

Product Catalogue 2020



alre

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SMARTHOME / WIRELESS

Intelligent solutions for your room temperature control.

Rooms with a comfortable climate need perfect control technology. Whether it's a flat, an office building or a hotel room, with b@home, alre offers the smart solution for controlling heating and cooling intelligently. b@home can be retrofitted into existing wireless system from alre, and can be used for all types of heating.

Your b@home system is simple to install, and you can control it on the move, via the Internet or locally via your home network. It's simple to use, monitoring and program, any time and anywhere, providing maximum comfort and optimal energy consumption. And with the sensors and actuators, individual room control can also be implemented without the b@home gate if required.

Application examples:

- Hot water underfloor heating
- Hot water radiators
- Electric underfloor heating
- Mobile radiators
- · Infrared heaters (e.g. natural stone heaters)

STEP 1 - Selection of central components



A minimal system consists of the central b@home gate component (MGCBB-064.360), and at least one sensor and one actuator.

With a b@home gate, up to 32 rooms or heating / cooling zones can be monitored and controlled. Further gates can be operated in the same network if required.

Optional - using the optional central control panel, the settings of the individual rooms can be displayed and in some cases, changed independently of the app or browser.



STEP 2 - Selection of sensors

One sensor per room is required to measure the room temperature. Depending on the sensor, further functions may be available.



Sensor to detect room temperature (set via app or browser).



Room controller to detect and set room temperature for multiple rooms (also via app or browser)



Sensor to detect and set room temperature (also via app or browser)

Smart control from anywhere via the Internet



STEP 3 - Selection of actuators

Depending on the type of heating used, a corresponding actuator is required for each room or heating/cooling zone. Any number of actuators/ channels can be assigned to a room ranging from underfloor heating, radiators, infra-red heaters and cooling ceiling.









SMART HOME

WIRELESS CONTROL - CENTRAL COMPONENTS

Alre wireless systems can be monitored and controlled over the Internet or WLAN/LAN using the new b@home gate MGCBB-064.360. After registering for free, users can operate the b@home system via a smatphone app, laptop or PC. Users can control monitor and reprogram the temperature controls at any time, from any location, either for an individual room or centrally for all rooms. It is also possible to access the system without an Internet connection using the local WLAN/LAN network.

| Ambient Temperature 040°C Radio range 150m line of sight / 30m in buildings | | | |
|---|---|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| MGCBB-064.360 | £315.12 | Wireless temperature management system for remote | |
| | | controls via internet or smartphone | |
| | WIRELES | SS ROOM TEMP SENSORS | |
| FTRCUd-210.021#21 | £247.70 | Wireless room temperature sensor 50x50mm pure white cover with frame | |
| FTRCUd-210.021#07 | £244.43 | £244.43 As above, 50x50mm pure white gloss without frame | |
| FTRCUd-210.021#09 | £244.43 As above, 50x50mm pearl white gloss without frame | | |
| FTRCUd-210.021#27 | £244.43 | £244.43 As above, 50x50mm traffic white gloss without frame | |
| FTRCUd-210.021#28 | £246.02 | As above, fits Bush-jaeger gloss without frame | |
| FTRCUd-210.021#55 | £246.02 | As above, 55x55mm pure white gloss without frame | |
| FTRCUd-210.021#56 | £246.02 | As above, 55x55mm pure white matt without frame | |
| FTRCUd-210.021#57 | £246.02 | As above, 55x55mm pearl white gloss without frame | |
| FTRCUd-210.021#59 | £246.02 | As above, 55x55mm traffic white gloss without frame | |



WIRELESS CONTROL - SENSORS / REPEATER

Wireless room temperature sensor for measuring temperature in home, office and hotel rooms with normal levels of cleanliness. Singleroom temperature control can be implemented with alre wireless actuators and the b@home gate. Primarily used for renovations or for heating system extensions. The sensors can also be connected to the actuators directly without the b@home gate for single-room control.

| MODEL | LIST £ | EQUIPMENT | |
|-------------------|-----------|--|-------------|
| FTRFB-280.101 | £88.61 | Wireless room temperature sensor to detect temp. | 20 10 |
| FTRFB-280.119 | £91.87 | Wireless sensor to detect and set room temperature | 25 20 15 15 |
| FTRFB-280.120 | £100.09 | Wireless sensor detect and set room temp. +ECO | 2 |
| WIRELE | SS ROOM T | EMP SENSORS WITH DIGITAL DISPLAY | aire |
| FTRFBu-180.117/V2 | £162.86 | Wireless sensor detect and set room temp. +ECO and digital display with clock | |
| FTRFBu-180.121/V2 | £187.51 | As FTRFBu-180.117/V2 with backlighting. | |
| FTRFUd-210.123#07 | £225.82 | Wireless sensor detect and set room temp. +ECO, digital display with clock and multiple settings | 100 Konict |
| FTRFUd-210.123#09 | £225.82 | As above 50 x 50mm, pure white glossy no frame | |
| FTRFUd-210.123#21 | £229.09 | As above 50 x 50mm pearl white glossy no frame | 1000 |
| FTRFUd-210.123#27 | £225.82 | As above 50 x 50mm traffic white glossy no frame | alre |
| FTRFUd-210.123#28 | £227.30 | As above 50 x 50mm linear white glossy no frame | |
| FTRFUd-210.123#55 | £227.30 | As above 55 x 55mm pure white glossy no frame | |
| FTRFUd-210.123#56 | £227.30 | As above 55 x 55mm pure white matt no frame | |
| FTRFUd-210.123#57 | £227.30 | As above 55 x 55mm pearl white glossy no frame | |
| FTRFUd-210.123#59 | £227.30 | As above 55 x 55mm traffic white glossy no frame | |
| | CONTACT | SENSOR FOR DOOR/ WINDOW | No |
| MBAFA-081.200 | £63.16 | Auto temp reduction when open door/windows detected | NEWI |
| | PLUG | IN WIRELESS REPEATER | alro |
| MRCOA-014.201 | £201.07 | Direct range extenstion between sensors and controllers | |

SMART HOME

WIRELESS CONTROL - HEATING ACTUATORS

Wireless actuators (wireless heating controllers) which, in conjunction with alre wireless room temperature sensors and the b@home gate for individual room temperature control. Primarily used for renovations or for heating system extensions.

| Max. 95% re. humidity. Operating Voltage: 230v~50 Hz. Heating control function | | | |
|--|---|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| HTFMA-180.161 | £110.29 | 1-channel wireless temp for radiator valves | |
| HTFRA-010.101 | £139.00 | 1-channel wireless temp for direct heating systems | |
| HTFRB-010.101 | £109.10 | As above for surface/wall mounting | |
| HTFRU-010.101 | £152.96 | 1-channel wireless temp. controller up to 30°C | |
| HTFRU-110.124 | £148.80 | 1-channel wireless temp. for floor heating system | |
| HTFRL-214.140 | £239.58 | 4 channel wireless temp. controller | |
| HTFRL-316.125 | 25 £278.09 8 channel wireless temp. controller | | |



HF external floor sesnors available - see page 23&29 JZ and THF spares available - see pages page 27 onwards

WIRELESS CONTROL - HEATING / COOLING ACTUATORS

Wireless temperature controllers (actuators) used in conjunction with the alre wireless temperature sensors to implement single room climate control. Heating and cooling with adjustable neutral zone.

| Operating Voltage: 230v~50 Hz. Control Range 530°C External dewpoint sensor | | | |
|---|---|--|--|
| MODEL LIST £ EQUIPMENT | | | |
| KTFRL-213.140 | KTFRL-213.140 £281.46 4 channel + pump output IP20 | | |
| KTFRL-315.125 £332.94 8 channel + pump output IP20 | | | |



JZ spares available - see page page 29 onwards

BUILDING AUTOMATION

Automatic control, regulation, monitoring and optimisation of various building functions such as heating, cooling or ventilation. As an essential component of technical facility management, building automation is intended to improve user comfort as well as reduce energy and operating costs.

With its applications, the new alre BACnet climate controller covers most fields of application in automated individual room control.

BACNET ROOM CONTROLLER - KTRBUu

Individual room contoller with graphic display was specially developed for time dependent heating and cooling operation in 2 or 4 pipe systems. Can be used in a range of applications such as hotels, hospitals, schools, residential, office and business premises.

| Operating Voltage: 230v~50 Hz. IP 30. Control Range: 540°C | | | |
|--|---------|--|----------|
| MODEL | LIST £ | EQUIPMENT | NEWI |
| KTRBUu217.456#21 | £632.72 | Controller 50 x 50mm, pure white glossy with frame | |
| KTRBUu217.456#07 | £627.09 | As above, 50 x 50mm, pure white glossy no frame | |
| KTRBUu217.456#09 | £627.09 | As above, 50 x 50mm, pearl white glossy no frame | |
| KTRBUu217.456#27 | £627.09 | As above, 50 x 50mm, traffic white glossy no frame | alre (A) |
| KTRBUu217.456#28 | £629.55 | As above, 50 x 50mm, linear white glossy no frame | 23 0°C |
| KTRBUu217.456#55 | £629.55 | As above, 55 x 55mm, pure white glossy no frame | 23.0°C |
| KTRBUu217.456#56 | £629.55 | As above, 55 x 55mm, pure white matt no frame | |
| KTRBUu217.456#57 | £629.55 | As above, 55 x 55mm, pearl white glossy no frame | |
| KTRBUu217.456#59 | £629.55 | As above, 55 x 55mm, traffic white glossy no frame | |

JZ spares available - see page page 29 onwards, sensors available page 23 onwards and ZBOOA actuator available page 11



For warmth and well-being, temperature controllers and terminal strips to valve actuators, alre offers a complete product range for multiple applications.

MECAHNICAL ROOM TEMPERATURE CONTROLLERS - RTBSB

Control or monitoring of temperatures in closed spaces. For surface installations suitable for all heating systems. Valve actuator: normally closed. If normally open heating valves are available.

| Operating Voltage: 230 v~/50/60 Hz Setting Range: 530°C except 001.045 which is - 2030°C and 001.048/948 which is 1060°C | | | |
|---|--------|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| RTBSB-001.000 | £29.40 | Mechanical range limitation, external setting, heating | |
| RTBSB-001.002 | £33.76 | As above with ECO function | |
| RTBSB-001.010 | £37.52 | As RTBSB-001.000 heating or cooling | |
| RTBSB-001.026 | £45.64 | As above plus on/off switch | |
| RTBSB-001.045 | £39.90 | As RTBSB-001.010 range: -20…+30°C | |
| RTBSB-001.048 | £39.90 | As RTBSB-001.010 range: 10… 60°C | |
| RTBSB-001.062 | £39.90 | As RTBSB-001.002 with on/off switch | |
| RTBSB-001.065 | £42.37 | External heating/cooling switch and settings | |
| RTBSB-001.086 | £33.07 | 3000W switching power for direct electric systems | |
| RTBSB-001.096 | £38.21 | As above plus heating indicator lamp | |
| RTBSB-001.110 | £42.37 | As RTBSB-001.010 24VAC or 230VAC | |
| RTBSB-001.202 | £37.32 | AS RTBSB-001.002 24VAC | |
| RTBSB-001.500 | £32.67 | 2-wire room temp controller, external setting | |
| RTBSB-001.910 | £41.48 | ECO function, internal setting | |
| RTBSB-001.910/2 | £44.75 | ECO function, internal setting, 24VAC | |
| RTBSB-001.948/1 | £47.32 | Internal setting, 24VAC or 230VAC, range 1060°C | |





| "Ultra-thin" installation.Operating Voltage: 230 v~/50/60 Hz Setting Range: 530°C | | | |
|---|--------|---|--|
| MODEL | LIST £ | EQUIPMENT | |
| RTBSB-201.000 | £31.98 | Heating controller switching power 460W | |
| RTBSB-201.000/08 | £32.67 | As above but with numeric scale. | |
| RTBSB-201.000-20 | £31.98 | As RTBSB-201.000 but traffic white | |
| RTBSB-201.002 | £36.53 | As RTBSB-201.000 with ECO function | |
| RTBSB-201.010 | £39.90 | Heating or cooling controller, 460W switching power | |
| RTBSB-201.034 | £35.15 | As RTBSB-201.000 plus heating indicator lamp | |
| RTBSB-201.062 | £41.98 | As above with ECO function and on/off switch | |
| RTBSB-201.065 | £45.05 | Heating/cooling with switch for 2-pipe systems | |
| RTBSB-201.065/02 | £45.64 | As above but with numeric scale. | |
| RTBSB-201.202 | £39.60 | AS RTBSB-201.034, 24VAC | |
| RTBSB-201.500 | £35.44 | 2 wire heating controller | |
| | | | |



