95.00
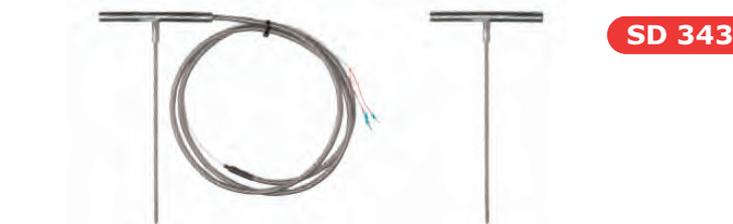
SD 343

Tee Bar Assembly for insertion into product (meat, dough, compost)
Rugged Construction with lengths up to 2000 mm, fitted with Teflon cables inside Stainless Steel armour or Silicon rubber tails to suit the application.
Contact our sales office for advice and pricing.
Available in RTD, Thermistor and Thermocouple Calibrations.

SD 476

Type K Teflon / Teflon Wire fitted with mini plug 1000 mm Long
Max Temp 260 °C

TCKBEAD	Fast Response Bead Probe 24 awg Exposed Junction	$12.00

SD 752

Type K Flat Mylar Film Leaf Thermocouple
150 mm Long x 5 mm Wide x 0.16 mm Thick Max Temperature 300°C

TCLS035H	Type K Leaf Thermocouple	$135.00

SD 123

Type K Roller Surface Probe Hand Held with 3 Ribbon fast response tip. Maximum Temperature 250 °C

TCKRS	Type K Roller Surface Probe	$305.00

SD 122

Teflon covered magnets with 3 Ribbon fast response 3 ribbon Tip
Suitable for horizontal or vertical surfaces, Max Temperature 200 °C

TCKLM3R	Type K Magnetic Surface Probe	$205.00

SD 080

Magnetic Temperature Sensor, powerful horseshoe magnet with spring loaded Thermocouple or flat film RTD sensor fitted.
Manufactured to customer specifications.
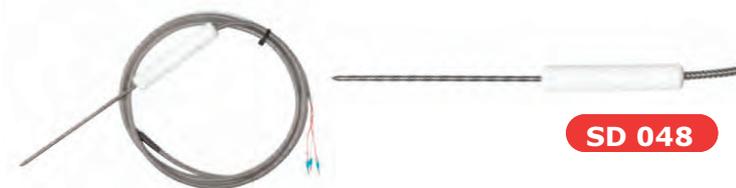
SD 048

Hand Probe Assembly for insertion into product (cooking meat, dough)
Rugged Waterproof Construction with Teflon Handle, fitted with Teflon cables inside Stainless Steel armour or Silicon rubber tails to suit the application.
Contact our sales office for advice and pricing.
Available in RTD and Thermocouple Calibrations.

TCA HAND HELD THERMOMETERS & PROBES

TCA TC305K Digital Thermometer

Specifications:

- Type K single Input (Mini Plug)
- Auto Power Off
- Range Type K Input—50 to 1300 °C
- Accuracy +/- 0.3 % + 1°C
- Resolution 0.1 °C to 199.9 °C then 1°C
- Maximum Record Function
- Supplied in Rubber Boot with 1 x Teflon Bead Probe
- Recalibration Pot on Front Face.

SD 345

MODEL	DESCRIPTION	PRICE
TC305K	TC305K Digital Thermometer	$138.00

TCA TC307K Digital Thermometer

Specifications:

- Type K dual Input T1—T2 (Mini Plugs)
- Auto Power Off
- Range Type K Input—50 to 1300 °C
- Accuracy +/- 0.3 % + 1°C
- Resolution 0.1 °C to 199.9 °C then 1°C
- Maximum Record Function
- Supplied in Rubber Boot with 2 x Teflon Bead probes
- Recalibration Pot on Front Face

SD 1359

MODEL	DESCRIPTION	PRICE
TC307K	TC307K Digital Thermometer	$ 186.00

TCA TC308K Digital Thermometer

Specifications:

