EPH CONTROLS

# HEATING CONTROLS

## RESIDENTIAL & COMMERCIAL

2024 IE / NI Catalogue

EMBER

# Welcome

Explore our 2024 product range

& 27 years of excellence

EPH CONTROLS

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# Underfloor Controls 230V

## Wiring Centre 5 Zone 230V

NEW

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIME INPUTS |
|---|---|---|---|
| UFH5 | 230Vac, ±10% | 5 | 3 |

| CONTACT RATING | UFH/RAD+HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 5A | 2 | Volt Free | 230V~ |

## Wiring Centre 10 Zone 230V

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIME INPUTS |
|---|---|---|---|
| UFH10 | 230Vac, ±10% | 10 | 4 |

| CONTACT RATING | UFH/RAD+HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 5A | 2 | Volt Free | 230V~ |

## Dial Thermostat

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| HRT | 2 x AA Batteries (Incl) | 8A 230v | SPST |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0 ... 1.0°C | Delay Start / TPI |

## Dial Thermostat with Setback Function

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| HDT | 230Vac ± 10% | 7A 230V | SPST |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0 ... 1.0°C | Delay Start / TPI / Setback Function |

## Recessed Thermostat with Setback Function

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| RDT | 230Vac ± 10% | 10(3)A 230v | SPDT |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0 ... 1.0˚C | Delay Start / TPI / Setback Function |

## Surface Mounted Thermostat

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDT2 | 230Vac ±10% | 7A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | Delay Start & On / Off control |

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CRT2 | 2 x AA Batteries (Incl.) | 8A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | Delay Start & On / Off control |

## Recessed Programmable Thermostat

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | SWITCH OUTPUT |
|---|---|---|---|
| RDTP | 230Vac ±10% | 10(3)A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC 100K Internal | 5...35°C | 0 ... 1.0°C | Optimum Start / TPI / Remote Sensor Compatible |

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| NTC 10K | NTC 10K Cable Sensor, 1.5M |
| NTC Housing | Cable Sensor Housing |

# Underfloor Controls 230V Continued

## Surface Mounted Programmable Thermostat

ErP Class IV = 2%

On / Off control & TPI

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDTP2 | 230Vac ±10% | 8A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | 5/2d - 7d - 24h |

ErP Class IV = 2%

On / Off control & TPI

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CRTP2 | 2 x AA Batteries (Incl.) | 8A 230Vac | SPDT |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | 5/2d - 7d - 24h |

## Thermal Actuator

| PRODUCT CODE | POWER SUPPLY | ACTUATOR TYPE | RUNNING TIME | AUXILIARY SWITCH |
|---|---|---|---|---|
| TA230 | 230Vac | Normally Open or Closed | 3.5 min | - |
| TA230S | 230Vac | Normally Closed | 4.5 min | Yes |

| MAX. STROKE | AMBIENT TEMP RANGE | SPRING PRESSURE | VALVE CONNECTION |
|---|---|---|---|
| 3.5mm | 0 ... 50˚C | 125N | M30x1.5 |

## Wiring Centre 10 Zone 24V

NEW

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIME INPUTS |
|---|---|---|---|
| UFH10-24 | 24Vac, ±10% | 10 | 4 |

| CONTACT RATING | UFH/RAD+HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 3(1)A | 2 | Volt Free | 230V~ |

## Recessed Programmable Thermostat

NEW

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | SWITCH OUTPUT |
|---|---|---|---|
| RDTP-24 | 24Vac | 5(1)A 24Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC 100K Internal | 5 ... 35°C | 0 ... 1.0°C | Optimum Start / TPI / Remote Sensor Compatible |

ErP Class IV = 2%

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| NTC 10K | NTC 10K Cable Sensor, 1.5M |
| NTC Housing | Cable Sensor Housing |

## Surface Mounted Thermostat

NEW

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDT2-24 | 24Vac ±10% | 5(1)A 24Vac | SPDT Volt Free |

ErP Class IV = 2%
Delay start & On / Off control

| SENSOR TYPE | TEMP RANGE | ADJUSTABLE SWITCHING DIFFERENTIAL |
|---|---|---|
| NTC100K | 5 ... 35°C | 0.2 ... 1.0°C |

## Thermal Actuator

| PRODUCT CODE | POWER SUPPLY | ACTUATOR TYPE | RUNNING TIME | AUXILIARY SWITCH |
|---|---|---|---|---|
| TA24 | 24Vac | Normally Open or Closed | 4.5 min | - |

| MAX. STROKE | AMBIENT TEMP RANGE | SPRING PRESSURE | VALVE CONNECTION |
|---|---|---|---|
| 3.5mm | 0 ... 50°C | 125N | M30x1.5 |

# RF Underfloor Controls

## RF Wiring Centre 10 Zone

US

NEW

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIME INPUTS |
|---|---|---|---|
| UFH10-RF | 230Vac, ±10% | 10 | 10 |

| CONTACT RATING | UFH / RAD + HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 5A | 2 | Volt Free | 230V~ |

5 YEAR WARRANTY · BOX QTY 10 · CE · UK CA

## RF Thermostat with Setback Function

PS US

NEW

| PRODUCT CODE | TYPE | TEMP RANGE | FOR USE WITH |
|---|---|---|---|
| RFRB[V2] | Room thermostat with on/off button | 5 ... 35°C | UFH10-RF or R_7-RF |
| RFR[V2] | Room thermostat with boost button | 5 ... 35°C | UFH10-RF or R_7-RF |

Mounting Type:
Wall or free standing

| RF RANGE | AMBIENT TEMP RANGE | DIMENSIONS | POWER SUPPLY |
|---|---|---|---|
| Max 30m | 0 ... 45°C | 86 x 86 x 25mm | 2 x AAA (incl.) |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| NTC 10K | NTC 10K Cable Sensor, 1.5M |
| NTC Housing | Cable Sensor Housing |

## RF Cylinder Thermostat

PS US

NEW

| PRODUCT CODE | TYPE | TEMP RANGE | FOR USE WITH |
|---|---|---|---|
| RFC[V2] | Cylinder thermostat with boost button | 10 ... 90°C | R_7-RF or UFH10-RF |

| RF RANGE | AMBIENT TEMP RANGE | DIMENSIONS | POWER SUPPLY |
|---|---|---|---|
| Max 30m | 0 ... 50°C | 86 x 86 x 25mm | 2 x AAA (incl.) |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

## RF Dial Thermostat with Setback Function – Mains Powered

PS US

NEW

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| HDT-RF | 230Vac ± 10% | 7A 230V | SPST |

ErP Class IV = 2%
Delay start & On / Off control / TPI / Setback Function

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | FOR USE WITH |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0 ... 1.0°C | R_7-RF or UFH10-RF |

5 YEAR WARRANTY · TPI · BOX QTY 60 · CE · UK CA

## RF Recessed Thermostat with Setback Function – Mains Powered

PS US

NEW

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| RDT-RF | 230Vac ± 10% | 10(3)A 230v | SPDT |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | FOR USE WITH |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0 ... 1.0˚C | R_7-RF or UFH10-RF |

ErP Class IV = 2%
Delay start & On / Off control / TPI /
Setback Function
Compatible with up to 2 remote sensors

5 YEAR WARRANTY · TPI · BOX QTY 40

CE UKCA

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| NTC 10K | NTC 10K Cable Sensor, 1.5M |
| NTC Housing | Cable Sensor Housing |

## RF Surface Mounted Thermostat with Setback Function – Mains Powered

PS US

NEW

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDT2-RF | 230Vac ±10% | 7A 24Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | FOR USE WITH |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | R_7-RF or UFH10-RF |

ErP Class IV = 2%
Delay start & On / Off control
Setback Function

5 YEAR WARRANTY · TPI · BOX QTY 84

CE UKCA

## GW04 WiFi Gateway

PS TS US RS

**Used to upgrade your UFH10-RF to EMBER App Control**

NEW

| PRODUCT CODE | TYPE | FOR USE WITH |
|---|---|---|
| GW04 | RF / WiFi Interface (Dual band 2.4 / 5GHz) | UFH10-RF or R_7-RF |

| RF RANGE | AMBIENT TEMP RANGE | POWER SUPPLY |
|---|---|---|
| Max 10m | 0 ... 45˚C | 230Vac ±10% |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 50 · CE UKCA

# Smart Radiator Controls

## 16 Zone Controller

RS

| | PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|---|
| NEW | RF16 | 16 | 230Vac | 100 x 35 mm |

| SWITCH RATING | AMBIENT TEMP | BACKPLATE | OPERATING PERIODS | PROGRAMMING MODE |
|---|---|---|---|---|
| 5(1)A 230Vac | 0 ... 45°C | 6 pin | 6 per day | 5/2d - 7d - 24h |

## Wireless Smart Radiator Thermostat

RS

| | PRODUCT CODE | TYPE | TEMP RANGE | FOR USE WITH |
|---|---|---|---|---|
| NEW | eTRV | Smart Radiator Thermostat | 5 ... 35°C | RF16 & EMBER RS |

Designed for use with EPH Controls TRV valves

| RF RANGE | AMBIENT TEMP | DIMENSIONS | POWER SUPPLY | CONNECTION |
|---|---|---|---|---|
| Max 30m | 0 ... 50°C | 86 x 86 x 25mm | 2 x AAA (incl.) | M30 x 1.5 |

## Wireless Smart Cylinder Thermostat

RS

| | PRODUCT CODE | TYPE | TEMP RANGE | FOR USE WITH |
|---|---|---|---|---|
| NEW | eTRV-HW | Smart Hot Water Thermostat | 5 ... 90°C | RF16 & EMBER RS |

Designed for use with EPH Controls TRV valves

| RF RANGE | AMBIENT TEMP | DIMENSIONS | POWER SUPPLY | CONNECTION |
|---|---|---|---|---|
| Max 30m | 0 ... 50°C | 86 x 86 x 25mm | 2 x AAA (incl.) | M30 x 1.5 |

## 2 Port Valve

| | PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL | MAX. FLUID TEMP. |
|---|---|---|---|---|
| NEW | SEMTRVB22 | 22mm Compression | No | 88°C |

| FLOW RATE | MAXIMUM DIFFERENTIAL PRESSURE | MAXIMUM PRESSURE | CONNECTION |
|---|---|---|---|
| 3500 l/hr | 1.0 bar | PN16 | M30 x 1.5 |

## GW04 WiFi Gateway

PS TS US RS

**Used to upgrade your RF16 to EMBER App Control**

| | PRODUCT CODE | TYPE | FOR USE WITH |
|---|---|---|---|
| NEW | GW04 | RF/WiFi Interface<br>(Dual band 2.4 / 5GHz) | RF16 & EMBER RS |

| RF RANGE | AMBIENT TEMP RANGE | POWER SUPPLY |
|---|---|---|
| Max 10m | 0 ... 45°C | 230Vac ±10% |

## Immersion Controller

| PRODUCT CODE | POWER SUPPLY | SWITCH OUTPUT | BOOST OPTIONS |
|---|---|---|---|
| IMC | 230Vac, 50Hz | 230Vac SPST | 30mins / 1hr / 2hr / 3hr |

| CONTACT RATING | OPERATING PERIODS | DIMENSIONS | MAX AMBIENT TEMP RANGE |
|---|---|---|---|
| 16A Resistive | 3 per day | 170 x 116 x 63 mm | 0 ... 45˚C |

## Electronic Boost Timer

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | MAX LOAD |
|---|---|---|---|
| BST3 | 230Vac ± 10% | 16A 230Vac | 3 Kw |

| TIME PERIOD |
|---|
| 15min, 30min, 1hr, 2hr & 3hr |

## Cylinder / Room Thermostat

Cylinder or Room thermostat with remote probe sensor

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDC2 | 230Vac ± 10% | 10A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC 10K External only | Cylinder 5 ... 90°C<br>Room 5 ... 35°C | Cylinder 0 ... 20°C<br>Room 0 ... 1°C | Delay Start and TPI for Room thermostat mode only |

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| NTC 10K | NTC 10K Cable Sensor, 1.5M |
| NTC Housing | Cable Sensor Housing |

## Cylinder Thermostat with High Limit

Built-in Legionaires function

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| EDBS | 230Vac ± 10% | 8A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | HIGH LIMIT CUT OUT |
|---|---|---|---|
| NTC10K | 10 ... 90˚C | 0 ... 20˚C | 85˚C |

# Motorised Valves

EPH Controls' range of motorised valves offer market leading functionality. Two port motorised valves come with a detachable actuator, detachable power cable and a power on light. In addition, all component parts of the actuator, are sourced from the market leaders in their fields in USA and Europe, making the DETACH Pro range of valves a must for all home heating installations.

## 2 Port Valve - Compression

DETACH PRO ▶

**V22_P** c/w
Light
Detach cable
Detach button

**DS22_P** c/w
Light
Detach cable

| PRODUCT CODE | CONNECTION TYPE | FLOW RATE | MAX. CLOSE OFF PRESSURE | BI-DIRECTIONAL FLOW |
|---|---|---|---|---|
| V221P | 3/4" compression | 4.6 kvs | 1.0 bar | No |
| V222P | 22mm compression | 4.6 kvs | 1.0 bar | No |
| V228P | 28mm compression | 6.8 kvs | 0.6 bar | No |
| DS222P | 22mm compression | 4.6 kvs | 1.0 bar | Yes |
| DS228P | 28mm compression | 6.8 kvs | 0.6 bar | Yes |

| SWITCH RATING | MAX AMBIENT TEMP | MAX FLUID TEMP |
|---|---|---|
| 11(3)A 230Vac | 50°C | 88°C |

## 2 Port Valve - Female BSP

DETACH PRO ▶

**V22_FP** c/w
Light
Detach cable
Detach button

| PRODUCT CODE | CONNECTION TYPE | FLOW RATE | MAX. CLOSE OFF PRESSURE | BI-DIRECTIONAL FLOW |
|---|---|---|---|---|
| V222FP | 3/4" female BSP | 4.6 kvs | 1.0 bar | No |
| V228FP | 1" female BSP | 6.8 kvs | 0.6 bar | No |
| V232FP | 1 1/4" female BSP | 8.0 kvs | 0.3 bar | No |

| SWITCH RATING | MAX AMBIENT TEMP | MAX FLUID TEMP |
|---|---|---|
| 11(3)A 230Vac | 50°C | 88°C |

## 2 Port Valve - Compression - Normally Open

DETACH PRO ▶

| PRODUCT CODE | CONNECTION TYPE | FLOW RATE | MAX. CLOSE OFF PRESSURE | BI-DIRECTIONAL FLOW |
|---|---|---|---|---|
| DS222PNO | 22mm compression | 4.6 kvs | 1.0 bar | Yes |
| DS228PNO | 22mm compression | 6.8 kvs | 0.6 bar | Yes |

| SWITCH RATING | MAX AMBIENT TEMP | MAX FLUID TEMP |
|---|---|---|
| 11(3)A 230Vac | 50°C | 88°C |

## 3 Port Diverter Valve - High Flow Rate

5 YEAR WARRANTY · MOTOR USA · BOX QTY 10 · CE · UK CA

| PRODUCT CODE | CONNECTION TYPE | FLOW RATE | MAX. CLOSE OFF PRESSURE |
|---|---|---|---|
| B322DIV | 22mm compression | 7.1 kvs | 1.6 bar (A) 1.2 bar (B) |
| B328DIV | 28mm Compression | 7.6 kvs | 1.2 bar (A) 0.8 bar (B) |

| SWITCH RATING | MAX AMBIENT TEMP | MAX FLUID TEMP |
|---|---|---|
| 5(2)A 230Vac | 50˚C | 88˚C |

## 3 Port Mid Position Valve - High Flow Rate

5 YEAR WARRANTY · MOTOR USA · BOX QTY 10 · CE · UK CA

| PRODUCT CODE | CONNECTION TYPE | FLOW RATE | MAX. CLOSE OFF PRESSURE |
|---|---|---|---|
| B322MID | 22mm Compression | 7.1 kvs | 1.6 bar (A) 1.2 bar (B) |
| B328MID | 28mm Compression | 7.6 kvs | 1.2 bar (A) 0.8 bar (B) |

| SWITCH RATING | MAX AMBIENT TEMP | MAX FLUID TEMP |
|---|---|---|
| 5(2)A 230Vac | 50˚C | 88˚C |

## Replacement Actuator

DETACH PRO ▶

**A1P, C1P & DT1P** c/w
Light
Detach cable
Detach button

**DS1P & M1P** c/w
Light
Detach cable

**D1PF** c/w
Detach cable

5 YEAR WARRANTY · MOTOR USA · BOX QTY 20 · CE · UK CA

| PRODUCT CODE | SWITCH RATING | REPLACEMENT FOR MODEL | | |
|---|---|---|---|---|
| A1P | 11(3)A 230Vac | 2 Port | EPH V type | Horstmann F222 / F228 |
| C1P | 11(3)A 230Vac | 2 Port | Honeywell V404 | Horstmann Z222 / Z228 |
| DS1P | 11(3)A 230Vac | 2 Port | Danfoss HP22B / HP28B / HP15B | |
| | | | Danfoss HP1.75B / HP1.0B | |
| | | | Sunvic SZ / SZM / SM | |
| NEW DT1P | 11(3)A 230Vac | 2 Port | Drayton ZA5/679-2 | Drayton ZA6/779-2 |
| M1P | 11(3)A 230Vac | 2 Port | Myson MPE22 | Myson MPE28 |
| | | | Myson MCZV2 3/4 | Myson MCZV21 |
| D1PF | 5(2)A 230Vac | 3 Port | EPH B322P / B328P | EPH B322PF / B328PF |
| | | | Honeywell V407 | Horstmann Z322 / Z328 |

| MAX AMBIENT TEMP. | MAX FLUID TEMP |
|---|---|
| 50˚C | 88˚C |

## Accessories

Cable harness to convert
Detach actuator to
Detach Pro actuator.