Accessories including JZ-21, ET-01 and ET-02 available page page 29 onwards

RTBSB Plug-in installation. For controlling the room temperature for radiators, heating chimneys, direct electric heating systems etc. For loads >2,300W the wall socket must be designed for 16A (danger of fire)

| Operating Voltage: 230 v~/50/60 Hz Setting Range: 530°C, 3000W switching power | | |
|--|--|--|
| MODEL LIST £ EQUIPMENT | | |
| RTBSB-001.401 | RTBSB-001.401 £49.50 Multi digit display, optional surface/wall mounting | |
| RTBSB-001.411 £64.85 Multi digit display, ready to plug | | |



JZ-19 plug in socket spare available page page 29 onwards

HEATING TECHNOLOGY

ELECTRONIC ROOM TEMPERATURE CONTROLLER WITH CLOCK - HTRRBu

For time dependent control of temperatures in closed spaces. Suitable for all heating systems. Valve: normally closed type. Can be used as a master for the temperature reduction of other controllers.

| Operating Voltage: 230v~50 Hz Setting Range: 530°C | | |
|--|---|--|
| MODEL LIST £ EQUIPMENT | | |
| HTRRBu-110.117/21 | HTRRBu-110.117/21 £147.51 With clock. Temp. setting knob with °C scale | |



JZ-17 - Adaptor plate for installation on a UP box (including fixing screws) - see page page 29 onwards

NEXT GENERATION BIMETAL ROOM CONTROLLERS - RTBSU (PREVIOUSLY FTR)

The FTR temperature controller has now been replaced by the RTBSU range. The new design offers a number of benefits including easy installation. As before, these control or monitor the temperatures in closed, dry spaces. Suitable for all heating types.

| Oper | ating Voltage: | 230v∼50 Hz Setting Range: 5…30⁰C | |
|------------------|----------------|--|------|
| MODEL | LIST £ | EQUIPMENT | NEWI |
| RTBSU-401.000#00 | £46.04 | Heating control, 50x50 or 55x55 pure white cover set | |
| RTBSU-401.000#21 | £58.41 | As above with frame, 50x50 pure white glossy | |
| RTBSU-401.002#00 | £50.49 | As RTBSU-401.000#00 with ECO function | |
| RTBSU-401.010#00 | £58.71 | As above with heating or cooling function | |
| RTBSU-401.034#00 | £49.60 | As RTBSU-401.000#00 with heating display | |
| RTBSU-401.052#21 | £71.97 | As RTBSU-401.000#21 with auxilary heating display | |
| RTBSU-401.062#00 | £59.90 | As RTBSU-401.000#00 with ECO and on/off switch | |
| RTBSU-401.063#00 | £65.44 | For 2-pipe systems, heating/off/cooling switch | |
| RTBSU-401.065#00 | £64.45 | As above, especially for heat pump control | |
| RTBSU-401.075#00 | £62.87 | As RTBSU-401.002#00 with reduction display | |
| RTBSU-401.086#00 | £51.08 | As RTBSU-401.000#00 with 3000W switching power | ** |
| RTBSU-401.086#21 | £63.36 | As RTBSU-401.086#00 + 50x50mm pure white frame | • |
| RTBSU-401.202#00 | £56.43 | As RTBSU-401.002#00 but 24VAC | 3 |
| RTBSU-401.210#00 | £64.75 | As above with heating or cooling function | |
| RTBSU-401.262#00 | £65.74 | As RTBSU-401.202#00 with on/off switch | alre |
| RTBSU-401.265#00 | £70.88 | As RTBSU-401.063#00 but 24VAC | |
| RTBSU-401.902#07 | £60.89 | Heating control internal setting 50x50mm white frame | |

| | | J | Z covers sets available | e- see page page 29 onwards |
|-----------------|----------------|-----------------|-------------------------|-----------------------------|
| Old item no. | Old type | New item no. | New type | Remarks |
| UA010017 | FTR 101.000#00 | UA090000 | RTBSU-401.000#00 | |
| UN010009 | FTR 101.000#21 | UA090014 | RTBSU-401.000#21 | |
| UA010134 | FTR 101.002#00 | UA090001 | RTBSU-401.002#00 | |
| UA010222 | FTR 101.010#00 | UA090002 | RTBSU-401.010#00 | |
| UA012404 | FTR 101.034#07 | UA090004 | RTBSU-401.034#00 | + JZ-016.000 |
| UA012405 | FTR 101.034#55 | UA090004 | RTBSU-401.034#00 | + JZ-016.100 |
| UA010702 | FTR 101.052#21 | UA090015 | RTBSU-401.052#21 | |
| UA010811 | FTR 101.062#00 | UA090003 | RTBSU-401.062#00 | |
| UA011000 | FTR 101.063#00 | UA090006 | RTBSU-401.063#00 | |
| UA010910 | FTR 101.065#00 | UA090007 | RTBSU-401.065#00 | |
| UA010415 | FTR 101.075#00 | UA090008 | RTBSU-401.075#00 | |
| UA010615 | FTR 101.086#00 | UA090009 | RTBSU-401.086#00 | |
| UN010607 | FTR 101.086#21 | UA090016 | RTBSU-401.086#21 | |
| UA012008 | FTR 101.202#00 | UA090010 | RTBSU-401.202#00 | |
| UN102009 | FTR 101.202#21 | UA090010 | RTBSU-401.202#00 | + JZ-001.000 + JZ-090.900 |
| UA012301 | FTR 101.210#00 | UA090011 | RTBSU-401.210#00 | |
| UA012500 | FTR 101.262#00 | UA090012 | RTBSU-401.262#00 | |
| UA012501 | FTR 101.262#21 | UA090012 | RTBSU-401.262#00 | + JZ-002.000 + JZ-090.900 |
| UA012600 | FTR 101.265#00 | UA090017 | RTBSU-401.265#00 | |
| UA013000 | FTR 101.902#07 | UA090013 | RTBSU-401.902#07 | |
| | | | | |



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HEATING TECHNOLOGY

ELECTRONIC ROOM OR FLOOR TEMPERATURE CONTROLLERS WITH CLOCK - HTRRUU

Flush mounted controller for time dependent single room / floor control for electrical and hot water heating systems. This device can be used as a room temperature controller with internal sensor or in combination with a remote sensor for floor temperature control.

| Operating Voltage: 230V ~ 50 Hz Setting Ranges: 530°C room / 1042°C floor | | |
|---|---------|--|
| MODEL | LIST £ | EQUIPMENT |
| HTRRUu 210.021#21 | £174.04 | Controller with timer, frost protection, 50x50mm pure white glossy cover with frame. |
| HTRRUu 210.021#21/7 | £193.05 | As above with external floor sensor HF-8/4-K2 |
| HTRRUu 210.021#07 | £170.68 | As HTRRUu 210.021#21 without frame. |
| HTRRUu 210.021#09 | £170.68 | As above with pearl white cover |
| HTRRUu 210.021#27 | £170.68 | As HTRRUu 210.021#07 traffic white glossy |
| HTRRUu 210.021#28 | £172.06 | As above but suitable for BUSCH-JAEGER cover. |
| HTRRUu 210.021#55 | £172.06 | As HTRRUu 210.021#07 but 55x55mm cover |
| HTRRUu 210.021#56 | £172.06 | As above 55x55mm pure white, matt |
| HTRRUu 210.021#57 | £172.06 | As above but with pearl white glossy cover. |
| HTRRUu 210.021#59 | £172.06 | As above but traffic white studio glossy cover |



See page 29 for sensors to suit including HF-8/4-K2, accessories including JZ-090.910 and THF page page 27 onwards

ELECTRONIC FLOOR OR SURFACE TEMPERATURE CONTROLLER WITH REMOTE SENSOR - HTRRB

Temperature control for floor, fringe zone, bathroom, ceiling, tiled stove, marble and wall heating or tempering systems. Note: Sensor line must be routed in a protective duct. Parallel routing together of lines carrying alternating currents is not admissible.

| Operating Voltage: 230v~50 Hz, Switching power 3000W, heating control. | | | |
|--|---------|---|--|
| External setting heating display with on/off switch | | | |
| MODEL | LIST £ | EQUIPMENT | |
| HTRRB-011.010 | £105.34 | Floor temp. controller, with HF-8 sensor, 10…60°C | |
| HTRRB-011-410 | £149.59 | Tiled stove surface temp. 2080°C with HF-5 sensor | |



See page 29 for sensors to suit including HF-8/4-K2, accessories including THF and JZ-17 - Adaptor plate page page 27 onwards

ELECTRONIC FLOOR TEMPERATURE CONTROLLER WITH REMOTE SENSOR - FETR

Temperature control for floor, fringe zone, bathroom, ceiling, tiled stove, marble and wall heating or tempering systems, direct floor heating systems. Note: Sensor line must be routed in a protective duct.

| Operating Voltage: 230v~50 Hz Setting Ranges: 1050°C and 530°C | | | |
|--|---------|---|--|
| MODEL LIST £ | | EQUIPMENT | |
| FETR 101.700 #07 | £155.83 | Internal setting 1060°C, 50x50mm pure white glossy cover no frame | |
| FETR 101.715 #00 | £137.51 | 1050°C, on/off switch external setting, without cover | |
| FETR 101.715 #21 | £152.96 | As above with cover and frame 50x50mm pure white | |
| FETR 101.716 #00 | £137.51 | As FETR 101.715 #00 with control range: 10…42°C | |
| FETR 101.745 #00 | £163.05 | As FETR 101.715 #00, room 530°C and 2060°C internal scal for limiting floor temperature | |
| | | | |



See page 29 for sensors to suit including HF-8/4-K2, accessories including THF and WP-01 page page 27 onwards

HEATING TECHNOLOGY

ELECTROTHERMAL VALVE ACTUATORS - ZBOOA

Electrical control of water flow through heating or cooling system. Extremley compact design, can be fitted quickly and comfortably tin any position. Lateral drainage holes carry off any leakage water and additional valve monitoring viewing windows included.

| Setting Ranges: 1050°C and 530°C | | | |
|----------------------------------|--------|---|--|
| MODEL | LIST £ | EQUIPMENT | |
| ZBOOA-010.100 | £24.75 | Voltage:230V max, power consumption 70W | |
| ZBOOA-040.100 | £24.75 | Votage: 24V, power consumption 12W | |



TERMINAL STRIP FOR HEATING MANIFOLD - VOOPL

Terminal strip for heating controller with or without ECO function, also heating/cooling controller with integrated heating/cooling switch. Can be set up with master-slave control when using a clock regulator or an external timer.



See page page 29 onwards for JZ-32 accessories

AIR CONDITIONING TECHNOLOGY

Efficient controllers for the perfect climate, both temperature and humidity. Safe and comfortable operation for the ambient temperature. Alre devices offer numerous additional functions for economical and environmentally firendly temperature control.