- Type K single Input (Mini Plug)
- Auto Power Off
- Range Type K Input—50 to 1300 °C
- Accuracy +/- 0.3 % + 1°C
- Resolution 0.1 °C to 199.9 °C then 1°C
- Supplied in Rubber Boot with 1 x Teflon Bead Probe
- Minimum / Maximum Function
- Recalibration / Offset Screw on face
- Mini plug well protected in top panel of Instrument

SD 1515

MODEL	DESCRIPTION	PRICE
TC308K	TC308K Digital Thermometer	$119.00

Center 301 Digital Thermometer

Specifications:

- Type K Dual Input T1—T2 (Mini Plugs)
- Auto Power Off
- Range Type K Input—200 to 1370 °C
- Accuracy +/- 0.3 % + 1°C
- Resolution 0.1 °C
- Minimum / Maximum / Average Function
- Recalibration Screw
- Supplied in Carry Case with 2 x Bead Probes

SD 1502

MODEL	DESCRIPTION	PRICE
TC301	TC301 Digital Thermometer	$210.00

Center 305 Data Logger Thermometer

Specifications:

- 16,000 Records Data Logger
- USB –300 Interface Using Windows Software
- Triple Display
- Clock Function
- Auto Power Off
- Range Type K Input—200 to 1370 °C (Mini Plug)
- Accuracy +/- 0.3 % + 1°C
- Resolution 0.1 °C
- Supplied in Carry Case with 2 x Teflon Bead Probes

SD 1502

MODEL	DESCRIPTION	PRICE
TC305LOG	TC305LOG Digital Thermometer	$360.00

Center 4 Channel 309 Data Logging Thermometer

Specifications:

- 16,000 Records Data Logger
- USB –300 Interface Using Windows Software
- Auto Power Off
- Range Type K Input—200 to 1370 °C
- 4 Channel (Mini Plugs)
- Accuracy +/- 0.3 % + 1°C
- Resolution 0.1 °C
- Supplied in Carry Case with 2 x Teflon Bead Probes

SD 1512

MODEL	DESCRIPTION	PRICE
TC309LOG	TC309LOG Digital Thermometer	$480.00

This represents our most popular models, for full details on the complete range of hand held instruments visit

www.temperatureshop.com.au

TCA DIGITAL THERMOMETER

Direct Mount

SD 388

Surface Mount

OPTION:

Rear Centre Entry

100 mm Diameter Digital Thermometer
All Stainless Steel Case IP65
PT 100 Ohm 3 Wire Input
Ranges   - 50 to 199.9 °C
               0—500 °C x 1 °C Resolution
3 1/2 Digit LCD Display 13 mm High
Battery Powered Min 3 Year Life 2 x AA
Entries Available (all M16 x 1.5 Thread)
               Direct Bottom Entry
               Surface Mount Bottom
               Rear Entry

MODEL	PRICE
DPT420SM	$495.00

Analog output 4-20 mA
Loop Powered TX 10-32 V DC
(Duplex RTD required)

MODEL	ENTRY	RANGE	PRICE
DPT3DM	Direct Mount	-50 to 199.9 °C	$295.00
DPT3BM	Rear Centre Entry	-50 to 199.9 °C	$295.00
DPT3SM	Surface Mount	-50 to 199.9 °C	$295.00
DPT3HSM	Surface Mount	0—500 °C	$295.00

MAGNETIC AND CLAMP DIAL THERMOMETERS & DIGITAL THERMOMETERS

DIGITAL THERMOMETER for HACCP

Digital Food thermometer with cover.

Suitable for HACCP applications clibrtion procedure @ 0 Deg C
in ice water

- Measuring Range –40 to 250 Deg C

- Deg C or Deg F Display

- Resolution 0.1 Deg C

- Accuracy +/- 0.5 Deg C (–10 to 100)

MAGNETIC SURFACE THERMOMETERS 2" DIAL DUAL MAGNETS
Bimetallic Sensor

MODEL	RANGE	PRICE
TCST120C	- 20 TO 120 °C	$38.00
TCST250C	0—250 Deg °C	$38.00
TCST400C	0—400 Deg °C	$38.00

PIPE MOUNT SURFACE THERMOMETERS 2 1/2" DIAL
Bimetallic Sensor c/w Stainless Steel