BOX QTY 250 · CE · UK CA

| PRODUCT CODE | CABLE HARNESS FOR |
|---|---|
| CH25 | 2 port 5 wire actuators |
| CH26 | 2 port 6 wire actuators |
| CH35 | 3 port 5 wire actuators |

BOX QTY 40 · CE · UK CA

| PRODUCT CODE | DESCRIPTION |
|---|---|
| NEW DP2.5M | 2.5 Metre Detach cable for 2 port 5 wire actuators |
| DP5M | 5 Metre Detach cable for 2 port 5 wire actuators |

# Hardwired Control Packs

## Y Plan Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CA22P | A27-HW | B322MID | CM2 | WRP | WC2 |
| CA28P | A27-HW | B328MID | CM2 | WRP | WC2 |

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR22P | R27$^{V2}$ | B322MID | CM2 | WRP | WC2 |
| CR28P | R27$^{V2}$ | B328MID | CM2 | WRP | WC2 |

BOX QTY 6 CE UK CA

## 1 Zone Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| CR1P-222101 | R17$^{V2}$ | V222P x 2 | RDTP x 2 | WC2 |
| CR1P-282301 | R17$^{V2}$ | DS222P x 2 | CM3 x 2 | WC2 |
| CR1P-231901 (CP-GEG03) | R17$^{V2}$ | V228P | CP4 | WC2 |

BOX QTY 6 CE UK CA

## S Plan Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CA221P | A27-HW | V221P x 2 | CM2 | WRP | WC2 |
| CA222P | A27-HW | V222P x 2 | CM2 | WRP | WC2 |
| CA228P | A27-HW | V228P x 2 | CM2 | WRP | WC2 |

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR221P | R27$^{V2}$ | V221P x 2 | CM2 | WRP | WC2 |
| CR222P | R27$^{V2}$ | V222P x 2 | CM2 | WRP | WC2 |
| CR228P | R27$^{V2}$ | V228P x 2 | CM2 | WRP | WC2 |

BOX QTY 6 CE UK CA

## 2 Zone Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR2P-211301 | R27$^{V2}$ | V221P x 2 | CM3 | - | WC2 |
| CR2P-211311 | R27$^{V2}$ | V221P x 2 | CM3 | WRP | WC2 |
| CR2P-211341 | R27$^{V2}$ | V221P x 2 | CM3 | WRP-IM-TP | WC2 |
| CR2P-211351 | R27$^{V2}$ | V221P x 2 | CM3 | WRP-TP | WC2 |
| CR2P-281211 | R27$^{V2}$ | DS222P x 2 | CM2 | WRP | WC2 |

BOX QTY 6 CE UK CA

## S Plan Unvented Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| CA221PU | A27-HW | V221P | CM2 | WC2 |
| CA222PU | A27-HW | V222P | CM2 | WC2 |
| CA228PU | A27-HW | V228P | CM2 | WC2 |

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| CR221PU | R27$^{V2}$ | V221P | CM2 | WC2 |
| CR222PU | R27$^{V2}$ | V222P | CM2 | WC2 |
| CR228PU | R27$^{V2}$ | V228P | CM2 | WC2 |

BOX QTY 6 CE UK CA

## 2 Zone Combi Zoning Control Pack

Pictures for reference only, thermostats will differ in packs.

BOX QTY 6 CE UK CA

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| C00P-210011 | - | V221P x 2 | WRP | WC2 |
| C00P-212101 | - | V221P x 2 | RDTP x 2 | WC2 |
| C00P-212701 | - | V221P x 2 | CDTP2 x 2 | WC2 |
| C00P-212801 | - | V221P x 2 | CRTP2 x 2 | WC2 |
| C00P-212901 | - | V221P x 2 | CP4 x 2 | WC2 |
| C00P-212A01 | - | V221P x 2 | CP4M x 2 | WC2 |
| C00P-212A02 | - | V221P x 2 | CP4M x 2 | WC3 |
| C00P-222101 | - | V222P x 2 | RDTP x 2 | WC2 |
| C00P-222701 | - | V222P x 2 | CDTP2 x 2 | WC2 |
| C00P-222801 | - | V222P x 2 | CRTP2 x 2 | WC2 |
| C00P-222901 | - | V222P x 2 | CP4 x 2 | WC2 |
| C00P-222A01 | - | V222P x 2 | CP4M x 2 | WC2 |
| C00P-222B01 | - | V222P x 2 | CP4B x 2 | WC2 |
| C00P-232A00 | - | V228P x 2 | CP4M x 2 | - |
| C00P-282B01 | - | DS222P x 2 | CP4B x 2 | WC2 |

BOX QTY 6 CE UK CA

| | | | | |
|---|---|---|---|---|
| CR2P-212200 | R27$^{V2}$ | V221P x 2 | CM2 x 2 | - |
| CR2P-212201 | R27$^{V2}$ | V221P x 2 | CM2 x 2 | WC2 |
| CR2P-212301 | R27$^{V2}$ | V221P x 2 | CM3 x 2 | WC2 |
| CR2P-222201 | R27$^{V2}$ | V222P x 2 | CM2 x 2 | WC2 |
| CR2P-222301 | R27$^{V2}$ | V222P x 2 | CM3 x 2 | WC2 |
| CR2P-282201 | R27$^{V2}$ | DS222P x 2 | CM2 x 2 | WC2 |
| CR2P-282301 | R27$^{V2}$ | DS222P x 2 | CM3 x 2 | WC2 |
| CR2P-282401 | R27$^{V2}$ | DS222P x 2 | CDT2 x 2 | WC2 |

# Hardwired Control Packs Continued

## 3 Zone Control Pack

BOX QTY 6

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR3P | R37V2 | V221P x 3 | CM2 x 2 | WRP | WC2 |
| CR322P | R37V2 | V222P x 3 | CM2 x 2 | WRP | WC2 |
| CR328P | R37V2 | V228P x 3 | CM2 x 2 | WRP | WC2 |
| CR3P-382211 | R37V2 | DS222P x 3 | CM2 X 2 | WRP | WC2 |

## 3 Zone Unvented Control Pack

BOX QTY 6

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| CR3PU | R37V2 | V221P x 2 | CM2 x 2 | WC2 |
| CR322PU | R37V2 | V222P x 2 | CM2 x 2 | WC2 |
| CR3P-222301 | R37V2 | V222P x 3 | CM2 x 2 | WC2 |
| CR3P-282301 | R37V2 | DS22P x 2 | CM3 x 2 | WC2 |
| CR3P-282401 | R37V2 | DS222P x 2 | CDT2 x 2 | WC2 |
| CR328PU | R37V2 | V228P x 2 | CM2 x 2 | WC2 |

## 3 Zone Combi Zoning Control Pack

Pictures for reference only, thermostats will differ in packs.

BOX QTY 6

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| COOP-313A01 | - | V221P x 3 | CP4M x 3 | WC2 |
| COOP-323A01 | - | V222P x 3 | CP4M x 3 | WC2 |
| COOP-313101 | - | V221P x 3 | RDTP x 3 | WC2 |
| COOP-323101 | - | V222P x 3 | RDTP x 3 | WC2 |
| COOP-313701 | - | V221P x 3 | CDTP2 x 3 | WC2 |
| COOP-323701 | - | V222P x 3 | CDTP2 x 3 | WC2 |
| COOP-313801 | - | V221P x 3 | CRTP2 x 3 | WC2 |
| COOP-323801 | - | V222P x 3 | CRTP2 x 3 | WC2 |
| CR3P-313201 | R37V2 | V221P x 3 | CM2 x 3 | WC2 |
| CR3P-313301 | R37V2 | V221P x 3 | CM3 x 3 | WC2 |
| CR3P-322301 | R37V2 | V222P x 3 | CM3 x 2 | WC2 |
| CR3P-323201 | R37V2 | V222P x 3 | CM2 x 3 | WC2 |
| CR3P-323301 | R37V2 | V222P x 3 | CM3 x 3 | WC2 |

## 4 Zone Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR4P | R47$^{V2}$ | V221P x 4 | CM2 x 3 | WRP | WC2 |
| CR422P | R47$^{V2}$ | V222P x 4 | CM2 x 3 | WRP | WC2 |
| CR428P | R47$^{V2}$ | V228P x 4 | CM2 x 3 | WRP | WC2 |

BOX QTY 6 CE UK CA

## 4 Zone Unvented Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTATS | WIRING CENTRE |
|---|---|---|---|---|
| CR4PU | R47$^{V2}$ | V221P x 3 | CM2 x 3 | WC2 |
| CR422PU | R47$^{V2}$ | V222P x 3 | CM2 x 3 | WC2 |
| CR428PU | R47$^{V2}$ | V228P x 3 | CM2 x 3 | WC2 |

BOX QTY 6 CE UK CA

# Wiring Centres

## Wiring Centre

| PRODUCT CODE | INTERNALLY MOUNTED |
|---|---|
| WC2 | 12 Block Connector Strip |
| WC3 | 16 Block Connector Strip |

BOX QTY 20 BOX QTY 24

## Wiring Centre with PCB

| PRODUCT CODE | INTERNALLY MOUNTED | APPLICATION |
|---|---|---|
| WCA | PCB c/w Screw Terminals | S-Plan or 3 Zone System |

BOX QTY 20

## Wiring Centre 5 Zone 230V

NEW

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIME INPUTS |
|---|---|---|---|
| UFH5 | 230Vac, ±10% | 5 | 3 |

| CONTACT RATING | UFH / RAD + HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 5A | 2 | Volt Free | 230V~ |

5 YEAR WARRANTY BOX QTY 20

## Wiring Centre 10 Zone 230V

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIME INPUTS |
|---|---|---|---|
| UFH10 | 230Vac, ±10% | 10 | 4 |

| CONTACT RATING | UFH / RAD + HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 5A | 2 | Volt Free | 230V~ |

5 YEAR WARRANTY BOX QTY 10

## Wiring Centre 10 Zone 24V

NEW

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIMED INPUTS |
|---|---|---|---|
| UFH10-24 | 24Vac, ±10% | 10 | 4 |

| CONTACT RATING | UFH / RAD + HW SWITCHES | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 3(1)A | 2 | Volt Free | 24V~ |

## RF Wiring Centre 10 Zone

NEW

| PRODUCT CODE | POWER SUPPLY | NO. OF ZONES | TIMED INPUTS |
|---|---|---|---|
| UFH10-RF | 230Vac, ±10% | 10 | 10 |

| CONTACT RATING | UFH / RAD + HW OUTPUTS | HEAT ENABLE OUTPUT | UFH PUMP OUTPUT |
|---|---|---|---|
| 5A | 10 | Volt Free | 230V~ |

# Mechanical Room Thermostats

## Thermostat

ErP Class I - 1%

*CM2 Combi Stat

| PRODUCT CODE | SWITCH RATING | ANTICIPATOR | INDICATOR LIGHT |
|---|---|---|---|
| CM2* | 10(3)A 230 & 24Vac | - | - |
| CM3 | 10(3)A 230Vac | Yes | Yes |
| CM3 - 24 | 12(4)A 24Vac | Yes | Yes |

| CONTACT TYPE | TEMPERATURE RANGE | IP RATING | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| SPDT | 5 ... 35°C Limitable | IP20 | ±1°C |

## Frost Thermostat

ErP Class I - 1%

| PRODUCT CODE | SWITCH RATING | INDICATOR LIGHT |
|---|---|---|
| CMF | 10(3)A 230Vac | Yes |

| CONTACT TYPE | TEMPERATURE RANGE | IP RATING | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| SPDT | -5 ... 15°C Limitable | IP20 | ±1°C |

## Tamperproof Thermostat

ErP Class I - 1%

| PRODUCT CODE | SWITCH RATING | INDICATOR LIGHT |
|---|---|---|
| CMT | 10(3)A 230 & 24Vac | - |

| CONTACT TYPE | TEMPERATURE RANGE | IP RATING | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| SPDT | 5 ... 35°C | IP20 | ±1°C |

## Thermostat with On/Off Switch

ErP Class I - 1%

| PRODUCT CODE | SWITCH RATING | ON/OFF SWITCH | INDICATOR LIGHT |
|---|---|---|---|
| CM2S | 10(3)A 230 & 24Vac | Yes | - |
| CM3S | 10(3)A 230Vac | Yes | Yes |

| CONTACT TYPE | TEMPERATURE RANGE | IP RATING | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| SPDT | 10 ... 35°C Limitable | IP20 | ±1°C |

## Intermediate Plate

| PRODUCT CODE | DIMENSIONS |
|---|---|
| SMB | 95 x 95 mm |

| FOR USE WITH PRODUCTS |
|---|
| CM2, CM3, CM3-24, CMF, CMT, CDT2, CDT2-RF, CDT2-24, CRT2, CDTP2, CRTP2, HDT, HDT-RF |

# Mechanical Pipe / Cylinder Thermostats

## Pipe / Cylinder Thermostat

BOX QTY 50 CE UKCA

| PRODUCT CODE | SETPOINT ADJUSTMENT | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| WRP | External | 16(4)A 230Vac | SPDT |
| WRP-TP | Internal (Tamperproof) | 16(4)A 230Vac | SPDT |

| SENSOR TYPE | TEMP RANGE | IP RATING | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| Gas filled | 0 ... 90˚C | IP20 | ±5˚C |

## Immersion Thermostat

BOX QTY 20 BOX QTY 50 CE UKCA

| PRODUCT CODE | SETPOINT ADJUSTMENT | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| WRP-IM | External | 16(4)A 230Vac | SPDT |
| WRP-IM-TP | Internal (Tamperproof) | 16(4)A 230Vac | SPDT |

| SENSOR TYPE | TEMP RANGE | IP RATING | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| Gas filled | 0 ... 90˚C | IP20 | ±5˚C |

## Dual Thermostat with Manual Reset

BOX QTY 20 CE UKCA

| PRODUCT CODE | SETPOINT ADJUSTMENT | SWITCH RATING | SWITCH OUTPUT |
|---|---|---|---|
| DBS | External | 16(4)A | SPDT |

| SENSOR TYPE | HIGH LIMIT STAT | TEMP RANGE | SWITCHING DIFFERENTIAL |
|---|---|---|---|
| Liquid filled | 110˚C | 0 ... 90˚C | 6±2˚C |

## Outside Frost Thermostat

BOX QTY 2 CE UKCA

| PRODUCT CODE | DESCRIPTION | SWITCH RATING | TEMP RANGE |
|---|---|---|---|
| C10C2RIYS1 | Internal Setpoint Adj. | 15(2.5)A 230Vac | -35˚C ... 20˚C |

| SWITCH OUTPUT | MAX. AMBIENT TEMP |
|---|---|
| SPDT Volt Free | 50˚C |

## Frost Thermostat Controller

BOX QTY 1 CE UKCA

| PRODUCT CODE | DESCRIPTION | SWITCH RATING | TEMP RANGE |
|---|---|---|---|
| EPH-FSC | Frost stat controller | 8A 230Vac | - |

| SWITCH OUTPUT | MAX. AMBIENT TEMP |
|---|---|
| SPDT Volt Free | 50˚C |

* Saves energy by running the circulating pump without firing the boiler when the outside frost thermostat calls for heat.

# Programmers

## 1 Zone Timeswitch

| PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|
| A17 | 1 | Volt Free | 48 x 23 mm |

| PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|
| R17V2 | 1 | Volt Free | 100 x 35 mm |

| SWITCH RATING | AMBIENT TEMP | BACKPLATE | OPERATING PERIODS | PROGRAMMING MODE |
|---|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45˚C | 6 pin | 3 per day | 5/2d - 7d - 24h |

## 2 Zone Programmer

| PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|
| A27-HW | 2 | 230Vac | 48 x 23 mm |

R27

R27-VF

| PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|
| R27V2 | 2 | 230Vac | 100 x 35 mm |
| R27-VF | 2 | Volt Free | 100 x 35 mm |

| SWITCH RATING | AMBIENT TEMP | BACKPLATE | OPERATING PERIODS | PROGRAMMING MODE |
|---|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45˚C | 6 pin | 3 per day | 5/2d - 7d - 24h |

## 3 Zone Programmer

| PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|
| R37V2 | 3 | 230Vac | 100 x 35 mm |

| SWITCH RATING | AMBIENT TEMP | BACKPLATE | OPERATING PERIODS | PROGRAMMING MODE |
|---|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45˚C | 8 pin | 3 per day | 5/2d - 7d - 24h |

## 4 Zone Programmer

| PRODUCT CODE | NUMBER OF ZONES | SWITCH OUTPUT | SCREEN DIMENSIONS |
|---|---|---|---|
| R47V2 | 4 | 230Vac | 100 x 35 mm |

| SWITCH RATING | AMBIENT TEMP | BACKPLATE | OPERATING PERIODS | PROGRAMMING MODE |
|---|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45˚C | 8 pin | 3 per day | 5/2d - 7d - 24h |

## Dial Thermostat

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| HRT | 2 x AA Batteries (Incl) | 8A 230v | SPST |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0 ... 1.0˚C | Delay Start / TPI |

## Dial Thermostat with Setback Function

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| HDT | 230Vac ± 10% | 7A 230V | SPST |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0 ... 1.0˚C | Delay Start / TPI / Setback Function |

## Recessed Thermostat with Setback Function

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| RDT | 230Vac ± 10% | 10 (3)A 230Vac | SPDT |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0 ... 1.0˚C | Delay Start / TPI / Setback Function |

## Surface Mounted Thermostat

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDT2 | 230Vac ±10% | 7A 230Vac | SPDT Volt Free |
| CDT2-24 | 24Vac ±10% | 7A 24Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | Delay Start |

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CRT2 | 2 x AA Batteries (Incl.) | 8A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC100K | 5 ... 35˚C | 0.2 ... 1.0˚C | Delay Start |