ELECTRONIC CLIMATE CONTROLLER WITH NOISELESS OUTPUT - KTRTB

Controller specifically designed for heating / cooling regulation of 2-pipe systems used in hotels, homes and offices and can control up to 5 valve acutators (normally closed) Internal sensor measures room temperature.

| Heating or cooling with ECO function Setting Range: 530°C | | | |
|---|--------|----------------------------------|--|
| MODEL | LIST £ | EQUIPMENT | |
| KTRTB-211.108 | £56.83 | 230 VAC 50Hz protection class II | |
| KTRTB-251.108 | £43.26 | 24 VAC 50Hz protection class III | |



See page page 29 onwards for accessories including JZ-21 adapter frame and ET knobs

MECHANICAL CLIMATE CONTROLLERS - KTBSB

Control and monitoring of temperatures in closed, dry spaces. Remote control of air conditioners, climate chests and fan coil units. Surface mounted installation, suitable for all heating systems.

| Operating Voltage: 230v~50/60 Hz Setting Range: 530°C | | | |
|---|--------|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| KTBSB-112.000 | £70.98 | 3 stage fan output, fan switch and on/off switch | |
| KTBSB-112.070 | £96.92 | As above, for 4 pipe systems with 2 auxiliary output | |
| KTBSB-113.500 | £93.46 | As above for 4 pipe systems, with heating / ventilation / cooling switch | |



Compatible with terminal strips VOOPL and ZBOOA-010.100 valve actuators. See page 29 onwards for JZ-17 adapter plate

ELECTRONIC CLIMATE CONTROLLERS - KTRRB

Single-room temperature controller with neutral zone for 2-pipe or 4-pipe air conditioners. External H/C flow sensor for automatically switching the controller to heating or cooling mode in 2-pipe operation.

| Operating Voltage: 230v~50/60 Hz Setting Range: 530°C | | | |
|---|---------|---|--|
| MODEL | LIST £ | EQUIPMENT | |
| KTRRB-117.128 | £163.65 | 3 stage fan output, fan switch and on/off switch | |
| KTRRB-117.163 | £156.92 | As above with 3-stage fan output and switch | |
| KTRRB-117.169 | £171.47 | off/manual fan/ automatic fan switch, 0-10 V switch | |



Compatible with terminal strips VOOPL and ZBOOA-010.100 valve actuators See page 29 onwards for JZ-17 adapter plate

ELECTRONIC CLIMATE CONTROLLER FOR COOLING CEILINGS - KTRRB

Temperature controller for cooling ceilings/ walls and all kinds of hot water heaters in 2 and 4 pipe systems for hotels, offices and private homes. Features dew point monitoring for controlling ceiling cooling systems and can controls up to 5 actuators.

| Operating Voltage: 24 VAC/ 50 Hz, 24 VDC Control function: 13…29°C | | | | |
|--|---|--|--|--|
| Setti | Setting range: -8+8°C 2-pipe and 4-pipe compatibility | | | |
| MODEL | LIST £ | EQUIPMENT | | |
| KTRRB-052.244 | 2137.01 | ECO Function, heating/cooling/cooling interruption/ off display. External H/C flow sensor | | |
| KTRRB-052.245 | F166.02 | As above with off / comfort / ECO switch. Replacement for KTRRB-040.213 | | |



AIR CONDITIONING TECHNOLOGY

ELECTRONIC CLIMATE CONTROLLER FOR COOLING CEILINGS - KTRRU

For heating/cooling control of 2 and 4 pipe systems used in hotels, offices and private homes. Can control up to 5 actuators and includes external flow H/C sensor for automatic switching from heating to cooling mode depending on inflow temperature.

| Operating Voltage: 24 VAC/ 50 Hz, 24 VDC Control function: 1329°C | | | |
|---|--------|---|--|
| Setting range: -8+8°C 2-pipe and 4-pipe compatibility | | | |
| MODEL | LIST £ | EQUIPMENT | |
| KTRRU-052.245#00 | | Changeable off/ comfort/ ECO switch and frost protection with dewpoint signal input. No cover | |



See page 14 for compatible TPS dew point sensors. Cover sets JZ-007 page 29 onwards

ELECTRONIC CLIMATE CONTROLLER WITH TIMER - KTRRUu

Flush mounted 230 VAC controller with timer function for heating/cooling regulation of 2 and 4 pipe systems used in hotels, offices and homes. Digital menu, single room climate controller with optional external dew point sensor.

| Operating Voltage: 230 VAC 50/60 Hz Control range: 540°C | | | |
|--|---------|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| KTRRUu217.456#21 | £215.42 | Heating, cooling, ECO & off output + 50x50mm cover | |
| KTRRUu217.456#07 | £212.16 | As above 50x50mm pure white glossy, without frame | |
| KTRRUu217.456#09 | £212.16 | As above 50x50mm pearl white glossy, without frame | |
| KTRRUu217.456#27 | £212.16 | As above 50x50mm studio white glossy, no frame | |
| KTRRUu217.456#28 | £213.54 | As above for BUSCH-JAEGER cover, no frame | |
| KTRRUu217.456#55 | £213.54 | 55x55mm pure white glossy without frame | |
| KTRRUu217.456#56 | £213.54 | 55x55mm pure white matt without frame | |
| KTRRUu217.456#57 | £213.54 | 55x55mm pearl white glossy without frame | |
| KTRRUu217.456#59 | £213.54 | 55x55mm studio white glossy without frame | |
| KTRRUu257.456#21 | £215.42 | As KTRRUu217.456#21 but 24VAC, 24VDC | |
| KTRRUu257.456#07 | £212.16 | As above 50x50mm pure white glossy, without frame | |
| KTRRUu257.456#09 | £212.16 | As above 50x50mm pearl white glossy, without frame | |
| KTRRUu257.456#27 | £212.16 | As above 50x50mm studio white glossy, no frame | |
| KTRRUu257.456#28 | £213.54 | As above for BUSCH-JAEGER cover, no frame | |
| KTRRUu257.456#55 | £213.54 | 55x55mm pure white glossy without frame | |
| KTRRUu257.456#56 | £213.54 | 55x55mm pure white matt without frame | |
| KTRRUu257.456#57 | £213.54 | 55x55mm pearl white glossy without frame | |
| KTRRUu257.456#59 | £213.54 | 55x55mm studio white glossy without frame | |
| | | | |





Suitable valve actuators ZBOOA page 11, see page 14 for compatible TPS dew point sensors. Frames JZ-090 page 29 onwards

CONTINUOUS ELECTRONIC CLIMATE CONTROLLER - KTRVB

Room temperature controller for continuous control of valve actuatuators. Controller for 2-pipe systems (1-duct), 4-pipe systems (2-duct) and mixing chambers.

| 24 VAC, 24VDC, 50Hz. Control Range 1329°C except KTRVB-048.100 530°C 010V / 100V Output | | | |
|--|---------|---|--|
| MODEL | LIST £ | EQUIPMENT | |
| KTRVB-048.100 | £81.28 | 2-pipe, Internal sensor NTC, celsius degree scale | |
| KTRVB-048.200 | £87.22 | As above, setting -3…+3K control range 1329°C | |
| KTRVB-052.244 | £157.01 | 2/4-pipe, external dew point sensor, ECO function, external switch off with frost protection mode. | |
| KTRVB-052.245 | £166.02 | As above but with off/comfort/ cooling switch | |



AIR CONDITIONING TECHNOLOGY

ELECTRONIC DEW POINT MONITORS - WFRRN

For interrupting cooling when the relative atmospheric humidity exceeds approx. 98%. Dew point sensors must be ordered separately. Sensors lister below.

| Operating Voltage: 24v~ and 230 v~ 50/60 Hz IP20 | | | | | |
|--|---|--|--|--|--|
| MODEL LIST £ EQUIPMENT | | | | | |
| WFRRN-240.018 | WFRRN-240.018 £135.63 24VDC, 24VAC Protection class III | | | | |
| WFRRN-210.018 | WFRRN-210.018 £138.80 230VAC, Protection class II | | | | |

DEW POINT SENSOR - TPS

Dew point sensors developed in conjunction with the dew point monitors and ceiling controllers for detecting and signalling the dew point. Prevents dripping condensation water from reaching the cooling circuit parts. Cable length 10m

| Therefore apping condensation water non reaching the cooming should parter capie longar rem | | | | | |
|---|--------|---|--|--|--|
| MODEL | LIST £ | EQUIPMENT | | | |
| TPS-1 | £51.38 | For dry / metal ceilings. 2 clips for cooling mat | | | |
| TPS-2 | £51.38 | Cool ceilings and pipes. 2 clips and 2 cable straps | | | |
| TPS-3 | £45.94 | For cold water pipes. 2 cable straps | | | |

MECHANICAL ROOM HYGROSTATS / HYGRO-THERMOSTATS - FHY, RFSB, RKKDSB

Hygrostat used to monitor and control within a room, by means of adjusting the control knob. The setting range can be limited. Hygrothermostat - monitor and control the relative humidity and temperature in one device.

| Operating Voltage: 24v~ and 230 v~ 50/60 Hz | | | | |
|---|--|---|--|--|
| MODEL LIST £ EQUIPMENT | | | | |
| FHY 101.060#00 | £105.34 | External setting, no cover, 3585% rel. humidity | | |
| FHY 101.060#21 £116.92 As above, 50x50mm pure white glossy cover +frame | | | | |
| RFHSB-060.010 | RFHSB-060.010 £69.30 As above Berlin 2000 housing design | | | |
| RFHSB-060.011 | RFHSB-060.011 £62.47 As above but internal setting | | | |
| RKDSB-171.000 | £136.13 | On/off for both therm and hygrostat. Ext. setting | | |



JZ-17 - Adaptor plate for installation on a UP box (including fixing screws) - see page 29

TERMINAL STRIP FOR HEATING / COOLING MANIFOLD - VOORL

This device is specifcally designed for fixed wiring of 230VAC single room temperature controllers and the associated valve acutators for fixed location attachment. Switching between heating/cooling is performed via a central contact.

| Operating Voltage: 230v~50 Hz Setting Ranges: 1050°C and 530°C | | | | |
|--|---------|--|--|--|
| MODEL LIST £ EQUIPMENT | | | | |
| VOORL-215.008 | £148.20 | Wiring up to 5 room thermostats and 20 actuators | | |
| VOORL-215.052 | £160.58 | As above but including pump module | | |
| VOORL-318.008 | £182.26 | Wiring up to 8 room thermostats and 32 actuators | | |
| VOORL-318.052 £195.53 As above but including pump module | | | | |

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JZ-24 Magnetic fastening set available - see page 29



Cutting edge, reliable technology designed to be robust and fail-safe for modern heating, ventilation and industrial plants. Ultra safe technology for perfectly functioning systems which place high demands on components, including tough environments and increasingly intensive use.

NEW DESIGN! The RTKSA universal controller can operate as a boiler, ventilation or contact thermostat in combination with various accessories



PLANT ROOM THERMOSTAT - RTKSA

RTKSA plant room thermostats were specially developed for use in industrial halls, exhibition halls, air halls and greenhouses. When used as a frost protection controller, the higher tolerances at the end of the sclae must be observed.

| | 230 VAC/ Switching 24 VAC - 50/60HZ | | | | |
|------------------------|-------------------------------------|---|--|--|--|
| MODEL LIST £ EQUIPMENT | | | | | |
| RTKSA-100.010 | £105.20 | Range: -10+40°C, temp control external setting | | | |
| RTKSA-101.010 | £105.20 | Range: -10+40°C, temp monitor internal setting | | | |
| RTKSA-100.110 | £105.20 | Range: 0+50°C, temp control external setting | | | |
| RTKSA-101.110 | £105.20 | Range: 0+50°C, temp monitor internal setting | | | |
| 2 Separat | e setting range | es - 230 VAC/ Switching 24 VAC - 50/60HZ | | | |
| MODEL | LIST £ | EQUIPMENT | | | |
| RTKSA-114.110 | £178.46 | Range: 0+50°C, temp monitor x2 internal setting | | | |
| RTKSA-114.010 | £178.46 | Range: -10+40°C, temp monitor x2 internal setting | | | |



| Control range | | | | |
|--|---|---|---|---|
| | Hystere- sis | New alre types | Control range | Hystere- sis |
| 0+35 °C | 1 K | RTKSA-100.010 | −10…+40 °C | 1.3 K |
| 0+35 °C | 1 K | RTKSA-101.010 | -10+40 °C | 1.3 K |
| 0+70 °C | 2 K | RTKSA-100.110 | 0+50 °C | 1.3 K |
| 0+70 °C | 2 K | RTKSA-101.110 | 0+50 °C | 1.3 K |
| Control range | Hystere- sis | New alre types | Control range | Hystere- sis |
| 10…45 °C (external) TR 0 …35 °C (internal) TW | approx. 1 K | RTKSA-114.110 | 0+50 °C (internal) TW | 1.3 k |
| 10+45 °C (internal) TW 0+35 °C (internal) TW | approx. 1 K | | 0…+50 °C (internal) TW | |
| | 0+35 °C 0+70 °C 0+70 °C Control range 1045 °C (external) TR 035 °C (internal) TW 10+45 °C (internal) TW | 0+35 °C 1 K 0+35 °C 1 K 0+70 °C 2 K 0+70 °C 2 K Control range Hysteresis 1045 °C (external) TR approx.1 K 035 °C (internal) TW approx.1 K | 0+35 °C 1 K RTKSA-100.010 0+35 °C 1 K RTKSA-101.010 0+70 °C 2 K RTKSA-101.10 0+70 °C 2 K RTKSA-101.110 Control range Hysteresis New alre types 1045 °C (external) TR approx.1 K RTKSA-114.110 10+45 °C (internal) TW approx.1 K RTKSA-114.110 | 0+35 °C 1 K RTKSA-100.010 -10+40 °C 0+35 °C 1 K RTKSA-101.010 -10+40 °C 0+70 °C 2 K RTKSA-101.010 0+50 °C 0+70 °C 2 K RTKSA-101.110 0+50 °C Control range Hysteresis New aire types Control range 1045 °C (external) TR approx.1 K RTKSA-114.110 0+50 °C (internal) TW 1045 °C (internal) TW approx.1 K C+50 °C (internal) TW 0+50 °C (internal) TW |