MODEL	RANGE	PRICE
TCQWST221SS050	-50—50 °C	$ 38.00
TCQWST221SS120	0—120 °C	$ 38.00
TCQWST221SS200	0—200 °C	$ 38.00
TCQWST221SS300	0—300 °C	$ 38.00

RTD HAND HELD INSTRUMENTATION

Center 370 Thermometer
A rugged IP67 waterproof housing to suit work environments supplied complete with
3.2mm dia Imersion hand probe range −100 to +300 °C
Accuracy +/- 0.1 % +/- 0.4 °C
Resolution 0.1 °C
RTD PT100 Ohm input 4 wire

Probes made to order as specified

MODEL No	DESCRIPTION	PRICE
TCP370HH	Handheld RTD Indicator PT100 Ohm	$325.00

DOSTMANN

The P700 series of precision hand held instruments is ideal for precise measurement and documentation of temperature, relative humidity, dewpoint and airflow.
Products features include:

- RS232 interface — galvanically isolated
- Optional DE-Graph software for graphic & tabular data documentation
- High accuracy (P755Pt/P750/P755 +/-0.03 Deg C
- Physical calibration function (1 point, 2 points or 3 points)
- Channels are freely assignable
- Record maximum, minimum, average, and hold
- Differential temperature display on 2 channel instruments
- 9V battery or mains supply

SD 1503

Probes supplied separately

MODEL	Pt100 range accuracy between −100/+200 C	INPUTS	PRICE
P400	+/- 0.1 C	RTD PT100 SINGLE SENSOR	$265.00
P710	+/- 0.1 C	THERMOCOUPLE SINGLE SENSOR	$475.00
P700	+/- 0.1 C	RTD OR THERMOCOUPLE SINGLE SENSOR	$615.00
P705	+/- 0.1 C	RTD PT100 DUAL SENSORS	$759.00
P750	+/- 0.03 C	RTD OR THERMOCOUPLE SINGLE SENSOR	$1,215.00
P755	+/- 0.03 C	RTD OR THERMOCOUPLE DUAL SENSORS	$1,359.00
P755LOG	+/- 0.03 C	RTD / THERMOCOUPLE / FLOW / HUMIDITY	$1,645.00
P795	+/- 0.015 C	RTD PT100 2 X SMART PROBE SENSORS	$2300.00
TC56000007		CARRY CASE FOR 7 SERIES	$125.00
De-graph Software			$327.00

Motor Winding Thermistors and Thermal Cut Outs

Thermistors are built into the motor windings and protect the motor against locked-rotor conditions, continuous overload and high ambient temperature. The resistance in the sensor remains relatively low and constant over a wide temperature band and increases abruptly at a pre-determined temperature or trip point.

Thermal protection cut outs can also be built into the windings, bearing housings of motors and fitted to compressors as over or under temperature as part of the shut down circuitry.

Temperature Controls keep a comprehensive selection of PTC thermistors and thermal cut outs which can be fitted into housings to suit your application.

LEVEL SWITCHES

Model TC3001 $68.00
316 Stainless Steel
Vertical Connection
1/8" BSPP Thread c/w Locknut
300 mm connection tails
SG = 0.8

SD 2033

Model TC3001M12 $68.00
316 Stainless Steel
Vertical Connection
M16 x 1.5 Thread c/w Locknut
M12 Plug Lead Connection
SG = 0.8

SD 2034

Model TC3002 $98.00
316 Stainless Steel
Horizontal Connection
1/8" BSPP Thread c/w Locknut
300 mm connection tails
SG = 0.8

SD 2035

Model TC3002M12 $98.00
316 Stainless Steel
Horizontal Connection
M16 x 1.5 Thread c/w Locknut
M12 Plug Lead Connection
SG = 0.8

SD 2036

Model TCFDMH16C $158.00
316 Stainless Steel
Horizontal Connection
1/2" BSPP Thread
DIN Plug Cable Connection

SD 2037

Model TCFDMH16M12 $158.00
316 Stainless Steel
Horizontal Connection
1/2" BSPP Thread
M12 Plug Lead Connection

SD 2039

ROTARY PADDLE SWITCHES

The rotary paddle switch operating principle is simple. The unit is usually mounted through a bin wall at the top, middle or low level point. During normal operation (no material present) a synchronous motor rotates the paddle at 1 RPM. When paddle rotation is impeded by material surrounding the paddle the motor will stall and cause the microswitch output to change state to signal an alarm or signal control.