# Programmable Room Thermostats

## Recessed Programmable Thermostat

ErP Class IV = 2%

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | SWITCH OUTPUT |
|---|---|---|---|
| RDTP | 230Vac ±10% | 10(3)A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | SPECIAL FUNCTION |
|---|---|---|---|
| NTC 100K Internal | 5 ... 35°C | 0 ... 1.0°C | Optimum Start / TPI / Remote Sensor Compatible |

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| NTC 10K | NTC 10K Cable Sensor, 1.5M |
| NTC Housing | Cable Sensor Housing |

## Surface Mounted Programmable Thermostat

ErP Class IV = 2%  On / Off control

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CDTP2 | 230Vac ±10% | 8A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0.2 ... 1.0°C | 5/2d - 7d - 24h |

ErP Class IV = 2%  On / Off control

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CRTP2 | 2 x AA Batteries (Incl.) | 8A 230Vac | SPDT |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0.2 ... 1.0°C | 5/2d - 7d - 24h |

ErP Class V= 3%  On / Off control

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CP4M | 230Vac ±10% | 8A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0.2 ... 1.0°C | 5/2d - 7d - 24h |

ErP Class V= 3%  On / Off control

| PRODUCT CODE | POWER SUPPLY | SWITCH RATING | CONTACT TYPE |
|---|---|---|---|
| CP4B | 2 x AA Batteries (Incl.) | 7A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ADJ. SWITCHING DIFFERENTIAL | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 5 ... 35°C | 0.2 ... 1.0°C | 5/2d - 7d - 24h |

## RF Thermostat & Receiver

ErP Class I = 1%

| PRODUCT CODE | COMPONENTS | SWITCH RATING | SWITCH OUTPUT |
|---|---|---|---|
| CP3 | RFRA$^{V2}$ & RF1 | 10A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ON/OFF BUTTON |
|---|---|---|
| NTC100K | 5 ... 35˚C | Yes |

## RF Programmable Thermostat & Receiver

**Add a Gateway to upgrade to EMBER App Control** TS

| PRODUCT CODE | COMPONENTS | TEMP RANGE | SWITCH OUTPUT |
|---|---|---|---|
| CP4 | RFRP-OT & RF1A-OT | 5 ... 35˚C | SPDT Volt Free |

NEW

| PRODUCT CODE | COMPONENTS | TEMP RANGE | SWITCH OUTPUT |
|---|---|---|---|
| CP4$^{V2}$ | RFRP$^{V2}$ & RF1B | 5 ... 35˚C | SPDT Volt Free |

NEW

| PRODUCT CODE | COMPONENTS | TEMP RANGE | SWITCH OUTPUT |
|---|---|---|---|
| CP4D | RFRPD & RF1B | 5 ... 35˚C | SPDT Volt Free |

ErP Class V = 3%,
ErP Class VIII = 5%
(When 3 no. thermostats are fitted in conjunction with a modulating boiler.)

| SENSOR TYPE | SWITCH RATING | SPECIAL FUNCTION | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 10A 230Vac | Optimum Start & TPI | 5/2 Day, 7 Day, 24Hr |

## Smart Thermostat, Receiver & Gateway

TS

| PRODUCT CODE | COMPONENTS | TEMP RANGE | SWITCH OUTPUT |
|---|---|---|---|
| CP4i | RFRP-OT, RF1A-OT & GW03 (Dual band 2.4 / 5GHz) | 5 ... 35˚C | SPDT Volt Free |

ErP Class V = 3%,
ErP Class VIII = 5%
(When 3 no. thermostats are fitted in conjunction with a modulating boiler.)

| SENSOR TYPE | SWITCH RATING | SPECIAL FUNCTION | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 10A 230Vac | Optimum Start & TPI | 5/2 Day, 7 Day, 24Hr |

Wireless Programmable | Pre-paired Components | Portable or Wall Mounted |

## CP4

The CP4 thermostat from EPH Controls has solidified its position as a market leading thermostat, thanks to its advanced functionality and universal compatibility.

The thermostat and receiver come pre-paired for easy installation, making it a favourite among installers and homeowners alike.

## CP4V2

Meet the CP4V2, the latest version of the favourite CP4. Building on its predecessor's success, CP4V2 seamlessly merges a sleek, contemporary design with trusted features. Introducing a redesigned receiver to fit an industry standard 6 Pin backplate and an innovative 30 minute boost feature, the CP4V2 adds convenience to the user while enhancing the installation experience for the installer.

# Thermostat

## Heating Control System

EMBER TS

Download on the App Store · GET IT ON Google play · works with the Google Assistant · WORKS WITH alexa · SP OpenTherm® · BOILER PLUS

Boost Function | Holiday Mode | Battery Operated | Keypad Lock

5 Years Warranty Standard

# CP4D

Responding to user preferences for an intuitive handwheel control, CP4D allows quick and smooth temperature adjustment.

With a large clear display, this modern thermostat retains the trusted features of the original CP4 including OpenTherm® modulation, wireless communication and wide compatibility.

# GW04

## Add a Gateway for Smart Control

## the best just got better :)

**Make it Smart!** The GW04 gateway is the perfect addition to any CP4, CP4$^{V2}$, CP4D installation. Adding a gateway to the system allows the user full app control of up to 6 thermostats in one home.

With the EMBER App it is possible to have complete control over your heating system anywhere, anytime.

- VOICE CONTROL
- CONVENIENT
- MULTIPLE CONTROL
- COST EFFECTIVE
- MULTI ZONE
- EASY INSTALLATION
- USER FRIENDLY
- OPENTHERM®
- PROGRAMMABLE

ErP Class V +3%

When one thermostat is fitted in conjuction with a modulating boiler

ErP Class VIII +5%

When three thermostats are fitted in conjuction with a modulating boiler

# Smart

## Heating Control

EMBER

**1 APP**

**4**

**SYSTEMS**

## PS

# Programmer System

Comprising of a 1, 2, 3 or 4 channel programmer and our latest range of RF thermostats, the PS System is ideal for new and retrofit installations. Particularly convenient for systems including motorised valves.

GW04

R17-RF$^{V2}$

R27-RF$^{V2}$

R37-RF$^{V2}$

R47-RF$^{V2}$

RFR$^{V2}$

RFC$^{V2}$

RFRB$^{V2}$

HDT-RF

RDT-RF

CDT2-RF

## RS

# Radiator System

Ideal for zoning a home with 1 to 16 radiators - allowing for individual room temperature control. The base unit is designed for use with an industry standard 6 Pin backplate. Only heat the area you want, when you want.

GW04

RF16

eTRV

eTRV-HW

SEMTRVB22

## TS

# Thermostat System

Upgraded thermostat and receiver design which retains all of the functionality our customers have grown to love. OpenTherm is integrated for efficiency and can be used for systems with 1 – 6 zones including hot water cylinders.

GW04

CP4 *

CP4-HW-OT *

CP4$^{V2}$

CP4D

## US

# Underfloor System

Designed to simplify installing and controlling an underfloor system, saving time and money. Pairing with our new RF thermostats reduces installation time by eliminating the need to wire each thermostat individually.

GW04

UFH10-RF

RFR$^{V2}$

RFC$^{V2}$

RFRB$^{V2}$

HDT-RF

RDT-RF

CDT2-RF

TA230

*Gateway model dependant on software version

# RF Cylinder Thermostats / RF Mains Switch

## RF Cylinder Thermostat & Receiver

| PRODUCT CODE | COMPONENTS | SWITCH RATING | SWITCH OUTPUT |
|---|---|---|---|
| RFCP | RFCA & RF1 | 10A 230Vac | SPDT Volt Free |

| SENSOR TYPE | TEMP RANGE | ON/OFF BUTTON |
|---|---|---|
| NTC10K | 10 ... 90°C | Yes |

## RF Programmable Cylinder Thermostat & Receiver

**Add a Gateway to upgrade to EMBER App Control** TS

| PRODUCT CODE | COMPONENTS | TEMP RANGE | SWITCH OUTPUT |
|---|---|---|---|
| CP4-HW-OT | RFRP-HW-OT & RF1A-OT | 10 ... 90°C | SPDT Volt Free |

ErP Class V = 3%,
ErP Class VIII = 5%
(When 3 no. thermostats are fitted in conjunction with a modulating boiler.)

| SENSOR TYPE | SWITCH RATING | SPECIAL FUNCTION | PROGRAMMING MODE |
|---|---|---|---|
| NTC100K | 10A 230Vac | Optimum Start & TPi | 5/2 Day, 7 Day, 24Hr |

## RF Mains Switch

| PRODUCT CODE | TYPE | CONTACT RATING | MOUNTING TYPE |
|---|---|---|---|
| TR1TR2 | Transceiver | 10(3)A 230Vac | Wall |

| RF RANGE | AMBIENT TEMP RANGE | DIMENSION | POWER SUPPLY |
|---|---|---|---|
| Max 30m | 0-45°C | 84 x 84 x 30mm | 230Vac ±10% |

# TR1 TR2 RF Mains Switch

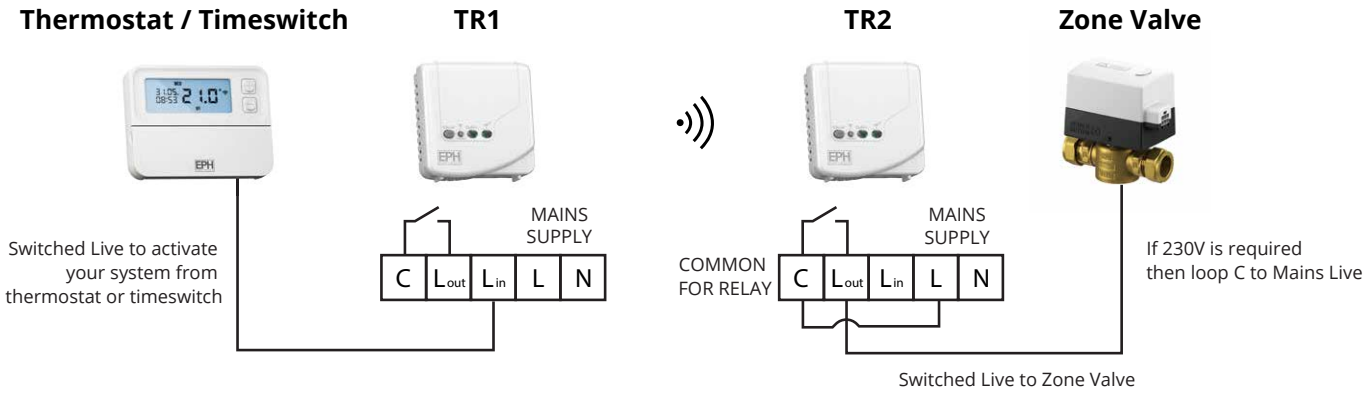
## Ideal for any installation where its not possible to run cables

The TR1 TR2, 2 Way RF Transceiver Pack is a unique product from EPH Controls, allowing a wireless signal to be sent from one device to the other and back to the original device. This can allow wireless operation of motorised valves which are located in areas where wiring is not possible. This can achieve boiler interlock as well as other applications.

**2 Way RF Communication | Meets Part L Building Regulations | Save Time and Materials**

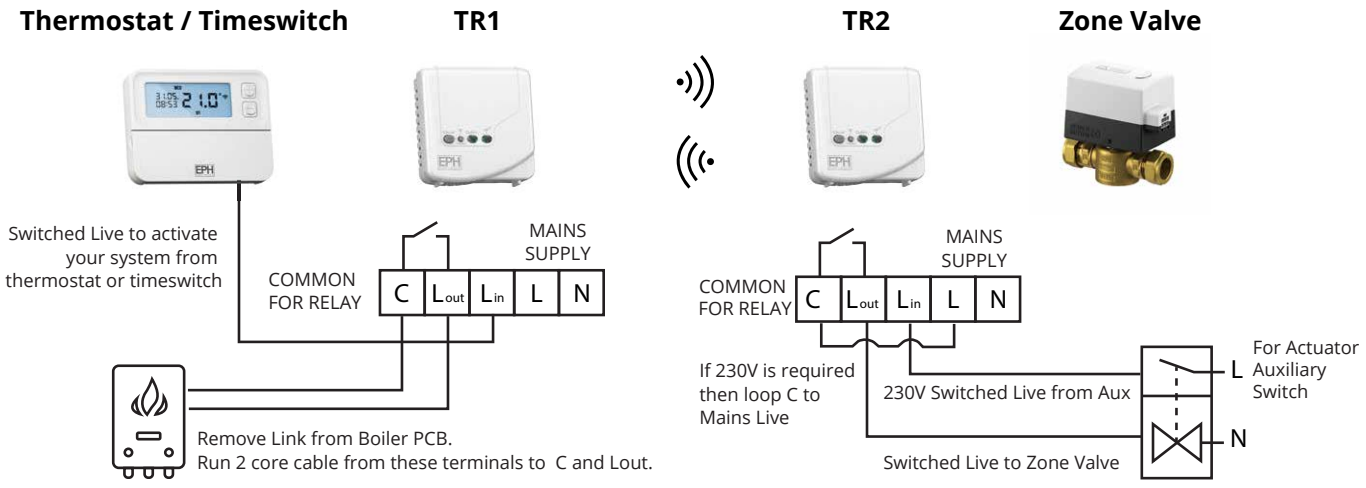
## Single Wireless Switch

In this example, a thermostat is connected to the TR1 transceiver. When the thermostat is turned on, an RF signal is sent from TR1 to TR2. This then powers the zone valve.

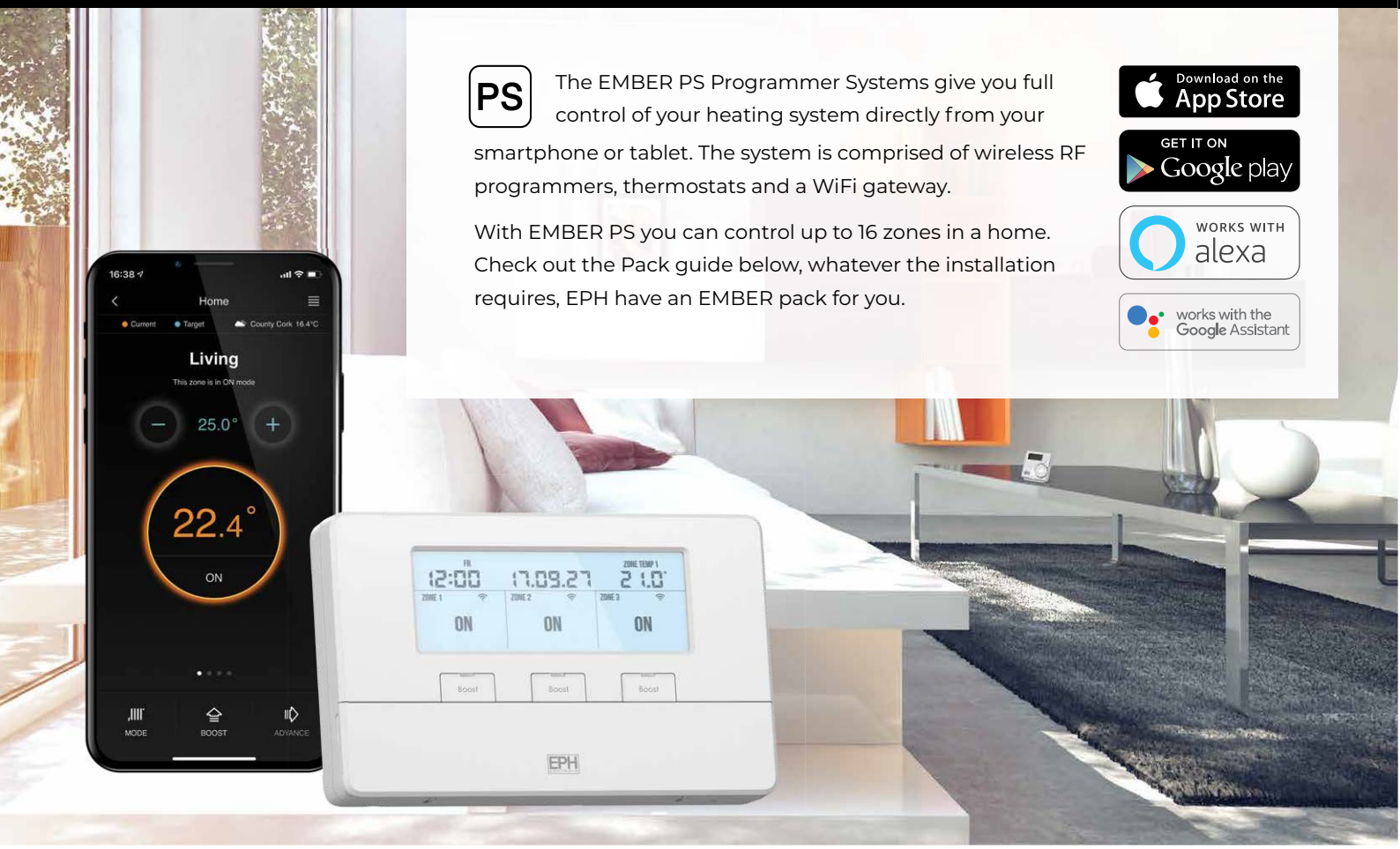



## Double Wireless Switch (Boiler Interlock)

In this example, a thermostat is connected to the TR1 transceiver. When the thermostat is turned on, an RF signal is sent from TR1 to TR2. This then powers the zone valve. When the auxiliary switch on the zone valve closes, 230V is sent to L in. An RF signal is then sent from TR2 to TR1 and this switches the boiler through a volt free contact.



# PS Smart Programmer Systems




PS The EMBER PS Programmer Systems give you full control of your heating system directly from your smartphone or tablet. The system is comprised of wireless RF programmers, thermostats and a WiFi gateway.

With EMBER PS you can control up to 16 zones in a home. Check out the Pack guide below, whatever the installation requires, EPH have an EMBER pack for you.

