



Controls UK Product Catalogue 2008



ALRE Product Index



SEL Product Index

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HEATING TECHNOLOGY

RTBSB - BIMETAL ROOM TEMPERATURE CONTROLLERS - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|--------|-------------------|----------------|-----------------------|---|
| RTBSB-201.000 | £19.74 | 250v ~/50/60 Hz | 5...30°C | New | Break contact |
| RTBSB-201.002 | £21.62 | 250v ~/50/60 Hz | 5...30°C | New | Break contact, temperature decrease function |
| RTBSB-201.010 | £24.33 | 250v ~/50/60 Hz | 5...30°C | New | Changeover contact |
| RTBSB-201.023 | £23.59 | 250v ~/50/60 Hz | 5...30°C | New | Break contact, temperature decrease function, on/off switch |
| RTBSB-201.062 | £25.06 | 250v ~/50/60 Hz | 5...30°C | New | Break contact, temperature decrease function, on/off switch, heating indicator lamp |

RTBSB bimetal room temperature controllers for "super flat" surface installation. For control or supervision of temperatures in closed rooms. Valve: Normally closed type.

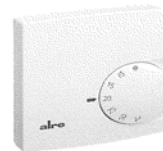


Controls UK
Temperature, Pressure, Humidity & Flow

RTBSB - BIMETAL ROOM TEMPERATURE CONTROLLERS - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|------------------------|----------------|-----------------------|--|
| RTBSB-001.000 | £19.74 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.000 | Break contact |
| RTBSB-001.002 | £21.62 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.002 | Break contact, temperature decrease function |
| RTBSB-001.010 | £24.33 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.010 | Changeover contact |
| RTBSB-001.026 | £27.93 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.25/026/054 | Changeover contact, on/off switch, permanently operated fan |
| RTBSB-001.045 | £24.57 | 250v ~; 24V ~/50/60 Hz | -20...30°C | PTR 01.045 | Changeover contact |
| RTBSB-001.048 | £24.57 | 250v ~; 24V ~/50/60 Hz | 10...60°C | PTR 01.048 | Changeover contact |
| RTBSB-001.050 | £30.06 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.050 | Break contact, on/off switch, indicator lamp, switch/indicator lamp, "additional heating" |
| RTBSB-001.062 | £25.06 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.034/073/074 | Break contact, on/off switch, temperature decrease function, heating indicator lamp |
| RTBSB-001.065 | £26.70 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.065 | Changeover contact, heating/cooling switch. Climate controller for use with 2 pipe systems, especially heat pumps. |
| RTBSB-001.075 | £28.42 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR 01.075 | Changeover contact, triple switch "temperature decrease/heating/temperature decrease via external timer" |
| RTBSB-001.086 | £23.10 | 250v ~; 24V ~/50/60 Hz | 5...30°C | New | Break contact, numeric scale 1...6, switching capacity 3000w for use with direct electrical heating systems |

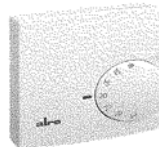
RTBSB bimetal room temperature controllers for surface installation. For control or supervision of temperatures in closed rooms. Suited for all types of heating systems. Valve: Normally closed type. Specially suited for use with switch cabinets, see type PTR01.082.



RTBSB - BIMETAL ROOM TEMPERATURE CONTROLLERS - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|-----------------|---------------|------------------------|---------------------------------|-----------------------------------|--|
| RTBSB-001.096 | £23.92 | 250v ~; 24V ~/50/60 Hz | 5...30°C | New | Break contact, numeric scale 1..6, switching capacity 3000w, heating indicator lamp |
| RTBSB-001.202 | £24.41 | 250v ~; 24V ~/50/60 Hz | 5...30°C | PTR01.202 | Break contact, temperature decrease function, 24V~ |
| RTBSB-001.910 | £26.54 | 250v ~; 24V ~/50/60 Hz | 5...30°C, 10...60°C, -20...30°C | PTR 01.902/01.910 | Changeover contact, temperature decrease function, internal setting |
| RTBSB-001.948/1 | £30.72 | 250v ~; 24V ~/50/60 Hz | 10...60°C | PTR 01.910/2 2 (24V)/PTR 01.948/1 | Changeover contact, internal setting, 230V~/24V |
| PTR01.082 | £26.79 | 250v ~; 24V ~/50/60 Hz | 10...60°C | N/A | Changeover contact, 230V~ heating 10 (4) A, cooling 5 (2) A, switching difference approx. 2K, installation on DIN rail. Specially suited for installation in switch cabinets (Pikolo design). For the protection of electrical components against heat, cold and moisture. |

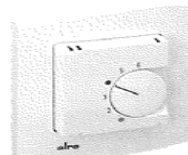
RTBSB bimetal room temperature controllers for surface installation. For control or supervision of temperatures in closed rooms. Suited for all types of heating systems. Valve: Normally closed type. Specially suited for use with switch cabinets, see type PTR01.082.



FTR - BIMETAL ROOM TEMPERATURE CONTROLLERS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|-----------------|----------------|-------------------|----------------|-----------------------|--|
| FTR 101.000 #21 | £88.78 | 250v ~ /50/60 Hz | 5...30°C | N/A | Break contact |
| FTR 101.002 #21 | £92.25 | 250v ~ /50/60 Hz | 5...30°C | N/A | Break contact, temperature decrease function |
| FTR 101.010 #21 | £100.96 | 250v ~ /50/60 Hz | 5...30°C | N/A | Changeover contact, temperature decrease function |
| FTR 101.062 #21 | £97.08 | 250v ~ /50/60 Hz | 5...30°C | New | Break contact, temperature decrease function, on/off switch, heating indicator lamp |
| FTR 101.065 #21 | £113.11 | 250v ~ /50/60 Hz | 5...30°C | New | Changeover contact, "heating/cooling" switch. Climate controller for 2 pipe systems, especially heat pumps |
| FTR 101.073 #21 | £106.19 | 250v ~ /50/60 Hz | 5...30°C | N/A | Break contact, temperature decrease function, on/off switch and lamp |
| FTR 101.075 #21 | £111.39 | 250v ~ /50/60 Hz | 5...30°C | N/A | Break contact, triple switch "temperature decrease/heating/temperature decrease via external switch clock", indicator lamp |
| FTR 101.086 #21 | £93.86 | 250v ~ /50/60 Hz | 5...30°C | N/A | Break contact, switching capacity 300w for direct electrical heating systems |
| FTR 101.202 #21 | £97.47 | 250v ~ /50/60 Hz | 5...30°C | New | Break contact, temperature decrease function, 24v~ |
| FTR 101.xxx #02 | POA | 250v ~ /50/60 Hz | 5...30°C | N/A | Controller FTR 101.XXX ~21, same model as above but without frame, housing cover 50 x 50, matt, RAL 9010 |
| FTR 101.xxx #07 | POA | 250v ~ /50/60 Hz | 5...30°C | N/A | Controller FTR 101.XXX ~21, same model as above but without frame, housing cover 50 x 50, bright, RAL 9010 |
| FTR 101.xxx #09 | POA | 250v ~ /50/60 Hz | 5...30°C | N/A | Controller FTR 101.XXX ~21, same model as above but without frame, housing cover 50 x 50, bright, RAL 1013 |

FTR bimetal room temperature controllers for flush installation. For control or supervision of temperatures in closed, dry rooms. Suited for all types of heating systems. Valve: Normally closed type. Cover set available in RAL 1013. FTR's available only in packaging units of 16 pieces.



ACCESSORIES FOR CONVERSION TO COLOUR RAL 1013

| Model | List £ | Type | Notes | Equipment |
|---|--------------|-------------|---|--|
| RAL 1013 | £6.05 | Cover set 4 | For conversion to white RAL 1013 (cream, white, electrowhite, pearl white) | For FTR 101.000, .002, .010, .086,.202 |
| RAL 1013 | £8.42 | Cover set 5 | For conversion to white RAL 1013 (cream, white, electrowhite, pearl white) | For FTR 101.062, .073 |
| RAL 1013 | £9.25 | Cover set 6 | For conversion to white RAL 1013 (cream, white, electrowhite, pearl white) | For FTR 101.075 |
| Consists of brilliant housing cover, button, cover screw and switch rocker (if applicable) and optical waveguide. | | | | |
| RAL 1013 | £3.50 | Frame set 7 | For controllers provided for individual flush installation in RAL 1013, germane to all switch ranges in the same colour | Suited for FTR, FETR, FDTR-U, all models |

FTR bimetal room temperature controllers for flush installation. For control or supervision of temperatures in closed, dry rooms. Suited for all types of heating systems. Valve: Normally closed type. Cover set available in RAL 1013. FTR's available only in packaging units of 16 pieces.

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Temperature, Pressure, Humidity & Flow

PTR BIMETAL ROOM TEMPERATURE CONTROLLER

| Model | List £ | Operating Voltage | Setting Ranges | Equipment |
|-------------|---------------|-------------------|----------------|--|
| PTR 01.401 | £31.29 | 250 V~/50/60HZ | 5...30°C | Cable 1.5m long with adaptor plug. Controller suited for permanent installation or for wall suspension. |
| PTR 01.411 | £34.23 | 250 V~/50/60HZ | 5...30°C | Cable 1.5m long with coupling. A preassembled plug-in socket enables to plug the controller directly into the wall socket. |
| XA-PTR 2-14 | £14.91 | 250 V~/50/60HZ | 5...30°C | Plug in socket (as with PTR 01.411), completely prewired, can be completed with room thermostat PTR 01.086. |
| PTR 01.086 | £21.46 | 250 V~/50/60HZ | 5...30°C | Break contact, numeric scale 1...6, switching capacity 3000w. For direct electrical heating systems. |

PTR bimetal room temperature controllers for surface installation or as a fully packaged device. For the control of temperatures in rooms heated by radiators, closed fireplaces, direct electrical heating systems and marble heating systems etc.





Controls UK
Temperature, Pressure, Humidity & Flow

KTRVB ELECTRONIC CONTINUOUS ACTION CONTROLLER

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|-------------------|----------------|-----------------------|--|
| KTRVB-048.100 | £47.34 | 24 V~/=approx 1VA | 5...30°C | PETA 75.500 | Internal sensor NTC 47 kΩ, control of climates in mixing chambers by means of a proportionally actuated valve |
| KTRVB-048.200 | £50.78 | 24 V~/=approx 1VA | 21°C ± 3K | PETA 75.502 | Internal sensor NTC 47 kΩ, control of climates in mixing chambers by means of a proportionally actuated valve |
| KTRVB-042.100 | £53.32 | 24 V~/=approx 1VA | 5...30°C | PETA 75.800/75.803 | Internal sensor NTC 47 kΩ, control of climates in individual rooms by means of proportionally actuated valves |
| KTRVB-042.205 | £62.06 | 24 V~/=approx 1VA | 21°C ± 3K | PETA 75.805 | Internal sensor NTC 47 kΩ, control of climates in individual rooms by means of proportionally actuated valves |
| KTRVB-042.206 | £66.18 | 24 V~/=approx 1VA | 21°C ± 3K | PETA 75.815 | Internal sensor NTC 47 kΩ, control of climates in individual rooms by means of proportionally actuated valves |
| KTRVB-042.207 | £56.76 | 24 V~/=approx 1VA | 21°C ± 3K | PETA 75.833 | External sensor NTC 47 kΩ, control of climates in individual rooms by means of proportionally actuated valves. |
| KTRVB-040.209 | £51.68 | 24 V~/=approx 1VA | 21°C ± 3K | PETA 75.910 | Internal sensor NTC 47 kΩ, control of climates in individual rooms by means of proportionally actuated valves |

KTRVB electronic continuous action controllers for surface installation. For controlling room temperatures for the permanent valve drives. Controls 2 pipe systems (1 conduit), 4 pipe systems (2 conduits) and mixing chambers. For KTRVB-040.209 sensor LF-22 must be ordered seperately (see page 72 for sensors)



HTRRB ELECTRONIC TEMPERATURE CONTROLLER WITH REMOTE SENSOR

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|-------------------|----------------|-----------------------|---|
| HTRRB-011.010 | £71.02 | 230 V~, 50Hz | 10...60°C | PETR 01.725 | Floor temperature controller, red LED "heating". |
| HTRRB-011-410 | £87.40 | 230 V~, 50Hz | 20...80°C | PETR 01.825 | Tiled stove surface temperature controller, red LED "heating" |

HTRRB electronic temperature controllers with remote sensor for surface installation. For floor, wall and ceiling heating systems and tiled stoves. Controls temperatures produced by heating systems.

ACCESSORIES FOR HTRRB ELECTRONIC TEMPERATURE CONTROLLER WITH REMOTE SENSOR

See pages 71 and 96 for sensors which suit this model including HF-8/4-K2, HF-5/4-K3 and THF.



FETR ELECTRONIC TEMPERATURE CONTROLLER WITH REMOTE SENSOR

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|------------------|----------------|-------------------|----------------|-----------------------|--|
| FETR 101.715 #21 | £88.46 | 230V/50Hz | 10...50°C | N/A | With remote sensor (4m) for floor temperature range as left. External sensor HF-8 included. |
| FETR 101.745 #21 | £104.92 | 230V/50Hz | 5...30°C | N/A | With internal NTC room sensor and remote sensor (4m) for the limitation of the floor temp. Internal & external sensor HF-8 included. |

FETR electronic temperature controller with remote sensor for flush installations in floor wall and ceiling heating systems. For control of temperatures produced by heating systems.

ACCESSORIES FOR FETR ELECTRONIC TEMPERATURE CONTROLLER WITH REMOTE SENSOR

| Model | List £ | Type | Notes | Equipment |
|----------|--------------|-------------|---|---|
| RAL 1013 | £9.61 | Cover Set 9 | For conversion to colour RAL 1013 (cream white, electrowhite and pearl white). | For FETR 101.175 (consisting of bright housing cover, button, cover screw and if need be, switch rocker and optical wageguide). |
| RAL 1013 | £3.50 | Frame Set 7 | For controllers provided by individual flush installation in RAL 1013, germane to all switch ranges in the same colour. | For all models of the FTR, FETR and FDTR-U series. |

See pages 71 and 96 for sensors which suit this model including HF-8/4-K2 and THF.



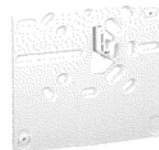
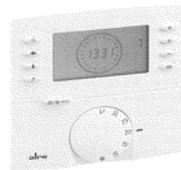
HTRRBu CLOCK CONTROLLED ELECTRONIC THERMOSTAT - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|----------------|----------------|-------------------|----------------|-----------------------|--|
| HTRRBu-110.117 | £98.12 | 230V/50Hz | 5...30°C | MTRU series | Controller with clock, various settings including holiday. Temperature setting knob with °C scale. |
| HTRRBu-110.121 | £114.49 | 230V/50Hz | 5...30°C | MTRU series | Controller with clock and backlight, otherwise identical to above. |

HTRRBu clock controlled electronic thermostat for surface installation. For the time-dependent control of temperatures in closed rooms. Suited for all types of heating systems. Valve: normally closed type. This device can also be used as a master controller that enables it to trigger the temperature decrease of other controllers (slaves) such as FETR, FTR and RTBSB models.