Model TCSE110

SD 1352

Supply 240 VAC
Rotary Speed 1RPM
Connection 1" BSPP
Operational Temperature
-10 / 70 Deg C
Output Rating 5A SPDT
Price: $499.00

Model TCSE3800C

SD 1352

Supply 240 VAC
Rotary Speed 1RPM
Connection 1 3/4" BSPP
Operational Temperature
-10 / 70 Deg C
Output Rating 3A SPDT
Price: $465.00

For details on the complete range of paddles switches and accessories please contact sales@temperature.com.au

CABLE FLOAT SWITCH

Cable Level switches are made of moulded chemical resistant polypropylene to provide a low cost switch over long lengths.

The float contains a SPDT microswitch rated at 15 A 240 V AC with silicon cable for higher temperature applications.

Adjust the location of the weight on the cable to suit your switching points.

MODEL	DESCRIPTION	PRICE
TCMAC35M	CABLE SWITCH 5 MTR LONG WITH WEIGHT	$39.00
TCMAC310M	CABLE SWITCH 10 MTR LONG WITH WEIGHT	$49.00

LEVEL SWITCHES

Multi –Float Level Switches made to order.

A magnet fitted inside the float actuates a reed switch making it change state as the float moves up or down the stem with the rise or fall in liquid. Multiple floats are fitted to provide accurate liquid switch positions or high low alarm output points.

SD 189

Large Magnetic Float Level Switch, 12.7 mm dia 316 Stainless Steel Stem

Up to 5 Floats on stem, with common or individually wired reed switch contacts

Normally Open / Normally Closed or Change over contacts at extra cost.

Available with 2" BSPT Fixed Fitting or Optional Male Connector

Table D or ANSI Flange Sizes available

Maximum Length 3000 mm

Maximum Temperature 180 Deg C

Select terminal head to suit your application process conditions.

SD 179

Small Magnetic Float Level Switch, 8.0 mm dia 316 Stainless Steel Stem

Up to 5 Floats on stem, with common or individually wired reed switch contacts

Normally Open / Normally Closed or Change over contacts at extra cost.

Available with 1" BSPT Fixed Fitting or Optional Male Connector

Table D or ANSI Flange Sizes available

Maximum Length 2000 mm

Maximum Temperature 180 Deg C

Detailed drawings and process capabilities available from www.temperature.com.au

S3 316 S/S Float
45 mm dia
SG = 0.65

S4 316 S/S Float
52 mm dia
SG = 0.55

S1 316 S/S Float
29 mm dia
SG = 0.7
Option SG 0.9 or SG 1.0

NBR Float
18 mm dia
SG = 0.5

ANALOGUE 4-20 mA OUTPUT LEVEL SENSING

Custom manufactured all 316 Stainless Steel Continuous Liquid Level control using Resistor chain input into head mounted transmitter giving 4—20 mA or 20—4 Ma output signal.

Maximum Temperature 120 °C

Maximum Length 1800 mm

Process Connection 2" BSP or 2" Table Flange or ANSI size flanges as specified.

SD 737

XCO CONTINUOUS THERMOCOUPLE

Continuous Thermocouple
The Continuous Thermocouple is designed to sense temperature increases in areas too large (or important) to be covered by multiples of typical temperature sensors (e.g. standard thermocouples or RTD's).
In order to understand the operation of a Continuous Thermocouple, it is important to understand the theory which made the development of these unique temperature sensors possible. Both FTLD and CT²C have the same operating characteristics and detect the hottest temperature existing along their entire length.

Hot spot detection

Continuous Thermocouples generate a measurable voltage like normal thermocouples, however, the measuring junction in a Continuous Thermocouple is not formed by directly joining the two wires. More remarkably, the measuring junction is not fixed but, when subjected to an increase in temperature, becomes concentrated at the hottest point anywhere along the sensor's entire length.
This is due to the large fall in resistance in the insulating material at the heated area.

The nature of this insulating material is such that the voltage developed between the two wires always relates to the highest temperature.