Download on the App Store

GET IT ON Google play

WORKS WITH alexa

works with the Google Assistant

## EMBER PS SMART HEATING CONTROL - PACK GUIDE

| | | R17-RF$^{V2}$ 1 Zone Timeswitch | R27-RF$^{V2}$ 2 Zone Programmer | R37-RF$^{V2}$ 3 Zone Programmer | R47-RF$^{V2}$ 4 Zone Programmer | RFR$^{V2}$ Room Thermostat | RFC$^{V2}$ Cylinder Thermostat | GW04 Gateway |
|---|---|---|---|---|---|---|---|---|
| 1 Zone | EMBER PS01 | 1 | | | | 1 | | 1 |
| | EMBER PS01a | 1 | | | | | | 1 |
| 2 Zone | EMBER PS02 | | 1 | | | 1 | | 1 |
| | EMBER PS03 | | 1 | | | 2 | | 1 |
| | EMBER PS04 | | 1 | | | 1 | 1 | 1 |
| | EMBER PS04a | | 1 | | | | | 1 |
| 3 Zone | EMBER PS05 | | | 1 | | 3 | | 1 |
| | EMBER PS06 | | | 1 | | 2 | | 1 |
| | EMBER PS07 | | | 1 | | 1 | | 1 |
| | EMBER PS08 | | | 1 | | 2 | 1 | 1 |
| | EMBER PS08a | | | 1 | | | | 1 |
| | EMBER PS09 | | | 1 | | 1 | 1 | 1 |
| 4 Zone | EMBER PS10 | | | | 1 | 4 | | 1 |
| | EMBER PS11 | | | | 1 | 3 | | 1 |
| | EMBER PS12 | | | | 1 | 2 | | 1 |
| | EMBER PS13 | | | | 1 | 1 | | 1 |
| | EMBER PS14 | | | | 1 | 3 | 1 | 1 |
| | EMBER PS14a | | | | 1 | | | 1 |
| | EMBER PS15 | | | | 1 | 2 | 1 | 1 |
| | EMBER PS16 | | | | 1 | 1 | 1 | 1 |

## 1 Zone Timeswitch

PS

Add a GW04 to upgrade to EMBER App Control (see page 32)

NEW

| PRODUCT CODE | NUMBER OF CHANNELS | SWITCH OUTPUT | BACKPLATE TYPE |
|---|---|---|---|
| R17-RF$^{V2}$ | 1 | Volt Free SPDT | 6 pin |

For use with: RFR$^{V2}$ | RFC$^{V2}$ | EMBER

Programming Mode: 5/2d - 7d - 24h

| SWITCH RATING | AMBIENT TEMP RANGE | SCREEN DIMENSION | OPERATING PERIODS |
|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45°C | 100 x 35mm | 3 per day |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

## 2 Zone Programmer

PS

Add a GW04 to upgrade to EMBER App Control (see page 32)

NEW

| PRODUCT CODE | NUMBER OF CHANNELS | SWITCH OUTPUT | BACKPLATE TYPE |
|---|---|---|---|
| R27-RF$^{V2}$ | 2 | 230Vac SPDT | 6 pin |

For use with: RFR$^{V2}$ | RFC$^{V2}$ | EMBER

Programming Mode: 5/2d - 7d - 24h

| SWITCH RATING | MAX AMBIENT TEMP RANGE | SCREEN DIMENSION | OPERATING PERIODS |
|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45°C | 100 x 35mm | 3 per day |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

## 3 Zone Programmer

PS

Add a GW04 to upgrade to EMBER App Control (see page 32)

NEW

| PRODUCT CODE | NUMBER OF CHANNELS | SWITCH OUTPUT | BACKPLATE TYPE |
|---|---|---|---|
| R37-RF$^{V2}$ | 3 | 230Vac SPDT | 8 pin |

For use with: RFR$^{V2}$ | RFC$^{V2}$ | EMBER

Programming Mode: 5/2d - 7d - 24h

| SWITCH RATING | MAX AMBIENT TEMP RANGE | SCREEN DIMENSION | OPERATING PERIODS |
|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45°C | 100 x 35mm | 3 per day |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

## 4 Zone Programmer

PS

Add a GW04 to upgrade to EMBER App Control (see page 32)

NEW

| PRODUCT CODE | NUMBER OF CHANNELS | SWITCH OUTPUT | BACKPLATE TYPE |
|---|---|---|---|
| R47-RF$^{V2}$ | 4 | 230Vac SPST | 8 pin |

For use with: RFR$^{V2}$ | RFC$^{V2}$ | EMBER

Programming Mode: 5/2d - 7d - 24h

| SWITCH RATING | MAX AMBIENT TEMP RANGE | SCREEN DIMENSION | OPERATING PERIODS |
|---|---|---|---|
| 3(1)A 230Vac | 0 ... 45°C | 100 x 35mm | 3 per day |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

# RF Thermostats & WiFi Gateways

## RF Room Thermostat PS US

Mounting Type: Wall or Free standing

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

NEW

| PRODUCT CODE | TYPE | TEMP RANGE | FOR USE WITH |
|---|---|---|---|
| RFR$^{V2}$ | Room thermostat with boost button | 5 ... 35˚C | R_7-RF & EMBER |
| RFRB$^{V2}$ | Room thermostat with on/off button | 5 ... 35˚C | R_7-RF & EMBER |

| RF RANGE | AMBIENT TEMP RANGE | DIMENSIONS | POWER SUPPLY |
|---|---|---|---|
| Max 30m | 0 ... 45˚C | 86 x 86 x 25mm | 2 x AAA (incl.) |

## RF Cylinder Thermostat PS US

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 40 · CE · UK CA

NEW

| PRODUCT CODE | TYPE | TEMP RANGE | FOR USE WITH |
|---|---|---|---|
| RFC$^{V2}$ | Cylinder thermostat with boost button | 10 ... 90˚C | R_7-RF & EMBER |

| RF RANGE | AMBIENT TEMP RANGE | DIMENSIONS | POWER SUPPLY |
|---|---|---|---|
| Max 30m | 0 ... 45˚C | 86 x 86 x 25mm | 2 x AAA (incl.) |

## GW01 WiFi Gateway PS

**Used to upgrade your programmer to EMBER App Control**

5 YEAR WARRANTY · FROST · 30 METRE · EMBER APP · BOX QTY 60 · CE · UK CA

| PRODUCT CODE | TYPE | FOR USE WITH |
|---|---|---|
| GW01 | RF/WiFi Interface | R17-RF, R27-RF, R37-RF, R47-RF Version 1 only |

| RF RANGE | AMBIENT TEMP RANGE | POWER SUPPLY |
|---|---|---|
| Max 10m | 0 ... 45˚C | 230Vac ±10% |

## GW03 WiFi Gateway TS

**Used to upgrade your CP4 to EMBER App Control**

5 YEAR WARRANTY · FROST · 30 METRE · EMBER APP · BOX QTY 50 · CE · UK CA

| PRODUCT CODE | TYPE | FOR USE WITH |
|---|---|---|
| GW03 | RF/WiFi Interface (Dual band 2.4 / 5GHz) | EMBER TS, CP4 only |

| RF RANGE | AMBIENT TEMP RANGE | POWER SUPPLY |
|---|---|---|
| Max 10m | 0 ... 45˚C | 230Vac ±10% |

## GW04 WiFi Gateway PS TS US RS

**Used to upgrade your system to EMBER App Control**

5 YEAR WARRANTY · FROST · 30 METRE · EMBER APP · BOX QTY 50 · CE · UK CA

NEW

| PRODUCT CODE | TYPE | FOR USE WITH |
|---|---|---|
| GW04 | RF/WiFi Interface (Dual band 2.4 / 5GHz) | R17-RF$^{V2}$, R27-RF$^{V2}$, R37-RF$^{V2}$, R47-RF$^{V2}$, CP4$^{V2}$, CP4D, UFH10-RF, RF16 |

| RF RANGE | AMBIENT TEMP RANGE | POWER SUPPLY |
|---|---|---|
| Max 10m | 0 ... 45˚C | 230Vac ±10% |

# RF Programmer Packs

These wireless Programmer Packs provide a 1 - 4 zone solution for Wireless zoning. All of these products are also WiFi ready, so that they can be controlled via the EMBER heating control app with the addition of the WiFi gateway. This offers a simple and convenient solution to installations, where time and temperature control is required via smart devices.

## 1 Zone Wireless Programmer Pack

**Add a GW04 to upgrade to EMBER App Control** (see page 32) PS

NEW

| PRODUCT CODE | PROGRAMMER | THERMOSTAT | |
|---|---|---|---|
| CWP1E | R17-RF$^{V2}$ | RFR | (with Boost button) |
| CWP1EB | R17-RF$^{V2}$ | RFRB | (with On/Off button) |
| CWP1EC | R17-RF$^{V2}$ | RFC | (with Boost button) |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 1 · CE · UK CA

## 2 Zone Wireless Programmer Pack

**Add a GW04 to upgrade to EMBER App Control** (see page 32) PS

NEW

| PRODUCT CODE | PROGRAMMER | THERMOSTAT | |
|---|---|---|---|
| CWP2E | R27-RF$^{V2}$ | RFR$^{V2}$ | RFC |
| CWP2CE | R27-RF$^{V2}$ | RFR$^{V2}$ | - |
| CWP2RE | R27-RF$^{V2}$ | RFR$^{V2}$ x 2 | - |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 1 · CE · UK CA

## 3 Zone Wireless Programmer Pack

**Add a GW04 to upgrade to EMBER App Control** (see page 32) PS

NEW

| PRODUCT CODE | PROGRAMMER | THERMOSTAT | |
|---|---|---|---|
| CWP3E | R37-RF$^{V2}$ | RFR$^{V2}$ x 2 | RFC |
| CWP3CE | R37-RF$^{V2}$ | RFR$^{V2}$ x 2 | - |
| CWP3RE | R37-RF$^{V2}$ | RFR$^{V2}$ x 3 | - |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 1 · CE · UK CA

## 4 Zone Wireless Programmer Pack

**Add a GW04 to upgrade to EMBER App Control** (see page 32) PS

NEW

| PRODUCT CODE | PROGRAMMER | THERMOSTAT | |
|---|---|---|---|
| CWP4E | R47-RF$^{V2}$ | RFR$^{V2}$ x 3 | RFC |
| CWP4CE | R47-RF$^{V2}$ | RFR$^{V2}$ x 3 | - |
| CWP4RE | R47-RF$^{V2}$ | RFR$^{V2}$ x 4 | - |

5 YEAR WARRANTY · 30 METRE · EMBER APP · BOX QTY 1 · CE · UK CA

# RF Heating Control Packs

## Y Plan RF Heating Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR22PRF | R27-RF$^{V2}$ | B322MID | RFR$^{V2}$ | RFC$^{V2}$ | WC2 |
| CR28PRF | R27-RF$^{V2}$ | B328MID | RFR$^{V2}$ | RFC$^{V2}$ | WC2 |

## S Plan RF Heating Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR221PRF | R27-RF$^{V2}$ | V221P x 2 | RFR$^{V2}$ | RFC$^{V2}$ | WC2 |
| CR222PRF | R27-RF$^{V2}$ | V222P x 2 | RFR$^{V2}$ | RFC$^{V2}$ | WC2 |
| CR228PRF | R27-RF$^{V2}$ | V228P x 2 | RFR$^{V2}$ | RFC$^{V2}$ | WC2 |

## S Plan RF Unvented Heating Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | WIRING CENTRE |
|---|---|---|---|---|
| CR221PURF | R27-RF$^{V2}$ | V221P | RFR$^{V2}$ | WC2 |
| CR222PURF | R27-RF$^{V2}$ | V222P | RFR$^{V2}$ | WC2 |
| CR228PURF | R27-RF$^{V2}$ | V228P | RFR$^{V2}$ | WC2 |

## S Plan RF Heating Control Pack with Hardwired Cylinder Thermostat

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | | WIRING CENTRE |
|---|---|---|---|---|---|
| CRF2P-211221 | R27-RF$^{V2}$ | V221P x 2 | RFR$^{V2}$ | WRP | WC2 |
| CRF2P-221221 | R27-RF$^{V2}$ | V222P x 2 | RFR$^{V2}$ | WRP | WC2 |

## 2 Zone Combi Zoning RF Control Pack

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | WIRING CENTRE |
|---|---|---|---|---|
| CRF2P-212201 | R27-RF$^{V2}$ | V221P x 2 | RFR$^{V2}$ x 2 | WC2 |
| CRF2P-222201 | R27-RF$^{V2}$ | V222P x 2 | RFR$^{V2}$ x 2 | WC2 |

## 3 Zone RF Heating Control Pack

PS

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR3PRF | R37-RF$^{V2}$ | V221P x 3 | RFR$^{V2}$ x 2 | RFC$^{V2}$ | WC2 |
| CR322PRF | R37-RF$^{V2}$ | V222P x 3 | RFR$^{V2}$ x 2 | RFC$^{V2}$ | WC2 |
| CR328PRF | R37-R$^{V2}$F | V228P x 3 | RFR$^{V2}$ x 2 | RFC$^{V2}$ | WC2 |

## 3 Zone RF Unvented Heating Control Pack

PS

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | WIRING CENTRE |
|---|---|---|---|---|
| CR3PURF | R37-RF$^{V2}$ | V221P x 2 | RFR$^{V2}$ x 2 | WC2 |
| CR322PURF | R37-RF$^{V2}$ | V222P x 2 | RFR$^{V2}$ x 2 | WC2 |
| CR328PURF | R37-RF$^{V2}$ | V228P x 2 | RFR$^{V2}$ x 2 | WC2 |

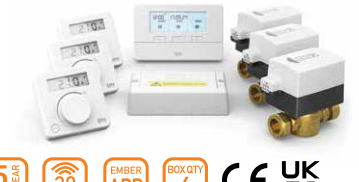
## 3 Zone RF Heating Control Pack with Hardwired Cylinder Thermostat

PS

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | | WIRING CENTRE |
|---|---|---|---|---|---|
| CRF3P-312221 | R37-RF$^{V2}$ | V221P x 3 | RFR$^{V2}$ x 2 | WRP | WC2 |
| CRF3P-322221 | R37-RF$^{V2}$ | V222P x 3 | RFR$^{V2}$ x 2 | WRP | WC2 |

## 3 Zone Combi Zoning RF Control Pack

PS



| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | WIRING CENTRE |
|---|---|---|---|---|
| CRF3P-313201 | R37-RF$^{V2}$ | V221P x 3 | RFR$^{V2}$ x 3 | WC2 |
| CRF3P-323201 | R37-RF$^{V2}$ | V222P x 3 | RFR$^{V2}$ x 3 | WC2 |

## 4 Zone RF Heating Control Pack

PS

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | | WIRING CENTRE |
|---|---|---|---|---|---|
| CR4PRF | R47-RF$^{V2}$ | V221P x 4 | RFR$^{V2}$ x 3 | RFC$^{V2}$ | WC2 |
| CR422PRF | R47-RF$^{V2}$ | V222P x 4 | RFR$^{V2}$ x 3 | RFC$^{V2}$ | WC2 |
| CR428PRF | R47-RF$^{V2}$ | V228P x 4 | RFR$^{V2}$ x 3 | RFC$^{V2}$ | WC2 |

## 4 Zone RF Unvented Heating Control Pack

PS

| PRODUCT CODE | PROGRAMMER | MOTORISED VALVE | THERMOSTAT | WIRING CENTRE |
|---|---|---|---|---|
| CR4PURF | R47-RF$^{V2}$ | V221P x 3 | RFR$^{V2}$ x 3 | WC2 |
| CR422PURF | R47-RF$^{V2}$ | V222P x 3 | RFR$^{V2}$ x 3 | WC2 |
| CR428PURF | R47-RF$^{V2}$ | V228P x 3 | RFR$^{V2}$ x 3 | WC2 |

# Radiator Controls

## TRV Single Pack - Chrome Angled

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL |
|---|---|---|
| CTRV15C | 15mm Compression | Yes |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28°C | 0.6bar |

## TRV Twin Pack - Chrome Angled

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL |
|---|---|---|
| EMTRV15C | 15mm Compression | Yes |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28°C | 0.6bar |

## TRV Twin Pack - Chrome Straight

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL |
|---|---|---|
| SEMTRV15C | 15mm Compression | Yes |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28°C | 0.6bar |

## TRV Single Pack - Angled

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL | ACCESSORIES |
|---|---|---|---|
| CTRV10 | 10mm compression | Yes | - |
| CTRV15 | 15mm compression | Yes | 1 x 1/2" olive |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28°C | 0.6 bar |

## TRV Twin Pack - Angled for 16mm Multi Layer Pipe

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL | ACCESSORIES |
|---|---|---|---|
| EMTRVMLP | 16mm multi layer pipe | Yes | - |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28˚C | 0.6 bar |

BOX QTY 25

## TRV Twin Pack - Angled

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL | ACCESSORIES |
|---|---|---|---|
| EMTRV10 | 10mm compression | Yes | - |
| EMTRV15 | 15mm compression | Yes | 2 x 1/2" olives |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28˚C | 0.6 bar |

BOX QTY 50

## TRV Twin Pack - Angled with Lockshield Drain Off Valve

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL |
|---|---|---|
| EMTRV10DOV | 10mm compression | Yes |
| EMTRV15DOV | 15mm compression | Yes |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28˚C | 0.6 bar |

BOX QTY 25

## TRV Twin Pack - Straight

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL |
|---|---|---|
| SEMTRV15 | 15mm compression | No |

| SENSOR TYPE | TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|---|
| Liquid filled | 7 ... 28˚C | 0.6 bar |