ACCESSORIES FOR THE HTRRBu CLOCK CONTROLLED ELECTRONIC THERMOSTAT

| Model | List £ | Equipment |
|-------|--------------|--|
| JZ-17 | £4.39 | Adaptor plate for installation on a UP box (including fixing screws for the installation of the HTRRBu on the adaptor plate) |



FDTR-U CLOCK CONTROLLED ELECTRONIC THERMOSTATS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|------------------------------|----------------|-------------------|----------------|-----------------------|--|
| FDTR-U 101.100 SL/OFF #21 | £124.91 | 230 V~/50Hz | 5...30°C | N/A | Self learning and frost protection functions and valve protection. |

FDTR-U clock controlled electronic thermostat for flush installation. For the time-dependent control of temperatures developed by electric and warm water heating systems. This device can also be used as a master controller that enables it to trigger the temperature decrease of other controllers (slaves) such as FETR, FTR and RTBSB models.

ACCESSORIES FOR THE FDTR-U CLOCK CONTROLLED ELECTRONIC THERMOSTAT

| Model | List £ | Type | Notes | Equipment |
|----------|--------------|-------------|---|----------------|
| RAL 1013 | £4.35 | Cover set 8 | For conversion to RAL 1013 (cream white, electrowhite and pearl white). | For FDTR-U xxx |



HTRRBu CLOCK CONTROLLED ELECTRONIC THERMOSTAT WITH REMOTE SENSOR - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|----------------|----------------|-------------------|----------------|-----------------------|---|
| HTRRBu-110.017 | £118.59 | 230V/50Hz | 10...40°C | METRU 01.725 | Controller with clock, external NTC sensor, temperature decrease function. External sensor HF-8 included. |
| HTRRBu-110.021 | £134.99 | 230V/50Hz | 10...40°C | New | Identical to above but with backlight. |
| HTRRBu-110.122 | £130.07 | 230V/50Hz | 5...40°C | New | Controller with floor temperature monitoring function and clock, temperature decrease function. Internal and external sensor HF-8 included. |
| HTRRBu-110.123 | £146.46 | 230V/50Hz | 5...40°C | N/A | Identical to above but with additional backlight. |

HTRRBu clock controlled electronic thermostat for surface installation. For the time-dependent control of temperatures in closed rooms. Suited for all types of heating systems. Valve: normally closed type. This device can also be used as a master controller that enables it to trigger the temperature decrease of other controllers (slaves) such as FETR, FTR and RTBSB models.

ACCESSORIES FOR THE HTRRBu CLOCK CONTROLLED ELECTRONIC THERMOSTAT

| Model | List £ | Equipment |
|-------|--------------|--|
| JZ-17 | £4.39 | Adaptor plate for installation on a UP box (including fixing screws for the installation of the HTRRBu on the adaptor plate) |

See page 96 for sensors which suit this model including THF.



FDTR-U CLOCK CONTROLLED ELECTRONIC THERMOSTAT WITH REMOTE SENSOR

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|------------------------------|----------------|-------------------|--------------------------------------|-----------------------|--|
| FDTR-U 101.130 SL/OFF #21 | £133.59 | 230 V~ /50Hz | 10...50°C | N/A | Controller with clock, self learning function and frost protection function. External sensor HF-8 included. |
| FDTR-U 101.131 SL/OFF #21 | £142.19 | 230 V~ /50Hz | 20...80°C | N/A | Controller with clock, self learning function and frost protection function. External sensor HF-5 included. |
| FDTR-U 101.140 SL/OFF #21 | £145.71 | 230 V~ /50Hz | 5...30°C (Room) 20...60°C (Floor) | N/A | Controller with floor temperature monitoring function, frost protection and temperature decrease function. Internal and external sensor HF-8 included. |

FDTR-U clock controlled electronic thermostat with remote sensor flush installation for floor, wall and ceiling heating systems and tiled stoves. For time-dependent control of temperatures produced by heating systems.

ACCESSORIES FOR THE FDTR-U CLOCK CONTROLLED ELECTRONIC THERMOSTAT WITH REMOTE SENSOR

| Model | List £ | Type | Notes | Equipment |
|----------|--------------|-------------|---|------------|
| RAL 1013 | £4.35 | Cover set 8 | For conversion to RAL 1013 (cream white, electrowhite and pearl white). | For FDTR-U |

See pages 71 and 96 for sensors which suit this model including HF-8, HF-5 and THF.



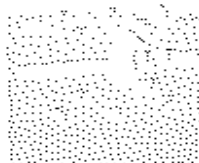
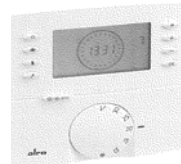
FTRFB RADIO CONTROL TRANSMITTERS - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|----------------|----------------|------------------------|----------------|-----------------------|---|
| FTRFB-280.119 | £62.42 | 2 x AAA Batteries 1.5V | 5...30°C | New | Sensor for the acquisition of inroom temperatures and transmission of sensed data to the controller. |
| FTRFB-080.119 | £60.93 | 2 x AAA Batteries 1.5V | 5...30°C | New | Sensor for the acquisition of inroom temperatures and transmission of sensed data to the controller |
| FTRFB-080.120 | £66.42 | 2 x AAA Batteries 1.5V | 5...30°C | New | As above but with comfort/ECO mode selection switch |
| FTRFB-080.101 | £54.72 | 2 x AAA Batteries 1.5V | 5...30°C | New | Sensor for the acquisition of inroom temperatures and transmission of sensed data to the controller |
| FTRFBu-180.117 | £95.08 | 2 x AAA Batteries 1.5V | 5...30°C | New | Sensor for the acquisition of inroom temperatures and transmission of sensed data to the controller with clock. |
| FTRFBu-180.121 | £108.19 | 2 x AAA Batteries 1.5V | 5...30°C | New | As above but with backlight (separate battery required for the backlight) |

FTRFB radio control transmitters (radio room temperature sensor). For the acquisition of temperatures in living spaces, offices and hotels rooms that are subject to normal pollution. Avoids cutting up plaster works for electric cables.

ACCESSORIES FOR THE FTRFB RADIO CONTROL TRANSMITTERS

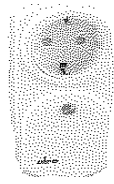
| Model | List £ | Equipment |
|-------|--------------|--|
| JZ-18 | £4.39 | Snap on type adaptor plate for universal installation (controller can be removed). |



HTFRA RADIO CONTROL RECEIVERS - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|----------------|-------------------|-------------------|-----------------------|---|
| HTFRA-010.101 | £81.19 | 230 V~/50Hz | Loads up to 3000w | New | 1 channel radio temperature controller |
| HTFRB-010.101 | £71.99 | 230 V~/50Hz | Loads up to 3000w | New | 1 channel radio temperature controller for surface installation/wall mounting |
| HTFRD-214.140 | £139.68 | 230 V~/50Hz | N/A | New | 4 channel radio temperature controller for installation in the heating circuit distribution cabinet |
| HTFRD-316.125 | £174.20 | 230 V~/50Hz | N/A | New | 8 channel radio temperature controller for installation in the heating circuit distribution cabinet |

HTFRA radio control receivers (radio temperature controllers). They enable, if used in conjunction with Alre radio temperature sensors, to realise the control of temperatures in individual rooms. It is particularly qualified in cases in the building reconstruction sphere or wherever heating systems are to be extended.

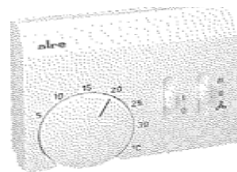


AIR CONDITIONING TECHNOLOGY

PTR BIMETAL CLIMATE CONTROLLERS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|------------|---------------|-------------------|----------------|-----------------------|--|
| PTR 02.801 | £34.23 | 250 V~/50/60Hz | 5...30°C | N/A | 1st switch on/off, 2nd switch for fan operation at 3 different speed stages |
| PTR 02.802 | £37.52 | 250 V~/50/60Hz | 5...30°C | N/A | 1st switch heating/off/cooling, 2nd switch for fan operation at 3 different speed stages |
| PTR 02.803 | £37.02 | 250 V~/50/60Hz | 16...30°C | N/A | Switch off/fast/medium/slow, cooling function only |

PTR bimetal climate controllers for surface installation. For control or supervision of temperatures in closed dry rooms. Especially suited for use with air conditioners (fancoils).



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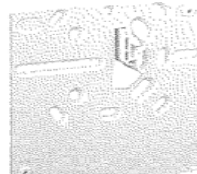
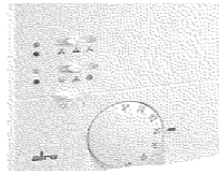
KTBSB BIMETAL CLIMATE CONTROLLERS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|-------------------|----------------|-----------------------|--|
| KTBSB-112.000 | £41.42 | 250 V~/50/60Hz | 5...30°C | MTR 52.041 | On/off switch, 3 stage fan |
| KTBSB-113.500 | £54.49 | 250 V~/50/60Hz | 5...30°C | MTR 53.068 | Switch/lamp: on/off, switch heating/venting/cooling, lamps heating and cooling, 3 stage fan. |
| ETBSB-113.500 | £55.06 | 250 V~/50/60Hz | 5...30°C | New | Application: direct excitation of a heat pump, otherwise as above |

KTBSB bimetal climate controllers for surface installation. For control and supervision of temperatures in dry, closed rooms. Remote control of air conditioners and fancoil units and fancoil systems in living spaces, offices and surgery rooms. Especially suited for the optimisation of central air conditioning systems in hotels and hospitals.

ACCESSORIES FOR THE KTBSB BIMETAL CLIMATE CONTROLLERS

| Model | List £ | Equipment |
|-------|--------------|---|
| JZ-17 | £4.39 | Adaptor plate for installation on a UP box (including fixing screws for the installation of the KTBSB/ETBSB on the adaptor plate) |



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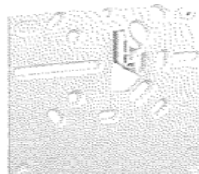
KTRRB ELECTRONIC CLIMATE CONTROLLERS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|-------------------|----------------|-----------------------|--|
| KTRRB-112.135 | £94.51 | 250 V~/50/60Hz | 5...30°C | METR 75.836/3 | 3 stage fan output and inlet, internal or external sensors not included |
| KTRRB-112.136 | £95.75 | 250 V~/50/60Hz | 5...30°C | METR 75.836/4 | 3 stage fan output and inlet and ECO mode. Internal or external sensors not included |

KTRRB electronic climate controllers for surface installation. For control of climates in individual rooms. Device with neutral zone for the control of 2 or 4 pipe air conditioning systems. See pages 71, 72 and 86 for internal and external sensors, including HF-2, LF-22 and ALF-2.

ACCESSORIES FOR THE KTRRB ELECTRONIC CLIMATE CONTROLLERS

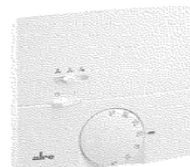
| Model | List £ | Equipment |
|-------|--------------|---|
| JZ-17 | £4.39 | Adaptor plate for installation on a UP box (including fixing screws for the installation of the KTRRB on the adaptor plate) |



KTRRB ELECTRONIC COOLING CEILING CONTROLLERS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|---------------------|----------------|-----------------------|---|
| KTRRB-042.11 | £90.28 | 24 V~/ = approx.1VA | 21° ± 3 K | PETR 75.873/1 | Relay output "cooling & heating", internal sensor NTC 47Ω, two colour LED, internal dew point sensor |
| KTRRB-040.112 | £90.16 | 24 V~/ = approx.1VA | 5...30°C | PETR 75.972/1 | Relay output "cooling or heating", internal sensor NTC 47 KΩ, two colour LED, internal dew point sensor |
| KTRRB-040.213 | £93.70 | 24 V~/ = approx.1VA | 21° ± 3 K | PETR 75.975/1 | As above but with internal dew point sensor/change over sensor |

KTRRB electronic ceiling controllers for surface installation. For control of temperatures that exist at cooling ceilings and walls and/or in warm water heating systems. Both the dew point sensor and the changeover sensor need to be ordered separately. See pages 71 and 86 for sensors, including HF-2 and ALF-2.

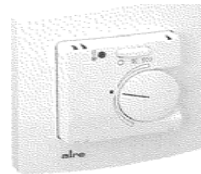




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KTRRU ELECTRONIC COOLING CEILING CONTROLLERS - NEW

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|----------------|-------------------|----------------|-----------------------|---|
| KTRRU-052.203 | £105.60 | 24V, 50/60Hz | 21° ± 3 K | New | Controller with dew point signal switch-in for 2 & 4 pipe systems with internal dew point sensor/change over sensor |
| KTRRU-052.204 | £111.90 | 24V, 50/60Hz | 21° ± 3 K | New | As above but with off/ECO switch and frost protection with internal dew point sensor/change over sensor |

KTRRU electronic cooling ceiling controllers for flush installation. For the control of the heating and cooling operations executed by 2 & 4 pipe systems in hotels, living rooms and business premises. Both the dew point sensor and the changeover sensor need to be ordered seperately. See pages 71 and 86 for sensors including HF-2 and ALF-2.



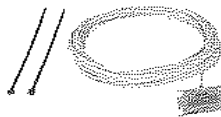
NEHR/WFRRN ELECTRONIC DEW POINT MONITORS AND DEW POINT SENSORS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|---------------|---------------|-------------------|----------------|-----------------------|---|
| NEHR 24.401 | £79.20 | 24V~ | N/A | N/A | TPS dew point sensors can be connected to the sensor input in parallel. |
| WFRRN-210.018 | £81.01 | 230V~, 50/60Hz | N/A | New | Up to 5 TPS dew point sensors can be connected to the sensor input in parallel. |

NEHR/WFRRN electronic dew point monitors and dew point sensors for fastening on standard rail. For the interruption of the cooling operations in cases where the relative humidity transcends a level of 98%. Specially suited to prevent water from dripping off or to avoid the formation of condensed water on cooling lines. Sensors need to be ordered separately.

SENSORS FOR THE ABOVE

| Model | List £ | Equipment |
|-------------|---------------|---|
| TPS-1 | £29.89 | Cable length 10m. 2 clips for fixing of the cooling mat. Used for dry construction and metal cooling ceilings |
| TPS-2 | £29.89 | Cable length 10m. 2 clips for fixing of the cooling mat & 2 straps. Used with cold water pipes and cooling ceilings |
| TPS-3 (NEW) | £26.62 | Cable length 10m. 2 cable straps. Used with cold water pipes |



PFB CONTROLS FOR THE REMOTE OPERATION OF CLIMATE CONTROLLERS

| Model | List £ | Operating Voltage | Setting Ranges | Replaced which model? | Equipment |
|------------|---------------|-------------------|----------------|-----------------------|--|
| PFB 02 | £18.11 | 24V~..250V~ | N/A | N/A | 1st switch on/off, 2nd switch for fan operation at 3 speed stages |
| PFB 20.801 | £20.48 | 24V~..250V~ | N/A | N/A | 1st switch on/off, 2nd switch for fan operation at 3 speed stages |
| PFB 20.802 | £21.95 | 24V~..250V~ | N/A | N/A | 1st switch heating/off/cooling, 2nd switch for fan operation at 3 speed stages |

PFB controls for the remote operation of climate controllers for surface installation. For remote control of air conditioning systems (for example fancoils).



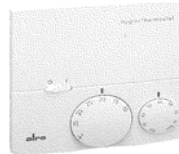
RFHSB/FHY/RKDSB HYGROSTATS/HYGROTHERMOSTATS WITH MECHANICALLY OPERATED SENSORS

| Model | List £ | Switching Voltage | Setting Ranges | Replaced which model? | Equipment |
|-----------------|---------------|-------------------|----------------|-----------------------|--|
| RFHSB-060.10 | £59.55 | 24...250V~ | 30...100% r.h | PHY 60.010 | External setting |
| RFHSB-060.11 | £61.19 | 24...250V~ | 30...100% r.h | PHY 60.011 | Internal setting |
| FHY 101.060 #21 | £71.18 | 24...250V~ | 35...85% r.h | N/A | External setting for flush installation |
| RKDSB-171.000 | £79.54 | 24...250V~ | 10...35°C | MHT 60.300 | On/off switch for both thermostat and hygrostat. External setting on thermostat. |

RFHSB/FHY/RKDSB hygrostats/hygrothermostats with mechanically operated sensors for surface installation. Hygrostat serves for the supervision and control of the relative humidity in business premises, swimming pools etc. The hygrothermostat is for supervision and control of the relative humidity of the temperature combined in one device.

