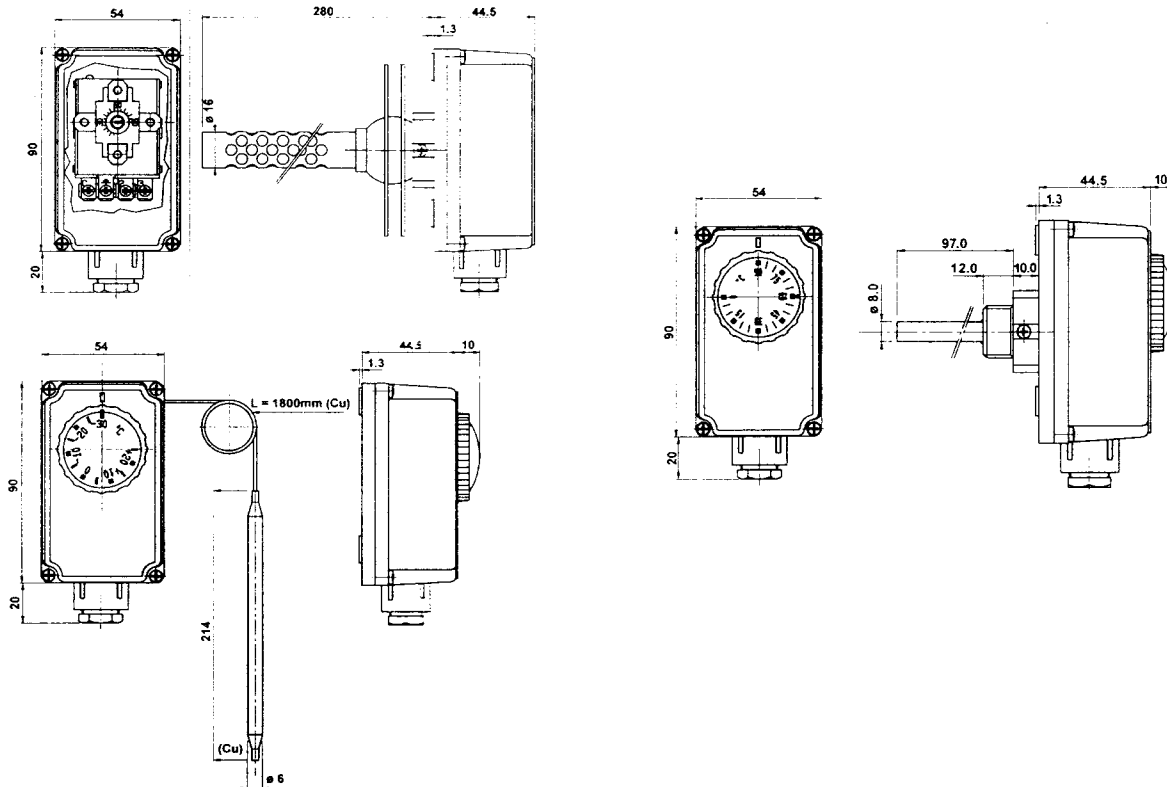
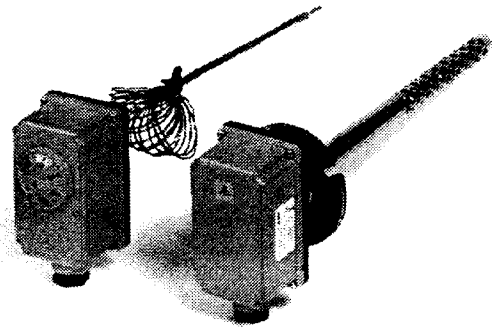


DUCT THERMOSTAT (RIGID STEM) - TDR DUCT THERMOSTAT (CAPILLARY STEM) - TDC

WATER IMMERSION THERMOSTAT - TWK

Types TDR, TDC, TWK

The TDR, TDC and TWK thermostats are used in duct and water applications respectively. They have Single Pole Double Throw contacts (SPDT) rated at 250Vac (10A) that can be used to switch fans, pumps, boilers etc. The TDC would typically be used for extract duct control. With a suitable pocket (not supplied) it can also be used in water applications. The TDC **MUST NOT** be used in duct frost applications. (See DS 21.14 for details on the Satchwell range of frost thermostats).



SPECIFICATION

Types:	TDR 1201 - 0 to 90°C Duct Thermostat Rigid stem, Concealed adjustment - Specification Number 141-1-201
	TDC 1202 - -30 to +25°C Duct Thermostat Capillary stem, exposed adjustment - Specification Number 141-1-202
	TWK 1301 - 0 to 90°C Water Immersion Thermostat with pocket, exposed adjustment - Specification Number 141-1-301
Rate of Change of Temperature:	1K per Minute
Temperature Differential:	TDR/TDC 2.5K +/- 1K TWK 4K +/- 1K
Contact:	Single Pole Double Throw
Contact Rating:	10A resistive, 2.5A inductive @ 250Vac
Ambient Temperature Limits:	Maximum Head Temperature: 80°C Maximum Bulb Sensing Temperature: 150°C