BOX QTY 25

## Lockshield Valves

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL | DESCRIPTION |
|---|---|---|---|
| LSV10 | 10mm compression | Yes | Lockshield valve |
| LSV15 | 15mm compression | Yes | Lockshield valve |
| LSVMLP | 16mm multilayer pipe | Yes | Lockshield valve |

| TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|
| 7 ... 28˚C | 0.6 bar |

BOX QTY 100

## Drain Off Valve

BOX QTY 200

| PRODUCT CODE | DESCRIPTION | PACK QUANTITY |
|---|---|---|
| DOV | 15mm Drain off valve | 1 piece |

## Lockshield Drain Off Valve

BOX QTY 50

| PRODUCT CODE | DESCRIPTION | PACK QUANTITY |
|---|---|---|
| LSDOV10 | 10mm Lockshield drain off valve | 1 piece |
| LSDOV15 | 15mm Lockshield drain off valve | 1 piece |

## Push Fit Elbow

BOX QTY 100

| PRODUCT CODE | DESCRIPTION | PACK QUANTITY |
|---|---|---|
| PFE10 | 15mm x10mm Push fit elbow | 2 pieces |
| PFE15 | 15mm x15mm Push fit elbow | 2 pieces |

## TRV Body – 15mm Compression

BOX QTY 60

| PRODUCT CODE | CONNECTION TYPE | BI DIRECTIONAL |
|---|---|---|
| TRVB15 | 15mm Compression | Yes |

Max. Differential Pressure: 0.6 bar

## Thermal Actuator

For use with: TRVB15

| PRODUCT CODE | POWER SUPPLY | ACTUATOR TYPE | RUNNING TIME | AUXILIARY SWITCH |
|---|---|---|---|---|
| TA24 | 24Vac | Normally Closed or Open | 4.5 min | - |
| TA230 | 230Vac | Normally Closed or Open | 3.5 min | - |
| TA230S | 230Vac | Normally Closed | 4.5 min | Yes |

BOX QTY 100 CE UK CA

| MAX. STROKE | AMBIENT TEMP RANGE | SPRING PRESSURE | VALVE CONNECTION |
|---|---|---|---|
| 3.5mm | 0 ... 50°C | 125N | M30x1.5 |

## Thermostatic Heads

| PRODUCT CODE | CONNECTION TYPE | DESCRIPTION |
|---|---|---|
| TRV | M30 x 1.5 | Thermostatic head white |
| TRVCH | M30 x 1.5 | Thermostatic head chrome |

| TEMP RANGE | MAX. DIFFERENTIAL PRESSURE |
|---|---|
| 7 ... 28˚C | 0.6 bar |

## Reduced Mobility Accessory

| PRODUCT CODE | DESCRIPTION |
|---|---|
| RMA | Reduced Mobility Accessory for EPH TRVs |

# Thermostatic Mixing Valves

## Thermostatic Mixing Valves

## Point of Use, In Line

| PRODUCT CODE | VALVE SIZE | FLOW RATE | MAX STATIC PRESSURE | APPLICATION |
|---|---|---|---|---|
| TMV15C | 15mm | 1.1Kvs | 10 Bar | Point of Use |
| TMV22C | 22mm | 1.1Kvs | 10 Bar | Point of Use |

| SETTING RANGE | HOT & COLD FLOW HIGH PRESSURE | HOT & COLD FLOW LOW PRESSURE | CONNECTION |
|---|---|---|---|
| 30 ... 50°C | 1.0-5 Bar | 0.2-1 Bar | Compression |

Complete with 4-in-1 angle inlet connectors incorporating stainless steel mesh strainers, non return valves, 1/4"BSP pressure tapping point and 1/4-turn lever ball valves.

| PRODUCT CODE | VALVE SIZE | FLOW RATE | MAX STATIC PRESSURE | APPLICATION |
|---|---|---|---|---|
| TMV3-Combi-015 | 15mm | 1.5Kvs | 10 Bar | Point of Use |
| TMV3-Combi-022 | 22mm | 1.5Kvs | 10 Bar | Point of Use |

| SETTING RANGE | MEDIA TEMPERATURE | TEMPERATURE STABILITY | CONNECTION |
|---|---|---|---|
| 32 ... 49°C | Max. 95°C | ±2°C | Compression |

## Radiator Circuit, Closed Circuit

| PRODUCT CODE | VALVE SIZE | FLOW RATE | SETTING RANGE | APPLICATION |
|---|---|---|---|---|
| TMV-31700600 | 1 1/4" BSP | 4.8Kvs | 45 ... 65°C | Radiator Circuit |

## Underfloor Heating, Closed Circuit

| PRODUCT CODE | VALVE SIZE | FLOW RATE | SETTING RANGE | APPLICATION |
|---|---|---|---|---|
| TMV-31100500 | 3/4" BSP | 1.5Kvs | 20 ... 43°C | Underfloor Heating |
| TMV-31702100 | 1" BSP | 4.5Kvs | 20 ... 55°C | Underfloor Heating |
| TMV-31700500 | 1 1/4" BSP | 4.8Kvs | 20 ... 43°C | Underfloor Heating |

## In Line, Scald Safe

| PRODUCT CODE | VALVE SIZE | FLOW RATE | SETTING RANGE | APPLICATION |
|---|---|---|---|---|
| TMV-31102900 | 1/2" BSP | 1.2Kvs | 35 ... 60°C | Potable Water In line |
| TMV-31100600 | 3/4" BSP | 1.5Kvs | 35 ... 60°C | Potable Water In line |
| TMV-31101000 | 1" BSP | 1.6Kvs | 35 ... 60°C | Potable Water In line |
| TMV-31620200 | 1" BSP | 3.2Kvs | 45 ... 65°C | Potable Water In line |
| TMV-31720100* | 1" BSP | 3.2Kvs | 45 ... 65°C | Potable Water In line |

* for Potable water, In line and Solar (Solar rated Max. 120°C)

# Create control packs to suit your own specific requirements

## Hardwired Control Pack Coding System

| CONTROL PACK | PROGRAMMER | | MOTORISED VALVES | | ROOM STATS | | CYLINDER STATS | WIRING CENTRE |
|---|---|---|---|---|---|---|---|---|
| CODE | TYPE | - | QTY | MODEL | QTY | MODEL | MODEL | MODEL |
| C0 | 0P = None | - | 0 = 0 | 0 = None | 0 = 0 | 0 = None | 0 = None | 0 = None |
| C | A1P = A17 | - | 1 = 1 | 1 = V221P | 1 = 1 | 1 = RDTP | 1 = WRP | 1 = WC2 |
| C | A2P = A27-HW | - | 2 = 2 | 2 = V222P | 2 = 2 | 2 = CM2 | 2 = CDC2 | 2 = WC3 |
| CR | 1P = R17 | - | 3 = 3 | 3 = V228P | 3 = 3 | 3 = CM3 | 3 = WRP-IM | 3 = WCA |
| CR | 2P = R27 | - | 4 = 4 | 4 = V222FP | 4 = 4 | 4 = CDT2 | 4 = WRP-IM-TP | 4 = WCB |
| CR | 3P = R37 | - | | 5 = V228FP | | 5 = CMT | 5 = WRP-TP | |
| CR | 4P = R47 | - | | 6 = B322MID | | 6 = CRT2 | 6 = DBS | |
| | | - | | 7 = B328PF | | 7 = CDTP2 | 7 = EDBS | |
| | | - | | 8 = DS222P | | 8 = CRTP2 | | |
| | | | | 9 = V222PC | | 9 = CP4 | | |
| | | | | A = DS228P | | A = CP4M | | |
| | | | | | | B = CP4B | | |
| | | | | | | C = HRT | | |
| | | | | | | D = HDT | | |
| | | | | | | E = RDT | | |

## RF Control Pack Coding System

| CONTROL PACK | PROGRAMMER | | MOTORISED VALVES | | ROOM STATS | | CYLINDER STATS | WIRING CENTRE |
|---|---|---|---|---|---|---|---|---|
| CODE | TYPE | - | QTY | MODEL | QTY | MODEL | MODEL | MODEL |
| C0 | 0P = None | - | 0 = 0 | 0 = None | 0 = 0 | 0 = None | 0 = None | 0 = None |
| CRF | 1P = R17-RF | - | 1 = 1 | 1 = V221P | 1 = 1 | 2 = RFR | 1 = RFC | 1 = WC2 |
| CRF | 2P = R27-RF | - | 2 = 2 | 2 = V222P | 2 = 2 | 3 = CM2 | 2 = WRP | 2 = WC3 |
| CRF | 3P = R37-RF | - | 3 = 3 | 3 = V228P | 3 = 3 | 4 = CM3 | 3 = WRP-IM | 3 = WCA |
| CRF | 4P = R47-RF | - | 4 = 4 | 4 = V222FP | 4 = 4 | 5 = RFRB | 4 = WRP-IM-TP | 4 = WCB |
| | | | | 5 = V228FP | | | 5 = WRP-TP | |
| | | | | 6 = B322MID | | | 6 = DBS | |
| | | | | 7 = B328PF | | | 7 = EDBS | |
| | | | | 8 = DS222P | | | 8 = CP4-HW-OT | |
| | | | | 9 = V222PC | | | 9 = CDC | |
| | | | | A = DS228P | | | | |

## Iconography

- 3 On/Off periods
- 5 year warranty
- Battery operated
- Cable sensor
- Detachable actuator
- EMBER App Compatible
- Frost protection
- Indicator light
- Keypad lock
- Limitable temperature range
- Mains operated
- Max 30M distance
- Motor made in USA
- Open Therm
- Legionnaires function

# Timeswitch / Programmer Compatibility Guide

EPH Controls' range of hardwired programmers offer a comprehensive solution for all zoning requirements with models available from 1 to 4 channels. With market leading functionality such as auto summer / winter time, boost, advance and service interval, these programmers offer simple design, functionality and are ideally suited to householders.

## TIMESWITCHES

| SUPPLIER | PRODUCT | TIME SWITCH | DAYS | MECH | ELEC | SERVICE TIMER | EPH REPLACEMENT |
|---|---|---|---|---|---|---|---|
| DANFOSS | GP103 | • | 1 | • | | | A17 / R17 |
| DANFOSS | GP103E5 | • | 5/2 | | • | | A17 / R17 |
| DANFOSS | GP103E7 | • | 7 | | • | | A17 / R17 |
| DANFOSS | TS715 | • | 7 | | • | | A17 / R17 |
| DANFOSS | TS715Si | • | 7 | | • | • | A17 / R17 |
| DANFOSS | TS975 | • | 7 | | • | | A17 / R17 |
| DANFOSS | SET 1E | • | 1 | | • | | A17 / R17 |
| **EPH** | **A17** | • | **1-5/2-7** | | • | • | |
| **EPH** | **R17** | • | **1-5/2-7** | | • | • | |
| HONEYWELL | ST6100A1001 | • | 1 | | • | | A17 / R17 |
| HONEYWELL | ST6100C1009 | • | 7 | | • | | A17 / R17 |
| HONEYWELL | ST6100S1000 | • | 1 | | • | • | A17 / R17 |
| HONEYWELL | ST9100A1008 | • | 1 | | • | | A17 / R17 |
| HONEYWELL | ST9100C1006 | • | 7 | | • | | A17 / R17 |
| HONEYWELL | ST9100S1007 | • | 1 | | • | • | A17 / R17 |
| HORSTMANN | 425 CORONET | • | 1 | • | | | A17 / R17 |
| HORSTMANN | H11 | • | 1 | | • | | A17 / R17 |
| HORSTMANN | H17 | • | 7 | | • | | A17 / R17 |
| HORSTMANN | H11XL | • | 1 | | • | | A17 / R17 |
| HORSTMANN | H17XL | • | 7 | | • | | A17 / R17 |
| HORSTMANN | C11 | • | 1 | • | | • | A17 / R17 |
| HORSTMANN | C17 | • | 7 | • | | • | A17 / R17 |
| INVENSYS | TEMPUS 1 | • | 5/2 | | • | | A17 / R17 |
| INVENSYS | TEMPUS 2 | • | 7 | | • | | A17 / R17 |
| INVENSYS | LP111 | • | 1 | | • | | A17 / R17 |
| INVENSYS | LP711 | • | 7 | | • | | A17 / R17 |
| INVENSYS | LP111 Si | • | 1 | | • | • | A17 / R17 |
| INVENSYS | LP711 Si | • | 7 | | • | • | A17 / R17 |
| INVENSYS | SW.MASTER 3000 | • | 1 | • | | | A17 / R17 |
| INVENSYS | SM1 | • | 1 | • | | | A17 / R17 |
| POTTERTON | EP4000 | • | 1 | | • | | A17 / R17 |
| POTTERTON | EP4002 | • | 5/2 | | • | | A17 / R17 |
| POTTERTON | EP5002 | • | 7 | | • | | A17 / R17 |
| POTTERTON | MYSON MEP1C | • | | | • | | A17 / R17 |
| SIEMENS | RWB30E | • | 1 | • | | | A17 / R17 |
| SIEMENS | RWB27 | • | 7 | | • | | A17 / R17 |
| SIEMENS | RWB7 | • | 7 | | • | | A17 / R17 |
| SUNVIC | SELECT 107 | • | 7 | | • | | A17 / R17 |
| SUNVIC | SIMPLEX 100 | • | 1 | | • | • | A17 / R17 |

A17

A27-HW

R17 V2

R27 V2

## PROGRAMMERS

| SUPPLIER | PRODUCT | MINI PROG | FULL PROG | DAYS | MECH | ELEC | SERVICE TIMER | EPH REPLACEMENT |
|---|---|---|---|---|---|---|---|---|
| DANFOSS | GP102 | • | | 1 | • | | | A27-HW / R27-HW |
| DANFOSS | GP102E5 | • | | 5/2 | | • | | A27-HW / R27-HW |
| DANFOSS | GP102E7 | • | | 7 | | • | | A27-HW / R27-HW |
| DANFOSS | CP715 | | • | 7 | | • | | A27-HW / R27-HW |
| DANFOSS | FP715 | | • | 7 | | • | | A27-HW / R27-HW |
| DANFOSS | CP715 Si | | • | 7 | | • | • | A27-HW / R27-HW |
| DANFOSS | FP715 Si | | • | 7 | | • | • | A27-HW / R27-HW |
| DANFOSS | MK3 3060 | | • | 1 | • | | | A27-HW / R27-HW |
| DANFOSS | MK3 4033 | | • | 1 | • | | | A27-HW / R27-HW |
| DANFOSS | FP975 | | • | 7 | | • | | A27-HW / R27-HW |
| DANFOSS | SET 2E | • | | 1 | | • | | A27-HW / R27-HW |
| DANFOSS | SET 3E | | • | 1 | | • | | A27-HW / R27-HW |
| DANFOSS | SET 3M | | • | 1 | • | | | A27-HW / R27-HW |
| **EPH** | **A27-HW** | | • | **1-5/2-7** | | • | • | |
| **EPH** | **R27-HW** | | • | **1-5/2-7** | | • | • | |
| HONEYWELL | ST6200A1009 | • | | 1 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST6300A1007 | | • | | | • | | A27-HW / R27-HW |
| HONEYWELL | ST6300A1015 | | • | 1 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST6400A1005 | | • | 1 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST6400C1003 | | • | 7 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST6400C1052 | | • | 7 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST6400S1004 | | • | 1 | | • | • | A27-HW / R27-HW |
| HONEYWELL | ST699B1002 | | • | 1 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST799A1003 | | • | 7 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST9400A1002 | | • | 1 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST9400C1000 | | • | 7 | | • | | A27-HW / R27-HW |
| HONEYWELL | ST9400S1001 | | • | 1 | | • | • | A27-HW / R27-HW |
| HONEYWELL | ST9500C1015 | | • | 7 | | • | | A27-HW / R27-HW |
| HORSTMANN | 425 DIADEM | | • | 1 | • | | | A27-HW / R27-HW |
| HORSTMANN | 425 TIARA | | • | 1 | • | | | A27-HW / R27-HW |
| HORSTMANN | H27Z | | 2 | 7 | | • | | A27-HW / R27-HW |
| HORSTMANN | H21 | | • | 1 | | • | | A27-HW / R27-HW |
| HORSTMANN | H27 | | • | 7 | | • | | A27-HW / R27-HW |
| HORSTMANN | H21XL | | • | 1 | | • | | A27-HW / R27-HW |
| HORSTMANN | H27XL | | • | 7 | | • | | A27-HW / R27-HW |
| HORSTMANN | C21 | | • | 1 | | • | • | A27-HW / R27-HW |
| HORSTMANN | C27 | | • | 7 | | • | • | A27-HW / R27-HW |
| INVENSYS | TEMPUS 6 | | • | 5/2 | | • | | A27-HW / R27-HW |
| INVENSYS | TEMPUS 7 | | • | 7 | | • | | A27-HW / R27-HW |
| INVENSYS | LP112 | | • | 1 | | • | | A27-HW / R27-HW |
| INVENSYS | LP241 | | • | 1 | | • | | A27-HW / R27-HW |
| INVENSYS | LP522 | | • | 5/2 | | • | | A27-HW / R27-HW |
| INVENSYS | LP722 | | • | 7 | | • | | A27-HW / R27-HW |
| INVENSYS | LP112 Si | | • | 1 | | • | • | A27-HW / R27-HW |
| INVENSYS | LP241 Si | | • | 1 | | • | • | A27-HW / R27-HW |
| INVENSYS | LP522 Si | | • | 5/2 | | • | • | A27-HW / R27-HW |
| INVENSYS | LP722 Si | | • | 7 | | • | • | A27-HW / R27-HW |
| INVENSYS | SW.MASTER 400 | • | | 1 | • | | | A27-HW / R27-HW |
| INVENSYS | SW.MASTER 600 | | • | 1 | • | | | A27-HW / R27-HW |
| INVENSYS | SW.MASTER 805 | | • | | • | | | A27-HW / R27-HW |
| INVENSYS | SM2 | | • | 1 | • | | | A27-HW / R27-HW |
| POTTERTON | EP6002 | | • | 1 | | • | | A27-HW / R27-HW |
| POTTERTON | EP2000 | | • | 7 | | • | | A27-HW / R27-HW |
| POTTERTON | EP2002 | | • | 1 | | • | | A27-HW / R27-HW |
| POTTERTON | EP3002 | | • | 5/2 | | • | | A27-HW / R27-HW |
| POTTERTON | MYSON MEP2C | | • | 7 | | • | | A27-HW / R27-HW |
| SIEMENS | RWB2E | | • | | • | | | A27-HW / R27-HW |
| SIEMENS | RWB29 | | • | 1 | | • | | A27-HW / R27-HW |
| SIEMENS | RWB9 | | • | 7 | | • | | A27-HW / R27-HW |
| SUNVIC | SELECT 207 | | • | 7 | | • | | A27-HW / R27-HW |
| SUNVIC | SIMPLEX 200 | | • | 1 | | • | • | A27-HW / R27-HW |

ESBE®

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FantiniCosmi

SAUTER
Creating Sustainable Environments.