ACCESSORIES FOR THE RKDSB HYGROTHERMOSTAT

| Model | List £ | Equipment |
|-------|--------------|--|
| JZ-17 | £4.39 | Adaptor plate for installation of the RKDSB on a UP box (including fixing screws for the installation of the RKDSB on the adaptor plate) |



HI/PHY HYGROSTATS WITH MECHANICALLY OPERATED SENSORS

| Model | List £ | Switching Voltage | Setting Ranges | Replaced which model? | Equipment |
|------------|----------------|-------------------|----------------|-----------------------|--|
| HI-1 | £135.66 | 24...250V~ | 30...100% r.h | N/A | External setting |
| HI-1F | £139.75 | 24...250V~ | 30...100% r.h | N/A | Internal setting |
| HI-2 | £168.22 | 24...250V~ | 30...100% r.h | N/A | External setting - 2 stages |
| PHY 60.082 | £58.56 | 24V | 30...100% r.h | N/A | External setting - can be connected from outside |

HI/PHY hygrostats with mechanically operated sensors for installation in conduits or switch cabinets. The HI is specially suited for the control or supervision of the atmospheric moisture in ventilation ducts or air conditioning conduits. PHY is especially suited for the supervision and control of the moisture content inside of switch cabinets against the influence of moisture.

ACCESSORIES FOR THE HI HYGROSTAT

| Model | List £ | Equipment |
|----------|---------------|---------------------------------|
| JZ-20.01 | £14.64 | Wall suspension element for HI |
| FS-HI | £8.44 | Protective sleeve sensor for HI |



INDUSTRIAL TECHNOLOGY

JET ONE STAGE INDUSTRY ROOM THERMOSTATS

| Model | List £ | Switching Capacity | Setting Ranges | Maximum Sensor Temperature | Equipment |
|-----------|---------------|--------------------|----------------|----------------------------|--|
| JET-40 | £65.33 | 24-250V~ 150mA | 0...35°C | 40°C | External setting |
| JET-40F | £61.33 | 24-250V~ 150mA | 0...35°C | 40°C | Internal setting |
| JET-41 | £65.33 | 24-250V~ 150mA | 0...70°C | 80°C | External setting |
| JET-41F | £61.33 | 24-250V~ 150mA | 0...70°C | 80°C | Internal setting |
| JET-110R | £76.18 | 24-250V~ 150mA | -35...30°C | 35°C | External setting (with mechanical range suppression) |
| JET-110RF | £81.70 | 24-250V~ 150mA | -35...30°C | 35°C | Internal setting (with mechanical range suppression) |
| JET-120R | £76.18 | 24-250V~ 150mA | 0...60°C | 70°C | External setting (with mechanical range suppression) |
| JET-120RF | £81.71 | 24-250V~ 150mA | 0...60°C | 70°C | Internal setting (with sight glass) |

JET one-stage industry room thermostats with capillary system and outdoor sensor. For control or supervision of temperatures in non-aggressive environments in the industrial sphere e.g. for systems in greenhouses, sports halls, cold stores etc. The JET-110RF is particularly suited for use as an outdoor thermostat.

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JMT MULTI STAGE INDUSTRY ROOM THERMOSTATS

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. in Stage Limits | Equipment |
|----------|----------------|--------------------|----------------|---------------------------------|------------------|
| JMT-212 | £107.41 | 24-250V~ 150mA | -15...30°C | 1K | External setting |
| JMT-212F | £113.85 | 24-250V~ 150mA | -15...30°C | 1K | Internal setting |
| JMT-211 | £107.41 | 24-250V~ 150mA | 10...55°C | 1K | External setting |
| JMT-211F | £113.85 | 24-250V~ 150mA | 10...55°C | 1K | Internal setting |
| JMT-411 | £202.73 | 24-250V~ 150mA | 10...55°C | 1K | Internal setting |

JMT multi stage industry room thermostats with capillary system, outdoor sensor and 2 or 4 stages. For the control of temperatures in non aggressive environments in the industrial field. 2 or 4 stages "heating or cooling" or " heating and cooling" with neutral zone.

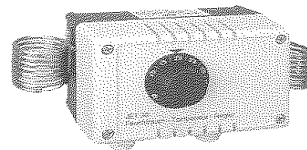


JET INDUSTRY ROOM THERMOSTATS

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. in Stage Limits | Equipment |
|--------|---------------|--------------------|----------------|---------------------------------|--|
| JET-30 | £84.57 | 24-250V~ 150mA | 10...45°C | 1K | N/A |
| JET-31 | £82.31 | 24-250V~ 150mA | 10...45°C | 1K | N/A |
| JET-32 | £82.31 | 24-250V~ 150mA | -10...40°C | 2K | 1st controller: break contact preadjusted to +5°C 2nd controller: make contact preadjusted to -5°C |

JET industry room thermostats with capillary system, outdoor sensor, 2 separated setting ranges and 2 stages. For outdoor or indoor installation in non aggressive environments. Is particularly suited as a thermostat for the control of temperatures in industrial, fair and air inflated halls for cool down protection in greenhouses. Two separated setting ranges for "heating and cooling" or "heating or cooling". JET-32 specially preadjusted for control of gutter heating systems.

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WR ONE STAGE CAPILLARY THERMOSTAT

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. in Stage Limits | Equipment |
|-------------|---------------|--------------------|----------------|---------------------------------|---|
| WR 81.029-1 | £62.96 | 24-250V~ 150mA | 0...35°C | 0.5...1K | Internal setting, length of capillary tube 500mm |
| WR 81.101-1 | £71.88 | 24-250V~ 150mA | 0...35°C | 0.5...1K | Internal setting, length of capillary tube 2000mm |
| WR 81.009-2 | £74.95 | 24-250V~ 150mA | 0...70°C | 1...2K | External setting, length of capillary tube 1500mm |
| WR 81.109-2 | £71.88 | 24-250V~ 150mA | 0...70°C | 1...2K | Internal setting, length of capillary tube 1500mm |

WR one stage capillary thermostat for supervision or control of temperatures in non-aggressive liquid or gasiform media. Specially suited for wall mounting. Dip sleeves or protective spirals are not included in the delivery. See pages 95 and 96 for sleeves and sensors including SW-200, TH and NTH.

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JET ONE STAGE INDUSTRY ROOM THERMOSTATS

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. Adjustable | Sensor Dimensions |
|------------|--------|--------------------|----------------|----------------------------|-------------------|
| JET-110X | £83.96 | 24-250V~ 150mA | -35...30°C | 2...20K (TR) | 9.6 x 122mm |
| JET-110XF | £89.50 | 24-250V~ 150mA | -35...30°C | 2...20K (TW) | 9.6 x 122mm |
| JET-110XFG | £92.87 | 24-250V~ 150mA | -35...30°C | 2...20K (TW) | 9.6 x 122mm |
| JET-112X | £83.95 | 24-250V~ 150mA | -35...30°C | TB* | 9.6 x 122mm |
| JET-112XF | £89.49 | 24-250V~ 150mA | -35...30°C | TB* | 9.6 x 122mm |
| JET-120X | £83.96 | 24-250V~ 150mA | 0...60°C | 2...20K (TR) | 9.6 x 122mm |
| JET-120XG | £92.87 | 24-250V~ 150mA | 0...60°C | 2...20K (TR) | 9.6 x 122mm |
| JET-120XF | £89.49 | 24-250V~ 150mA | 0...60°C | 2...20K (TW) | 9.6 x 122mm |
| JET-130X | £83.95 | 24-250V~ 150mA | 40...100°C | 2...20K (TR) | 9.6 x 122mm |
| JET-130XG | £92.87 | 24-250V~ 150mA | 40...100°C | 2...20K (TR) | 9.6 x 122mm |
| JET-130XF | £89.49 | 24-250V~ 150mA | 40...100°C | 2...20K (TW) | 9.6 x 122mm |
| JET-133XF | £91.12 | 24-250V~ 150mA | 40...100°C | TB** | 9.6 x 122mm |
| JET-140X | £83.95 | 24-250V~ 150mA | 70...130°C | 2...20K (TR) | 9.6 x 122mm |
| JET-140XF | £89.49 | 24-250V~ 150mA | 70...130°C | 2...20K (TW) | 9.6 x 122mm |
| JET-143XF | £91.12 | 24-250V~ 150mA | 70...130°C | TB** | 9.6 x 122mm |
| JET-150 | £89.89 | 24-250V~ 150mA | 100...280°C | 8...50K (TR) | 6 x 80mm |
| JET-150F | £95.53 | 24-250V~ 150mA | 100...280°C | 8...50K (TW) | 6 x 80mm |
| JET-153 | £93.27 | 24-250V~ 150mA | 100...280°C | TB** | 6 x 80mm |
| JET-153F | £98.81 | 24-250V~ 150mA | 100...280°C | TB** | 6 x 80mm |

F= internal setting, G= device with 4.5m long capillary, X= types for TH/NTH-140

TR= temperature controller
TW= temperature monitor
TB= temperature limiter

* Locks at falling temperatures. Manual reset after a temperature increase of min. 8K
**Locks at rising temperatures. Manual reset after a temperature decrease of min. 8K

JET one-stage capillary thermostats. For control or supervision of temperatures in non-aggressive liquid or gasiform media. Specially suited for wall mounting. Dip sleeves and protective spirals are not included. See pages 95 and 96 for these including SW-200-12, TH and NTH.





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Temperature, Pressure, Humidity & Flow

JMT MULTI STAGE THERMOSTATS

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. in Stage Limits | Sensor Dimensions |
|-----------|----------------|--------------------|----------------|---------------------------------|-------------------|
| JMT-202X | £124.91 | 24-250V~ | -15...30°C | 1K | 9.6 x 122mm |
| JMT-203X | £124.91 | 24-250V~ | 10...55°C | 1K | 9.6 x 122mm |
| JMT-203XF | £130.03 | 24-250V~ | 10...55°C | 1K | 9.6 x 122mm |
| JMT-221X | £142.52 | 24-250V~ | 10...55°C | 3K | 9.6 x 122mm |
| JMT-204 | £124.91 | 24-250V~ | 50...120°C | 1K | 8 x 78mm |

F= internal setting

JMT multi stage thermostats with 2 stages. For the multistage control of temperatures in liquid or gasiform media e.g. for the triggering of two-stage burners or coil heating systems. Dip sleeves and protective spirals are not included in the delivery. See pages 95 and 96 for these, including SW-200-12, TH and NTH.





Controls UK
Temperature, Pressure, Humidity & Flow

LR ROD THERMOSTAT FOR USE AS VENTILATION CONTROL

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. (approx.) | Equipment |
|---|---------------|--------------------|----------------|---------------------------|------------------------------------|
| LR 80.003-1 | £57.13 | 24-250V~ 150mA | 0...35°C | 1K | External setting/TR |
| LR 80.108-1 | £57.13 | 24-250V~ 150mA | 0...35°C | 1K | Internal setting/TW |
| LR 80.109-1 | £59.08 | 24-250V~ 150mA | 0...35°C | 1K | Internal setting/TW |
| LR 80.027-5 | £59.08 | 24-250V~ 150mA | 0...70°C | 5K | External setting/TR |
| LR 80.035-2 | £57.13 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| LR 80.028-2 | £59.08 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| LR 80.116-2 | £57.13 | 24-250V~ 150mA | 0...70°C | 2K | Internal setting/TW |
| LR 80.029-2 | £60.00 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| LR 80.120-1 | £59.08 | 24-250V~ 150mA | 10...45°C | 1K | Internal setting/TW |
| LR 80.207 | £57.13 | 24-250V~ 150mA | 60...95° | - | Internal setting/external reset/TB |
| LR 80.203 | £59.08 | 24-250V~ 150mA | 95...130°C | - | Internal setting/external reset/TB |
| TR= temperature controller TW= temperature monitor TB= temperature limiter (manual reset after cooling down by min. 8K) | | | | | |

LR rod thermostat for use as ventilation control with capillary system. Specially suited for supply air monitoring purposes in the ventilation engineering field. Protective spiral is included in the delivery. See page 95 for SWK spare spirals.



KR ROD THERMOSTAT FOR USE AS A BOILER CONTROLLER

| Model | List £ | Switching Capacity | Setting Ranges | Switching Diff. (approx.) | Equipment |
|-------------|--------|--------------------|----------------|---------------------------|------------------------------------|
| KR 80.003-1 | £57.13 | 24-250V~ 150mA | 0...35°C | 1K | External setting/TR |
| KR 80.108-1 | £57.13 | 24-250V~ 150mA | 0...35°C | 1K | Internal setting/TW |
| KR 80.109-1 | £59.08 | 24-250V~ 150mA | 0...35°C | 1K | Internal setting/TW |
| KR 80.027-5 | £59.08 | 24-250V~ 150mA | 0...70°C | 5K | External setting/TR |
| KR 80.035-2 | £57.13 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| KR 80.028-2 | £59.08 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| KR 80.116-2 | £57.13 | 24-250V~ 150mA | 0...70°C | 2K | Internal setting/TW |
| KR 80.029-2 | £60.00 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| KR 80.111-3 | £57.13 | 24-250V~ 150mA | 0...80°C | 3K | Internal setting/TW |
| KR 80.009-1 | £78.63 | 24-250V~ 150mA | 10...45°C | 1K | External setting/TR |
| KR 80.011-1 | £77.40 | 24-250V~ 150mA | 10...45°C | 1K | External setting/TR |
| KR 80.120-1 | £59.08 | 24-250V~ 150mA | 10...45°C | 1K | Internal setting/TW |
| KR 80.206 | £57.13 | 24-250V~ 150mA | 30...65°C | - | Internal setting/external reset/TB |
| KR 80.000-5 | £57.13 | 24-250V~ 150mA | 35...95°C | 5K | External setting/TR |
| KR 80.001-5 | £59.08 | 24-250V~ 150mA | 35...95°C | 5K | External setting/TR |
| KR 80.100-5 | £57.13 | 24-250V~ 150mA | 35...95°C | 5K | Internal setting/TW |
| KR 80.101-5 | £59.08 | 24-250V~ 150mA | 35...95°C | 5K | Internal setting/TW |
| KR 80.124-5 | £60.00 | 24-250V~ 150mA | 35...95°C | 5K | Internal setting/TW |
| KR 80.112-5 | £70.54 | 24-250V~ 150mA | 35...95°C | 5K | Internal setting/TW |
| KR 80.102-8 | £57.13 | 24-250V~ 150mA | 40...110°C | 8K | Internal setting/TW |
| KR 80.103-8 | £59.08 | 24-250V~ 150mA | 40...110°C | 8K | Internal setting/TW |
| KR 80.008-8 | £57.13 | 24-250V~ 150mA | 40...110°C | 8K | External setting/TR |
| KR 80.006-8 | £57.13 | 24-250V~ 150mA | 50...130°C | 8K | Internal setting/TW |
| KR 80.106-8 | £57.13 | 24-250V~ 150mA | 50...130°C | 8K | Internal setting/TW |
| KR 80.207 | £57.13 | 24-250V~ 150mA | 60...95°C | - | Internal setting/external reset/TB |
| KR 80.208 | £57.13 | 24-250V~ 150mA | 85...120°C | - | Internal setting/external reset/TB |
| KR 80.202 | £57.13 | 24-250V~ 150mA | 95...130°C | - | Internal setting/external reset/TB |
| KR 80.203 | £59.08 | 24-250V~ 150mA | 95...130°C | - | Internal setting/external reset/TB |

TR= temperature controller

TW= temperature monitor

TB= temperature limiter (manual reset after cooling down by min. 8K)

KR rod thermostat for use as boiler controller with capillary system. Specially suited for applications in the heating technology sphere or for use in heating reservoirs, district heating transfer stations or heat transfer installations. The dip sleeve is included in the delivery.