WET ROOM THERMOSTAT - PTR 40

Control and monitoring of temperatures of certain open spaces, for example, driveways or damp rooms (greenhouses, sheds, warehouses and basements, garages etc.)

| Switching Capacity: 250v~ 50/60 Hz Control Range: -20°C30°C | | | | |
|--|--|--|--|--|
| MODEL LIST £ EQUIPMENT | | | | |
| PTR 40.000 £94.51 Heating or cooling control with viewing window | | | | |



UNIVERSAL CAPILLARY THERMOSTAT - RTKSA

This series of devices was specially developed for use in heating technology; in boiler systems /storage tanks, district heating transfer systems, ventilation technology to monitor supply air, limitiers for electrical heating coils, temp. monitors in pipelines & tanks.

| 230 VAC/ Switching 24 VAC - 50/60HZ Cooling or Heating Control | | | |
|--|----------------|---|--|
| MODEL | LIST £ | EQUIPMENT | |
| RTKSA-000.100 | £71.54 | 050°C, 175mm sensor, temp control ext. setting | |
| RTKSA-000.200 | £72.47 | 0120°C, 87mm sensor, temp control ext. setting | |
| RTKSA-000.300 | £72.47 | 20150°C, 56mm sensor, temp control ext. setting | |
| RTKSA-001.100 | £75.11 | 050°C, 175mm sensor, temp monitor int. setting | |
| RTKSA-001.200 | £75.11 | 0120°C, 87mm sensor, temp monitor int. setting | |
| RTKSA-001.300 | £75.11 | 20…150°C, 56mm sensor, temp monitor int. setting | |
| RTKSA-001.301 | £75.11 | 20150°C, 82mm sensor, temp monitor int. setting | |
| RTKSA-002.310 | £87.78 | 20…150°C, 55mm sensor, temp limiter internal setting, external reset | |
| RTKSA-002.410 | £83.56 | 30110°C, 72mm sensor, temp limiter internal setting, external reset | |
| RTKSA-003.310 | £102.17 | 20…150°C, 55mm sensor, safety temp limiter internal setting, external reset | |
| RTKSA-004.310 | £93.72 | 20150°C, 55mm sensor, safety temp monitor internal setting, external reset | |
| Double | e Thermostat - | 230 VAC/ Switching 24 VAC - 50/60HZ | |
| MODEL | LIST £ | EQUIPMENT | |
| RTKSA-010.200 | £149.03 | Temp control 0120°C ext. setting. Temp limiter range 70130°C int. setting external reset, 87/66mm sensors | |
| RTKSA-013.210 | £193.91 | Temp monitor 0…120°C int. setting. Temp limiter range 20…150°C int. setting external reset, 87/55mm sensors | |
| RTKSA-014.210 | £149.03 | 0120°C x2 temp monitor internal setting, 87mm sensor | |





JZ-29/31 - mounting set and accessories including THK, NTHK and SWK see page 27 onwards

| | _ | - | | _ | | |
|-----------------|-----------------|------------|----------------|---------------|------------|-------------------|
| Old alre types | Control range | Hysteresis | New alre types | Control range | Hysteresis | Accessories |
| KR 80.312 | fixed at 100 °C | –20 K | | 20150 °C | | THK-2-100 + JZ-29 |
| LR 80.312 | fixed at 100 °C | –20 K | | | | SWK-2-100 |
| KR 80.318 | fixed at 100 °C | –20 K | | | | THK-2-200 + JZ-29 |
| LR 80.318 | fixed at 100 °C | –20 K | DTKCA 002 240 | | 10 1 | SWK-2-200 |
| KR 80.309 | fixed at 75 °C | –20 K | RTKSA-003.310 | | –10 K | THK-2-100 + JZ-29 |
| LR 80.309 | fixed at 75 °C | –20 K | | | | SWK-2-100 |
| KR 80.310 | fixed at 75 °C | –20 K | | | | THK-2-200 + JZ-29 |
| LR 80.310 | fixed at 75 °C | –20 K | | | | SWK-2-200 |
| KR 80.206 | 3065 °C | –8 K | | 30…110 ℃ | –10 K | THK-2-100 + JZ-29 |
| KR 80.206 IP 54 | 3065 °C | –8 K | RTKSA-002.410 | | | THK-2-100 + JZ-29 |
| KR 80.207 | 6095 °C | –8 K | RIK5A-002.410 | | | THK-2-100 + JZ-29 |
| LR 80.207 | 6095 °C | –8 K | | | | SWK-2-100 |
| KR 80.208 | 85120 °C | –8 K | | | | THK-2-100 + JZ-29 |
| KR 80.202 | 95130 °C | –8 K | | | | THK-2-100 + JZ-29 |
| KR 80.203 | 95130 °C | –8 K | RTKSA-002.310 | 20150 °C | –10 K | THK-2-200 + JZ-29 |
| LR 80.203 | 95130 °C | –8 K | | | | SWK-2-200 |
| KR 80.203 IP 54 | 95130 °C | –8 K | | | | THK-2-200 + JZ-29 |
| WR 81.029-1 | 035 °C | 0.5 1 K | | | | - |
| KR 80.003-1 | 035 °C | 1 K | RTKSA-000.100 | 050 °C | 1.3 K | THK-2-120 + JZ-29 |

| Old aire types | Control range | Hysteresis | New alre types | Control range | Hysteresis | Accessories |
|--|--|--|----------------|-------------------------------|----------------|--|
| LR 80.003-1 | 035 °C | 1 K | RKSA-000.100 | 050°C | 1.3K | SWK-2-120 |
| WR 81.009-2 KR 80.035-2 KR 80.027-5 LR 80.027-5 LR 80.027-5 LR 80.028-2 KR 80.028-2 KR 80.029-2 KR 80.029-2 KR 80.029-2 KR 80.01-1 KR 80.009-1 KR 80.009-1 KR 80.000-5 KR 80.001-5 KR 80.001-5 KR 80.008-8 | 070 °C 070 °C 070 °C 070 °C 070 °C 070 °C 070 °C 070 °C 070 °C 070 °C 1045 °C 1045 °C 3595 °C 3595 °C 40110 °C | 1 2 K 2 K 5 K 2 K 2 K 2 K 2 K 3 K 2 K 1 K 5 K 5 K 5 K 8 K | RTKSA-000.200 | 0 120 °C | 3 К | - THK-2-100 + JZ-29 THK-2-100 + JZ-29 SWK-2-100 SWK-2-100 THK-2-200 + JZ-29 SWK-2-200 THK-2-280 + JZ-29 NTHK-2-280 + JZ-29 SWK-2-280 NTHK-2-100 + JZ-29 THK-2-200 + JZ-29 THK-2-200 + JZ-29 NTHK-2-200 + JZ-29 THK-2-200 + JZ-29 THK-2-200 + JZ-29 THK-2-100 + JZ-29 |
| KR 80.006-8 | 50130 °C | 8 K | RTKSA-000.300 | 20 150 °C | 9.1 K | THK-2-100 + JZ-29 |
| WR 81.101-1 WR 81.129-1 KR 80.108-1 LR 80.108-1 KR 80.109-1 LR 80.109-1 | 035 °C 035 °C 035 °C 035 °C 035 °C 035 °C 035 °C | 0.51 K 0.51 K 1 K 1 K 1 K 1 K | RTKSA-001.100 | 050 °C | 1.3 K | - - THK-2-120 + JZ-29 SWK-120 THK-2-200 + JZ-29 SWK-2-200 |
| WR 81.115-5 WR 81.109-2 KR 80.116-2 LR 80.116-2 KR 80.111-3 KR 80.120-1 LR 80.120-1 | 070 °C 070 °C 070 °C 070 °C 070 °C 080 °C 1045 °C 1045 °C | 4 K 12 K 2 K 2 K 1 K 1 K | RTKSA-001.200 | 0 120 °C | 3 K | JZ-31 - THK-2-100 + JZ-29 SWK-2-100 THK-2-100 + JZ-29 THK-2-200 + JZ-29 SWK-2-200 |
| KR 80.100-5 KR 80.100-5 IP 54 KR 80.101-5 LR 80.101-5 KR 80.124-5 | 35 95 °C 35 95 °C 35 95 °C 35 95 °C 35 95 °C 35 95 °C | 5 K 5 K 5 K 5 K 5 K | RTKSA-001.301 | 20150 °C | 3.3 K | THK-2-100 + JZ-29 NTHK-2-100 + JZ-29 THK-2-200 + JZ-29 SWK-2-200 THK-2-280 + JZ-29 |
| KR 80.112-5 KR 80.102-8 KR 80.103-8 WR 81.117-5 KR 80.006-8 | 35 95 °C 40 110 °C 40 110 °C 50 130 °C 50 130 °C | 8 K 8 K 8 K 4 K 8 K | RTKSA-001.300 | 20150 °C | 9.1 K | THK-2-600 + JZ-29 THK-2-100 + JZ-29 THK-2-200 + JZ-29 JZ-31 THK-2-100 + JZ-29 |
| KR 85.100-5 KR 85.406-2 KR 85.101-5 KR 85.102-5 | TR 35 95 °C TW 35 95 °C TW 0 70 °C TW 0 70 °C TR 35 95 °C TW 35 95 °C TR 35 95 °C TR 35 95 °C TW 50 130 °C | 5 K 5 K 2 K 2 K 5 K 5 K 5 K 8 K | RTKSA-014.210 | TW: 0 120 °C TW: 0 120 °C | 3 K 3 K | THK-2-100x17 + JZ-30 THK-2-100x17 + JZ-30 THK-2-200x17 + JZ-30 THK-2-100x17 + JZ-30 |
| KR 85.109-2 KR 85.400-5 KR 85.401-5 | TR 070 °C TW 070 °C TW 3595 °C TW 3595 °C TW 3595 °C TW 3595 °C | 2 K 2 K 5 K 5 K 5 K | | | | THK-2-100x17 + JZ-30 THK-2-100x17 + JZ-30 THK-2-200x17 + JZ-30 |
| KR 85.315-5 KR 85.311-2 KR 85.312-2 | TR 35 95 °C STB fixed at 100 °C TR 0 70 °C STB fixed at 75 °C TR 0 70 °C | 5 K -20 K 2 K -20 K 2 K | | | | THK-2-200x17 + JZ-30 THK-2-100x17 + JZ-30 THK-2-200x17 + JZ-30 |
| KR 85.314-5 | STB fixed at 75 °C TR 3595 °C STB fixed at 100 °C | –20 K 5 K –20 K | RTKSA-010.200 | TR: 0 120 °C STB: 7 130 °C | 3 K -1015 K | THK-2-100x17 + JZ-30 |
| LR 85.315-5 Controls UK Cata | TR 3595 °C STB fixed at 100 °C alogue 2020 | 5 K –20 K | | | | SWK-2-200 |

| Old alre types | Control range | Hysteresis | New alre types | Control range | Hysteresis | Accessories |
|----------------|---------------------------------|--------------|----------------|-------------------------------|----------------|----------------------|
| LR 85.312-2 | TR 070 °C STB fixed at 75 °C | 2 K –20 K | RTKSA-010.200 | TR: 0 120 °C STB: 7 130 °C | 3 K -1015 K | SWK-2-200 |
| KR 85.204-8 | TR 50 130 °C TB 95 130 °C | 8 K –8 K | RTKSA-013.210 | TW: 0 120 °C TB: 20 150 °C | 3 K -1015 K | THK-2-100x17 + JZ-30 |
| KR 85.230-5 | TR 35 95 °C TB 95 110 °C | 5 K 5 K | | | | THK-2-100x17 + JZ-30 |
| KR 85.207-5 | TR 35 95 °C TB 85 120 °C | 5 K –8 K | | | | THK-2-200x17 + JZ-30 |

SINGLE-STAGE PLANT ROOM THERMOSTATS - JET-110/120

Control or monitoring with capillary system and outdoor sensor for control of temperatures in non-aggressive environments. (Greenhouses, cold rooms etc.) The JET-110RF is particularly suited for use as an outdoor thermostat.