# Commercial Controls

# Mixing Valves, Actuators & Controllers

## Rotary 3 Port Brass Mixing Valves

4 Port Versions Also Available

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION TYPE |
|---|---|---|---|
| VRG015 | DN15 | 4.0 Kvs | 1/2" Female BSP |
| VRG020 | DN20 | 6.3 Kvs | 3/4" Female BSP |
| VRG025 | DN25 | 10 Kvs | 1" Female BSP |
| VRG032 | DN32 | 16 Kvs | 1 1/4" Female BSP |
| VRG040 | DN40 | 25 Kvs | 1 1/2" Female BSP |
| VRG050 | DN50 | 40 Kvs | 2" Female BSP |

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 17006900 | Repair Kit | VRG015 (11600600)<br>VRG020 (11600900) |
| 17006910 | Repair Kit | VRG025 (11601100) |
| 17006920 | Repair Kit | VRG032 (11601200)<br>VRG040 (11603400) |
| 17006950 | Repair Kit | VRG050 (11603600) |
| 17006930 | Repair Kit | VRG040 (old model 11601300)<br>VRG050 (old model 11601400) |

ESBE

| TEMPERATURE RANGE | LEAKAGE RATE | PN RATING | MAX PRESSURE DIFFERENCE |
|---|---|---|---|
| -10...110°C | Mixing < 0.05%<br>Diverting < 0.02% | PN10 | Mixing 1 Bar<br>Diverting 2 Bar |

## Rotary 3 Port Cast Iron Mixing Valves

Suitable for Heating / Cooling

4 Port Versions Also Available

ESBE

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION TYPE |
|---|---|---|---|
| 3F50 | DN50 | 66 Kvs | Flanged |
| 3F65 | DN65 | 100 Kvs | Flanged |
| 3F80 | DN80 | 150 Kvs | Flanged |
| 3F100 | DN100 | 225 Kvs | Flanged |
| 3F125 | DN125 | 310 Kvs | Flanged |
| 3F150 | DN150 | 420 Kvs | Flanged |

| TEMPERATURE RANGE | LEAKAGE RATE | PN RATING | MAX PRESSURE DIFFERENCE |
|---|---|---|---|
| -10...110°C | 1.5% | PN6 | DN20...50, 0.5 bar<br>DN65...150, 0.3 bar |

## Internal Seals for Rotary Cast Iron Valves

| PRODUCT CODE | FOR ESBE AND SAUTER VALVES |
|---|---|
| 17000300 | Seals only for DN20-65 Cast Iron Valves |
| 17000400 | Seals only for DN80-150 Cast Iron Valves |

## Internal Kits for Rotary Cast Iron Valves

ESBE

| PRODUCT CODE | FOR ESBE VALVE | FOR SAUTER VALVE |
|---|---|---|
| 17000800-K1C | 3G20 - 3G40 | MH32R020-040 |
| 17001100-K2A-S | 3G50 | MH32R050F200 |
| 17001400-K3A-S | 3F65 | MH32F065F200 |

## Actuator – Rotary 3 Port Brass Mixing Valves

SPDT=Single Pole Double Throw
* 0(2)-10V / 0(4)-20mA Control Sign
** AUX = premounted auxiliary switch

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE |
|---|---|---|---|
| ARA639 | 24V=/~ * | 15 / 30 / 60 / 120s | Modulating |
| ARA645 | 230V~ | 30s | 2-point SPDT |
| ARA651 | 230V~ | 60s | 3-point SPDT |
| ARA652 | 230V~ | 60s | 3-point SPDT & AUX** |
| ARA653 | 24V~ | 60s | 3-point SPDT |
| ARA654 | 24V~ | 60s | 3-point SPDT & AUX** |
| ARA655 | 230V~ | 60s | 2-point SPDT |
| ARA659 | 24V=/~ * | 45 / 120s | Modulating |
| ARA661 | 230V | 120s | 3-point SPDT |

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| 16000500 | Assembly for ARA to VRG valve (Normally included with ARA actuator) |
| 17050600 | Knob for ARA actuator |

| TORQUE | IP RATING | AMBIENT TEMPERATURE |
|---|---|---|
| 6Nm | IP41 | -5 ... 55˚C |

## Actuator – Rotary 3 Port Cast Iron Mixing Valves

Mounts Directly to 3F_ _ _ Cast Iron Valves
* 0(2)-10V / 0(4)-20mA Control Signal

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE |
|---|---|---|---|
| 93P | 24V=/~ * | 60s | Modulating |
| 95 | 230V~ | 60s | 3-point SPDT |

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| 16053300 | Series 90 Linkage kit for VRG valves |

| TORQUE | IP RATING | AMBIENT TEMPERATURE |
|---|---|---|
| 15Nm | IP 54 | -15 ... 55˚C |

## Motorised Temperature Controllers

Two parts: actuator unit and flow sensor

| PRODUCT CODE | POWER SUPPLY | RUN TIME | TORQUE |
|---|---|---|---|
| CRA125 | 230V / 24V=/~ | 120s | 15Nm |
| CRA215 | 230V ~ | 30s | 6Nm |

| TEMPERATURE RANGE | IP RATING | AMBIENT TEMPERATURE |
|---|---|---|
| 5 ... 95°C | IP 54 | 5 ... 55˚C |

## Weather Compensator Actuator

Three parts: actuator unit, outdoor sensor and flow sensor

| PRODUCT CODE | POWER SUPPLY | RUN TIME | TORQUE |
|---|---|---|---|
| CRC115 | 230V~ | 30s | 6Nm |
| CRC125 | 230V / 24V=/~ | 120s | 15Nm |

| TEMPERATURE RANGE | IP RATING | AMBIENT TEMPERATURE |
|---|---|---|
| 5 ... 95°C | IP41 | -5 ... 55˚C |

# Load Valves, Diverter Valves & Solenoid Valves

## Load Valves

ESBE

| PRODUCT CODE | CONNECTION | FLOW RATE | OPENING TEMPERATURE °C |
|---|---|---|---|
| VTC-51020100 | 1" BSP | 9 Kvs | 50 |
| VTC-51020200 | 1" BSP | 9 Kvs | 55 |
| VTC-51020300 | 1" BSP | 9 Kvs | 60 |
| VTC-51020400 | 1" BSP | 9 Kvs | 70 |
| VTC-51020700 | 1 1/4" BSP | 14 Kvs | 55 |
| VTC-51020900 | 1 1/4" BSP | 14 Kvs | 70 |

| MAX TEMPERATURE | MAX DIFF PRESSURE | LEAKAGE RATE A-AB | LEAKAGE RATE B-AB |
|---|---|---|---|
| 110˚C | 100kPA | Max 1% of Kvs | Max 3% of Kvs |

## Diverter Valves

ESBE

| PRODUCT CODE | CONNECTION | FLOW RATE | MAX. TEMP °C |
|---|---|---|---|
| VZD263-43080800 | 28mm Compression | 6 Kvs | 95 |

| MAX TEMPERATURE | MAX DIFF PRESSURE | LEAKAGE RATE A-AB | LEAKAGE RATE B-AB |
|---|---|---|---|
| 110˚C | 100kPA | Max 1% of Kvs | Max 3% of Kvs |

## Servo Assisted Solenoid Valves - Normally closed

Suitable for diesel; Connection: Female BSP
Suitable for: Water / Oil / Inert Gas +Diesel

| PRODUCT CODE | VALVE SIZE | FLOW RATE | MAX DIFFERENTIAL | MAX. PRESSURE |
|---|---|---|---|---|
| M23C13 | DN10 | 3.0 Kvs | 20 Bar | PN25 |
| M23D13 | DN15 | 3.0 Kvs | 20 Bar | PN25 |
| M23E20 | DN20 | 8.4 Kvs | 20 Bar | PN25 |
| M23F25 | DN25 | 9.6 Kvs | 20 Bar | PN25 |
| M23G35 | DN32 | 25.2 Kvs | 10 Bar | PN16 |
| M23H40 | DN40 | 30 Kvs | 10 Bar | PN16 |
| M23I50 | DN50 | 37.2 Kvs | 10 Bar | PN16 |

| TEMPERATURE RANGE | IP RATING | MINIMUM DIFFERENTIAL PRESSURE |
|---|---|---|
| -10...90°C | IP65 | 0.1Bar |

### Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 1578602 | Diaphragm | M23C13 - M23D13 |
| 1578603 | Diaphragm | M23E20 - M23F25 |
| 1578604 | Diaphragm | M23G35 - M23H40 |
| 1578605 | Diaphragm | M23I50 |

FantiniCosmi

## Servo Assisted Solenoid Valves – Normally open

Suitable for diesel
Connection: Female BSP
Suitable for: Water / Oil / Inert Gas +Diesel

FantiniCosmi

| PRODUCT CODE | VALVE SIZE | FLOW RATE | MAX DIFFERENTIAL | MAX. PRESSURE |
|---|---|---|---|---|
| M29D13 | DN15 | 3.0 Kvs | 20 Bar | PN25 |
| M29E20 | DN20 | 8.4 Kvs | 20 Bar | PN25 |
| M29F25 | DN25 | 9.6 Kvs | 20 Bar | PN25 |
| M29G35 | DN32 | 25.2 Kvs | 10 Bar | PN16 |
| M29H40 | DN40 | 30 Kvs | 10 Bar | PN16 |
| M29I50 | DN50 | 37.2 Kvs | 10 Bar | PN16 |

| TEMPERATURE RANGE | IP RATING | MINIMUM DIFFERENTIAL PRESSURE |
|---|---|---|
| -10...90°C | IP65 | 0.1Bar |

## Direct Acting Solenoid Valves

Normally closed; Connection: Female BSP
Suitable for: Water / Oil / Inert Gas +Diesel

FantiniCosmi

| PRODUCT CODE | VALVE SIZE | FLOW RATE | MAX DIFFERENTIAL | MAX. PRESSURE |
|---|---|---|---|---|
| M20D5 | DN15 | 0.6 Kvs | 6 Bar | IP65 |
| M20E7 | DN20 | 1.0 Kvs | 2.5 Bar | IP65 |

| TEMPERATURE RANGE | IP RATING | MINIMUM DIFFERENTIAL PRESSURE |
|---|---|---|
| -10...140°C | IP65 | 0Bar |

## Coils & Connector

| PRODUCT CODE | POWER SUPPLY | ACTIVE POWER | FOR PRODUCT CODE |
|---|---|---|---|
| IM21D | 12V~ | 9W | M20 / M23 |
| IM21F | 24V~ | 9W | M20 / M23 |
| IM21H | 110...115V~ | 9W | M20 / M23 |
| IM21M | 230V~ | 9W | M20 / M23 |
| IM22 | 24V= | 12W | M20 / M23 |
| IM22A | 12V= | 14W | M20 / M23 |
| IM29F | 24V~ | 14W | M29 |
| IM29M | 230V~ | 14W | M29 |

### Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 1578501 | Connector for coils | IM2_ |

FantiniCosmi

# Gas Detection

## Gas Detectors with Fixed Sensor

Optical Alarm: Acoustic Alarm
Relay 2.5(1.2)A

| PRODUCT CODE | GAS TYPE | POWER SUPPLY | DETECTOR TYPE |
|---|---|---|---|
| Gamma 652-O/M | Natural Gas | 230Vac | Standalone |
| Gamma 652-O/G | LPG | 230Vac | Standalone |
| Beta 760-CO | Carbon Monoxide | 230Vac | Standalone |

| IP RATING | SOUND LEVEL | ALARM LEVEL |
|---|---|---|
| IP42 | 85 dB | 10% LEL |

## Gas Valve - Normally closed

Auto reset
Fast opening

| PRODUCT CODE | VALVE SIZE | CONNECTION | FLOW RATE |
|---|---|---|---|
| AV015FO | DN15 | 1/2" BSP | 11 Kvs |
| AV020FO | DN20 | 3/4" BSP | 22 Kvs |
| AV025FO | DN25 | 1" BSP | 23 Kvs |
| AV032FO | DN32 | 1 1/4" BSP | 56 Kvs |
| AV040FO | DN40 | 1 1/2" BSP | 68 Kvs |
| AV050FO | DN50 | 2" BSP | 89 Kvs |
| AVD65FO | DN65 | 2 1/2" Flanged | 114 Kvs |

### Accessories

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| 21802429 | Connector for Geca gas valves |
| 80521593 | Coil for DN32 & DN40 gas valves |
| 80521594 | Coil for DN50 gas valves |

| MAX. PRESSURE | IP RATING | AMBIENT TEMPERATURE | SUPPLY VOLTAGE |
|---|---|---|---|
| 360mbar | IP65 | -20 ... 60°C | 230Vac |

## Control Units Flammable Gas

| PRODUCT CODE | NUMBER OF ZONES | ALARM LEVEL |
|---|---|---|
| CTM21 | 1 Zone | 10% & 20% LEL |

| IP RATING | POWER SUPPLY | CONTACT RATING |
|---|---|---|
| IP65 | 230Vac | 3A |

## Control Units Flammable & Toxic Gas

| PRODUCT CODE | NUMBER OF ZONES | ALARM LEVEL |
|---|---|---|
| CTP25 | 3 Zone | 0-20% LEL - 0-100% LEL and 300PPM |
| CTP26 | 4 Zones | 0-20% LEL - 0-100% LEL and 300PPM |

| IP RATING | POWER SUPPLY | CONTACT RATING |
|---|---|---|
| IP65 | 230Vac | 3A |

## Detectors for Control Units Flammable Gas

| PRODUCT CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| ST441M | Natural gas detector | CTM21 / CTP21 / CTP25 / CTP26 |
| ST441G | LPG detector | CTM21 / CTP21 / CTP25 / CTP26 |

| IP RATING | POWER SUPPLY |
|---|---|
| IP44 | 12-24V dc from CTP21 / CTM21 / CTP25 / CTP26 |

## Dectector for Control Units Toxic Gas

| PRODUCT CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| ST441EC | Carbon Monoxide detector | CTP25 / CTP26 |

| IP RATING | POWER SUPPLY |
|---|---|
| IP65 | 12-24V dc from CTP25 / CTP26 |

## Accessories

| ACCESSORIES | DESCRIPTION |
|---|---|
| ESB | Emergency Stop Button |
| SE301A | Acoustic and Visual Siren, Sound 115dB, IP43, Power supply 230Vac |

# Commercial Thermostats & Switches

## Float Switches – Liquid

| PRODUCT CODE | CABLE LENGTH | RESISTIVE LOAD | INDUCTIVE LOAD |
|---|---|---|---|
| FLOAT-3 | 3 m | 10A | 4A |
| FLOAT-10 | 10 m | 10A | 8A |

| CABLE | RATED VOLTAGE | MAX WORKING PRESSURE |
|---|---|---|
| 3 Core SPDT | 250Vac | 10 Bar |

## Flow Switches – Liquid

FantiniCosmi

| PRODUCT CODE | PADDLE SIZES | CASING | INDUCTIVE LOAD |
|---|---|---|---|
| FF82 | 1" - 8" | Plastic | 6A |

| IP RATING | CONNECTION | SWITCH OUTPUT |
|---|---|---|
| IP54 | 1" | SPDT |

## Immersion Thermostats

| PRODUCT CODE | RANGE | CAPILLARY LENGTH | SWITCHING DIFFERENCE |
|---|---|---|---|
| TUC101F003 | -10...50°C | 1600mm | 4°C |
| TUC105F001 | 15...95°C | 700mm | 4°C |
| TUC307F001* | 50...130°C | 700mm | 20°C |

* Manual Reset Thermostat

### Accessories

SAUTER

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| 0300360010 | Pipe clamp, suitable for pipework from 1/2"- 3" |
| 0368139000 | Support coil for sensor |
| 0364432001 | Bracket for wall / ducting mounting |
| 0391011100 | Brass immersion pocket, 100mm |
| 0391022100 | Stainless steel immersion pocket, 100mm |

## Flow Switches – Air

SAUTER

| PRODUCT CODE | SWITCHING DIFFERENCE | SWITCHING RANGE | MAX LOAD |
|---|---|---|---|
| DDL103F001 | Approx 0.2mbar | 0.2...3 mbar | 5 (0.8)A 230V~ |
| DDL105F001 | Approx 0.3mbar | 0.5...5 mbar | 5 (0.8)A 230V~ |
| DDL110F001 | Approx 0.5mbar | 1...10 mbar | 5 (0.8)A 230V~ |

| IP RATING | MAX PRESSURE | AMBIENT TEMPERATURE |
|---|---|---|
| IP54 | 50mbar | -30 - 85˚C |

# Unit Valves & Actuators

## 2 Port Unit Valves, FxF, EPH

EPH CONTROLS

| PRODUCT CODE | VALVE SIZE | FLOW RATE |
|---|---|---|
| VUA015F200 | DN15 | 1.7 Kvs |
| VUA020F200 | DN20 | 2.6 Kvs |
| VUA025F200 | DN25 | 4.9 Kvs |

| TEMPERATURE RANGE | ACTUATOR CONNECTION | PN RATING | CONNECTION TYPE |
|---|---|---|---|
| 2...110°C | M30x1.5 | PN16 | Female BSP |