KR/LR ROD THERMOSTAT FOR USE AS SAFETY TEMPERATURE LIMITER

| Model | List £ | Switching Capacity | Switch Off Temperature | Max. Sensor Temperature | Length of Dip Sleeve/Protective Spiral |
|-----------|---------------|--------------------|------------------------|-------------------------|--|
| KR 80.309 | £61.74 | 24-250V~ 150mA | 75°C +0/-8K | 115°C | 100mm |
| KR 80.310 | £63.99 | 24-250V~ 150mA | 75°C +0/-8K | 115°C | 200mm |
| KR 80.312 | £61.74 | 24-250V~ 150mA | 100°C +0/-9K | 135°C | 100mm |
| KR 80.318 | £63.99 | 24-250V~ 150mA | 100°C +0/-9K | 135°C | 200mm |
| LR 80.309 | £61.74 | 24-250V~ 150mA | 75°C +0/-8K | 115°C | 100mm |
| LR 80.310 | £63.99 | 24-250V~ 150mA | 75°C +0/-8K | 115°C | 200mm |
| LR 80.312 | £61.74 | 24-250V~ 150mA | 100°C +0/-9K | 135°C | 100mm |
| LR 80.318 | £63.99 | 24-250V~ 150mA | 100°C +0/-9K | 135°C | 200mm |

KR/LR rod thermostat for use as safety temperature limiter with capillary system. For the limitation of temperatures in boiler, heat reservoir and ventilating systems. Dip sleeve or protective spiral are included in the delivery. See page 95 for ordering spare THK/NTHK dip sleeves or SWK spare spirals.

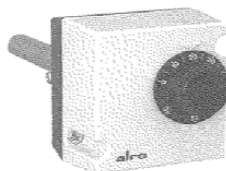


KR ROD THERMOSTAT FOR USE AS BOILER DOUBLE CONTROLLER

| Model | List £ | Switching Capacity | Control Range | Switching Difference | Equipment |
|-------------|--------|--------------------|------------------|----------------------|---------------------|
| | | | Switch off Temp. | | |
| KR 85.406-2 | £75.26 | 24-250V~ 150mA | 0...70°C | 2K | Internal setting/TW |
| | | | 0...70°C | 2K | Internal setting/TW |
| KR 85.109-2 | £78.94 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| | | | 0...70°C | 2K | Internal setting/TW |
| KR 85.100-5 | £78.94 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | External setting/TR |
| | | | 35...95°C | 3-5K fixed | Internal setting/TW |
| KR 85.101-5 | £82.52 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | External setting/TR |
| | | | 35...95°C | 3-5K fixed | Internal setting/TW |
| KR 85.400-5 | £75.26 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | Internal setting/TW |
| | | | 35...95°C | 3-5K fixed | Internal setting/TW |
| KR 85.401-5 | £82.52 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | Internal setting/TW |
| | | | 35...95°C | 3-5K fixed | Internal setting/TW |
| KR 85.102-5 | £78.94 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | External setting/TR |
| | | | 50...130°C | 8K | Internal setting/TW |
| KR 85.207-5 | £90.81 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | External setting/TR |
| | | | 85...120°C | | External reset/TB |
| KR 85.230-5 | £86.21 | 24-250V~ 150mA | 35...95°C | 3-5K fixed | External setting/TR |
| | | | 95...110°C | | Internal reset/TB |
| KR 85.204-8 | £89.49 | 24-250V~ 150mA | 50...130°C | 6-8K fixed | External setting/TR |
| | | | 95...130°C | | External reset/TB |

TR= temperature controller
 TW= temperature monitor
 TB= temperature limiter (manual reset after cooling down by min. 8K)

KR rod thermostat for use as boiler double controller with capillary system. Specially suited for use in the heating technology sphere in boiler systems or heat reservoir installations. The dip sleeve is included in the delivery. See page 95 for spare dip sleeves including THK and NTHK.



KR/LR ROD THERMOSTAT FOR USE AS BOILER CONTROLLER/SAFETY TEMPERATURE LIMITER

| Model | List £ | Switching Capacity | Control Range | Switching Difference | Equipment |
|---|--------|--------------------|------------------|----------------------|---------------------|
| | | | Switch off Temp. | | |
| KR 85.311-2 | £88.67 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| | | | 75°C +0/-8K | | Internal reset/STB |
| KR 85.312-2 | £90.71 | 24-250V~ 150mA | 0...70°C | 2K | External setting/TR |
| | | | 75°C +0/-8K | | Internal reset/STB |
| KR 85.314-5 | £88.67 | 24-250V~ 150mA | 35...90°C | 5K | External setting/TR |
| | | | 100°C +0/-9K | | Internal reset/STB |
| KR 85.315-5 | £90.71 | 24-250V~ 150mA | 35...90°C | 5K | External setting/TR |
| | | | 100°C +0/-9K | | Internal reset/STB |
| LR 85.315-5 | £90.71 | 24-250V~ 150mA | 35...90°C | 5K | External setting/TR |
| | | | 100°C +0/-9K | | Internal reset/STB |
| TR= temperature controller STB= safety temperature limiter | | | | | |

KR/LR rod thermostat for use as boiler controller/safety temperature limiter with capillary system. For the limitation of temperatures in boiler, heat reservoir and ventilating systems. The dip sleeve or protective spiral is included in the delivery. See page 95 for spare dip sleeves including THK and SWK-200.



JTU DUCT THERMOSTAT

| Model | List £ | Switching Capacity | Setting Ranges | Switching Difference | Equipment/Type |
|---|---------------|--------------------|----------------|-----------------------|---|
| JTU-50 | £59.59 | 24-250V~ 150mA | -25...65°C | 1.5K | TW |
| JTU-1 | £66.96 | 24-250V~ 150mA | 20...100°C | 8...30K, adjustable | Intrinsic safety/cold protection TW |
| JTU-2 | £62.66 | 24-250V~ 150mA | 20...100°C | External manual reset | Intrinsic safety/cold protection STB |
| JTU-3 | £62.66 | 24-250V~ 150mA | 20...100°C | External manual reset | Intrinsic safety/cold and overheat protection STB |
| JTU-20 | £63.78 | 24-250V~ 150mA | 20...100°C | External manual reset | Intrinsic safety/cold protection STB |
| JTU-5 | £67.58 | 24-250V~ 150mA | 60...140°C | 8...30K, adjustable | TW |
| JTU-6 | £67.58 | 24-250V~ 150mA | 60...140°C | External manual reset | TB |
| TW= temperature monitor STB= safety temperature limiter TB= temperature limiter | | | | | |

JTU duct thermostat with capillary system. Specially suited as minimum or maximum value thermostat for supply air control purposes or for the control of fans in ventilating and air conditioning systems. Also suited as overheat protection thermostat for application with electrical coil heating systems and direct fired oil or gas air heaters.



JTL AIR HEATER THERMOSTAT

| Model | List £ | Switching Capacity | Switching Diff. Fan (adjustable) | Switching Difference Burner | Equipment/Type |
|----------|----------------|--------------------|----------------------------------|-----------------------------|--|
| JTL-2 | £78.63 | 24-250V~ 150mA | 8...30K | 8K | Intrinsic safety/cold protection TW |
| JTL-4 | £83.27 | 24-250V~ 150mA | 8...30K | External manual reset | Intrinsic safety/cold protection STB |
| JTL-8 | £82.94 | 24-250V~ 150mA | 8...30K | External manual reset | Intrinsic safety/cold and overheat protection STB |
| JTL-11 | £84.57 | 24-250V~ 150mA | 8...30K | 8K | Intrinsic safety/cold protection TW |
| JTL-4NR | £133.20 | 24-250V~ 150mA | 8...30K | 8K | Intrinsic safety/cold protection TW/STB |
| JTL-8NR | £138.01 | 24-250V~ 150mA | 8...30K | 8K | Intrinsic safety/cold and overheat protection TW/STB |
| JTL-17NR | £141.70 | 24-250V~ 150mA | 8...30K | 8K | Intrinsic safety/cold and overheat protection TW/STB |

TW= thermostat
STB= safety temperature limiter

JTL air heater thermostat with capillary system and 2 or 3 functions. For use as a minimum or maximum value thermostat for supply air control purposes or for the control of fans in ventilating and air conditioning systems. Also suited as overheat protection thermostat for application with electrical coil heating systems and direct fired oil or gas air heaters.





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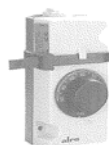
ATR/JAT/WR CLIP ON THERMOSTATS

| Model | List £ | Switching Capacity | Control Range | Max. Sensor Temperature | Equipment/Type |
|---|---------------|--------------------|---------------|-------------------------|---------------------|
| ATR 83.000 | £21.70 | 24-250V~ 150mA | 30...90°C | 100°C | External setting/TR |
| ATR 83.100 | £21.70 | 24-250V~ 150mA | 30...90°C | 100°C | Internal setting/TW |
| ATR 83.001 | £21.70 | 24-250V~ 150mA | 0...60°C | 80°C | External setting/TR |
| ATR 83.101 | £21.70 | 24-250V~ 150mA | 0...60°C | 80°C | Internal setting/TW |
| WR 81.115-5 | £77.92 | 24-250V~ 150mA | 0...70°C | 85°C | Internal setting/TW |
| WR 81.117-5 | £77.92 | 24-250V~ 150mA | 50...130°C | 150°C | Internal setting/TW |
| JAT-110F | £79.04 | 24-250V~ 150mA | -35...35°C | End scale value +15°C | Internal setting/TW |
| JAT-120F | £79.04 | 24-250V~ 150mA | 0...60°C | End scale value +15°C | Internal setting/TW |
| JAT-130F | £79.04 | 24-250V~ 150mA | 40...100°C | End scale value +15°C | Internal setting/TW |
| TW= thermostat STB= safety temperature limiter | | | | | |

ATR/JAT/WR clip on thermostats with capillary system. Specially suited for the control or supervision of temperatures at coil heating systems, pipelines, containers or reservoirs to enable the temperature-dependent driving and control of pumps or the actuation of motor valves.

ACCESSORIES FOR THE ATR CLIP ON THERMOSTAT

| Model | List £ | Equipment |
|--------|--------------|---|
| ATRS-1 | £1.33 | Temperature fixing set for ATR 83.000/ATR83.001 |


Controls UK
Temperature, Pressure, Humidity & Flow

JTF FROST PROTECTION THERMOSTAT

| Model | List £ | Switching Difference | Control Range | Length of capillary | Equipment |
|--|----------------|----------------------|---------------|---------------------|---|
| ONE-STAGE | | | | | |
| JTF-1 | £69.42 | 24-250V~ 150mA | -10...55°C | 6.0m | - |
| JTF-1/12 | £124.91 | 24-250V~ 150mA | -10...55°C | 12.0m | - |
| JTF-1W | £96.45 | 24-250V~ 150mA | -10...55°C | 6.0m | IP65 |
| JTF-2 | £74.95 | 24-250V~ 150mA | -10...55°C | 6.0m | External manual reset |
| JTF-2/12 | £134.94 | 24-250V~ 150mA | -10...55°C | 12.0m | External manual reset |
| JTF-3 | £70.34 | 24-250V~ 150mA | -10...55°C | 1.8m | Also for use on the water side |
| JTF-3 W | £96.45 | 24-250V~ 150mA | -10...55°C | 1.8m | IP65, also for use on the water side |
| JTF-4 | £72.08 | 24-250V~ 150mA | -10...55°C | 1.8m | External manual reset, also for use on the water side |
| JTF-5 | £67.16 | 24-250V~ 150mA | -10...55°C | 3.0m | - |
| JTF-6 | £78.94 | 24-250V~ 150mA | -10...55°C | 3.0m | External manual reset |
| TWO-STAGE (1st stage emits a signal at 5K before the attaining of the switch off point) | | | | | |
| JTF-21 | £98.60 | 24-250V~ 150mA | -10...55°C | 6.0m | - |
| JTF-21/12 | £177.44 | 24-250V~ 150mA | -10...55°C | 12.0m | - |
| JTF-21W | £125.83 | 24-250V~ 150mA | -10...55°C | 6.0m | IP65 |
| JTF-22 | £105.25 | 24-250V~ 150mA | -10...55°C | 6.0m | External manual reset |
| JTF-22/12 | £189.41 | 24-250V~ 150mA | -10...55°C | 12.0m | External manual reset |
| JTF-25 | £96.45 | 24-250V~ 150mA | -10...55°C | 6.0m | - |

JTF frost protection thermostat with capillary system and one or two stages. Especially suited to ensure the protection of hot water coil heating systems against freezing. The models JTF-21 to JTF-25 are equipped with two switching outputs that provide the option to act on the system already in advance of the attaining of the corresponding danger point. The installation clips, dip sleeves and protective spirals are not included in the delivery. See pages 95 and 96 for these, including SW-200-12, TH-140 and NTH-140.





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JTF FROST PROTECTION THERMOSTAT - NEW

| Model | List £ | Switching Capacity | Measuring Range | Continuous and Switching | Equipment |
|--------|----------------|--------------------|-----------------|--------------------------|-------------------------------------|
| JTF-31 | £308.19 | Max 30V~/120V | 0...15°C | 6.0m | 0-10V output and changeover contact |
| JTF-35 | £260.89 | Max 30V~/120V | 0...15°C | 3.0m | 0-10V output and changeover contact |

JTF frost protection thermostat which is continuous and switching. For the supervision and protection of hot water coil heating systems or heat exchangers installed in ventilation. Also suited for the measuring of temperatures in non-aggressive types of gas. The installation clips are not included in the delivery. The bracing of the capillary tubes can be done by means of installation clips JZ-05/6M (metal) or JZ-05/06K (plastic). See page 98 for these.

ACCESSORIES FOR THE JTF FROST PROTECTION THERMOSTAT

| Model | List £ | Equipment |
|-------|---------------|------------------|
| JTF-H | £18.06 | Heating resistor |

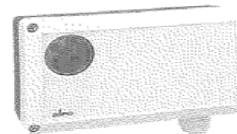


Controls UK
Temperature, Pressure, Humidity & Flow

PTR WET ROOM TEMPERATURE THERMOSTAT/DOUBLE THERMOSTAT

| Model | List £ | Switching Capacity | Control Range | Switching Difference | Equipment |
|------------|---------------|--------------------|---------------|----------------------|--|
| PTR 40.000 | £56.51 | 250V~,50/60Hz | -20...30°C | 2K | Changeover contact, thermal recirculation |
| PTR 45.000 | £65.28 | 250V~,50/60Hz | -20...30°C | 2K | Changeover contact, thermal recirculation (1st controller) |
| | | | | | Changeover contact, thermal recirculation (2nd controller) |

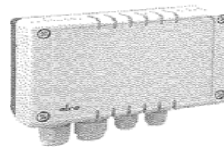
PTR wet room temperature thermostat/double thermostat (bimetal). For the control and supervision of temperatures prevailing at certain open spaces such as driveways or wet rooms (greenhouses, halls, warehouses, basements, garages etc.) and for the control of gutter heating systems.