MARSHALL EXPENDABLE THERMOCOUPLE

Complete lances made to order

SD 064

8" & 12" Tips Stocked

- Suitable for use in Molten brass, copper, aluminium and other non-ferrous metals
- Manufactured with Special Limits Class 1 Thermocouple wire
- 16 AWG solid Type K wire with ceramic insulators
- Custom Lances, wire and tip lengths are available on request

Marshall Expendable Thermocouples

Marshall thermocouples are designed for Intermittent temperature sensing of molten metals up to 1250 °C
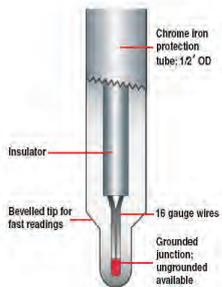
Model	Description	Price
TCKMT843	8" Tip with 43" long leads	$72.00
TCKMT1243	12" Tip with 43" long leads	$105.00

THERMOCOUPLE PROTECTION SHEATHS

Temperature Controls have available from stock a large range of ceramic sheaths. Dimulit / Pythagoras ceramics are the most economical impervious ceramic material for use as a protection sheath for thermocouples. They are gas tight and suitable for use to 1400 Deg C.

Rubalit / Alsint / Alumina ceramics have an Alumina content of 99.7% and are best suited for use with noble metal thermocouples. Rubalit sheaths offer a high working temperature to 1700 Deg C and resist chemical attack.

Sizes available from stock in 600, 1000 & 1500 mm Lengths

6mm OD	4mm ID	Sheath COE
8mm OD	5mm ID	Sheath COE
10mm OD	7mm ID	Sheath COE
12mm OD	8mm ID	Sheath COE
15mm OD	10mm ID	Sheath COE
17mm OD	13mm ID	Sheath COE
20mm OD	15mm ID	Sheath COE
25mm OD	20mm ID	Sheath COE

THERMOGUARD MOLTEN METAL SHEATH

The refractory laminated Thermoguard protection sheath offers the mechanical protection of metal tubes and the corrosion resistance of ceramics. Suitable for use in molten Aluminium or Zinc.

3/4" NPT Threaded Connection
All sizes available from stock

Standard Lengths

12", 18", 24", 30"36"48"

HEXOLOY PROTECTION SHEATHS

Hexoloy is a sintered silicon carbide sheath and is ideal as a high performance thermowell or thermocouple protection sheath. Hexoloy is the hardest commercially available material and provides a wide range of superior properties.

- High Temperature Strength to 1900 °C
- Excellent Thermal Shock Resistance
- Universal Corrosion resistance
- High thermal conductivity equal to stainless steel and 5 times that of alumina
- Exceptional Wear Resistance—50 % Harder than Tungsten Carbide

SIALON PROTECTION SHEATHS

Sialon Thermocouple protection sheaths are a silicon nitride based high quality ceramic offering superior performance in molten aluminium with direct temperature sensing in the metal. Sialon offers

- Non wetting to Aluminium and it's alloys
- Excellent thermal shock resistance
- Low maintenance
- Constant temperature monitoring

COMPRESSION FITTINGS

This represents the most popular fittings sold, many other sizes in tube and threads available from stock and indent

Brass *BSPT*
Bored Thru Male Connector

Tube Size	Thread	Model	Price
1.5 mm	1/8" BSPT	TC22B1815	$14.00
3.0 mm	1/8" BSPT	TC22B1830	$ 9.00
3.0 mm	1/4" BSPT	TC22B1430	$12.00
3.0 mm	1/2" BSPT	TC22B1230	$15.00
4.5 mm	1/4" BSPT	TC22B1445	$12.00
6.0 mm	1/4" BSPT	TC22B1460	$12.00
6.0 mm	1/2" BSPT	TC22B1260	$14.00

316 Stainless Steel *BSPT*
Bored Thru Male Connector

Tube Size	Thread	Model	Price
1.5 mm	1/8" BSPT	TC22S1815	$32.00
3.0 mm	1/8" BSPT	TC22S1830	$14.00
3.0 mm	1/4" BSPT	TC22S1430	$16.00
3.0 mm	1/2" BSPT	TC22S1230	$24.00
4.5 mm	1/4" BSPT	TC22S1445	$14.00
6.0 mm	1/4" BSPT	TC22S1460	$18.00
6.0 mm	1/2" BSPT	TC22S1260	$28.00