## 2 Port Unit Valves

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE |
|---|---|---|
| VUL010F340 | DN10 | 0.16 Kvs |
| VUL010F330 | DN10 | 0.4 Kvs |
| VUL010F310 | DN10 | 1 Kvs |
| VUL010F300 | DN10 | 1.6 Kvs |
| VUL015F300 | DN15 | 3.5 Kvs |
| VUL020F300 | DN20 | 4.5 Kvs |

## 3 Port Unit Valves

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE |
|---|---|---|
| BUL010F330 | DN10 | 0.4 Kvs |
| BUL010F320 | DN10 | 0.63 Kvs |
| BUL010F310 | DN10 | 1 Kvs |
| BUL010F300 | DN10 | 1.6 Kvs |
| BUL015F310 | DN15 | 2.5 Kvs |
| BUL015F300 | DN15 | 4 Kvs |
| BUL020F300 | DN20 | 5 Kvs |

## 4 Port Unit Valves

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE |
|---|---|---|
| BUL010F430 | DN10 | 0.4 Kvs |
| BUL015F410 | DN15 | 2.5 Kvs |
| BUL015F400 | DN15 | 4 Kvs |
| BUL020F400 | DN20 | 5 Kvs |

| TEMPERATURE RANGE | ACTUATOR CONNECTION | PN RATING | CONNECTION TYPE |
|---|---|---|---|
| 2...120°C | M30x1.5 | PN16 | Male BSP |

## Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0378133010 | 1 Threaded sleeve, DN10 | BUL010F3.. |
| 0378133015 | 1 Threaded sleeve, DN15 | BUL015F3.. |
| 0378133020 | 1 Threaded sleeve, DN20 | BUL020F300 |

# Unit Valves & Actuators Continued

## Motor Driven Actuators

for VUA, VUL, & BUL Unit Valves

* 0(2)-10V / 0(4)-20mA Control Signal

SAUTER

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE | STROKE (MM) |
|---|---|---|---|---|
| AXM217F200 | 230V~ | 75s | 3 Point | 6.3 |
| AXM217F202 | 24V=/~ | 75s | 3 Point | 6.3 |
| AXM217SF402 | 24V=/~ * | 60s | Modulating | 3.2/4.3/5.5mm |

| AMBIENT TEMP. | VALVE CONNECTION | CONNECTION TYPE |
|---|---|---|
| 0 ... 50˚C | M30x1.5 | Screwed |

## Thermal Actuators - Spring Return

for VUA, VUL, & BUL Unit Valves

* 0-10V Control Signal

SAUTER

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE | STROKE (MM) |
|---|---|---|---|---|
| AXT301F110 | 230V~ | 240s | Normally Closed | 5.0mm |
| AXT301F112 | 24V~ | 240s | Normally Closed | 5.0mm |
| AXS315F102 | 24V=/~ * | 30s / mm | Normally Closed | 6.5mm |
| AXS315F202 | 24V=/~ * | 30s / mm | Normally Open | 6.5mm |

| AMBIENT TEMP. | VALVE CONNECTION | CONNECTION TYPE |
|---|---|---|
| 0 ... 60˚C | M30x1.5 | Bayonet Nut |

for VUA, VUL, & BUL Unit Valves

EPH CONTROLS

| PRODUCT CODE | POWER SUPPLY | ACTUATOR TYPE | RUNNING TIME | AUXILIARY SWITCH |
|---|---|---|---|---|
| TA24 | 24Vac | Normally Closed or Open | 4.5 min | - |
| TA230 | 230Vac | Normally Closed or Open | 3.5 min | - |
| TA230S | 230Vac | Normally Closed | 4.5 min | Yes |

| MAX. STROKE | AMBIENT TEMP RANGE | SPRING PRESSURE | VALVE CONNECTION |
|---|---|---|---|
| 3.5mm | 0 ... 50˚C | 125N | M30x1.5 |

## 2 Port Lift & Lay Valves c/w Unions

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | CHARACTERISTIC |
|---|---|---|---|---|
| VUN015F300 | DN15 | 4 Kvs | 1/2" Female | Linear |
| VUN020F300 | DN20 | 6.3 Kvs | 3/4" Female | Linear |
| VUN025F300 | DN25 | 10 Kvs | 1" Female | Linear |
| VUN032F300 | DN32 | 16 Kvs | 1 1/4" Female | Linear |
| VUN040F300 | DN40 | 22 Kvs | 1 1/2" Female | Linear |
| VUN050F200 | DN50 | 40 Kvs | 2" Female | Equal % |

## 3 Port Lift & Lay Valves c/w Unions

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | CHARACTERISTIC |
|---|---|---|---|---|
| BUN015F300 | DN15 | 4 Kvs | 1/2" Female | Linear |
| BUN020F300 | DN20 | 6.3 Kvs | 3/4" Female | Linear |
| BUN025F300 | DN25 | 10 Kvs | 1" Female | Linear |
| BUN032F300 | DN32 | 16 Kvs | 1 1/4" Female | Linear |
| BUN040F300 | DN40 | 22 Kvs | 1 1/2" Female | Linear |
| BUN050F200 | DN50 | 40 Kvs | 2" Female | Equal % |

| ACCESSORIES CODE | DESCRIPTION |
|---|---|
| 0361951015 | Union for BUN / VUN015 |
| 0361951020 | Union for BUN / VUN020 |
| 0361951025 | Union for BUN / VUN025 |
| 0361951032 | Union for BUN / VUN032 |
| 0361951040 | Union for BUN / VUN040 |
| 0361951050 | Union for BUN / VUN050 |
| 0378368001 | Stuffing box for BUN / VUN015 ... 050 |

| TEMP RANGE | LEAKAGE RATE | PN RATING | NOMINAL STROKE |
|---|---|---|---|
| -15...150°C | ≤0.02% of Kvs | PN16 | 8mm |

## Actuators

* 0-10V Control Signal
** 0-10V / 4-20mA Control Signal
[1] Spring Return, Normally Closed
[2] Spring Return, Normally Open

SAUTER

| PRODUCT CODE | POWER SUPPLY | SPEED 5.5mm | ACTUATOR TYPE | PUSHING FORCE |
|---|---|---|---|---|
| AVM105F120 | 230V~ | 80s | 2 / 3 Point | 250N |
| AVM105F122 | 24V~ | 80s | 2 / 3 Point | 250N |
| AVM105SF132 | 24V=/~* | 20/40/80s | Modulating or 2/3 Pt | 250N |
| AVM115F120 | 230V~ | 80s | 2 / 3 Point | 500N |
| AVM115SF132 | 24V=/~* | 40s / 80s | Modulating or 2/3 Pt | 500N |
| AVF125SF132 | 24V~** | 40s / 80s | Modulating or 2/3 Pt [1] | 500N |

| IP RATING | AMBIENT TEMPERATURE | MAX STROKE |
|---|---|---|
| IP54 | -10 ... 55°C | 8mm |

## Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0372273001 | Siemens adapter VVG / VXG | AVM1.5 |
| 0372145001 | Auxiliary Contact, single | AVM1.5 |

# Ball valves & Actuators

## 2 Port Ball Valves

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION |
|---|---|---|---|
| VKAI015F300 | DN15 | 15 Kvs | 1/2" Female |
| VKAI020F300 | DN20 | 22 Kvs | 3/4" Female |
| VKAI025F300 | DN25 | 22 Kvs | 1" Female |
| VKAI032F300 | DN32 | 35 Kvs | 1 1/4" Female |
| VKAI040F300 | DN40 | 68 Kvs | 1 1/2" Female |
| VKAI050F300 | DN50 | 90 Kvs | 2" Female |

SAUTER

| TEMPERATURE RANGE | LEAKAGE RATE | PN RATING |
|---|---|---|
| -10...130°C | 0.001% of Kvs | PN40 |

## 3 Port Ball Valves

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION |
|---|---|---|---|
| BKR015F320-FF | DN15 | 4 Kvs | 1/2" Female |
| BKR020F310-FF | DN20 | 6.3 Kvs | 3/4" Female |
| BKR025F310-FF | DN25 | 10 Kvs | 1" Female |
| BKR032F310-FF | DN32 | 16 Kvs | 1 1/4" Female |
| BKR040F310-FF | DN40 | 25 Kvs | 1 1/2" Female |
| BKR050F310-FF | DN50 | 40 Kvs | 2" Female |

SAUTER

| TEMPERATURE RANGE | LEAKAGE RATE | PN RATING |
|---|---|---|
| -10...130°C | 0.001% of Kvs | PN40 |

## Actuators

for VKR / BKR Ball Valves

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE |
|---|---|---|---|
| AKM105F100 | 230V~ | 30s | 2 / 3 Point |
| AKM105F120 | 230V~ | 120s | 2 / 3 Point |
| AKM105F122 | 24V~ | 120s | 2 / 3 Point |
| AKM105SF132 | 24V=/~ | 35/60/120s | Modulating or 2 / 3 Point |

| TORQUE | AMBIENT TEMPERATURE | IP RATING |
|---|---|---|
| 4Nm | -10 ... 55°C | IP 54 |

## Actuators

for VKR / BKR Ball Valves

* 0-10V Control Signal

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE |
|---|---|---|---|
| AKM115F120 | 230V~ | 120s | 2 / 3 Point |
| AKM115F122 | 24V~ | 120s | 2 / 3 Point |
| AKM115SF132 | 24V=/~ * | 35/60/120s | Modulating or 2 / 3 Point |

| TORQUE | AMBIENT TEMPERATURE | IP RATING |
|---|---|---|
| 8Nm | -10 ... 55°C | IP 54 |

## Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0510480001 | Auxiliary Contact, Single | AKM |
| 0510480002 | Auxiliary Contact, Double | AKM |
| 0510420001 | Intermediate piece if temperature >100°C | VKR/BKR |

## Actuators – Spring return

for VKR / BKR Ball Valves

* 0-10V Control Signal

| PRODUCT CODE | POWER SUPPLY | CLOSING SPEED | ACTUATOR TYPE |
|---|---|---|---|
| AKF112F120 | 230V | 15s | 2 Point |
| AKF112F122 | 24V~ / 24..48V= | 15s | 2 Point |

| TORQUE | AMBIENT TEMPERATURE | IP RATING |
|---|---|---|
| 7Nm | -10 ... 55°C | IP 54 |

# Lift & Lay Valves (Flanged) & Actuators

## 2 Port Lift & Lay Valves

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | PN RATING |
|---|---|---|---|---|
| VUD050F200 | DN50 | 40 Kvs | 2" Flanged | PN6 |
| VUE050F200 | DN50 | 40 Kvs | 2" Flanged | PN10 / 16 |

| TEMPERATURE RANGE | LEAKAGE RATE | VALVE CHARACTERISTIC | NOMINAL STROKE |
|---|---|---|---|
| -10...150°C | ≤0.05% of Kvs | Equal Percentage | 8mm |

## 3 Port Lift & Lay Valves

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | PN RATING |
|---|---|---|---|---|
| BUD050F200 | DN50 | 40 Kvs | 2" Flanged | PN6 |
| BUE050F200 | DN50 | 40 Kvs | 2" Flanged | PN10 / 16 |

| TEMPERATURE RANGE | LEAKAGE RATE | VALVE CHARACTERISTIC | NOMINAL STROKE |
|---|---|---|---|
| -10...150°C | ≤0.05% of Kvs | Equal Percentage | 8mm |

## Actuators

| PRODUCT CODE | POWER SUPPLY | SPEED 8mm | ACTUATOR TYPE | PUSHING FORCE |
|---|---|---|---|---|
| AVM105F120 | 230V~ | 120s | 2 / 3 Point | 250N |
| AVM105F122 | 24V~ | 120s | 2 / 3 Point | 250N |
| AVM105SF132 | 24V=/~* | 30/60/120s | Modulating or 2/3Pt | 250N |
| AVM115F120 | 230V~ | 120s | 2 / 3 Point | 500N |
| AVM115F122 | 24V~ | 120s | 2 / 3 Point | 500N |
| AVM115SF132 | 24V=/~* | 60/120s | Modulating or 2/3Pt | 500N |
| AVM321F110 | 230V~ | 4/12s/mm | 2 / 3 Point | 1000N |
| AVM321F112 | 24V=/~ | 4/12s/mm | 2 / 3 Point | 1000N |
| AVM321SF132 | 24V=/~* | 4/12s/mm | Modulating or 2/3Pt | 1000N |
| AVF125SF132 | 24V~** | 40s / 80s | Modulating or 2/3Pt [1] | 500N |

* 0-10V Control Signal
** 0-10V / 4-20mA Control Signal
[1] Spring Return, Normally Closed
[2] Spring Return, Normally Open
*** AVF124 Ambient Temperature 5 ... 60°C

| IP RATING | AMBIENT TEMPERATURE *** | NOMINAL STROKE |
|---|---|---|
| IP54 | -10 ... 55°C | 8mm |

## Accessories

SAUTER

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0372145001 | Auxiliary Contact, single | AVM 1.5 |
| 0372249001 | Intermediate piece if temperature >100°C | AVM1.5/AVF12-B/VUN |
| 0372249002 | Intermediate piece if temperature >130°C | AVM1.5/AVF12-B/VUN |
| 0372273001 | Siemens VVG / VXG | AVM1.5 Adapter |

## 2 Port Lift & Lay Valves, PN6 / PN16, Flanged

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | PN RATING | STROKE |
|---|---|---|---|---|---|
| VQD065F300 | DN65 | 63 Kvs | 2 1/2" | PN6 | 20mm |
| VQE065F300 | DN65 | 63 Kvs | 2 1/2" | PN16 | 20mm |
| VQD080F300 | DN80 | 100Kvs | 3" | PN6 | 20mm |
| VQE080F300 | DN80 | 100Kvs | 3" | PN16 | 20mm |
| VQD100F300 | DN100 | 160Kvs | 4" | PN6 | 40mm |
| VQE100F300 | DN100 | 160Kvs | 4" | PN16 | 40mm |
| VQE125F300 | DN125 | 220Kvs | 5" | PN16 | 40mm |
| VQE150F300 | DN150 | 320Kvs | 6" | PN16 | 40mm |

SAUTER

| TEMPERATURE RANGE | LEAKAGE RATE | VALVE CHARACTERISTIC |
|---|---|---|
| -10...150°C | 0.001% of Kvs | Equal Percentage |

## 3 Port Lift & Lay Valves, PN6 / PN16, Flanged

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | PN RATING | STROKE |
|---|---|---|---|---|---|
| BQD065F300 | DN65 | 63 Kvs | 2 1/2" | PN6 | 20mm |
| BQE065F300 | DN65 | 63 Kvs | 2 1/2" | PN16 | 20mm |
| BQD080F300 | DN80 | 100Kvs | 3" | PN6 | 20mm |
| BQE080F300 | DN80 | 100Kvs | 3" | PN16 | 20mm |
| BQD100F300 | DN100 | 160Kvs | 4" | PN6 | 40mm |
| BQE100F300 | DN100 | 160Kvs | 4" | PN16 | 40mm |
| BQE125F300 | DN125 | 220Kvs | 5" | PN16 | 40mm |
| BQE150F300 | DN150 | 320Kvs | 6" | PN16 | 40mm |

SAUTER

| TEMPERATURE RANGE | LEAKAGE RATE | VALVE CHARACTERISTIC |
|---|---|---|
| -10...150°C | 0.001% of Kvs | Equal Percentage |

## 2 Port Lift & Lay Valves, PN25 / PN16, Flanged

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | PN RATING | STROKE |
|---|---|---|---|---|---|
| VUG015F304 | DN15 | 4 Kvs | 1/2" | PN16/25 | 20mm |
| VUG020F304 | DN20 | 6.3 Kvs | 3/4" | PN16/25 | 20mm |
| VUG025F304 | DN25 | 10 Kvs | 1" | PN16/25 | 20mm |
| VUG032F304 | DN32 | 16 Kvs | 1 1/4" | PN16/25 | 20mm |
| VUG040F304 | DN40 | 25 Kvs | 1 1/2" | PN16/25 | 20mm |
| VUG050F304 | DN50 | 40 Kvs | 2" | PN16/25 | 20mm |
| VUG065F316 | DN65 | 63 Kvs | 2 1/2" | PN16 | 40mm |
| VUG080F304 | DN80 | 100Kvs | 3" | PN25 | 40mm |
| VUG100F304 | DN100 | 160Kvs | 4" | PN25 | 40mm |
| VUG125F304 | DN125 | 250Kvs | 5" | PN25 | 40mm |
| VUG150F304 | DN150 | 340Kvs | 6" | PN25 | 40mm |

SAUTER

| TEMPERATURE RANGE | LEAKAGE RATE | VALVE CHARACTERISTIC |
|---|---|---|
| -20...240°C | ≤0.05% of Kvs | Equal Percentage |

## 3 Port Lift & Lay Valves, PN25 / PN16, Flanged

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION | PN RATING | STROKE |
|---|---|---|---|---|---|
| BUG015F304 | DN15 | 4 Kvs | 1/2" | PN16/25 | 20mm |
| BUG020F304 | DN20 | 6.3 Kvs | 3/4" | PN16/25 | 20mm |
| BUG025F304 | DN25 | 10 Kvs | 1" | PN16/25 | 20mm |
| BUG032F304 | DN32 | 16 Kvs | 1 1/4" | PN16/25 | 20mm |
| BUG040F304 | DN40 | 25 Kvs | 1 1/2" | PN16/25 | 20mm |
| BUG050F304 | DN50 | 40 Kvs | 2" | PN16/25 | 20mm |
| BUG065F316 | DN65 | 63 Kvs | 2 1/2" | PN16 | 40mm |
| BUG080F304 | DN80 | 100Kvs | 3" | PN25 | 40mm |
| BUG100F304 | DN100 | 160Kvs | 4" | PN25 | 40mm |