ETR TEMPERATURE DIFFERENCE THERMOSTAT

| Model | List £ | Operating Voltage | Control Range | Δt | Switching Difference | Sensor |
|------------|----------------|-------------------|---------------|------------|----------------------|-----------------|
| ETR 78.005 | £105.46 | 250V~,50/60Hz | 35...95°C | 1...20K | 0.1...2K | 5/25 (NTC 50 K) |
| ETR 78.006 | £105.46 | 250V~,50/60Hz | 0...60°C | 1...20K | 0.1...2K | 3/23 (NTC 8 K) |

ETR temperature difference thermostat with remote sensor. For the acquisition of temperature differentials between two independent NTC sensors. Mainly suited for use with solar heating systems for the triggering of the circulating pump. Sensors are not included in the delivery. See pages 57 onwards for the sensor number indicated (i.e all no 5/25 sensor types can be used). Two sensors need to be ordered per device.



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Temperature, Pressure, Humidity & Flow

ITR COMPACT THERMOSTAT FOR INSTALLATION IN SWITCH CABINETS (ON DIN RAIL)

| Model | List £ | Operating Voltage | Control Range | Sensor | Equipment |
|---|---------------|-------------------|----------------|-------------------|--|
| ITR79.402 | £64.63 | 250V~, 50/60Hz | -35...15°C | 1/21 (NTC 1 K) | Heating, red LED |
| ITR79.404 | £64.63 | 250V~, 50/60Hz | 0...60°C | 4/24 (NTC 10 K) | Heating, red LED |
| ITR79.405 | £64.63 | 250V~, 50/60Hz | 35...95°C | 5/25 (NTC 50 K) | Heating, red LED |
| ITR79.406 | £67.90 | 250V~, 50/60Hz | 70...130°C | 6 (NTC 100 K) | Heating, red LED |
| ITR79.408 | £67.90 | 250V~, 50/60Hz | -10...40°C | 3/23 (NTC 8 K) | Heating, red LED |
| ITR79.503 | £67.90 | 250V~, 50/60Hz | 0...11°C | 0/20 (NTC 2 K 25) | Frost protection, manual reset, fixed red LED, switching difference 1.5k |
| ITR79.504 | £67.90 | 250V~, 50/60Hz | 0...60°C | 4/24 (NTC 10 K) | Cooling, green LED |
| ITR79.508 | £67.90 | 250V~, 50/60Hz | -10...40°C | 3/23 (NTC 8 K) | Cooling, green LED |
| TWO REFERENCE SETTERS (FOR DAY/NIGHT TEMP. CONTROL VIA EXTERNAL CLOCK) | | | | | |
| ITR79.600 | £75.77 | 250V~, 50/60Hz | 2 x 5...30°C | 2 (NTC 47 K) | Heating, switching difference 0.5k fixed |
| ITR79.608 | £94.61 | 250V~, 50/60Hz | 2 x -10...40°C | 8 (NTC 2 K) | Heating, switching difference 0.5k fixed, incl. sensor HF-8/4-K2 (4m) |
| FOR REMOTE SENSOR TRIGGERED CONTROL OF ELECTRIC FLOOR HEATING SYSTEMS | | | | | |
| ITR79.804 | £86.66 | 250V~, 50/60Hz | 0...60°C | 8 (NTC 2 K) | Heating, red LED, incl. sensor HF-8/4-K2 (4m) |
| ITR79.805 | £86.66 | 250V~, 50/60Hz | 35...95°C | 8 (NTC 2 K) | Heating, red LED, incl. sensor HF-8/4-K2 (4m) |

ITR compact thermostat for installation in switch cabinets (on DIN rail) with remote sensor. For control and supervision of temperatures in halls, greenhouses and of temperatures developed by floor heating systems. Sensors are not included, except ITR79.804, 79.805 and 79.608. See pages 57 onwards for sensors available according to sensor number (i.e all no. 24 or 4 sensor types can be used).



ETR UNIVERSAL THERMOSTAT

| Model | List £ | Operating Voltage | Control Range | Sensor | Switching Difference | Equipment |
|---|---------------|-------------------|---------------|---|----------------------|------------------|
| ETR77.008-5 | £71.84 | 250V~, 50/60Hz | -50...50°C | 51 (PTC 1 K) | 0.5...5K | Internal setting |
| ETR77.108-5 | £74.84 | 250V~, 50/60Hz | -50...50°C | 51 (PTC 1 K) | 0.5...5K | External setting |
| ETR77.009-5 | £71.84 | 250V~, 50/60Hz | 0...100°C | 51 (PTC 1 K) | 0.5...5K | Internal setting |
| ETR77.109-5 | £71.84 | 250V~, 50/60Hz | 0...100°C | 51 (PTC 1 K) | 0.5...5K | External setting |
| ETR77.109-15 | £73.64 | 250V~, 50/60Hz | 0...100°C | 51 (PTC 1 K) | 5...15K | External setting |
| FOR REMOTE SENSOR TRIGGERED CONTROL OF FLOOR HEATING SYSTEMS | | | | | | |
| ETR77.804-5 | £91.49 | 250V~, 50/60Hz | 0...60°C | Internal setting including sensor HF-8/4-K2 (4m) (NTC 2 K). | | |

ETR universal thermostat with remote sensor. Due to different sensor designs it is universally applicable for different tasks in the heating, ventilation, air conditioning and refrigerating technology field. A red LED indicates the heating condition. Sensors are not included (except ETR77.804-5). See pages 57 onwards for sensors available according to the sensor number (i.e all no. 51 sensors can be used).





Controls UK
Temperature, Pressure, Humidity & Flow

ETR UNIVERSAL THERMOSTAT

| Model | List £ | Operating Voltage | Control Range | Sensor | Switching Difference | Equipment |
|---------|----------------|-------------------|---------------|--------------|--|-----------------------------------|
| ETR74.1 | £233.22 | 250V~, 50/60Hz | 0...50°C | 57 (PTC 2 K) | 0.2...5K adjustable | Internal setting one stage outlet |
| ETR74.2 | £245.26 | 250V~, 50/60Hz | 0...50°C | 57 (PTC 2 K) | 0.2...5K within stages, 1...5K adjustable between stages | Internal setting two stage outlet |

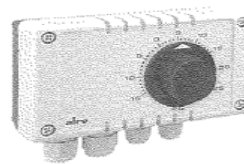
ETR universal thermostat with remote sensor and digital indicator (one or two stage type). For control and/or supervision of the temperatures of gasiform or liquid media types with digital actual value indication. Suited for surface installation in humid rooms. Sensors are not included. Please see pages 57 onwards for sensors available according to sensor number (i.e all no. 57 sensors can be used).



JBT ELECTRONIC TWO-STAGE CONTROLLER

| Model | List £ | Operating Voltage | Control Range | Sensor | Equipment |
|-----------|----------------|-------------------|---------------|-------------------|---|
| JBT-21A | £122.86 | 250V~, 50/60Hz | -15...25°C | 0/20 (NTC 2 K 25) | - |
| JBT-21ACP | £122.86 | 250V~, 50/60Hz | -50...25°C | 0/20 (NTC 2 K 25) | Without housing inc. 1m remote potentiometer and DIN rail |
| JBT-22A | £122.86 | 250V~, 50/60Hz | 10...50°C | 3/32 (NTC 8 K) | - |
| JBT-22ACP | £122.86 | 250V~, 50/60Hz | 10...50°C | 3/23 (NTC 8 K) | Without housing inc. 1m remote potentiometer and DIN rail |
| JBT-23A | £122.86 | 250V~, 50/60Hz | 35...95°C | 5/25 (NTC 50 K) | - |

JBT electronic two stage controller with remote sensor. Two stages for heating or cooling. Sensors are not included (except ETR77.804-5). See pages 69 onwards for sensors available according to the sensor number (i.e all H, F, RF and LF types can be used).

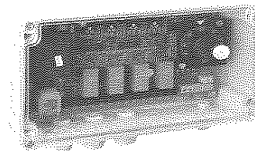




Controls UK
Temperature, Pressure, Humidity & Flow

JBT 4, 6 AND 8 STAGE CONTROLLERS

| Model | List £ | Operating Voltage | Control Range | Sensor | Equipment |
|------------|----------------|-------------------|---------------|-------------------|---|
| JBT-420B | £198.84 | 250V~, 50/60Hz | -10...50°C | 3/23 (NTC 8 K) | - |
| JBT-420BC | £179.08 | 250V~, 50/60Hz | -10...50°C | 3/23 (NTC 8 K) | Without housing |
| JBT-420BP | £198.84 | 250V~, 50/60Hz | -10...50°C | 3/23 (NTC 8 K) | Without housing incl. 1m remote potentiometer and DIN rail |
| JBT-420BPS | £211.73 | 250V~, 50/60Hz | -10...50°C | 3/23 (NTC 8 K) | Like 420BP, but with adjustable starting delay (2-200s) |
| JBT-420BS | £222.28 | 250V~, 50/60Hz | -10...50°C | 3/23 (NTC 8 K) | Adjustable starting delay 2-200s |
| JBT-420BCS | £210.50 | 250V~, 50/60Hz | -10...50°C | 3/23 (NTC 8 K) | Without housing but with adjustable starting delay (2-200s) |
| JBT-61AS | £300.61 | 250V~, 50/60Hz | -15...30°C | 0/20 (NTC 2 K 25) | Without housing but with adjustable starting delay (2-200s) |
| JBT-81AS | £429.72 | 250V~, 50/60Hz | -15...30°C | 0/20 (NTC 2 K 25) | Without housing but with adjustable starting delay (2-200s) |

JBT 4, 6 and 8 stage controllers with remote sensor. JBT-4 includes 4 stage "heating or cooling". JBT-6/8 includes 6 or 8 stages "heating or cooling". LED switch for mode indication. Sensors are not included. See pages 69 onwards for sensors available according to sensor number (i.e all HF, RF or LF sensor types can be used).


Controls UK
Temperature, Pressure, Humidity & Flow

JDI DIGITAL TEMPERATURE INDICATOR

| Model | List £ | Operating Voltage | Indication Range | Sensor | Equipment |
|--------|---------|-------------------|------------------|--------------|---|
| JDI-0 | £101.73 | 230V~, 50/60Hz | -40...120°C | 51 (PTC 1 K) | 3 digit indication without decimal |
| JDI-08 | £132.69 | 230V~, 50/60Hz | -40...120°C | 51 (PTC 1 K) | 3 digit indication without decimal, max. 8 measuring points can be inquired by means of a rotary switch |

JDI digital temperature indicator with DIN built in housing. Can be used as a thermometer if applied in combination with a remote sensor. Sensors are not included. See pages 57 onwards for sensors available according to sensor number (i.e all no. 51 sensor types can be used).

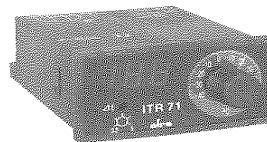
The logo for 'alre' is displayed in a bold, lowercase, orange sans-serif font.

ITR/JDI DIGITAL THERMOSTAT

| Model | List £ | Operating Voltage | Control Range | Sensor | Indication |
|-----------|----------------|-------------------|---------------|--------------|-------------------------|
| ITR71.050 | £140.06 | 250V~, 50/60Hz | -40...50°C | 51 (PTC 1 K) | 3 digit without decimal |
| ITR71.100 | £140.06 | 250V~, 50/60Hz | 0...100°C | 51 (PTC 1 K) | 3 digit without decimal |
| ITR71.125 | £140.06 | 250V~, 50/60Hz | 40...125°C | 51 (PTC 1 K) | 3 digit without decimal |
| JDI-1 | £101.73 | 250V~, 50/60Hz | -40...120°C | 51 (PTC 1 K) | 3 digit without decimal |
| JDI-10 | £142.28 | 250V~, 50/60Hz | -40...120°C | 51 (PTC 1 K) | 4 digit with decimal |

ITR/JDI digital thermostat with temperature adjustment via "turning knob" or "potentiometer" and DIN built in housing. For control or supervision of temperatures existing in fluid or gasiform media. Sensors are not included. See pages 57 onwards for sensors available according to sensor number (i.e all no. 51 sensor types can be used).

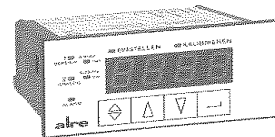
alre



JDI MICROPROCESSOR CONTROLLER - NEW

| Model | List £ | Operating Voltage | Control Range | Replaced which model? | Sensor | Control Function |
|---------|----------------|-------------------|---------------|--------------------------|--|--|
| JDI-22 | £265.77 | 230V~, 50/60Hz | -50...200°C | JDI-21 | PT 100 2/3 conductor | 2/3 point controller with serial interface |
| JDU-210 | £273.07 | 230V~, 50/60Hz | -200...850°C | JDI-210, JDR-10, JDR-210 | PT 100 3 conductor & PT 1000 2 conductor | 2/3 point controller with serial interface and 2 point controller with alarm |

JDI microprocessor controller for PT-100/PT-1000 sensors and measuring transducer and DIN built in housing. 2/3 point controller for control and/or supervision of temperatures existing in liquid or gasiform media with decimal display. Sensors and measuring transducers are not included. See pages 57 onwards for sensors and transducers available according to number. (i.e all no 51 sensors can be used).

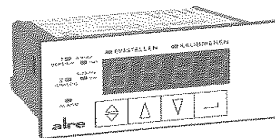


JDS 3 POINT CONTROL INPUT CONTROLLER FOR USE WITH MOTOR DRIVEN ACTUATORS

| Model | List £ | Operating Voltage | Control Range | Sensor | Power Consumption |
|---------|---------|-------------------|----------------|--------|-------------------|
| JDS-210 | £344.02 | 230V~, 50/60Hz | -199.9...650°C | PT 100 | 5W |

JDS 3 point control input controller for use with motor driven actuators (quasicontinuous action) or PWM output with PI/PID behaviour and DIN built in housing. Controller for joint operation with PT100 sensors. Controls motor driven actuators by three way mixing valves, straight way valves or air flaps. Sensors and measuring transducers are not included. See pages 57 onwards for sensors and transducers available according to number.

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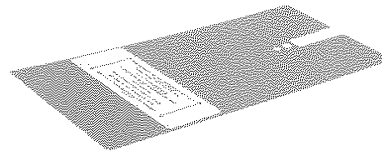
JSL AIR FLOW SENSING RELAY

| Model | List £ | Switching Capacity | Min. Switch On Value | Min. Switch Off Value | Max. Switch On Value | Max. Switch Off Value |
|--------|--------|--------------------|----------------------|-----------------------|----------------------|-----------------------|
| JSL-1E | £66.96 | 24-250V~ | 2m/s | 1m/s | 9.2m/s | 8.0m/s |

JSL air flow sensing relay which is mechanically operated. For the supervision of airflows in channels or conduits or of airflows in the supply or exhaust air components or facilities of fans or electrical heating coils. Device is provided for vertical installation.

ACCESSORIES FOR THE JTF FROST PROTECTION THERMOSTAT

| Model | List £ | Equipment |
|-------|--------|-----------|
| JZ-08 | £13.72 | Spare tag |



alre

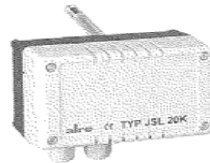
 **Controls UK**
Temperature, Pressure, Humidity & Flow

JSL AIR FLOW MONITOR

| Model | List £ | Power Supply | Relay | Integral Sensor | Equipment |
|-------------|---------|--------------|-------|-----------------|-----------------|
| JSL-20 | £155.10 | 24V~ | 1 | No | Without locking |
| JSL-20/24V | £178.61 | 250V~ | 1 | No | Without locking |
| JSL-20K | £152.38 | 250V~ | 1 | Yes | Without locking |
| JSL-21* | £180.32 | 250V~ | 2 | No | With locking** |
| JSL-21/24V* | £215.01 | 24V~ | 2 | No | With locking** |

*without locking (on request)
**device to be disconnected and made voltage free for resetting

JSL air flow monitor with electronic controller. For the flow-dependent supervision of fans, regulating valves of humidifiers and electric coil heating systems. The sensor cable can be extended up to 100m length.