Brass *NPT*
Bored Thru Male Connector

Tube Size	Thread	Model	Price
1.5 mm	1/8" NPT	TC21B1815	$14.00
3.0 mm	1/8" NPT	TC21B1830	$ 9.00
3.0 mm	1/4" NPT	TC21B1430	$12.00
3.0 mm	1/2" NPT	TC21B1230	$15.00
4.5 mm	1/4" NPT	TC21B1445	$12.00
6.0 mm	1/4" NPT	TC21B1460	$12.00
6.0 mm	1/2" NPT	TC21B1260	$14.00

316 Stainless Steel *NPT*
Bored Thru Male Connector

Tube Size	Thread	Model	Price
1.5 mm	1/8" NPT	TC21S1815	$32.00
3.0 mm	1/8" NPT	TC21S1830	$14.00
3.0 mm	1/4" NPT	TC21S1430	$16.00
3.0 mm	1/2" NPT	TC21S1230	$24.00
4.5 mm	1/4" NPT	TC21S1445	$14.00
6.0 mm	1/4" NPT	TC21S1460	$18.00
6.0 mm	1/2" NPT	TC21S1260	$28.00

Brass
Bored Thru Male Connector
METRIC

Tube Size	Thread	Model	Price
3.0 mm	M16 X 1.5	TC23B1630	$18.00
4.5 mm	M16 X 1.5	TC23B1645	$19.00
6.0 mm	M16 X 1.5	TC23B1660	$21.00

316 Stainless Steel
Bored Thru Male Connector
METRIC

Tube Size	Thread	Model	Price
3.0 mm	M16 X 1.5	TC23S1630	$18.00
4.5 mm	M16 X 1.5	TC23S1645	$19.00
6.0 mm	M16 X 1.5	TC23S1660	$21.00
3.0 mm	M20 X 1.5	TC23S2030	$28.00
6.0 mm	M20 X 1.5	TC23S2060	$28.00

STAINLESS STEEL LOCKNUTS

Thread	Model	Price
M16 X 1.5	TCLN16SM	$5.00
M20 X 1.5	TCLN20SM	$6.00
1/4" BSPP	TCLN14SB	$4.00
3/8"" BSPP	TCLN38SB	$5.00
1/2"" BSPP	TCLN12SB	$6.00
3/4" BSPP	TCLN34SB	$7.00

ADJUSTABLE CHROME FLANGE SUIT 6 .0 mm		
TC24CF		$14.00

ADJUSTABLE MOUNTING FLANGE		
TCUZ21	SUIT 1/2" NB PIPE 21 mm	$28.00
TCUZ26	SUIT 3/4" NB PIPE 26 mm	$28.00

THERMOCOUPLE HEADS & BLOCKS

CODE	MODEL	DESCRIPTION		CABLE ENTRY	PROCESS ENTRY	PRICE
1	TC20SAH1	Small Aluminium	IP65	M16 x 1.5	1/4" BSP / 1/2" BSP	$24.00
2	TC20SBH1	Small Glass Reinforced Bakelite	IP65	M16 x 1.5	1/4" BSP / 1/2" BSP	$28.00
3	TC20SSH14	Small Stainless Steel 316	IP67	M16 x 1.5	1/4" BSP / 1/2" BSP	$84.00
4	TC20LAH1	Large Aluminium	IP67	M20 x 1.5	1/2" BSP / 3/4" BSP	$35.00
5	TC20LBH1	Large Glass Reinforced Bakelite	IP65	M20 x 1.5	1/2" BSP	$45.00
6	TC20SSGP1	GP Large Stainless Steel 316	IP66	M20 x 1.5	1/2" BSP	$145.00
7	TC20CIH1	Cast Iron	IP65	M20 x 1.5	1/2" BSP / 3/4" BSP	$79.00
8	TC20POL1	Polypropelene	IP65	M20 x 1.5	1/2" BSP	$45.00
9	TC20SUR2	Cast Aluminium Surface Mount	IP65	M20 x 1.5	3/4" BSP	$49.00
10	TC20FT	DIN Size Aluminium Flip Top	IP65	M20 x 1.5	1/2" BSP	$39.00
11	TC20FTHL	DIN Size Aluminium Hi-Lid Flip Top	IP65	M20 x 1.5	1/2" BSP	$64.00
12	TC20DE	Cast Aluminium Dual Cable Entry	IP65	2 x M20 x 1.5	1/2" BSP	$84.00