SAUTER

| TEMPERATURE RANGE | LEAKAGE RATE | VALVE CHARACTERISTIC |
|---|---|---|
| -20...240°C | 0.05% of Kvs | Equal Percentage |

## Actuators with 20mm Stroke

*0-10V / 4-20mA Control Signal
for VQD / BQD / VQE / BQE -DN65-DN80
VUG / BUG -DN15-DN50

SAUTER

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE |
|---|---|---|---|
| AVM322F120 | 230V~ | 6 or 12 s / mm | 2 / 3 Point |
| AVM322SF132 | 24V=/~* | 4 or 6 s / mm | Modulating or 2/3 Point |

| AMBIENT TEMPERATURE | IP RATING | NOMINAL STROKE | PUSHING FORCE |
|---|---|---|---|
| -10 ... 55°C | IP54 | 20mm | 1000N |

## Actuators with 49mm Stroke

* 0-10V / 4-20mA Control Signal
for VQD / BQD / VQE / BQE -DN100-DN150
VUG / BUG -DN65-DN150
SR=Spring Return

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE |
|---|---|---|---|
| AVM234SF132 | 24V=/~* | 2 / 4 / 6 s mm | Modulating or 2/3 Point |
| AVF234SF132 | 24V=/~* | 2 / 4 / 6 s mm | Modulating or 2/3 Pt/SR |

| AMBIENT TEMPERATURE | IP RATING | STROKE | PUSHING FORCE |
|---|---|---|---|
| -10 ... 55°C | IP66 | 49mm | 2500N |

## Accessories

SAUTER

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0372333001 | Auxiliary Contact, Double | AVM234, AVF234 |
| 0372336180 | Intermediate piece if temperature > 180°C | AVM234, AVF234 |
| 0372336240 | Intermediate piece if temperature > 240°C | AVM234, AVF234 |
| 0372338001 | 14mm, D38 Adaptor Kit | V/BXD,V/BXE,DN15-50 |
| 0372338002 | 40mm, D60 Adaptor Kit | V/BXD,V/BXE,DN65-150 |
| 0372376010 | Adaptor / Siemens Valves, 20mm stroke, Ø10mm Spindle | |
| 0372376014 | Adaptor / Siemens Valves, 40mm stroke, Ø14mm Spindle | |

## 3 Port Lift & Lay Valves DN200 – DN300

Actuator 230V 0-10V
Other Voltages available on request

| PRODUCT CODE | VALVE SIZE | FLOW RATE | PUSHING FORCE | MAX DELTA P |
|---|---|---|---|---|
| BR423-200 | DN200 | 630 Kvs | 12000N | 3 Bar |
| BR423-250 | DN250 | 1000 Kvs | 12000N | 1.8 Bar |
| BR423-300 | DN300 | 1500 Kvs | 24000N | 4.3 Bar |

| TEMPERATURE RANGE | PN RATING | IP RATING |
|---|---|---|
| -15...150°C | PN16 | IP65 |

# Butterfly Valves & Actuators

## Butterfly Valves

SAUTER

| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION |
|---|---|---|---|
| DEF050F200 | DN50 | 85 Kvs | PN6 /PN16, Flanges |
| DEF065F200 | DN65 | 215 Kvs | PN6 /PN16, Flanges |
| DEF080F200 | DN80 | 420 Kvs | PN6 /PN16, Flanges |
| DEF100F200 | DN100 | 800 Kvs | PN6 /PN16, Flanges |
| DEF125F200 | DN125 | 1010 Kvs | PN6 /PN16, Flanges |
| DEF150F200 | DN150 | 2100 Kvs | PN6 /PN16, Flanges |
| DEF200F200 | DN200 | 4000 Kvs | PN6 /PN16, Flanges |

| TEMPERATURE RANGE | PN RATING | LEAKAGE RATE | VALVE CHARACTERISTIC |
|---|---|---|---|
| -10...130°C | PN16 | <0.0001% of Kvs | Linear |

## Actuators for DEF Valves

Suitable for DEF25.....100 Valves
* 0(2)-10V / 0(4)-20mA Control Signal

SAUTER

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE |
|---|---|---|---|
| ADM322F122 | 24V=/~ | 120s / 240s | 2/3 Point |
| ADM322SF122 | 24V=/~* | 30s / 60s | Modulating or 2/3 Point |

| AMBIENT TEMPERATURE | IP RATING | TORQUE |
|---|---|---|
| -20 ... 55˚C | IP54 | 15Nm |

## Accessories

Assembly Kits Also Available to M3R, M4R, MH32, MH42 Valves & Other Suppliers

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0510240014 | Assembly Kit | ADM to DEF020 - 065 |
| 0510240015 | Assembly Kit | ADM to DEF080 - 100 |

## Actuators for DEF Valves, Spring Return

Suitable for DEF25 ... 100 Valves
* 0-10V / 0-20mA Control Signal

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| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE |
|---|---|---|---|
| ASF122F120 | 230V~ | 90s | 2 Point |
| ASF122F122 | 24 - 48V= / 24V~ | 90s | 2 Point |
| ASF122F222 | 24 - 48V= / 24V~ | 90s | 2 Point & Aux |

| AMBIENT TEMPERATURE | IP RATING | TORQUE | CLOSING TIME |
|---|---|---|---|
| -32 ... 55°C | IP54 | 18Nm | 15s |

### Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0378113001 | Assembly Kit | ASF to DEF025 - 100 |

## 3 Port Mixing Valves

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| PRODUCT CODE | VALVE SIZE | FLOW RATE | CONNECTION |
|---|---|---|---|
| M3R020F200 | DN20 | 6 Kvs | 3/4" Female |
| M3R025F200 | DN25 | 12 Kvs | 1" Female |
| M3R032F200 | DN32 | 18 Kvs | 1 1/4" Female |
| M3R040F200 | DN40 | 26 Kvs | 1 1/2" Female |
| M3R050F200 | DN50 | 40 Kvs | 2" Female |

| TEMPERATURE RANGE | LEAKAGE RATE | PN RATING |
|---|---|---|
| 2...110°C | <0.1% of Kvs | PN40 |

Suitable for DEF25.....200 Valves
*0-10V Control Signal

SAUTER

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE | TORQUE |
|---|---|---|---|---|
| ASM124F120 | 230V~ | 120s | 2 / 3 Point | 18Nm |
| ASM124F122 | 24V~ | 120s | 2 / 3 Point | 18Nm |
| ASM124SF132 | 24V=/~ * | 60s / 120s | Modulating or 2 / 3 Point | 15Nm |
| ASM134F130 | 230V~ | 120s / 240s | 2 / 3 Point | 30Nm |
| ASM134SF132 | 24V=/~ * | 120s / 240s | Modulating or 2 / 3 Point | 30Nm |

| IP RATING | AMBIENT TEMPERATURE |
|---|---|
| IP54 | -20 ... 55°C |

### Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0361977001 | Assembly Kit | ASM to MH32 / 3F65 - 150<br>ASM to M3R020 - 050 |
| 0370990001 | Auxiliary Contact, Single | |
| 0370990002 | Auxiliary Contact, Double | |
| 0372455001 | Assembly Kit | ASM to DEF025 - 065 |
| 0372455002 | Assembly Kit | ASM to DEF080 - 125 |
| 0372455003 | Assembly Kit | ASM to DEF150 - 200 |

# Pressure Independent Control Valves & Actuators

## PIC Valves, DN10 – DN32 with Measurement Nipples

| PRODUCT CODE | VALVE SIZE | FLOW RATE | STROKE (MM) | CONTROL RANGE (MIN MAX ΔP) |
|---|---|---|---|---|
| VDL010F201 | DN10 | 65...370 l/h | 5 | 14...800 kPa |
| VDL015F221 | DN15 | 30...200 l/h | 2.5 | 14...800 kPa |
| VDL015F211 | DN15 | 65...370 l/h | 5 | 14...800 kPa |
| VDL015F201 | DN15 | 100...575 l/h | 2.5 | 14...800 kPa |
| VDL020F221 | DN20 | 100...575 l/h | 2.5 | 14...800 kPa |
| VDL020F211 | DN20 | 160...990 l/h | 4 | 15...800 kPa |
| VDL020F201 | DN20 | 220...1330 l/h | 5 | 15...800 kPa |
| VDL025F211 | DN25 | 280...1800 l/h | 5.5 | 8...800 kPa |
| VDL025F201 | DN25 | 600...3609 l/h | 5.5 | 8...800 kPa |
| VDL032F201* | DN32 | 550...4001 l/h | 5.5 | 8...800 kPa |

SAUTER

### Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0378133010 | Threaded Sleeve with cap, nut and flat seal | VDL010F2.. |
| 0378133015 | Threaded Sleeve with cap, nut and flat seal | VDL015F2.. |
| 0378133020 | Threaded Sleeve with cap, nut and flat seal | VDL020F2.. |
| 0378133025 | Threaded Sleeve with cap, nut and flat seal | VDL025F2.. |
| 0361951025* | Screw Fitting for male thread with flat seal, DN25 | VDL032F2.. |

* 0361951025 is the only fitting for a VDL032F2.. and brings the connection to DN25.

## Actuators for PIC Valves, DN10 – DN32

| PRODUCT CODE | POWER SUPPLY | RUN TIME | ACTUATOR TYPE | STROKE (MM) |
|---|---|---|---|---|
| AXT301F110 | 230V~ | 240s | Normally Closed | 5.0mm |
| AXT301F112 | 24V~ | 240s | Normally Closed | 5.0mm |
| AXS315F102 | 24V=/~ * | 30s / mm | Normally Closed | 6.5mm |
| AXS315F202 | 24V=/~ * | 30s / mm | Normally Open | 6.5mm |

| AMBIENT TEMPERATURE | VALVE CONNECTION | CONNECTION TYPE |
|---|---|---|
| 0 ... 60°C | M30x1.5 | Bayonet |

Thermal Drive Spring Return
For: VDL010...032
* 0-10V Control Signal
ΔP Max 8.0 Bar for VDL010-032

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE | STROKE |
|---|---|---|---|---|
| AXM217F200 | 230V~ | 75s | 3 Point | 6.3mm |
| AXM217F202 | 24V=/~ | 75s | 3 Point | 6.3mm |
| AXM217SF402 | 24V=/~ * | 60s | Modulating | 3.2/4.3/5.5mm |

| AMBIENT TEMPERATURE | VALVE CONNECTION | CONNECTION TYPE |
|---|---|---|
| 0 ... 50°C | M30x1.5 | Screwed |

Motor Drive
For: VDL010...032
* 0(2)-10V/0(4)-20mA Control Signal
ΔP Max 8.0 Bar for VCL010-032

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## PIC Valves, DN40 – DN50 with Measurement Nipples

| PRODUCT CODE | VALVE SIZE | FLOW RATE | STROKE (MM) | CONTROL RANGE (MIN MAX ΔP) |
|---|---|---|---|---|
| VDL040F201 | DN40 | 1370...9500 l/h | 15 | 8...800 kPa |
| VDL050F201 | DN50 | 1400...11500 l/h | 15 | 8...800 kPa |

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## Actuators for PIC Valves, DN40 – DN50

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE | STROKE |
|---|---|---|---|---|
| AVM215F120R | 230V | 7.5 s/mm | 2 - 3 Point | 8...20mm |
| AVM215SF132R | 24V | 7.5 / 15 s/mm | Modulating | |
| AVM215SF132-7 | 24V | 7.5 / 15 s/mm | Modulating | 20mm |

* 0-10V Control Signal

| AMBIENT TEMPERATURE | IP RATING | STROKE | ΔP MAX |
|---|---|---|---|
| -10 ... 55°C | IP54 | 8 ... 20mm | 4.0 Bar |

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### Accessories

| ACCESSORIES CODE | DESCRIPTION | FOR PRODUCT CODE |
|---|---|---|
| 0510390029 | Adapter to fit AVM215 | VDL040...050 |

## PIC Valves, DN65 – DN100 with Measurement Nipples

| PRODUCT CODE | VALVE SIZE | FLOW RATE | STROKE (MM) | CONTROL RANGE (MIN MAX ΔP) |
|---|---|---|---|---|
| VDL065F501H | DN65 | 6.4... 37.7 $m^3/h$ | 20 | 30...600 kPa |
| VDL080F501H | DN80 | 8.5... 49 $m^3/h$ | 20 | 22...600 kPa |
| VDL100F501H | DN100 | 14.8... 90.9$m^3/h$ | 40 | 20...600 kPa |

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| TEMPERATURE RANGE | PN RATING | VALVE CHARACTERISTIC |
|---|---|---|
| 1... 120°C | PN16 | Linear |

## Actuators for PIC Valves, DN65 – DN150

| PRODUCT CODE | POWER SUPPLY | RUNNING TIME | ACTUATOR TYPE | PUSHING FORCE |
|---|---|---|---|---|
| AVM234SF132-7 | 24V=/~ * | 2 / 4 / 6 s/mm | Modulating or 2 / 3 Pt | 2500N |

* 0-10V / 4-20mA Control Signal

| AMBIENT TEMPERATURE | IP RATING | STROKE |
|---|---|---|
| -10 ... 55°C | IP66 | 40mm |

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“The best, **just got better**”

# Combi range

## Thermostats

ErP Class IV | +2% — Standard installation connected via TPi

ErP Class V | +3% — When used with OpenTherm®

ErP Class VIII | +5% — When 3 or more are fitted & connected via OpenTherm®

| | CP4B | CP4M | CP4 | CP4V2 | CP4D | CP4-HW-OT | CP4i |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| Smart / App Control | | | ✓ | ✓ | ✓ | ✓ | ✓ |
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| Battery Powered | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hardwired | | ✓ | | | | | |
| Boiler Plus Compliant | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| OpenTherm® | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 5 Year Warranty | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
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| Service Interval | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

*RF1B Receiver has an Industry Standard Backplate

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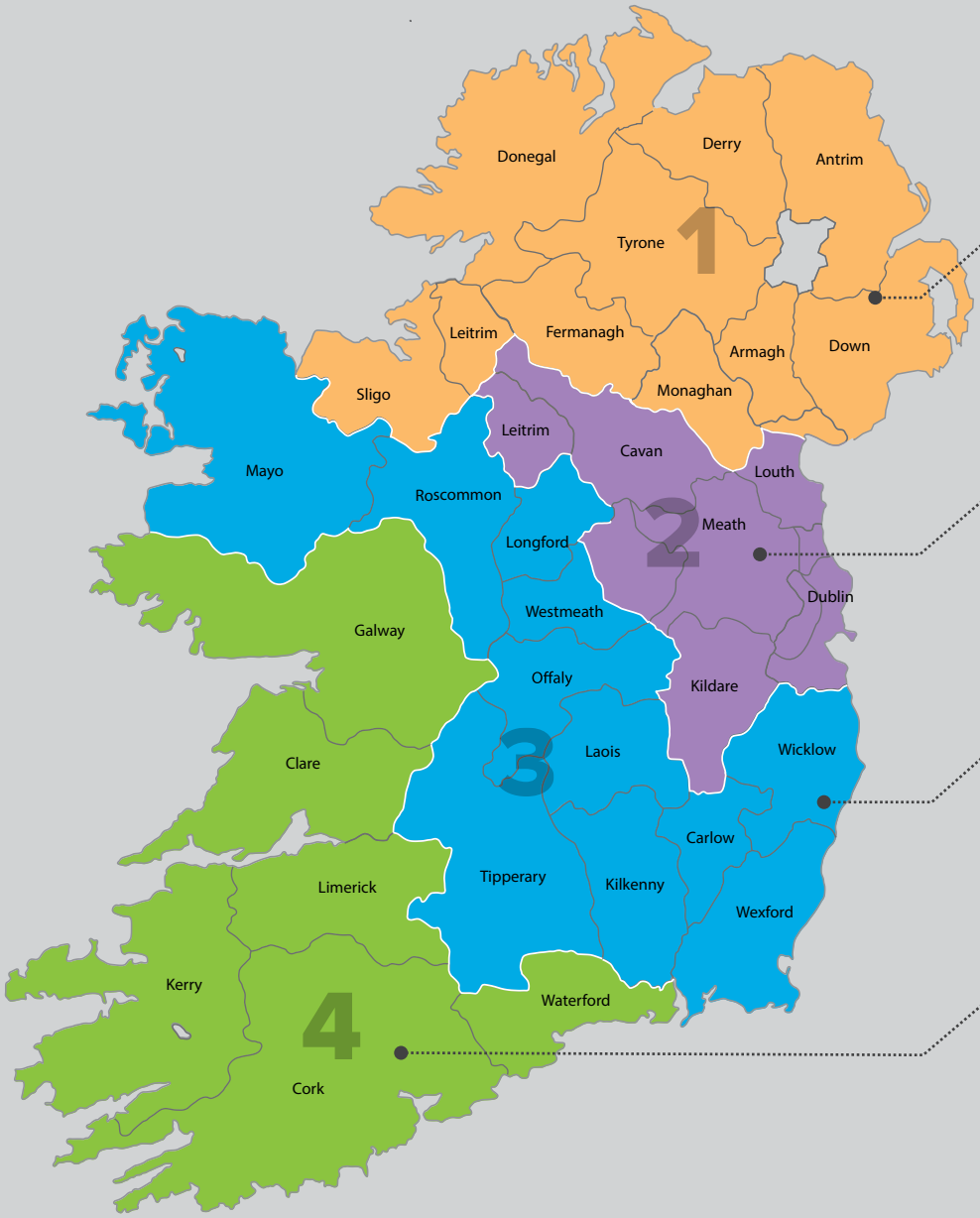


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