JDW/JDL DIFFERENTIAL PRESSURE SWITCHES

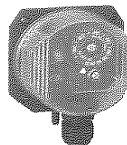
| Model | List £ | Switching Capacity | Setting Range | Switching Difference | Maximum Pressure |
|----------|---------------|--------------------|-------------------|----------------------|------------------|
| JDW-3 | £40.55 | 12-250V~ | 20...330Pa | 8...20Pa | 5000Pa |
| JDW-5 | £40.55 | 12-250V~ | 30...500Pa | 10...25Pa | 5000Pa |
| JDW-10 | £40.55 | 12-250V~ | 400...1.600Pa | 30...60Pa | 5000Pa |
| JDL-109 | £37.59 | 12-250V~ | 20Pa (ex factory) | 10Pa | 15000Pa |
| JDL-111 | £45.46 | 12-250V~ | 20...300Pa | 10...15Pa | 15000Pa |
| JDL-112 | £44.47 | 12-250V~ | 40...600Pa | 22...33Pa | 30000Pa |
| JDL-113 | £38.46 | 12-250V~ | 40Pa (ex factory) | 15Pa | 5000Pa |
| JDL-115 | £44.47 | 12-250V~ | 100...1000Pa | 20...40Pa | 30000Pa |
| JDL-116 | £44.47 | 12-250V~ | 250...5000Pa | 60...150Pa | 30000Pa |
| JDL-116A | £50.50 | 12-250V~ | 250...5000Pa | 60...150Pa | 30000Pa |
| JDL-117A | £50.50 | 12-250V~ | 3000...15000Pa* | 250...600Pa | 30000Pa |

*Indications on the adjusting knob in mbar

JDW/JDL differential pressure switches. For the supervision of overpressure, differential pressure or negative pressure levels in airflows or non-aggressive non combustible types of gas. JDW delivered without installation on bracket. Delivery also possible with installation bracket JZ-10 in already attached condition. JDL delivered with installation bracket JZ-10 in attached condition.

ACCESSORIES FOR THE JDW/JDL DIFFERENTIAL PRESSURE SWITCHES

| Model | List £ | Equipment |
|---------|--------------|--|
| JZ-06/1 | £6.46 | Connection set with 2 channel connecting pieces of plastic, 2 extentions, 4 screws, 2 m hose |
| JZ-10 | £3.18 | Installation bracket with screws for types JDL-109/113 and JDW-3/5/10 |


Controls UK
Temperature, Pressure, Humidity & Flow

JSF FLOW MONITOR

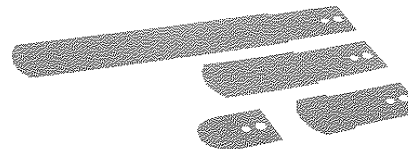
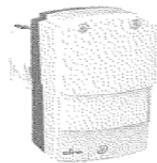
| Model | List £ | Switching Capacity | Pipe | Medium | Carrier body | Max pressure | Equipment |
|---------|---------|--------------------|--------|--------|--------------|--------------|-----------------------------------|
| JSF-3E | £133.31 | 24-250V~ | ½" | Normal | Brass | 5 bar | Attached T-piece (grey cast iron) |
| JSF-4E | £133.31 | 24-250V~ | ¾" | Normal | Brass | 5 bar | Attached T-piece (grey cast iron) |
| JSF-1E | £133.31 | 24-250V~ | 1"..8" | Normal | Brass | 8 bar | - |
| JSF-1RE | £133.31 | 24-250V~ | 1"..8" | Normal | Brass | 5 bar | Reduced switching values** |
| JSF-2E | £266.74 | 24-250V~ | 1"..8" | * | V4A | 13 bar | - |
| JSF-2RE | £226.74 | 24-250V~ | 1"..8" | * | V4A | 5 bar | Reduced switching values** |

*Aggressive types of media: all parts of the flow monitor in contact with the medium are made of V4A
 **Types for low throughput rates

JSF flow monitor is mechanically operated. For the supervision of liquid media that flow through ½" up to 8" tubes or pipes such as in oil, cooling or lubricant circuits. Can also be applied as protection against the lack of water. Installed vertically.

ACCESSORIES FOR THE JSF FLOW MONITOR

| Model | List £ | Equipment |
|-------|--------|-------------------------|
| JZ-09 | £14.02 | Spare paddle (4 pieces) |

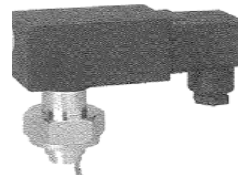


JSW FLOW SWITCH

| Model | List £ | Switching Capacity | Tube | DN | Max. | Δl/min | Switch point, decreasing* | Switch point, increasing |
|---------|---------|--------------------|------|----|----------|--------|---------------------------|--------------------------|
| JSW-3/8 | £100.13 | 5A, 24-250V~ | 3/8" | 10 | 10 l/min | 0.5 | 3.5...5.0 l/min | 4.0...5.5 l/min |
| JSW-1/2 | £100.13 | 5A, 24-250V~ | 1/2" | 15 | 20 l/min | 0.5 | 5.0...6.5 l/min | 5.5...7.0 l/min |
| JSW-3/4 | £100.13 | 5A, 24-250V~ | 3/4" | 20 | 40 l/min | 2.0 | 7.0...9.5 l/min | 9.0...11.0 l/min |
| JSW-1 | £100.13 | 5A, 24-250V~ | 1" | 25 | 60 l/min | 3.5 | 13.5...16.5 l/min | 17.0...20.5 l/min |

* The above indicated switching values apply only if the flow monitor is installed into the T-piece.

JSF flow monitor is mechanically operated. For the supervision of liquid media that flow through ½" up to 8" tubes or pipes such as in oil, cooling or lubricant circuits. Can also be applied as protection against the lack of water. Installed vertically. Brass cap nut, r.¾", with O-ring and connecting piece for soldering into a standard copper T-piece with ½" tee included in the delivery.

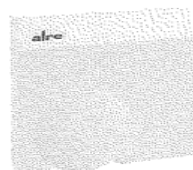

Controls UK
Temperature, Pressure, Humidity & Flow

SENSORS

PTF/RF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|--------|----------------------|--------|----------------------|--------|
| PT 100 | PTFP100-0000 | £21.21 | PTFP100-0003 | £44.29 | PTFP100-0004 | £50.31 |
| PT 1000 | PTFP1000-0000 | £23.22 | PTFP1000-0003 | £46.59 | PTFP1000-0004 | £53.16 |
| NI 1000 | PTFN1000-0000 | £22.94 | PTFN1000-0003 | £52.18 | PTFN1000-004 | £53.32 |
| NI 1000/TK 5000 | PTFN1000/TK5000-0000 | £26.95 | PTFN1000/TK5000-0003 | £53.46 | PTFN1000/TK5000-0004 | £57.05 |
| NTC 1 K 8 | PTFC18-0000 | £25.38 | PTFC18-0003 | £51.75 | PTFC18-0004 | £53.32 |
| NTC 3 K | PTFC03-0000 | £20.21 | PTFC03-0003 | £43.86 | PTFC03-0004 | £50.46 |
| NTC 10 K | PTFC10-0000 | £20.21 | PTFC10-0003 | £43.86 | PTFC10-0004 | £50.46 |
| NTC 10 K Prekon | PTFC10PRE-0000 | £20.21 | PTFC10PRE-0003 | £43.86 | PTFC10PRE-0004 | £50.46 |
| NTC 20 K | PTFC20-0000 | £20.21 | PTFC20-0003 | £43.86 | PTFC20-0004 | £50.46 |
| NTC 30 K | PTFC30-0000 | £20.21 | PTFC30-0003 | £43.86 | PTFC30-0004 | £50.46 |
| NTC 50 K | PTFC50-0000 | £20.21 | PTFC50-0003 | £44.01 | PTFC50-0004 | £50.46 |
| KTY 11/6 | PTFY11/6-0000 | £18.93 | PTFY11/6-0003 | £41.72 | PTFY11/6-0004 | £48.30 |
| LM 235Z | PTFLM-0000 | £21.79 | PTFLM0003 | £45.73 | PTFLM-0004 | £52.74 |
| NTC 2K25 | RF-0 | | - | | - | £21.64 |
| NTC 47 K | RF-2 | | - | | - | £21.64 |
| NTC 8 K | RF-3 | | - | | - | £21.64 |
| NTC 10 K | RF-4 | | - | | - | £20.21 |
| NTC 2 K | RF-8 | | - | | - | £21.64 |
| PTC 1 K | RF-51 | | - | | - | £21.64 |
| PTC 2 K | RF-57 | | - | | - | £21.64 |
| NTC 8 K/PTC 1 K | RF-43 | | - | | - | £21.64 |

PTF/RF room temperature sensor for surface installation with or without control elements. For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in living spaces or business rooms. LED, green, max. 24V~. Sensing device max. 35mA/24V~, weight 80g.


Controls UK
Temperature, Pressure, Humidity & Flow

PTF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|---------------|-----------------------|---------------|-----------------------|---------------|
| PT 100 | PTFP100-0009 | £48.45 | PTFP100-P0500 | £47.31 | PTFP100-P0501 | £54.04 |
| PT 1000 | PTFP1000-0009 | £50.89 | PTFP1000-P0500 | £49.74 | PTFP1000-P0501 | £56.19 |
| NI 1000 | PTFN1000-0009 | £56.33 | PTFN1000-P0500 | £49.45 | PTFN1000-P0501 | £56.05 |
| NI 1000/TK 5000 | PTFN1000/TK5000-0009 | £57.90 | PTFN1000/TK5000-P0500 | £54.32 | PTFN1000/TK5000-P0501 | £57.20 |
| NTC 1 K 8 | PTFC18-0009 | £56.05 | PTFC18-P0500 | £50.03 | PTFC18-P0501 | £44.01 |
| NTC 3 K | PTFC03-0009 | £48.30 | PTFC03-P0500 | £46.16 | PTFC03-P0501 | £42.28 |
| NTC 10 K | PTFC10-0009 | £48.30 | PTFC10-P0500 | £46.16 | PTFC10-P0501 | £42.28 |
| NTC 10 K Prekon | PTFC10PRE-0009 | £48.30 | PTFC10PRE-P0500 | £46.16 | PTFC10PRE-P0501 | £42.28 |
| NTC 20 K | PTFC20-0009 | £48.30 | PTFC20-P0500 | £46.16 | PTFC20-P0501 | £42.28 |
| NTC 30 K | PTFC30-0009 | £48.30 | PTFC30-P0500 | £46.16 | PTFC30-P0501 | £42.28 |
| NTC 50 K | PTFC50-0009 | £48.30 | PTFC50-P0500 | £46.16 | PTFC50-P0501 | £42.28 |
| KTY 11/6 | PTFY11/6-0009 | £46.16 | PTFY11/6-P0500 | £44.87 | PTFY11/6-P0501 | £42.28 |
| LM 235Z | PTFLM-0009 | £50.03 | PTFLMP0500 | £48.73 | PTFLM-P0501 | £53.89 |

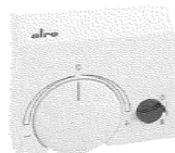
PTF room temperature sensor for surface installation . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in dry rooms. LED, green, max. 24V~. Potentiometer standard 5Ω, rocker switch 1A/30V~/42V=, weight 80g.



PTF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|---------------|-----------------------|---------------|-----------------------|---------------|
| PT 100 | PTFP100-P0503 | £67.08 | PTFP100-P0504 | £73.54 | PTFP100-P0527 | £57.20 |
| PT 1000 | PTFP1000-P0503 | £69.53 | PTFP1000-P0504 | £75.82 | PTFP1000-P0527 | £60.06 |
| NI 1000 | PTFN1000-P0503 | £69.10 | PTFN1000-P0504 | £75.68 | PTFN1000-P0527 | £59.77 |
| NI 1000/TK 5000 | PTFN1000/TK5000-P053 | £73.39 | PTFN1000/TK5000-P0504 | £79.70 | PTFN1000/TK5000-P0527 | £62.50 |
| NTC 1 K 8 | PTFC18-P0503 | £68.65 | PTFC18-P0504 | £73.81 | PTFC18-P0527 | £60.35 |
| NTC 3 K | PTFC03-P0503 | £65.79 | PTFC03-P0504 | £72.27 | PTFC03-P0527 | £59.20 |
| NTC 10 K | PTFC10-P0503 | £65.79 | PTFC10-P0504 | £72.68 | PTFC10-P0527 | £59.20 |
| NTC 10 K Prekon | PTFC10PRE-P0503 | £65.79 | PTFC10PRE-P0504 | £72.68 | PTFC10PRE-P0527 | £59.20 |
| NTC 20 K | PTFC20-P0503 | £65.79 | PTFC20-P0504 | £72.68 | PTFC20-P0527 | £59.20 |
| NTC 30 K | PTFC30-P0503 | £65.79 | PTFC30-P0504 | £72.68 | PTFC30-P0527 | £59.20 |
| NTC 50 K | PTFC50-P0503 | £65.79 | PTFC50-P0504 | £72.68 | PTFC50-P0527 | £59.20 |
| KTY 11/6 | PTFY11/6-P0503 | £64.36 | PTFY11/6-P0504 | £69.66 | PTFY11/6-P0527 | £55.76 |
| LM 235Z | PTFLM-P0503 | £68.65 | PTFLMP0504 | £74.96 | PTFLM-P0527 | £60.63 |

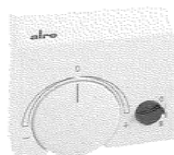
PTF room temperature sensor for surface installation . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in dry rooms. LED, green, max. 24V~. Potentiometer standard 5Ω, rotary switch 130mA/24V~, key button max. 35mA/24V~, weight 80g.



PTF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|---------------|-----------------------|---------------|-----------------------|----------------|
| PT 100 | PTFP100-0028 | £54.61 | PTFP100-P0528 | £64.36 | PTFP100-P0537 | £97.61 |
| PT 1000 | PTFP1000-0028 | £56.91 | PTFP1000-P0528 | £69.66 | PTFP1000-P0537 | £98.90 |
| NI 1000 | PTFN1000-0028 | £56.77 | PTFN1000-P0528 | £66.51 | PTFN1000-P0537 | £99.05 |
| NI 1000/TK 5000 | PTFN1000/TK5000-0028 | £58.91 | PTFN1000/TK5000-P0528 | £71.53 | PTFN1000/TK5000-P0537 | £101.20 |
| NTC 1 K 8 | PTFC18-0028 | £56.19 | PTFC18-P0528 | £64.36 | PTFC18-P0327 | £98.76 |
| NTC 3 K | PTFC03-0028 | £54.47 | PTFC03-P0528 | £61.49 | PTFC03-P0537 | £97.61 |
| NTC 10 K | PTFC10-0028 | £54.47 | PTFC10-P0528 | £61.49 | PTFC10-P0537 | £97.61 |
| NTC 10 K Prekon | PTFC10PRE-0028 | £54.47 | PTFC10PRE-P0528 | £61.49 | PTFC10PRE-P0537 | £97.61 |
| NTC 20 K | PTFC20-0028 | £54.47 | PTFC20-P0528 | £61.49 | PTFC20-P0537 | £97.61 |
| NTC 30 K | PTFC30-0028 | £54.47 | PTFC30-P0528 | £61.49 | PTFC30-P0537 | £97.61 |
| NTC 50 K | PTFC50-0028 | £54.47 | PTFC50-P0528 | £61.49 | PTFC50-P0537 | £97.61 |
| KTY 11/6 | PTFY11/6-0028 | £53.03 | PTFY11/6-P0528 | £63.22 | PTFY11/6-P0537 | £93.74 |
| LM 235Z | PTFLM-0028 | £56.05 | PTFLMP0528 | £97.61 | PTFLM-P0537 | £96.75 |

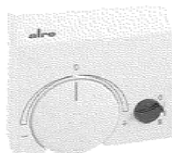
PTF room temperature sensor for surface installation . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in dry rooms. LED, green and red, max. 24V~. Potentiometer standard 5Ω, rotary switch 130mA/24V~, key button max. 35mA/24V~, weight 80g.



