



**ENGINEERING NOTES**

The domestic hot water supply has been designed as a single pipe system. No return pipes shall be fitted. All hot water service pipes shall be fitted with the energy efficient, self-regulating heating cables, HWAT R, as manufactured by Pentair Thermal Building Solutions to maintain an adjustable temperature in the range 50-65C.

Termination of the self-regulating heating cables shall be with Insulation displacement type connectors and gel type end seats, Rayclac, as manufactured by Pentair Thermal Building Solutions.

The circuits shall be controlled via an energy saving, programmable controller, HWAT ECO, as manufactured by Pentair Thermal Building Solutions, to provide adjustable temperatures in the range 50-65C.

The HWAT circuit shall be controlled and monitored via the multi circuit control panel, SBS-XX-HV-ECO-10, by Pentair Thermal Building Solutions. Integrated with circuit protection. The HWAT cables shall be installed 'straight trace', insulated, tested and commissioned strictly in accordance with the HWAT design guide and preferably by a specialist installer named by Pentair Thermal Building Solutions.

The cables shall be installed to within 1000 mm of each outlet or blending valve, or as close to the draw-off point as is reasonably practicable.

Insulation selection and thickness shall be in strict accordance with the HWAT design guide.

**MATERIALS**

QTY	PCN	ITEM
271M	498639-000	HWAT-M
1PC	036958-000	SBS-03-HV-ECO-10
10PC	441524-000	RAYCLIC-T-02
14PC	C77220-000	GT-66
91PC	938947-000	LAB-I-01
3PC	235422-000	RAYCLIC-CE-02



**Raychem**

**UNITED KINGDOM**  
 Tel: 0800 969 013  
 Fax: 0800 968 624  
 salesthermalUK@pentair.com

**IRELAND**  
 Tel: 1800 654 241  
 Fax: 1800 654 240  
 salesIE@pentair.com

**SOUTH EAST ASIA**  
 Tel: +65 67685800  
 Fax: +65 67322263

**AUSTRALIA**  
 Tel: +61 2 97920250  
 Fax: +61 2 97745931  
 ausalesthermal@pentair.com

**INDIA - NOIDA**  
 Tel: +91 120 464 9500  
 Fax: +91 120 464 9548  
 PTMinfome@pentair.com

**INDIA - MUMBAI**  
 Tel: +91 22 6775 8800/01  
 Fax: +91 22 2556 1491  
 PTMinfome@pentair.com

**UAE**  
 Tel: +971 4 378 1700  
 Fax: +971 4 378 1777  
 PTMinfome@pentair.com

WWW.PENTAIRTHERMAL.COM



CL PENTAIR THERMAL BUILDING SOLUTIONS	UNLESS OTHERWISE SPECIFIED DIMENSIONS IN mm F = 1/16 X = 1/8 XX = 1/4 XXX = 3/8 DEGREES = 30/5	DATE 06/04/2010
PENTAIR THERMAL BUILDING SOLUTIONS	DRAWN neil.murch	DATE
PENTAIR THERMAL BUILDING SOLUTIONS	CHECKED	DATE
PENTAIR THERMAL BUILDING SOLUTIONS	APPROVED	DATE N/A

TITLE TEMPERATURE MAINT. DHWS	REVISION 1
ORIGINAL SIZE A3 SCALE NTS	DRAWING NUMBER SHEET 1 OF 1
STATUS	