| Switching Capacity: 24v- 250v~ 150mA Heating or cooling IP65 | | | |
|--|---------|---|--|
| MODEL | LIST £ | EQUIPMENT | |
| JET-110R | £156.82 | range: -35+30°C, temp control external setting | |
| JET-110RF | £157.48 | range: -35+30°C, temp monitor, internal setting with viewing window | |
| JET-120R | £156.82 | range: 060°C, temp control external setting | |
| JET-120RF | £157.74 | range: 060°C, temp monitor, internal setting with viewing window | |



SINGLE-STAGE PLANT ROOM THERMOSTATS - JET-110/120

Monitoring or control of temperatures of non-aggressive liquid and gaseous media. Particularly suitable for wall mounting. Immersion sleeves or protection coils are not included.

| Switching Capacity: 24v- 250v~ 150mA Heating or cooling IP65 | | | |
|--|---------|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| JET-110X | £155.50 | range: -35+30°C, temp control external setting | |
| JET-110XF | £156.42 | range: -35+30°C, temp monitor internal setting | |
| JET-120X | £155.63 | range: 060°C, temp control external setting | |
| JET-120XF | £156.02 | range: 060°C, temp monitor internal setting | |
| JET-120XG | £177.01 | range: 060°C, temp control external setting | |
| JET-130X | £156.02 | range: 40100°C, temp control external setting | |
| JET-130XF | £157.08 | range: 40100°C, temp monitor internal setting | |
| JET-130XG | £180.31 | range: 40100°C, temp control external setting | |
| JET-133X | £160.64 | range: 40100°C, temp limiter external setting | |
| JET-133XF | £161.96 | range: 40100°C, temp limiter internal setting | |
| JET-140X | £159.46 | range: 70130°C, temp control external setting | |
| JET-140XF | £160.51 | range: 70130°C, temp monitor internal setting | |
| JET-143XF | £165.40 | range: 70…130°C, temp limiter internal setting | |
| JET-150 | £156.02 | range: 100280°C, temp control external setting | |
| JET-150F | £166.19 | range: 100280°C, temp monitor internal setting | |
| JET-153 | £161.96 | range: 100280°C, temp limiter external setting | |
| JET-153F | £172.13 | range: 100280°C, temp limiter internal setting | |



Accessories including immersion sleeves TH, NTH and protection coil SW-200 see page 27

MULTI-STAGE CAPILLARY THERMOSTAT - JMT

Multi-stage control of the temperature of liquid or gaseous media (eg. for activating two-stage burners or heating registers). Immersion sleeves or protection coils are not included.

| Switching Capacity: 24v- 250v~ 150mA, Wall Mounting IP65 | | | |
|--|---------|--|--|
| MODEL LIST £ EQUIPMENT | | | |
| JMT-206X | £223.74 | range: 2080°C, temp control external setting | |

Accessories including TH, NTH and protection coil SW-200-12 see page 27

CONTACT THERMOSTATS - ATR

Control or monitoring of temperatures at heat registers, pipelines or tanks, for example, temperaturedependent pump control or control of motor valves.

| Switching Capacity: 24v- 250v~ 150mA IP20 | | | |
|---|--------|--|--|
| MODEL LIST £ EQUIPMENT | | EQUIPMENT | |
| ATR 83.000 | £46.07 | range: 3090°C, temp control external setting | |
| ATR 83.100 | £41.84 | range: 3090°C, temp monitor internal setting | |
| ATR 83.001 | £46.07 | range: 060°C, temp control external setting | |
| ATR 83.101 | £41.45 | range: 060°C, temp monitor internal setting | |

Accessories including ATRS-1 and WP-01 see page 29



FROST PROTECTION THERMOSTATS - RTKSA

Frost protection thermostat was designed especially for ensuring air or water exposed frost protection for hot-water heating coils and heat exchangers in ventilation or air conditioning systems.

| Switching Capacity: 24v- 230v~ 150mA Setting Ranges: -10…+15°C | | | |
|--|---------|--|--|
| MODEL | LIST £ | EQUIPMENT | |
| RTKSA-203.000 | £127.78 | Temp limiter, internal setting, IP40, 1.8M capillary | |
| RTKSA-203.100 | £123.95 | As above with external reset, 3M capillary | |
| RTKSA-203.120 | £183.35 | As above IP65 | |
| RTKSA-203.200 | £140.98 | Temp limiter, int. setting ext reset, IP40, 6M capillary | |
| RTKSA-203.220 | £172.66 | As above IP65 | |
| RTKSA-203.300 | £197.60 | Temp limiter, int. setting ext reset IP40 12M capillary | |
| RTKSA-204.000 | £105.47 | Temp monitor, internal setting, IP40, 1.8M capillary | |
| RTKSA-204.020 | £177.67 | As above IP65 | |
| RTKSA-204.100 | £110.35 | Temp monitor, internal setting, IP40, 3M capillary | |
| RTKSA-204.200 | £118.67 | Temp monitor, internal setting, IP40, 6M capillary | |
| RTKSA-204.220 | £183.08 | Temp monitor, internal setting, IP65, 6M capillary | |
| RTKSA-204.300 | £148.90 | Temp monitor, internal setting, IP40, 6M capillary | |



JZ - mounting set - page 29. Accessories including THK, NTHK and SWK see page 27

| Old alre types | Capillary length | General features | New alre types | Capillary length | General features |
|----------------|---------------------|--|----------------|---------------------|-----------------------------|
| JTF-101 | 6 m | | RTKSA-204.200 | 6 m | Degree of protection: IP 40 |
| JTF-103 | 1.8 m | Degree of protection: IP 54 Hysteresis: approx. 1 K | RTKSA-204.000 | 1.8 m | Hysteresis: Approx. 1.5 K |
| JTF-105 | 3 m | Control range: -8+8 °C Tmax sensor: 150 °C | RTKSA-204.100 | 3 m | Control range: -10+15 °C |
| JTF-112 | 12 m | That sensor. 150 C | RTKSA-204.300 | 12 m | Tmax sensor: 120 °C |



FROST PROTECTION THERMOSTAT - JTF

Securing hot water registers against freezing. The frost protection thermostats JTF-21 -25 have two switch outputs that allow for intervention before the critical point is reached. All the devices are intrinsically safe and offer a sealable setpoint configuration.

| Switching Capacity: 24v- 230v~ 150mA Control Range: -10°C+12°C | | | | |
|--|--|--|--|--|
| MODEL | LIST £ | £ EQUIPMENT | | |
| | | ONE STAGE | | |
| JTF-1 | £128.04 | Temp control, external setting, IP40, 6M capillary | | |
| JTF-1/12 | £219.38 | Temp control, external setting, IP40, 12M capillary | | |
| JTF-1W | £196.28 | Temp monitor, internal setting, IP65, 6M capillary | | |
| JTF-2 | £145.73 | Temp limiter, ext setting, ext reset, IP40, 6M capillary | | |
| JTF-2W | £213.97 | Temp limiter internal setting & reset IP65, 6M capillary | | |
| JTF-3 | £123.02 | Temp control, external setting, IP40, 1.8M capillary | | |
| JTF-3 W | £190.87 | £190.87 Temp control, internal setting, IP65, 1.8M capillary | | |
| JTF-4 | £138.47 Temp limiter, ext setting, ext reset, IP40, 1.8M capillary | | | |
| JTF-5 | £124.48 | Temp control, external setting, IP40, 3M capillary | | |
| | | TWO STAGE | | |
| JTF-21 | £176.22 | Temp control, external setting, IP40, 6M capillary | | |
| JTF-21/12 | £305.84 | Temp control, external setting, IP40, 12M capillary | | |
| JTF-21W | £243.54 | Temp monitor, internal setting, IP65, 6M capillary | | |
| JTF-22 | £187.04 | Temp limiter, ext setting, ext reset, IP40, 6M capillary | | |
| JTF-22/12 | £316.54 | Temp limiter, ext setting, ext reset, IP40, 12M capillary | | |
| JTF-25 | £172.26 | Temp control, external setting, IP40, 3M capillary | | |





Installation clips, dip sleeves and protective spirals not included. For accessories including JZ, TH, NTH and SW see page 27 onwards

AIR HEATER THERMOSTAT - JTL

Minimum or maximum thermostat for inflow air monitoring and fan regulation in ventilation and air conditioning systems. Overheating protection thermostat for electrical heat registers and directly fired air heaters with oil and gas opteration.

| Switching Capacity: 24v- 230v~ 150mA 50Hz, IP20 | | | |
|---|---------|--|--|
| MODEL LIST £ | | EQUIPMENT | |
| JTL-2 | £227.17 | Temp monitor, 70100°C, 350mm capillary | |
| JTL-8 | £229.02 | £229.02 Temp limiter, ext. reset, 70100°C, 350mm capillary | |
| JTL-11 | £246.71 | £246.71 Temp monitor, 70100°C, 1250mm capillary | |
| JTL-8NR | £350.59 | £350.59 Temp monitor/limiter, 7095°C, 350mm capillary | |
| JTL-13A | £241.56 | £241.56 Temp limiter, 2070°C, 1250mm capillary | |
| JTL-17NR | £371.32 | Temp monitor/limiter, 7095°C, 1250mm capillary | |



DUCT THERMOSTAT - JTU

Minimum or maximum thermostat for inflow air monitoring and fan regulation in ventilation and air conditioning systems. Overheating protection thermostat for electrical heat registers and directly fired air heaters with oil and gas operation.

| Switching Capacity: 24v- 230v~ 150mA 50Hz, IP40 Heating or Cooling | | | |
|--|---|---|--|
| MODEL | LIST £ | ST £ EQUIPMENT | |
| JTU-50 | £167.24 | Temp monitor, -25+65°C, 350mm capillary | |
| JTU-1 | £195.49 | Temp monitor, 20100°C, 350mm capillary | |
| JTU-3 | £168.83 | £168.83 Temp limiter, ext reset, 20100°C, 350mm capillary | |
| JTU-20 | £186.12 | £186.12 Temp limiter, ext reset, 20100°C, 1250mm capillary | |
| JTU-5 | £194.70 Temp monitor, 60140°C, 350mm capillary | | |
| JTU-6 | £166.85 | Temp limiter, ext reset, 60…140°C, 350mm capillary | |



CONTROL CABINET THERMOSTATS - RTBSS / HYGROSTATS - RFHSS

RTBSS thermostats for temperature monitoring and RFHSS for monitoring in control cabinets, machines and housings. External settings, mounting on rails. JZ-13 accessory for fastening see page 29 onwards

| Switching Voltage: 24v~ 230v~ Control range 060°C | | | |
|---|---|--|--|
| MODEL | MODEL LIST £ EQUIPMENT | | |
| RTBSS-110.250/04 | £19.67 | Control function: heating, scale - red | |
| RTBSS-111.250/05 | £19.67 | £19.67 Control function: cooling, scale blue | |
| RTBSS-112.250/07 | £25.74 | £25.74 Control function: heating or cooling, scale grey | |
| RTBSS-112.211/12 | £28.38 | Control: heating or cooling, scale grey thermal feedback | |
| Switchin | Switching Voltage: 24v~ 230v~ Ambient temperature 060°C | | |
| MODEL | LIST £ | EQUIPMENT | |
| RFHSS-114.110/01 | £73.39 | Control range: 4090% relative humidity | |



CONTROLLER FOR DISTRIBUTOR ASSEMBLY (HAT RAIL) - ITR79

For monitoring of temperature in large halls, greenhouses and floor heating systems. The devices have sensor rupture and sensor shortcircuit protection. Sensors are not included, except ITR 79.804.

| Switching Capacity: 230v~ 50/60 Hz External setting | | | |
|---|--|---|--|
| MODEL | LIST £ | EQUIPMENT/SENSOR | |
| ITR79.402 | £110.75 | Heating, red LED, (NTC 1K sensor 1) -35+15°C | |
| ITR79.404 | £110.75 | Heating, red LED (NTC 10K sensor 4) 0…60°C | |
| ITR79.405 | £110.75 | Heating, red LED (NTC 50K sensor 5) 35…95°C | |
| ITR79.408 | £115.90 | Heating, red LED (NTC 8K sensor 3) -10…+40°C | |
| ITR79.503 | £125.66 Frost protection and heating, red LED, (NTC 2K25 senso 0) 011°C | | |
| ITR79.504 | £115.90 | Cooling, green LED (NTC 10K sensor 4) 060°C | |
| ITR79.508 | £115.90 | Cooling, green LED (NTC 8K sensor 3) -10+40°C | |
| ITR79.600 | £129.89 | Two setpoint adjusters (day/night temp via external clock) Heating, x2 530°C | |
| ITR79.804 | £148.50 | Includes sensor HF-8/4-K2 (4m cable) Heating, red LED, 060°C | |



JZ-13 accessory for fastening see page 29 onwards. Sensors page onwards 23 onwards.