PTF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|----------------|
| PT 100 | PTFP100-P0508 | £102.77 | PTFP100-P0532 | £114.38 | PTFP100-P0520 | £120.26 |
| PT 1000 | PTFP1000-P0508 | £105.21 | PTFP1000-P0532 | £116.68 | PTFP1000-P0520 | £122.56 |
| NI 1000 | PTFN1000-P0508 | £104.93 | PTFN1000-P0532 | £116.54 | PTFN1000-P0520 | £122.27 |
| NI 1000/TK 5000 | PTFN1000/TK5000-P0508 | £108.79 | PTFN1000/TK5000-P0532 | £120.26 | PTFN1000/TK5000-P0520 | £126.14 |
| NTC 1 K 8 | PTFC18-P0508 | £104.35 | PTFC18-P0532 | £114.10 | PTFC18-P0520 | £122.99 |
| NTC 3 K | PTFC03-P0508 | £101.49 | PTFC03-P0532 | £111.66 | PTFC03-P0520 | £118.68 |
| NTC 10 K | PTFC10-P0508 | £101.49 | PTFC10-P0532 | £111.66 | PTFC10-P0520 | £118.68 |
| NTC 10 K Prekon | PTFC10PRE-P0508 | £101.49 | PTFC10PRE-P0532 | £111.66 | PTFC10PRE-P0520 | £118.68 |
| NTC 20 K | PTFC20-P0508 | £101.49 | PTFC20-P0532 | £111.66 | PTFC20-P0520 | £118.68 |
| NTC 30 K | PTFC30-P0508 | £101.49 | PTFC30-P0532 | £111.66 | PTFC30-P0520 | £118.68 |
| NTC 50 K | PTFC50-P0508 | £101.49 | PTFC50-P0532 | £111.66 | PTFC50-P0520 | £118.68 |
| KTY 11/6 | PTFY11/6-P0508 | £100.20 | PTFY11/6-P0532 | £114.38 | PTFY11/6-P0520 | £117.40 |
| LM 235Z | PTFLM-P0508 | £104.35 | PTFLMP0532 | £115.82 | PTFLM-P0520 | £121.41 |

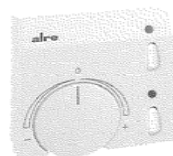
PTF room temperature sensor for surface installation . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in dry rooms. LED, green and red, max. 24V~. Potentiometer standard 5Ω, rotary switch 130mA/24V~, rocker switch 1A/30V~/42V~,key button max. 35mA/24V~, weight 80g.



FUF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|
| PT 100 | FUFP100-0000 | £28.24 | FUFP100-0001 | £52.18 | FUFP100-0003 | £55.62 |
| PT 1000 | FUFP1000-0000 | £31.68 | FUFP1000-0001 | £55.62 | FUFP1000-0003 | £59.34 |
| NI 1000 | FUFN1000-0000 | £29.95 | FUFN1000-0001 | £54.90 | FUFN1000-0003 | £58.48 |
| NI 1000/TK 5000 | FUFN1000/TK5000-0000 | £30.81 | FUFN1000/TK5000-0001 | £57.47 | FUFN1000/TK5000-0003 | £61.21 |
| NTC 1 K 8 | FUFC18-0000 | £29.39 | FUFC18-0001 | £54.04 | FUFC18-0003 | £57.90 |
| NTC 3 K | FUFC03-0000 | £23.51 | FUFC03-0001 | £45.15 | FUFC03-0003 | £48.45 |
| NTC 10 K | FUFC10-0000 | £24.66 | FUFC10-0001 | £46.88 | FUFC10-0003 | £57.90 |
| NTC 10 K Prekon | FUFC10PRE-0000 | £23.51 | FUFC10PRE-0001 | £45.15 | FUFC10PRE-0003 | £48.45 |
| NTC 20 K | FUFC20-0000 | £23.51 | FUFC20-0001 | £49.31 | FUFC20-0003 | £48.30 |
| NTC 30 K | FUFC30-0000 | £23.08 | FUFC30-0001 | £46.02 | FUFC30-0003 | £47.44 |
| NTC 50 K | FUFC50-0000 | £22.51 | FUFC50-0001 | £43.43 | FUFC50-0003 | £46.72 |
| KTY 11/6 | FUFY11/6-0000 | £24.37 | FUFY11/6-0001 | £46.45 | FUFY11/6-0003 | £49.74 |
| LM 235Z | FUFLM-0000 | £25.80 | FUFLM-0001 | £48.59 | FUFLM-0003 | £52.47 |

FUF room temperature sensor for flush installation with or without control elements . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in living spaces and business rooms. LED, green max. 24V~,key button max. 35mA/24V~, weight 80g.

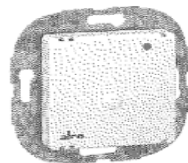


FUF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|---------------|----------------------|---------------|----------------------|---------------|
| PT 100 | FUFP100-0004 | £58.91 | FUFP100-0027 | £75.82 | FUFP100-0028 | £84.27 |
| PT 1000 | FUFP1000-0004 | £61.49 | FUFP1000-0027 | £79.56 | FUFP1000-0028 | £87.15 |
| NI 1000 | FUFN1000-0004 | £61.93 | FUFN1000-0027 | £81.56 | FUFN1000-0028 | £88.01 |
| NI 1000/TK 5000 | FUFN1000/TK5000-0004 | £64.07 | FUFN1000/TK5000-0027 | £82.42 | FUFN1000/TK5000-0028 | £90.02 |
| NTC 1 K 8 | FUFC18-0004 | £60.92 | FUFC18-0027 | £77.98 | FUFC18-0028 | £86.57 |
| NTC 3 K | FUFC03-0004 | £52.18 | FUFC03-0027 | £68.23 | FUFC03-0028 | £76.69 |
| NTC 10 K | FUFC10-0004 | £53.75 | FUFC10-0027 | £69.95 | FUFC10-0028 | £78.55 |
| NTC 10 K Prekon | FUFC10PRE-0004 | £52.18 | FUFC10PRE-0027 | £68.23 | FUFC10PRE-0028 | £76.69 |
| NTC 20 K | FUFC20-0004 | £52.04 | FUFC20-0027 | £68.09 | FUFC20-0028 | £76.54 |
| NTC 30 K | FUFC30-0004 | £51.32 | FUFC30-0027 | £67.23 | FUFC30-0028 | £75.68 |
| NTC 50 K | FUFC50-0004 | £50.60 | FUFC50-0027 | £66.37 | FUFC50-0028 | £74.82 |
| KTY 11/6 | FUFY11/6-0004 | £53.32 | FUFY11/6-0027 | £69.53 | FUFY11/6-0028 | £78.12 |
| LM 235Z | FUFLM-0004 | £55.47 | FUFLM-0027 | £71.96 | FUFLM-0028 | £80.41 |

FUF room temperature sensor for flush installation with or without control elements . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in living spaces and business rooms. LED, green max. 24V~,key button max. 35mA/24V~, rotary switch max. 130mA, 24V~, weight 80g.

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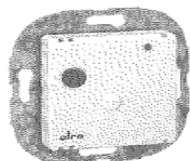


Controls UK
Temperature, Pressure, Humidity & Flow

FUF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|-----------------------|---------------|-----------------------|---------------|-----------------------|---------------|
| PT 100 | FUFP100-P0500 | £72.24 | FUFP100-P0501 | £81.99 | FUFP100-P0502 | £89.59 |
| PT 1000 | FUFP1000-P0500 | £75.68 | FUFP1000-P0501 | £85.28 | FUFP1000-P0502 | £90.31 |
| NI 1000 | FUFN1000-P0500 | £77.26 | FUFN1000-P0501 | £88.87 | FUFN1000-P0502 | £92.16 |
| NI 1000/TK 5000 | FUFN1000/TK5000-P0500 | £78.84 | FUFN1000/TK5000-P0501 | £92.88 | FUFN1000/TK5000-P0502 | £93.89 |
| NTC 1 K 8 | FUFC18-P0500 | £75.12 | FUFC18-P0501 | £84.86 | FUFC18-P0502 | £87.44 |
| NTC 3 K | FUFC03-P0500 | £63.65 | FUFC03-P0501 | £73.25 | FUFC03-P0502 | £78.70 |
| NTC 10 K | FUFC10-P0500 | £65.65 | FUFC10-P0501 | £75.39 | FUFC10-P0502 | £80.71 |
| NTC 10 K Prekon | FUFC10PRE-P0500 | £63.65 | FUFC10PRE-P0501 | £73.25 | FUFC10PRE-P0502 | £78.70 |
| NTC 20 K | FUFC20-P0500 | £63.49 | FUFC20-P0501 | £73.11 | FUFC20-P0502 | £78.55 |
| NTC 30 K | FUFC30-P0500 | £62.50 | FUFC30-P0501 | £72.10 | FUFC30-P0502 | £77.40 |
| NTC 50 K | FUFC50-P0500 | £61.49 | FUFC50-P0501 | £71.10 | FUFC50-P0502 | £76.54 |
| KTY 11/6 | FUFY11/6-P0500 | £65.07 | FUFY11/6-P0501 | £74.82 | FUFY11/6-P0502 | £80.28 |
| LM 235Z | FUFLM-P0500 | £67.80 | FUFLM-P0501 | £77.55 | FUFLM-P0502 | £82.99 |

FUF room temperature sensor for flush installation with or without control elements . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in living spaces and business rooms. LED, green and red max. 24V~,potentiometer standard 5Ω, weight 80g.


Controls UK
Temperature, Pressure, Humidity & Flow

FUF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|-----------------------|---------------|-----------------------|----------------|-----------------------|----------------|
| PT 100 | FUFP100-P0503 | £83.71 | FUFP100-P0504 | £108.52 | FUFP100-P0509 | £100.91 |
| PT 1000 | FUFP1000-P0503 | £91.30 | FUFP1000-P0504 | £112.38 | FUFP1000-P0509 | £107.80 |
| NI 1000 | FUFN1000-P0503 | £87.72 | FUFN1000-P0504 | £114.38 | FUFN1000-P0509 | £105.36 |
| NI 1000/TK 5000 | FUFN1000/TK5000-P0503 | £90.31 | FUFN1000/TK5000-P0504 | £116.11 | FUFN1000/TK5000-P0509 | £108.52 |
| NTC 1 K 8 | FUFC18-P0503 | £86.43 | FUFC18-P0504 | £111.66 | FUFC18-P0509 | £103.78 |
| NTC 3 K | FUFC03-P0503 | £75.12 | FUFC03-P0504 | £98.47 | FUFC03-P0509 | £90.74 |
| NTC 10 K | FUFC10-P0503 | £77.12 | FUFC10-P0504 | £100.91 | FUFC10-P0509 | £93.17 |
| NTC 10 K Prekon | FUFC10PRE-P0503 | £75.12 | FUFC10PRE-P0504 | £98.47 | FUFC10PRE-P0509 | £93.17 |
| NTC 20 K | FUFC20-P0503 | £74.82 | FUFC20-P0504 | £98.33 | FUFC20-P0509 | £90.74 |
| NTC 30 K | FUFC30-P0503 | £73.97 | FUFC30-P0504 | £97.18 | FUFC30-P0509 | £89.45 |
| NTC 50 K | FUFC50-P0503 | £72.96 | FUFC50-P0504 | £96.04 | FUFC50-P0509 | £88.30 |
| KTY 11/6 | FUFY11/6-P0503 | £76.54 | FUFY11/6-P0504 | £100.34 | FUFY11/6-P0509 | £92.60 |
| LM 235Z | FUFLM-P0503 | £79.27 | FUFLM-P0504 | £103.35 | FUFLM-P0509 | £95.74 |

FUF room temperature sensor for flush installation with or without control elements . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in living spaces and business rooms. LED, green and red max. 24V~, potentiometer standard 5Ω, rocker switch 1A/30V~/42V~, key button max. 35mA, 24V~, weight 80g.

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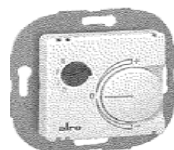


Controls UK
Temperature, Pressure, Humidity & Flow

FUF ROOM TEMPERATURE SENSOR

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|----------------|
| PT 100 | FUFP100-P0510 | £110.08 | FUFP100-P0511 | £116.39 | FUFP100-P0527 | £106.79 |
| PT 1000 | FUFP1000-P0510 | £113.95 | FUFP1000-P0511 | £120.40 | FUFP1000-P0527 | £110.23 |
| NI 1000 | FUFN1000-P0510 | £114.67 | FUFN1000-P0511 | £120.98 | FUFN1000-P0527 | £110.95 |
| NI 1000/TK 5000 | FUFN1000/TK5000-P0510 | £117.83 | FUFN1000/TK5000-P0511 | £124.14 | FUFN1000/TK5000-P0527 | £113.52 |
| NTC 1 K 8 | FUFC18-P0510 | £113.52 | FUFC18-P0511 | £119.40 | FUFC18-P0527 | £109.22 |
| NTC 3 K | FUFC03-P0510 | £100.05 | FUFC03-P0511 | £106.36 | FUFC03-P0527 | £97.76 |
| NTC 10 K | FUFC10-P0510 | £102.48 | FUFC10-P0511 | £108.79 | FUFC10-P0527 | £99.91 |
| NTC 10 K Prekon | FUFC10PRE-P0510 | £100.05 | FUFC10PRE-P0511 | £106.36 | FUFC10PRE-P0527 | £97.76 |
| NTC 20 K | FUFC20-P0510 | £99.91 | FUFC20-P0511 | £106.22 | FUFC20-P0527 | £97.76 |
| NTC 30 K | FUFC30-P0510 | £98.76 | FUFC30-P0511 | £105.07 | FUFC30-P0527 | £96.75 |
| NTC 50 K | FUFC50-P0510 | £97.61 | FUFC50-P0511 | £103.92 | FUFC50-P0527 | £95.61 |
| KTY 11/6 | FUFY11/6-P0510 | £101.92 | FUFY11/6-P0511 | £108.22 | FUFY11/6-P0527 | £99.48 |
| LM 235Z | FUFLM-P0510 | £104.93 | FUFLM-P0511 | £111.38 | FUFLM-P0527 | £102.21 |

FUF room temperature sensor for flush installation with or without control elements . For measuring of temperatures, set value adjustment, presence reporting, control unit with control elements for use in living spaces and business rooms. LED, green and red max. 24V~, potentiometer standard 5Ω, rocker switch 1A/30V~/42V~, key button max. 35mA, 24V~, weight 80g.