SD 1346

Epoxy Coat Paint Available as option on some models

Terminal Block Mounting Dimensions

Small Block   27mm Centres
DIN Size Block   33mm Centres
Large Block   40mm Centres

SD 1524

MODEL	DESCRIPTION	PRICE
TC192WSC	Small 2 way ceramic	$10.00
TC193WSC	Small 3 way ceramic	$10.00
TC192WLC	Large 2 way ceramic	$18.00
TC193WLC	Large 3 way ceramic	$18.00
TC194WLC	Large 4 way ceramic	$19.00
TC194DINC	Spring loaded DIN size 4 way	$21.00

MODEL	DESCRIPTION	PRICE
TC192WSB	Small 2 way Bakelite	$9.00
TC193WSB	Small 3 way Bakelite	$9.00
TC192WLB	Large 2 way Bakelite	$9.00
TC193WLB	Large 3 way Bakelite	$9.00
TC194WLB	Large 4 way Bakelite	$18.00
TC196WLB	Large 6 way Bakelite	$16.00

THERMOCOUPLE CABLE EXTENSION & COMPENSATING

THERMOCOUPLE COLOUR CODE CONNECTION CHART

	EXTENSION/COMPENSATING CABLE COLOURS				THERMOCOUPLE MATERIALS	
CODE	AMERICAN TO ANSI /MC 96.1	INTERNATIONAL IEC 584-3	GERMAN TO DIN 43714	JAPAN JIS C 1610 (1995)	POSITIVE CONDUCTOR	NEGATIVE CONDUCTOR
K	+ yellow −	+ green −	+ green −	+ blue −	NICKEL CHROMIUM Also Known as Chromel KP or Ni-Cr	NICKEL ALUMINIUM Also known as Alumel, KN or Ni-Al (Magnetic)
V		+ green −		+ blue −	COPPER	COPPER-NICKEL Also known as Constantan
T	+ blue −	+ brown −	+ brown −	+ brown −	COPPER	COPPER–NICKEL Also known as Constantan
J	+ black −	+ black −	+ blue −	+ yellow −	IRON Also known as Fe (Magnetic)	COPPER–NICKEL Also known as Constantan
E	+ magenta −	+ magenta −	+ black −	+ pink −	NICKEL CHROMIUM Also Known as Chromel KP or Ni-Cr	COPPER–NICKEL Also known as Constantan
N	+ orange −	+ pink −			NICKEL-CHROMIUM-SILICON Also known as Nicrosil	NICKEL-CHROMIUM-MAGNESIUM Also known as Nisil (Lightly Magnetic)
R	+ green −	+ orange −		+ black −	PLATINUM / 13% RHODIUM	PLATINUM
S	+ green −	+ orange −	+ white −	+ black −	PLATINUM / 10% RHODIUM	PLATINUM
B	+ grey −				PLATINUM / 30% RHODIUM	PLATINUM / 6% RHODIUM

With reference to the ANSI MC 1=96.1 colour coding it is noted that a brown overall sheath colour replacing that shown denotes the incorporation of thermocouple grade conductors where relevant.

Download a copy from our web site : Reference No . **SD 1514**

T °CA

TEMPERATURE °CONTROLS PTY LTD

Quality System
Quality @ Endorsed Company
SAI Global
Lic No 14412
ISO 9001

Shop on line @ temperatureshop.com.au

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MELBOURNE: 8/280 Whitehall Street Yarraville VIC 3013 **Ph: 61 3 9687 0000 Fax:** 61 3 9687 1900

BRISBANE: 36/121 Kerry Rd Archerfield QLD 4108 **Ph: 61 7 3373 8424 Fax:** 61 7 3373 8067

Prices do not include GST