CONSTRUCTION

Cable Entry:	M20 x 1.5, cable gland supplied
Head Protection Class:	IP 40
TDR Stem:	280 mm x 16 mm diameter perforated stem (not removable), clamps to duct wall to fix stem
TWK Pocket:	107 mm x 8 mm diameter 1/2" NPT pocket
TDC Capillary Length:	1800 mm
TDC Copper Bulb:	214 mm x 6 mm diameter

ISOLATE ALL WIRING BEFORE REMOVING THE COVER AS MAINS VOLTAGES ARE PRESENT AT THE TERMINALS

INSTALLATION

TDR/TDC

1. Choose a location where the temperature sensitive stem or capillary bulb is fully immersed in the controlled air stream.
2. The location must not suffer from direct hot or cold radiation effects. For heater batteries the distance from the battery should not be less than 2 meters. For cooler batteries and spray coils the minimum distance can be reduced to 25 to 50 mm.
3. Fix the thermostat to the duct. The TDR stem uses 2 plates to clamp the duct wall and so access to the inside of the duct is required - see fig 1 for drilling details for the clamp fixing. Allow a sufficient length of cable to permit complete removal of the thermostat.
4. Remove the cover for access to the terminals and connect the wires as required, see fig 2. **The Earth must be connected.**
5. Replace the cover and tighten the fixing screws.

TWK

1. Select a location where water can freely circulate around the thermostat pocket ensuring that the whole of the pocket is immersed in the water to be controlled.

The pocket should be plugged to prevent entry of foreign matter before the thermostat is fitted.

NOTE:- For chilled water applications the pocket should be mounted horizontally or sloping downwards towards the mouth to allow condensation to drain away.

2. Fix thermostat pocket into the pipe, 1/2" NPT fitting. Allow a sufficient length of cable to permit complete removal of the thermostat.
3. Insert thermostat and tighten fixing screws.
4. Remove the cover for access to the terminals and connect the wires as required, see fig 2. **The Earth must be connected.**
5. Replace the cover and tighten the fixing screws.

TDR DUCT DRILLING DETAILS

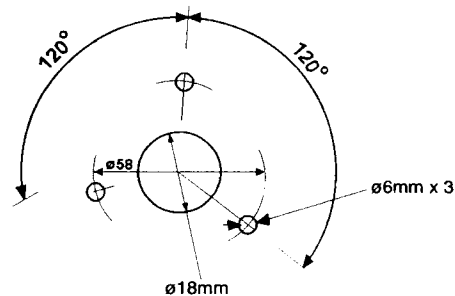


Fig.1

TDR, TDC, TWK BASIC CONNECTIONS

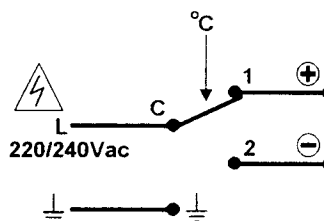


Fig.2

CAUTION

- These thermostats are mains operated devices. Local wiring regulations and usual safety precautions must be observed. Note Earthing requirements.
- ISOLATE ALL WIRING BEFORE REMOVING THE COVER AS MAINS VOLTAGES ARE PRESENT AT THE TERMINALS.
- Do not exceed the maximum ambient temperature.
- Interference with parts under sealed covers invalidates the guarantee.
- Design and performance of Satchwell equipment are subject to continual improvement and therefore liable to alteration without notice.
- Information is given for guidance only and Satchwell do not accept responsibility for the selection and installation of its products unless information has been given by the Company in writing relating to a specific application.
- A periodic system and tuning check of the control system is recommended. Please contact your local Satchwell service office for details.

©Satchwell Control System Limited - 1995 (revised January 1996)

AUSTRALIA
Satchwell Control Systems
Tel: +612 867 6222
DUBAI
Satchwell Control Systems Ltd.
c/o Green Coast Enterprise
Tel: +971 4 865758
HONG KONG/CHINA
Analogue Technical Agencies Ltd. Tel: +852 2565 3308
See DS 02 for complete list of overseas distributors

IRELAND
Satchwell Grant Ltd.
Tel: +353 1 366400
KOREA
Kuk Jee Controls Company Ltd.
Tel: +82 2 5759071
MALAYSIA
LIM KIM HAI Electric
Tel: +80 3 733 4450

SULTANATE OF OMAN
Zawawi Trading Co. L.L.C.
Tel: +968 562077
SINGAPORE/CHINA
Satchwell Control Systems Ltd.
Tel: +65 285 6171
SOUTH AFRICA
Satchtech
Tel: +27 11 885 1007

HEAD OFFICE:
Satchwell Control Systems Ltd.
Farnham Road, Slough, Berkshire, England SL1 4UH
Tel: (01753) 550550, International: +44 1753 550550
Fax: (01753) 824078, International: +44 1753 824078
Telex: 848186
Holding Company: The General Electric Company p.l.c.

REGIONAL OFFICES:
Bristol (0117) 9277708
Coventry (01203) 633220
Glasgow (01355) 33732
Haywards Heath (01444) 441800
Leeds (0113) 2588203
London (01753) 550550

London City (0171) 403 8320
Manchester (0161) 440 8545
Newcastle (0191) 232 8378
Nottingham (0115) 925 6555
Stansted (01279) 680127
Wales (01633) 877123