UNIVERSAL CONTROLLER - ETR 77

Thanks to various sensor models suitable for universal use in heating, ventilation, air conditioning and refrigeration technology as well as in mechanical and plant engineering. Sensors are not included.

| Operating Voltage: 230v~ 50/60 Hz Internal setting IP65 Temperature monitors | | | |
|--|---------|-------------------------------------|--|
| MODEL LIST £ EQUIPMENT/SENSOR | | EQUIPMENT/SENSOR | |
| ETR77.008-5 | £131.34 | Control range: -50+50°C (sensor 51) | |
| ETR77.009-5 | £130.81 | Control range: 0100°C (sensor 51) | |

For sensors see page onwards 23 onwards



MECHANICAL HYGROSTATS - HI

Use in ventilation and air conditioning ducts, climate exposure cabinets and dehumidifiers for controlling and/or monitoring the atmospheric humidity in industrial and agricultural applications.

| Switching Voltage: 24v~ 230v~ Setting Ranges: 30100% r.h, humidifying or de-humidifying | | |
|---|---------|--|
| MODEL | LIST £ | EQUIPMENT |
| HI-1 | £222.95 | External mecahnical setting, control function |
| HI-1F | £220.70 | Internal setting, monitoring function |
| HI-2 | £291.59 | External setting - 2 stages, controller, 315% r.h. |



JZ-20.01 - Wall suspension element for HI and FS-HI acessories see page 29 onwards

WIND INDICATOR RELAY - JSL

Monitoring of air flows in ducts, in air supply and air exhausting devices of fan or electrical heat registers. The wind indicator relay is set to the minimum switching points at the factory.

| Switching Capacity: 24 - 230v~ 50Hz | | | |
|-------------------------------------|---------|---|--|
| MODEL | LIST £ | EQUIPMENT/SENSOR | |
| JSL-1E | £105.73 | Switch ON Values: Min. 2m/s Max. 9.2m/s Switch OFF Values: Min. 1m/s Max. 8.0m/s | |
| | | | |



DIFFERENTIAL PRESSURE SWITCHES - JDW/JDL

JZ-08 - Spare tag. See page 29

Monitoring of overpressure, differential or under-pressure of air and incombustible, non-aggressive gases. Exhaust or fan monitoring or flow monitor for securing electrical heat registers, as filter monitoring, air pressure shortage safeguard, limit value controller.

| Switching Capacity: 12 - 230v~ 50Hz IP54 | | |
|--|--------|---|
| MODEL | LIST £ | EQUIPMENT/SENSOR |
| JDW-3 | £55.84 | Control range 20330Pa, max 5000Pa, internal setting |
| JDW-3 Z | £61.91 | As above with installation bracket |
| JDW-5 | £55.84 | Control range 30…500Pa, max 5000Pa, internal setting |
| JDW-5 Z | £61.91 | As above with installation bracket |
| JDW-10 | £55.84 | Control range 401600Pa, max 5000Pa, internal setting |
| JDL-111 | £62.44 | Control range 20300Pa, max 15,000Pa, internal setting |
| JDL-112 | £61.25 | Control range 40600Pa, max 30,000Pa, internal setting |
| JDL-115 | £61.25 | Control: 100…1000Pa, max 30,000Pa, internal setting |
| JDL-116 | £61.25 | Control 2505000Pa, max 30,000Pa, internal setting |
| JDL-116A | £69.43 | Control 2505000Pa, max 30,000Pa, external setting |



JZ accessories - See page 29 onwards

FLOW MONITOR - JSF

Flow monitoring of liquid media in pipes from 1/2" to 8" for example, oil, cooling and lubricant circuits or as a precaution against a shortage of water. This device can be mounted in any position. JZ-09 - Spare paddle (4 pieces). See page 29

| Switching Capacity: 24-230v~ 50Hz | | |
|-----------------------------------|---------|---|
| MODEL | LIST £ | EQUIPMENT/SENSOR |
| JSF-3E | £194.44 | 1/2" 5 bar Attached T-piece (grey cast iron) normal |
| JSF-4E | £194.44 | 3/4" 5 bar Attached T-piece (grey cast iron) normal |
| JSF-1E | £187.31 | 1"…8" 8 bar – normal medium |
| JSF-1RE | £187.31 | 1"8" 5 bar Reduced switching values, normal |
| JSF-2E | £444.18 | 1"8" 13 bar - aggressive mediums |
| JSF-2RE | £444.18 | 1"8" 5 bar Reduced switching values, aggressive |



FLOW MONITOR - JSW

Monitoring small and medium, non-agressive quantities of liquid in pipes and small diameters 1/2" to 1". Assembly: vertical in a horizontal pipe. Calming path at least 5 times the pipe diameter before and after the paddle.

| Switching Capacity: 5A 24 - 230v~ 50Hz IP 65 | | |
|--|---------|---|
| MODEL | LIST £ | EQUIPMENT/SENSOR |
| JSW-1/2 | £163.24 | 1/2", switching point 56.5 l/min, 5.57.0 l/min, 0.5 Δ l |
| JSW-3/4 | £163.24 | 3/4", switching point 7…9.5 l/min, 9.0…11.0 l/min, 2∆l |
| JSW-1 | £163.24 | 1" switching point 13.516.5 l/min, 17.020.5 l/min, 3.5 Δ |
| | T-Pi | ece (nickel-plated brass) |
| MODEL | PRICE £ | EQUIPMENT |
| T-Stuck 1" | £29.26 | 1" Tee for JSW-1 |
| T-Stuck 1/2" | £23.87 | 1/2" Tee for JSW-1/2 |
| T-Stuck 3/4" | £27.10 | 3/4" Tee for JSW-3/4 |



Controls UK Catalogue 2020

Sensor technology is becoming more and more important. It makes life safer and more comfortable through the processing of multifarious data. Physical parameters (temperature or pressure) are captured and made available to the intelligent control technology.

ROOM TEMPERATURE SENSORS - SURFACE MOUNTED - BTF

Temperature measurement in residential rooms and business premises. Mounting and wiring of lower part can be done separately, surface mounted or on a switchbox, 60mm diameter by means of socket screws. JZ-21 adapter frame for mouting - See page 29.

| Electrical connection: 30 VAC/42 VDC IP30 | | |
|---|--------|------------------------|
| MODEL | LIST £ | SENSOR |
| BTF2-P100-0000 | £34.19 | PT 100 |
| BTF2-P1000-0000 | £34.19 | PT 1000 |
| BTF2-C225-0000 | £34.19 | NTC 2K25 "sensor 0" |
| BTF2-C47-0000 | £34.19 | NTC 47K "sensor 2" |
| BTF2-C08-0000 | £34.19 | NTC 8K "sensor 3" |
| BTF2-C10-0000 | £34.19 | NTC 10K "sensor 4" |
| BTF2-C02-0000 | £34.19 | NTC 2K "sensor 8" |
| BTF2-Y81/121-0000 | £34.19 | KTY 81-121 "sensor 51" |
| BTF2-Y11/7-0000 | £34.19 | KTY 11-7 "sensor 57" |



ROOM TEMPERATURE SENSORS - FLUSH MOUNTED - FUF

Temperature measurement in residential rooms and business premises. Sensor with 50 x 50mm cover can be integrated into almost all switch ranges by means of an insert frame (not included).

| max. 24v~/= Ambient temperature: -1050°C, LED standard green and red | | |
|--|--------|------------------------|
| MODEL | LIST £ | SENSOR |
| FUFP100-0000 | £43.43 | PT 100 |
| FUFP1000-0000 | £43.43 | PT 1000 |
| FUFC 225-0000 | £43.43 | NTC 2K25 "sensor 0" |
| FUFC 47-0000 | £43.43 | NTC 47K "sensor 2" |
| FUFC 08-0000 | £43.43 | NTC 8K "sensor 3" |
| FUFC10-0000 | £43.43 | NTC 10K "sensor 4" |
| FUFC 02-0000 | £43.43 | NTC 2K "sensor 8" |
| FUFY 81/121-0000 | £43.43 | KTY 81-121 "sensor 51" |
| FUFY 11/7-0000 | £43.43 | KTY 11-7 "sensor 57" |



JZ-090.900 alre frame 50x50mm pure white glossy - See page 29 onwards

OUTDOOR TEMPERATURE SENSOR WITH PASSIVE OUTPUT - AF

The AF outdoor temperature sensors are used for measurement in the outdoors, or in damp wet room environments. In cold storage rooms, greenhouses and industrial applications, specially protected against dust and moisture.

| Ambient temperature range: -30…+70°C Measurement Current: max. <1mA | | |
|---|--------|------------------------|
| MODEL | LIST £ | SENSOR |
| AFP-100 | £30.80 | PT 100 |
| AFP-1000 | £30.80 | PT 1000 |
| AF-0 | £30.80 | NTC 2K25 "sensor 0" |
| AF-1 | £30.80 | NTC 1 K "sensor 1" |
| AF-2 | £30.80 | NTC 47K "sensor 2" |
| AF-3 | £30.80 | NTC 8K "sensor 3" |
| AF-4 | £30.80 | NTC 10K "sensor 4" |
| AF-5 | £30.80 | NTC 50K "sensor 5" |
| AF-8 | £30.80 | NTC 2K "sensor 8" |
| AF-51 | £30.80 | KTY 81-121 "sensor 51" |
| AF-57 | £30.80 | KTY 11-7 "sensor 57" |



S protection 01 ball impact guard accessory - See page 29

OUTDOOR TEMPERATURE SENSOR WITH PASSIVE OUTPUT - AFH

Outdoor temperature sensors are used for measurement in the outdoors, or in damp wet room environments. Specially protected against dust and moisture. Includes external sensor sleeve for good response to temperature changes.

| Ambient temperature range: -30+70°C Measurement Current: max. <1mA | | |
|--|--------|--------------------|
| MODEL | LIST £ | SENSOR |
| AFHP-100 | £53.75 | PT 100 |
| AFHP-1000 | £53.75 | PT 1000 |
| AFHC-10 | £53.75 | NTC 10K "sensor 4" |



SLEEVE TEMPERATURE SENSORS - HF

Used for temperature measurement in liquid or gaseous media. The sleeve sensor is particularly protected against moisture and dust. If used in liquid media, integration in an immersion sleeve is necessary.

| Sensor dimensions 6mm diameter x 45mm, IP65, Measurement Current: max. <1mA | | |
|---|--------|--|
| MODEL | LIST £ | SENSOR |
| HFP100/P | £22.18 | PT 100, PVC sensor wire -35…+105°C |
| HFP1000/P | £22.18 | PT 1000, PVC sensor wire -35…+105°C |
| HFC 10/P | £22.18 | NTC 10K "sensor 4", PVC sensor wire -35+105°C |
| HFP100/S | £30.95 | PT 100, Silicone sensor wire -50+150°C |
| HFP100/S/6m | £44.51 | PT 100, Silicone sensor wire -50+150°C |
| HFP1000/S | £30.95 | PT 1000, Silicone sensor wire -50…+150°C |
| HFN 1000/S | £34.50 | NI 1000, Silicone sensor wire -50…+150°C |
| HFC 10/S | £30.95 | NTC 10K "sensor 4", Silicone sensor wire -50+150°C |



For dip sleeves see page 27 onwards

CABLE TEMPERATURE SENSOR - KF

Used for temperature measurement in liquid media by integrating in immersion sleeves (TH/NTH). For temperature measurement of air and non-aggressive gases in the air duct by integration in a protection coil.

| Sensor dimension | Sensor dimensions 6mm diameter x 45mm, IP65, Measurement Current: max. <1mA | | |
|------------------|---|------------------------|--|
| MODEL | PRICE £ | SENSOR | |
| KF-0 | £35.57 | NTC 2K25 "sensor 0" | |
| KF-1 | £35.57 | NTC 1 K "sensor 1" | |
| KF-100/6-4 | £52.82 | NTC 47K "sensor 2" | |
| KF100-4 | £45.43 | NTC 8K "sensor 3" | |
| KF-1000 | £36.96 | NTC 10K "sensor 4" | |
| KF-2 | £35.57 | NTC 10K "sensor 4" | |
| KF-3 | £35.57 | NTC 50K "sensor 5" | |
| KF-4 | £35.57 | NTC 100K "sensor 6" | |
| KF-4/6 | £37.88 | KTY 81-121 "sensor 51" | |
| KF-5 | £35.57 | KTY 81-121 "sensor 51" | |
| KF-51 | £38.65 | KTY 11-7 "sensor 57" | |
| KF-51/6 | £43.58 | PT 100 | |
| KF-57 | £35.57 | PT 100 | |
| KF-6 | £38.65 | PT 1000 | |



