

# **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	<b>£244.43</b> 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 <b>£278.09</b> 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 <b>£281.46</b> 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.

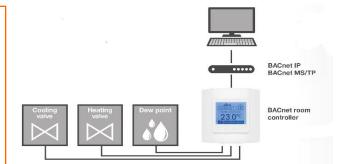
With its applications, the new alre BACnet climate controller covers most fields of application in automated individual room control.

#### 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 <b>£147.51</b> 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	



Controls UK Catalogue 2020

### **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

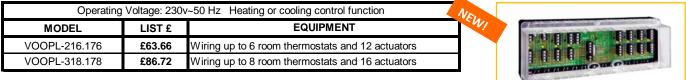
Electrical control of water flow through heating or cooling system. Extremley compact design, can be fitted quickly and comfortably tin any position. Lateral drainage holes carry off any leakage water and additional valve monitoring viewing windows included.

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				

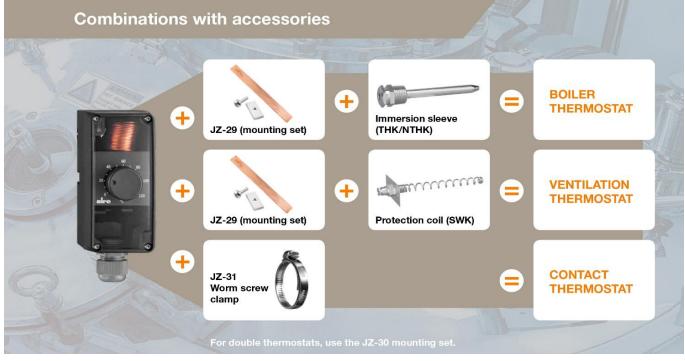
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JZ-24 Magnetic fastening set available - see page 29



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	<b>£246.71</b> Temp monitor, 70100°C, 1250mm capillary	
JTL-8NR	£350.59	<b>£350.59</b> Temp monitor/limiter, 7095°C, 350mm capillary	
JTL-13A	£241.56	<b>£241.56</b> 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	<b>£168.83</b> Temp limiter, ext reset, 20100°C, 350mm capillary	
JTU-20	£186.12	<b>£186.12</b> Temp limiter, ext reset, 20100°C, 1250mm capillary	
JTU-5	<b>£194.70</b> 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	<b>£25.74</b> 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	<b>£125.66</b> 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 $\Delta$ 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 $\Delta$
	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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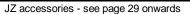
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MF mounting flange accessory see page 28. Dip sleeves page 27 onwards

#### 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 <b>£210.36</b> 10000Pa, 7500Pa, 5000Pa, 2500Pa relative pressure				



#### SAUNA CONTROLLERS

Sauna controllers for dry or dry/ wet saunas.

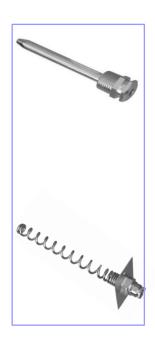
Mains voltage: 400 VAC, 3/N 50Hz ON/OFF switch LED indicator						
MODEL LIST £ EQUIPMENT/SENSOR						
Saunatherm VU	£376.53	Sauna control dry sauna 30120°C				
Hygrotherm VU	Hygrotherm VU £562.25 Dry /Wet Control 80110°C dry, 4060°C wet					
	Accessories for dry and wet sauna controllers					
LG 9/18	£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

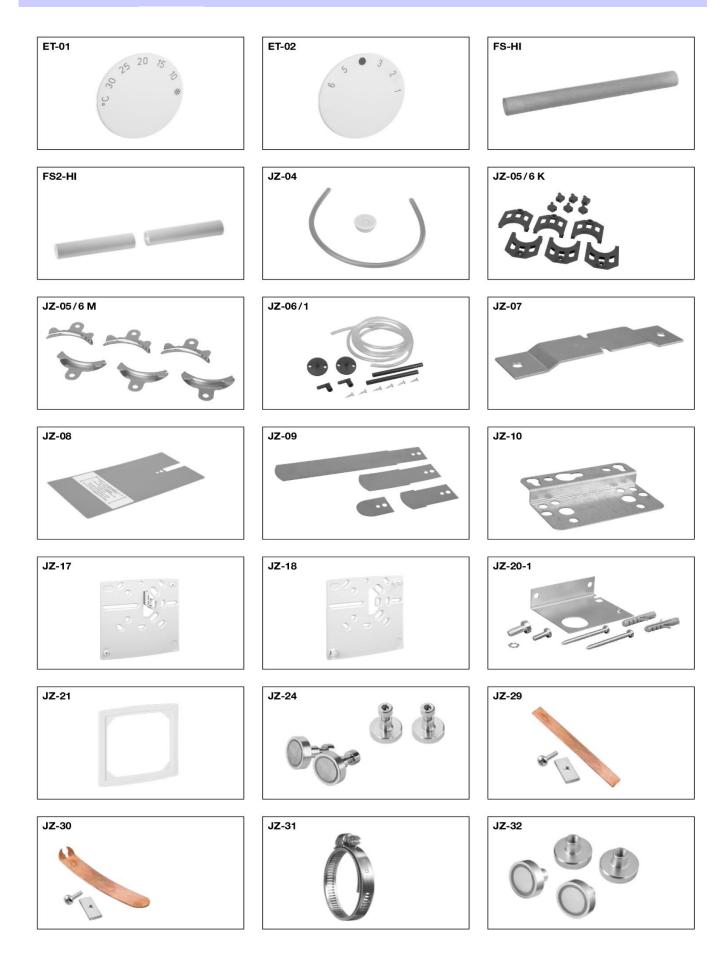
#### **IMMERSION SLEEVES / MOUTNING FLANGE**

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

# You may also be interested in:-



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A refrigeration wholesaler selling a wide range of products, tools and ancillary items including Caen Valves, Carly Line Components, Frimetal Evaporators and Condensers, GEA-Bock Compressors and Condensing Units, Sinclair Air Conditioning and Siccom Condensate Pumps.

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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.