For dip sleeves see page and protection coil SW-200 page 27 onwards

CONTACT TEMPERATURE SENSOR - ALF

The ALF contact temperature sensors are used for temperature measurement on pipes, tubes or heat carriers. For better temperature transmission between the pipe and the contact sensor, the use of a heat conducting paste (WP-01) is recommended, see page 29

| Ambient temperature range: -30+70°C, IP65 | | |
|---|--------|------------------------|
| MODEL | LIST £ | SENSOR |
| ALFP-100 | £34.50 | PT-100 |
| ALFP-1000 | £34.50 | PT-1000 |
| ALF-0 | £34.50 | NTC 2K25 "sensor 0" |
| ALF-2 | £34.50 | NTC 47K "sensor 2" |
| ALF-3 | £34.50 | NTC 8K "sensor 3" |
| ALF-4 | £34.50 | NTC 10K "sensor 4" |
| ALF-5 | £34.50 | NTC 50K "sensor 5" |
| ALF-51 | £34.50 | KTY 81-121 "sensor 51" |

PENDULUM TEMPERATURE SENSOR - PF

For detecting temperatures in larger rooms. Owing to its ball shape, it picks them up from all directions within the room for a more representative result.

| Ambient temperature range: -30…+80°C, IP65, 30 VAC / 42 VDC | | | |
|---|---------|--------------------------------------|--|
| MODEL | LIST £ | SENSOR | |
| PFP-100 | £118.89 | PT-100 - 1m wire length | |
| PFP-1000 | £118.89 | PT-1000 - 1m wire length | |
| PFC-10 | £118.89 | NTC 10 K "sensor 4" - 1m wire length | |
| PFC47/6m | £125.97 | NTC 47 K "sensor 2" - 6m wire length | |

RADIATION TEMPERATURE SENSOR - STF

The radiation temperature sensor is a dual sensor for the measurement of radiation and room heat. The radiation sensor is located in the black hemisphere; the room sensor is located in the plastic housing.

| Ambient temperature range: -20+60°C, IP30, 30 VAC/ 42 VDC | | | |
|---|--------|----------------------------|--|
| MODEL | LIST £ | SENSOR | |
| STF-0 | £83.93 | 2 NTC sensors "0" NTC 2K25 | |
| STF-2 | £83.93 | 2 NTC sensors "2" NTC 47K | |
| STF-4 | £83.93 | 2 NTC sensors "4" NTC 10K | |
| STF-51 | £83.93 | 2 NTC sensors "51" PTC 1K | |

ASSEMBLY-TYPE DUCT SENSOR WITH PASSIVE OUTPUT - EKF

The assembly-type duct sensor EKF is used for measuring temperatures in liquids and gases in pipes, air ducts or tanks. A mounting flange (MF) is required for use in air ducts, and immersion sleeves (THM / THV) required for liquids or aggressive media.

| Ambient temperature range -30+70°C, max temp sensor 150oC, 30VAC / 42 VDC | | |
|---|---------------|---|
| MODEL | LIST £ SENSOR | |
| EKFP-100/50 | £50.20 | PT-100, Fitting length 65mm, 50mm immersion sleeve |
| EKFP-1000/50 | £50.20 | PT 1000, Fitting length 65mm, 50mm immersion sleeve |
| EKFP-100/100 | £50.97 | PT-100, Fitting length 115mm, 100mm immersion sleeve |
| EKFP-1000/100 | £50.97 | PT 1000, Fitting length 115mm, 100mm immersion sleeve |
| EKFP-100/150 | £52.51 | PT-100, Fitting length 165mm, 150mm immersion sleeve |
| EKFP-1000/150 | £52.51 | PT 1000, Fitting length 165mm, 150mm immersion sleeve |



MF mounting flange accessory see page 28 Dip sleeves page 27 onwards





INDUSTRIAL ASSEMBLY-TYPE DUCT SENSOR WITH PASSIVE OUTPUT - IKF1

Used for measuring temperatures in liquids and gases in pipes, air ducts or tanks in the mechanical and plant engineering sector. A mounting flange (MF) is required for use in air ducts, and immersion sleeves (THM / THV) required for liquids or aggressive media.

| Ambient temperature range -30+100°C, max temp sensor 150oC, 30VAC / 42 VDC | | | | |
|--|---------------------|---|--|--|
| MODEL | MODEL LIST £ SENSOR | | | |
| IKF1P-1000/50 | £86.55 | PT 1000, Fitting length 65mm, 50mm immersion sleeve | | |
| IKF1P-1000/100 | £88.40 | PT 1000, Fitting length 115mm, 100mm immersion sleeve | | |
| IKF1P-1000/150 | £90.24 | PT 1000, Fitting length 165mm, 150mm immersion sleeve | | |



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MF mounting flange accessory see page 28. Dip sleeves page 27 onwards

TRANSDUCER - DIFFERENTIAL AIR PRESSURE - MDEKD

The microprocessor-controlled pressure transducers are suitable for detecting overpressure, under-pressure or differential pressure of nonaggressive gases. They are used in heating, ventilation or air conditioning applications as well as clean room technology.

| Ambient temp | Ambient temperature: 1050°C Operating voltage 15-30VDC, 15-30 VAC | | | | |
|------------------------------|--|---|--|--|--|
| MODEL LIST £ MEASURING RANGE | | | | | |
| MDEKD-940.000 | £210.36 | £210.36 1000Pa, 750Pa, 500Pa, 250Pa relative pressure | | | |
| MDEKD-940.100 | MDEKD-940.100 £210.36 10000Pa, 7500Pa, 5000Pa, 2500Pa relative pressure | | | | |



SAUNA CONTROLLERS

Sauna controllers for dry or dry/ wet saunas.

| Mains voltage: 400 VAC, 3/N 50Hz ON/OFF switch LED indicator | | | | | | |
|--|--|---|--|--|--|--|
| MODEL LIST £ EQUIPMENT/SENSOR | | | | | | |
| Saunatherm VU | £376.53 | Sauna control dry sauna 30120°C | | | | |
| Hygrotherm VU | Hygrotherm VU £562.25 Dry /Wet Control 80110°C dry, 4060°C wet | | | | | |
| | Accessories for dry and wet sauna controllers | | | | | |
| LG 9/18 | £217.76 | Power switching unit 9kW (max. 3kW per phase) | | | | |
| LG 9/30 | LG 9/30 £883.81 Power switching unit 21kW (max. 7kW per phase) | | | | | |
| Sensor / STB £75.46 Spare sensor for Saunatherm VU and Hygrotherm VU | | | | | | |



IMMERSION SLEEVES / PROTECTION COILS

Immersion sleeves / protection coils for RTKSA and for sleeve and cable sensors. For industrial and heating technology.

| Max. Pressure: 20 up to 40 bar | | | | | |
|--------------------------------|-----------------------------------|--|--|--|--|
| MODEL | LIST £ | LENGTH / DIAMETER / MATERIAL | | | |
| | IMMERSION / DIP SLEEVES FOR RTKSA | | | | |
| THK-2-100 | £21.91 | 100mm, 7.5 x 10mm , nickel-plated brass | | | |
| THK-2-120 | £24.95 | 120mm, 7.5 x 10mm, nickel-plated brass | | | |
| THK-2-200 | £25.61 | 200mm, 7.5 x 10mm, nickel-plated brass | | | |
| THK-2-280 | £31.42 | 280mm, 7.5 x 10mm, nickel-plated brass | | | |
| THK-2-600 | £50.03 | 600mm, 7.5 x 10mm, nickel-plated brass | | | |
| NTHK-2-100 | £60.19 | 100mm, 7.5 x 10mm, V4 A (1.4571) | | | |
| NTHK-2-120 | £60.98 | 120mm, 7.5 x 10mm, V4 A (1.4571) | | | |
| NTHK-2-200 | £62.04 | 200mm, 7.5 x 10mm, V4 A (1.4571) | | | |
| NTHK-2-280 | £63.76 | 280mm, 7.5 x 10mm, V4 A (1.4571) | | | |
| THK-2-100x17 | £32.08 | 100mm, 14.8 x 17mm, nickel-plated brass | | | |
| THK-2-200x17 | £42.77 | 200mm, 14.8 x 17mm, nickel-plated brass | | | |
| NTHK-2-100x17 | £62.44 | 100mm, 14.8 x 17mm, V4 A (1.4571) | | | |
| NTHK-2-200x17 | £64.81 | 200mm, 14.8 x 17mm, V4 A (1.4571) | | | |
| | PROTECTI | VE SPIRAL COIL FOR RTKSA | | | |
| SWK-2-100 | £20.06 | 100mm, 10.5 x 17mm, steel, nickel-plated | | | |
| SWK-2-120 | £24.95 | 120mm, 10.5 x 17mm, steel, nickel-plated | | | |
| SWK-2-200 | £25.61 | 200mm, 10.5 x 17mm, steel, nickel-plated | | | |
| SWK-2-280 | £31.42 | 280mm, 10.5 x 17mm, steel, nickel-plated | | | |
| PROTECTIVE S | PIRAL FOR O | CAPILLARY FASTENING IN JET/JMT/JTF & HF | | | |
| SW-200 | £24.95 | 200mm, 11 x 17mm, Nickel plated steel (7.8 cable gland) | | | |
| SW-200-12 | £26.27 | 200mm, 11 x 17mm, Nickel plated steel (11.8 cable gland) | | | |



IMMERSION /DIP SLEEVES FOR CAPILLARY AND FROST PROTECTION THERMOSTATS

Immersion sleeves for capillary / frost protection thermostats / HF / screed mounting (into the pavement). For industrial and heating technology.

| Max. Pressure: 20 up to 40 bar | | | | | | |
|---|---|---------------------------------------|--|--|--|--|
| MODEL | MODEL LIST £ LENGTH / DIAMETER / MATERIAL | | | | | |
| FOR SENSORS HF/KF 7MM AND THERMOSTATS JET/JMT/WR 81 AND JTF | | | | | | |
| TH-55 | £20.99 | 55mm, 8 x 10mm, Nickel plated brass | | | | |
| TH-100 | £22.70 | 100mm, 8 x 10mm, Nickel plated brass | | | | |
| TH-140 | £26.80 | 140mm, 10 x 12mm, Nickel plated brass | | | | |
| TH-200 | £27.59 | 200mm, 8 x 10mm, Nickel plated brass | | | | |
| TH-280 | £33.13 | 280mm, 8 x 10mm, Nickel plated brass | | | | |
| NTH-55 | £58.21 | 55mm, 8 X 10mm, V4A (1.4571) | | | | |
| NTH-100 | £60.19 | 100mm, 8 x 10mm, V4A (1.4571) | | | | |
| NTH-140 | £62.04 | 140mm, 10 x 12mm,V4A (1.4571) | | | | |
| NTH-200 | £62.83 | 200mm, 8 x 10mm, V4A (1.4571) | | | | |
| NTH-280 | £63.76 | 280mm, 8 x 10mm, V4A (1.4571) | | | | |
| PROTECT | IVE COPPER | SLEEVE FOR SENSOR HF UP TO 7.7MM | | | | |
| THF | £44.09 | For installation into the pavement | | | | |
| | | | | | | |



Controls UK Catalogue 2020

IMMERSION SLEEVES / MOUTNING FLANGE

Immersion sleeves / mounting flange for HF, KF, EKF and IKF. For sleeve sensors 6mm diameter PVC and silicone, assembly-type and industrial duct sensors.

| Max. Pressure: 20 up to 40 bar | | | |
|--------------------------------|--------|---|--|
| MODEL | LIST £ | LENGTH / DIAMETER / MATERIAL | |
| THMs/50 | £15.05 | 50mm, 6.5 x 8mm, Nickel plated with recess | |
| THMs/100 | £15.84 | 100mm, 6.5 x 8mm, Nickel plated with recess | |
| THMs/150 | £16.63 | 150mm, 6.5 x 8mm, Nickel plated with recess | |
| THMs/200 | £17.29 | 200mm, 6.5 x 8mm, Nickel plated with recess | |
| THMs/250 | £18.35 | 250mm, 6.5 x 8mm, Nickel plated with recess | |
| THMs/300 | £92.00 | 300mm, 6.5 x 8mm, Nickel plated with recess | |
| THV/50 | £33.40 | 50mm, 6.3 x 9mm, Stainless steel | |
| THV/100 | £34.85 | 100mm, 6.3 x 9mm, Stainless steel | |
| THV/150 | £36.70 | 150mm, 6.3 x 9mm, Stainless steel | |
| THV/200 | £38.15 | 200mm, 6.3 x 9mm, Stainless steel | |
| THV/250 | £39.47 | 250mm, 6.3 x 9mm, Stainless steel | |
| THV/300 | £40.92 | 300mm, 6.3 x 9mm, Stainless steel | |
| THV/400 | £44.22 | 400mm, 6.3 x 9mm, Stainless steel | |
| THV/450 | £45.14 | 450mm, 6.3 x 9mm, Stainless steel | |
| THV/500 | £47.26 | 500mm, 6.3 x 9mm Stainless steel | |
| THV/600 | £50.29 | 600mm, 6.3 x 9mm Stainless steel | |
| | MOUNT | ING FLANGE, ALUMINIUM | |
| MF | £9.09 | Installation Flange, Aluminium 6 x40mm | |



| MODEL | LIST £ | DESCRIPTION |
|-------------|--------|--|
| ATRS-1 | £2.64 | Temperature fixing set ATR-83.0 |
| ET-01 | £2.48 | Knob for Series B1000 |
| ET-02 | £2.48 | Knob for Series B1000 |
| FS-HI | £17.95 | Sensor protection for duct hygrostat HI. |
| FS2-HI | £77.88 | Sensor protection for duct hygrostat HI. |
| HF-5/4-K3 | £61.60 | Sleeve sensor |
| HF-8/4-K2 | £25.74 | Replacement sleeve sensor 4mm |
| HF-8/6-K2 | £28.64 | Replacement sleeve sensor 7mm |
| JZ-01 L | £4.62 | Flush Mounted Cover Set |
| JZ-04 | £14.65 | Capillary tube for air duct installation purposes including 30cm protective hose. |
| JZ-05/6K | £13.86 | Installation clips for JTF (6 pieces). Made of plastic (max. 145°C). |
| JZ-05/6M | £14.78 | 1 set of installation clips for frost protection thermostat JTF (6 pieces). Made of metal. |
| JZ-05/1M | £3.04 | Insulation clips Metal |
| JZ-06/1 | £11.09 | Set with plastic duct connections (angle, 2x90º, 2 extensions (90mm), 4 self-tapping screws, 2m hose (dia. 6mm) |
| JZ-07 | £6.47 | Installation bracket for frost protection thermostat JTF. |
| JZ-08 | £22.57 | Spare tag for air flow sensing relay JSL. |
| JZ-09 | £22.57 | Spare paddle (4 pieces) for flow monitor JSF (sizes from 1" to 8"). |
| JZ-10 | £5.68 | Installation bracket for JDL-109/-113 and JDW-3/5/-10 including 6 screws. |
| JZ-13 | £5.41 | Cover Set |
| JZ-17 | £7.79 | Adapter plate Berlin 3000 design housing (hardwired) |
| JZ-18 | £7.79 | Snap-on adaptor plate for Berlin 3000 design housing (radio controller can be removed). |
| JZ-19 | £29.70 | Cover Set |
| JZ-20-1 | £6.00 | Wall bracket for duct hygrostat HI, for duct measuring transducers TF,FF, FTF, FS-K3 and air flow monitor JSL-20K. |
| JZ-21 | £3.86 | Adapter Plate |
| JZ-24 | £25.08 | Cover Set |
| JZ-25 | £69.17 | Cover Set |
| JZ-26 | £41.45 | Cover Set |
| JZ-27 | £97.94 | Cover Set |
| JZ-28 | £45.14 | Cover Set |
| JZ-29 | £4.09 | Attachment set RTKSA,THK,NTHK,SWK Cap Thermostat |
| JZ-30 | £6.73 | Attachment set RTKSA,THK,NTHK,SWK C/T-Dual Control |
| JZ-31 | £4.09 | Attachment set RTKSA Rohrmontage Anlegeregler |
| JZ-32 | £18.74 | Magnetic attachment set |
| JZ-090.900 | £3.37 | Alre Frame |
| JZ-090.910 | £3.37 | Alre Frame |
| JZ-DA | £11.48 | Cover Set |
| S-Schutz 01 | £45.58 | S PROTECTION 01 -150 x 90 x 47mm, Stainless Steel Ball Sun and Rain Protector |
| WP-01 | £6.73 | Heat conduction paste (2ml). |



| FLUSH | MOUNTED | COVER | SETS - JZ |
|-------|---------|-------|-----------|
| - | | | |

| MODEL | LIST | MODEL | LIST £ | MODEL | LIST £ | MODEL | LIST £ |
|---------------|--------|---------------|--------|---------------|--------|---------------|--------|
| JZ-001.000 | 9.31 | JZ-001.001 | £9.31 | JZ-001.010 | £9.31 | JZ-001.020 | £10.79 |
| JZ-001.021 | 10.79 | JZ-001.030/BJ | £16.63 | JZ-001.040/BJ | £15.15 | | |
| JZ-001.100 | £11.58 | JZ-001.101 | £11.58 | JZ-001.110 | £11.58 | JZ-001.120 | £13.27 |
| JZ-001.130/JU | £16.63 | JZ-001.131/BE | £16.63 | JZ-001.131/GI | £16.63 | JZ-001.131/ME | £16.63 |
| JZ-001.141/BE | £15.15 | JZ-001.141/GI | £15.15 | JZ-001.141/JU | £9.31 | JZ-001.141/ME | £15.15 |
| JZ-001.200/BJ | £9.31 | JZ-001.210/BJ | £9.31 | JZ-001.320/BJ | £12.77 | | |
| JZ-002.000 | £10.30 | JZ-002.001 | £10.30 | JZ-002.010 | £10.30 | JZ-002.020 | £11.98 |
| JZ-002.021 | £11.98 | | | | | | |
| JZ-002.100 | £12.77 | JZ-002.101 | £12.77 | JZ-002.110 | £12.77 | JZ-002.120 | £14.36 |
| JZ-002.200/BJ | £10.30 | | | | | | |
| JZ-003.000 | £10.30 | JZ-003.001 | £10.30 | JZ-003.010 | £10.30 | JZ-003.020 | £11.98 |
| JZ-003.021 | £11.98 | | | | | | |
| JZ-003.100 | £12.77 | JZ-003.101 | £12.77 | JZ-003.110 | £12.77 | JZ-003.120 | £14.36 |
| JZ-004.000 | £9.90 | JZ-004.001 | £9.90 | JZ-004.010 | £9.90 | JZ-004.020 | £11.39 |
| JZ-004.021 | £11.39 | | | | | | |
| JZ-004.100 | £12.38 | JZ-004.101 | £12.38 | JZ-004.110 | £12.38 | JZ-004.120 | £13.96 |
| JZ-005.000 | £12.38 | JZ-005.001 | £12.38 | JZ-005.010 | £12.38 | JZ-005.020 | £12.38 |
| JZ-005.021 | £12.38 | | | | | | |
| JZ-005.100 | £13.86 | JZ-005.101 | £13.86 | JZ-005.110 | £13.86 | JZ-005.120 | £13.86 |
| JZ-006.000 | £12.38 | JZ-006.001 | £12.38 | JZ-006.010 | £12.38 | JZ-006.020 | £12.38 |
| JZ-006.021 | £12.38 | | | | | | |
| JZ-006.100 | £13.86 | JZ-006.101 | £13.86 | JZ-006.110 | £13.86 | JZ-006.120 | £13.86 |
| JZ-007.000 | £10.30 | JZ-007.001 | £10.30 | JZ-007.010 | £10.30 | JZ-007.020 | £10.30 |
| JZ-007.100 | £11.58 | JZ-007.101 | £11.58 | JZ-007.110 | £11.58 | JZ-007.120 | £11.58 |
| JZ-008.000 | £9.90 | JZ-008.001 | £9.90 | JZ-008.010 | £9.90 | JZ-008.020 | £9.90 |
| JZ-008.100 | £11.09 | JZ-008.101 | £11.09 | JZ-008.110 | £11.09 | JZ-008.120 | £11.09 |
| JZ-009.000 | £12.38 | JZ-009.001 | £12.38 | JZ-009.010 | £12.38 | JZ-009.020 | £12.38 |
| JZ-009.021 | £12.38 | | | | | | |
| JZ-009.100 | £13.86 | JZ-009.101 | £13.86 | JZ-009.110 | £13.86 | JZ-009.120 | £13.86 |
| JZ-012.000 | £9.90 | JZ-012.001 | £9.90 | JZ-012.010 | £9.90 | JZ-012.020 | £11.39 |
| JZ-012.021 | £11.39 | | | | | | |
| JZ-012.100 | £12.38 | JZ-012.101 | £12.38 | JZ-012.110 | £12.38 | JZ-012.120 | £13.96 |
| JZ-016.000 | £9.90 | JZ-016.100 | £12.38 | | | | |
| JZ-021.000 | £9.31 | JZ.021.001 | £9.31 | JZ-021.010 | £9.31 | JZ-021.020 | £9.31 |
| JZ-021.100 | £10.30 | JZ-021.101 | £10.30 | JZ-021.110 | £10.30 | JZ-021.120 | £10.30 |

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1. Prices

Unless otherwise specifically agreed all goods are sold at the price currently quoted by us on the day of despatch. Any price alteration to those currently shown in our Price Lists may be done so without prior notice. Prices shown do not include VAT or carriage.

2. Payment

Unless otherwise agreed, all goods are to be paid for by cash, cheque, debit card or credit card with order. Minimum purchase on debit or credit cards is £25.00.

3. Credit

Where credit is granted, payment shall be 30 days from date of invoice and must be strictly observed. We reserve the right to charge interest at the rate of 2% per month compound on all accounts in arrears and withhold credit facilities.

4. Carriage & Packing

All costs of carriage and packing are chargeable unless otherwise stated. Any damage in transit must be notified in writing within 3 days of receipt.

5. Delivery

Whilst every effort is made to adhere to delivery times stated, liability for delay however caused and for loss howsoever arising there from is hereby excluded.

6. Cancellations

Orders or part orders cannot be cancelled without prior agreement and written consent of the vendor. Returned material must be in new and unused condition and in the original packaging. A cancellation fee of 20% of the order value may be applied subject to our discretion when raising a credit for returned or cancelled items. Special orders cannot be cancelled nor can such items be returned.

7. Exclusions

All liability of whatsoever nature in respect of any loss whatsoever howsoever caused arising out of or in respect of or in connection with the sale of any goods is hereby excluded. This is no way prejudices the purchase's right under current legislation.

8. Amendments

No employee or agent save for a Director has any authority to vary the terms of these conditions of trading whether by addition, subtraction, amendment, or by any other means whatsoever.

9. Returns

No goods will be accepted back without prior agreement or without a covering letter stating reason for return.

10. Retention of Title

The goods supplied, unless otherwise agreed, remain the property of the vendor until all debts owing to the vendor or to be created in the future and arising out of any business transaction with the purchaser have been paid. In the event of bankruptcy or insolvency of the purchaser, the title of the goods shall remain with the vendor until all outstanding debts owed by the purchaser to the vendor have been discharged. Upon the happening of such an event the vendor shall have the right to enter upon the premises of the purchaser for the purpose of re-possessing any goods, which he has supplied, and remove them at the purchaser's expense whether or not the goods have been mixed. Notwithstanding the foregoing, the goods shall be at the purchaser's risk on delivery.

11. Warranty

The vendor warrants to the original buyer in respect of goods supplied by the vendor that as from the date of supply/invoice for a period of twelve months the vendor will replace or repair free of charge any part of or parts thereof proved to its satisfaction to be defective owing to faults in workmanship or materials. All labour, travel and carriage costs involved in effecting such replacement or repair will be borne by the buyer. The vendor reserves the right to supply and charge for goods pending the outcome of any manufacturer's investigations into the validity of a warranty claim. Any item returned under warranty must by accompanied by a copy of our invoice and a full description of the goods along with the reason for return. Description "faulty" will not be accepted. Warranties shall not apply to:

i) Any defect

ii) Any goods installed outside the UK.

iii) Any defect not notified to the vendor by the buyer in writing within 7 days of it coming to or of when it should have come to the buyer's notice.

iv) Any goods, which have not been paid in full.

12. Applicable Law

For the purpose of resolving any dispute arising out of a sale, the contract shall be governed by English Law.