AF OUTDOOR TEMPERATURE SENSOR WITH PASSIVE OUTPUT

| Model | List £ | Measuring Range | Measurement Current | Sensor |
|-----------------|--------|-----------------|---------------------|------------------|
| AFP-100 | £17.92 | -30...100°C | Max. 3 mA | PT 100 |
| AFP-1000 | £19.92 | -30...100°C | Max. 3 mA | PT-1000 |
| AFN-1000 | £19.92 | -30...100°C | Max. 3 mA | NI-1000 |
| AFN-1000 TK5000 | £24.07 | -30...100°C | Max. 3 mA | NI-1000 TK 5000 |
| AFC-18 | £23.22 | -30...100°C | Max. 3 mA | NTC 1 K 8 |
| AFC-03 | £17.20 | -30...100°C | Max. 3 mA | NTC 3 K |
| AFC-10 | £17.20 | -30...100°C | Max. 3 mA | NTC 10 K |
| AFC-10PRE | £17.20 | -30...100°C | Max. 3 mA | NTC 10 K Prekon |
| AFC-20 | £17.20 | -30...100°C | Max. 3 mA | NTC 20 K |
| AFC-30 | £17.20 | -30...100°C | Max. 3 mA | NTC 30 K |
| AFC-50 | £17.20 | -30...100°C | Max. 3 mA | NTC 50 K |
| AFY-11/6 | £17.20 | -30...100°C | Max. 3 mA | KTY 11/6 |
| AFLM | £18.64 | -30...100°C | Max. 3 mA | LM 235Z |
| AF-0 | £19.36 | -30...100°C | Max. 3 mA | "0" (NTC 2 K 25) |
| AF-1 | £19.36 | -30...100°C | Max. 3 mA | "1" (NTC 1 K) |
| AF-2 | £19.36 | -30...100°C | Max. 3 mA | "2" (NTC 47 K) |
| AF-3 | £19.36 | -30...100°C | Max. 3 mA | "3" (NTC 8 K) |
| AF-4 | £19.36 | -30...100°C | Max. 3 mA | "4" (NTC 10 K) |
| AF-8 | £19.36 | -30...100°C | Max. 3 mA | "8" (NTC 2 K) |
| AF-51 | £19.36 | -30...100°C | Max. 3 mA | "51" (PTC 1 K) |

AF outdoor temperature sensor with passive output and internal sensor. For the detection of temperatures that exist outdoors or in wet room environments, cold storages and greenhouses. The devices are specially protected against the influence of dust and humidity.



AFH/AFHM OUTDOOR TEMPERATURE SENSOR WITH PASSIVE AND ACTIVE OUTPUT

| Model | List £ | Measuring Range | | Measurement Current | Sensor |
|--|----------------|-----------------|------------|---------------------|-----------------|
| | | Passive | Active | | |
| AFHP-100 | £37.12 | -130..100°C | -50...50°C | Max. 3 mA | PT 100 |
| AFHP-1000 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | PT-1000 |
| AFHN-1000 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NI-1000 |
| AFHN-1000 TK5000 | £42.14 | -130..100°C | -50...50°C | Max. 3 mA | NI-1000 TK 5000 |
| AFHC-18 | £42.14 | -130..100°C | -50...50°C | Max. 3 mA | NTC 1 K 8 |
| AFHC-03 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NTC 3 K |
| AFHC-10 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NTC 10 K |
| AFHC-10PRE | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NTC 10 K Prekon |
| AFHC-20 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NTC 20 K |
| AFHC-30 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NTC 30 K |
| AFHC-50 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | NTC 50 K |
| AFHY-11/6 | £39.99 | -130..100°C | -50...50°C | Max. 3 mA | KTY 11/6 |
| AFHLM | £37.12 | -130..100°C | -50...50°C | Max. 3 mA | LM 235Z |
| OUTDOOR TEMPERATURE SENSOR (ACTIVE) | | | | | |
| AFHM/0-10 | £107.37 | | -50...50°C | Max. 3 mA | - |
| AFHM/4-20 | £107.37 | | -50...50°C | Max. 3 mA | - |
| OUTDOOR TEMPERATURE SENSOR (ACTIVE) | | | | | |
| AFHM/2/0-10 | £107.37 | | 0...50°C | Max. 3 mA | - |
| AFHM/2/4-20 | £107.37 | | 0...50°C | Max. 3 mA | - |

AF outdoor temperature sensor with passive and active output. AFH has a led-through sensor sleeve, AFHM has a measuring transducer 0-10 V or 4-20 mA with led-through sensor sleeve. For the detection of temperatures that exist outdoors or in wet room environments, cold storages and greenhouses. The devices are specially protected against the influence of dust and humidity.





Controls UK
Temperature, Pressure, Humidity & Flow

HF SLEEVE TYPE TEMPERATURE SENSOR

| Model | List £ | Measuring Range | Measurement Current | Sensor |
|------------------|--------|-----------------|---------------------|-----------------|
| HFP100/P | £13.91 | -35...80°C | Max. 3 mA | PT 100 |
| HFP1000/P | £16.48 | -35...80°C | Max. 3 mA | PT-1000 |
| HFN1000/P | £17.63 | -35...80°C | Max. 3 mA | NI-1000 |
| HFN1000 TK5000/P | £22.22 | -35...80°C | Max. 3 mA | NI-1000 TK 5000 |
| HFC18/P | £20.35 | -35...80°C | Max. 3 mA | NTC 1 K 8 |
| HFC03/P | £14.90 | -35...80°C | Max. 3 mA | NTC 3 K |
| HFC10/P | £14.90 | -35...80°C | Max. 3 mA | NTC 10 K |
| HFC10PRE/P | £14.90 | -35...80°C | Max. 3 mA | NTC 10 K Prekon |
| HFC20/P | £14.90 | -35...80°C | Max. 3 mA | NTC 20 K |
| HFC30/P | £14.90 | -35...80°C | Max. 3 mA | NTC 30 K |
| HFC50/P | £14.90 | -35...80°C | Max. 3 mA | NTC 50 K |
| HFY11/6/P | £14.90 | -35...80°C | Max. 3 mA | KTY 11/6 |
| HFLM/P | £15.48 | -35...80°C | Max. 3 mA | LM 235Z |

HF sleeve type temperature sensor with PVC cable. For the detection of temperatures in liquid or gasiform media. Its design ensures the protection of the sleeve sensor against moisture and dust. A dip sleeve is needed when using the device in liquid media. See pages 95 onwards for these.

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Controls UK
Temperature, Pressure, Humidity & Flow

HF SLEEVE TYPE TEMPERATURE SENSOR

| Model | List £ | Measuring Range | Measurement Current | Sensor |
|------------------|---------------|-----------------|---------------------|-----------------|
| HFP100/S | £20.49 | -50...150°C | Max. 3 mA | PT 100 |
| HFP1000/S | £23.08 | -55...150°C | Max. 3 mA | PT-1000 |
| HFN1000/S | £22.79 | -55...150°C | Max. 3 mA | NI-1000 |
| HFN1000 TK5000/S | £28.96 | -55...150°C | Max. 3 mA | NI-1000 TK 5000 |
| HFC18/S | £26.80 | -55...150°C | Max. 3 mA | NTC 1 K 8 |
| HFC03/S | £19.20 | -55...150°C | Max. 3 mA | NTC 3 K |
| HFC10/S | £19.20 | -55...150°C | Max. 3 mA | NTC 10 K |
| HFC10PRE/S | £19.20 | -55...150°C | Max. 3 mA | NTC 10 K Prekon |
| HFC20/S | £19.20 | -55...150°C | Max. 3 mA | NTC 20 K |
| HFC30/S | £19.20 | -55...150°C | Max. 3 mA | NTC 30 K |
| HFC50/S | £19.20 | -55...150°C | Max. 3 mA | NTC 50 K |
| HFY11/6/S | £19.20 | -55...150°C | Max. 3 mA | KTY 11/6 |
| HFLM/S | £20.35 | -55...150°C | Max. 3 mA | LM 235Z |

HF sleeve type temperature sensor with silicone cable. For the detection of temperatures in liquid or gasiform media. Its design ensures the protection of the sleeve sensor against moisture and dust. A dip sleeve is needed when using the device in liquid media. See pages 95 onwards for these.

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Controls UK
Temperature, Pressure, Humidity & Flow

HF SLEEVE TYPE TEMPERATURE SENSOR

| Model | List £ | Ambient Temperature (cable) | | | Sensor |
|-----------|---------------|-----------------------------|------------|------------|-------------------------------------|
| | | PE | Silicone | PVC | |
| HF-0 | £23.65 | -50..100°C | - | - | "0" (NTC 2 K 25) PE cable 1.5m |
| HF-0/6 | £27.52 | -50..100°C | - | - | "0" (NTC 2 K 25) PE cable 6m |
| HF-1 | £25.22 | -50..100°C | - | - | "1" (NTC 1 K) PE cable 1.5m |
| HF-2 | £20.93 | -50..100°C | - | - | "2" (NTC 47 K) PE cable 1.5m |
| HF-3 | £22.79 | -50..100°C | - | - | "3" (NTC 8 K) PE cable 1.5m |
| HF-3/6 | £26.66 | -50..100°C | - | - | "3" (NTC 8 K) PE cable 6m |
| HF-4 | £23.80 | -50..100°C | - | - | "4" (NTC10 K) PE cable 1.5m |
| HF-4/6 | £27.66 | -50..100°C | - | - | "4" (NTC 10 K) PE cable 6m |
| HF-5 | £23.22 | -50..100°C | - | - | "5" (NTC 50 K) PE cable 1.5m |
| HF-5/4K3 | £31.53 | - | -50..150°C | - | "5" (NTC 50 K) silicone cable 4m |
| HF-5/6 | £27.09 | -50..100°C | - | - | "5" (NTC 50 K) PE cable 6m |
| HF-6 | £27.23 | - | -50..150°C | - | "6" (NTC 100 K) silicone cable 1.5m |
| HF-6/3 | £30.54 | - | -50..150°C | - | "6" (NTC 100 K) silicone cable 3m |
| HF-8/4 K2 | £39.42 | - | - | -35...80°C | "8" (NTC 2 K) PVC cable 4m |
| HF-8/6 K2 | £47.31 | - | - | -35...80°C | "8" (NTC 2 K) PVCcable 6m |
| HF-51 | £26.09 | - | -50..150°C | - | "51" (PTC 1 K) silicone cable 1.5m |
| HF-51/6 | £35.41 | - | -50..150°C | - | "51" (PTC 1 K) silicone cable 6m |
| HF-57 | £26.53 | -50..100°C | - | - | "57" (PTC 2 K) PE cable 1.5m |
| HF-100 | £32.97 | - | -50..150°C | - | PT-100 silicone cable 1.5m (4-wire) |
| HF-100/6 | £43.72 | - | -50..150°C | - | PT-100 silicone cable 6m (4-wire) |
| HF-1000 | £31.68 | - | -50..150°C | - | PT-1000 silicone cable 1.5m |

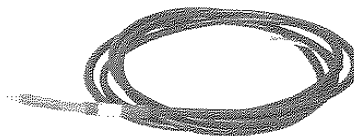
HF sleeve type temperature sensor (remote sensor for ALRE standard devices e.g ITR79). For the measuring of temperatures in liquid media after installation in a dip sleeve (TH/NTH). Also suited for the measuring of temperatures in air ducts or in non-aggressive types of gas when installed in a protective spiral such as SW-200. See page 95 for these.



LF AIR TEMPERATURE SENSOR

| Model | List £ | Measuring Range | Sensor |
|---------|--------|-----------------|--------------------------------|
| | | PE Cable | |
| LF-20 | £24.79 | -50...80°C | "0" (NTC 2 K 25) PE cable 1.5m |
| LF-21 | £24.79 | -50...80°C | "1" (NTC 1 K) PE cable 1.5m |
| LF-22 | £24.79 | -50...80°C | "2" (NTC 47 K) PE cable 1.5m |
| LF-23 | £24.79 | -50...80°C | "3" (NTC 8 K) PE cable 1.5m |
| LF-24 | £24.79 | -50...80°C | "4" (NTC10 K) PE cable 1.5m |
| LF-24/4 | £35.54 | -50...80°C | "4" (NTC 10 K) PE cable 4m |
| LF-25 | £24.79 | -50...80°C | "5" (NTC 50 K) PE cable 1.5m |
| LF-25/4 | £35.54 | -50...80°C | "5" (NTC 50 K) PE cable 4m |
| LF-8/4 | £35.54 | -50...80°C | "8" (NTC 2 K) PE cable 4m |
| LF-51 | £24.79 | -50...80°C | "51" (PTC 1 K) PE cable 1.5m |
| LF-51/6 | £44.44 | -50...80°C | "51" (PTC 1 K) PE cable 6m |
| LF-100 | £33.54 | -50...80°C | PT-100 PE cable 1.5m |
| LF-1000 | £36.13 | -50...80°C | PT-1000 PE cable 1.5m |

LF air temperature sensor (remote sensor for ALRE standard devices e.g ITR79). For the measuring of temperatures in air ducts or non-aggressive types of gas. Installation in a protective spiral is required. (SW-200). See page 95 for these.



PF ROOM PENDULUM TEMPERATURE SENSOR

| Model | List £ | Measuring Range | Sensor |
|-----------------|---------------|------------------------|-----------------|
| PFP-100 | £86.43 | -30...80°C | PT-100 |
| PFP-1000 | £87.87 | -30...80°C | PT-1000 |
| PFN-1000 | £87.87 | -30...80°C | NI-1000 |
| PFN-1000 TK5000 | £93.60 | -30...80°C | NI-1000 TK-5000 |
| PFC-18 | £90.74 | -30...80°C | NTC 1 K 8 |
| PFC-03 | £90.74 | -30...80°C | NTC 3 K |
| PFC-10 | £90.74 | -30...80°C | NTC 10 K |
| PFC-10PRE | £90.74 | -30...80°C | NTC 10 K Prekon |
| PFC-20 | £90.74 | -30...80°C | NTC 20 K |
| PFC-30 | £90.74 | -30...80°C | NTC 30 K |
| PFC-50 | £90.74 | -30...80°C | NTC 50 K |
| PFY-11/6 | £87.87 | -30...80°C | KTY-11/6 |
| PFLM | £87.87 | -30...80°C | LM-235Z |

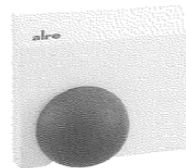
PF room pendulum temperature sensor. For the detection of temperatures in larger rooms. Owing to its ball shape, it picks up temperatures from all directions within the room for more a representative measuring result.



STF ROOM RADIATION TEMPERATURE SENSOR

| Model | List £ | Measuring Range | Sensor | Equipment |
|--------|--------|-----------------|------------|--------------------|
| STF-0 | £55.19 | -35...100°C | NTC 2 K 25 | 2 NTC sensors "0" |
| STF-2 | £55.19 | -35...100°C | NTC 47 K | 2 NTC sensors "2" |
| STF-4 | £55.19 | -35...100°C | NTC 10 K | 2 NTC sensors "4" |
| STF-51 | £55.19 | -35...100°C | PTC 1 K | 2 NTC sensors "51" |

STF room radiation temperature sensor. A double sensor that enables the detection of temperatures developed by heat radiation sources that exist within rooms. The radiation sensor is integrated in the black hemisphere while the room temperature sensor is located in the plastic housing.



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MWF MEAN TEMPERATURE SENSOR WITH PASSIVE AND ACTIVE OUTPUT

| Model | List £ | Sensor Length | Sensor | Output | Measuring Range |
|---|----------------|---------------|-----------------|--------|-----------------|
| MWFP-1000/3-cu | £106.40 | 3m | PT-1000 | - | - |
| MWFP-1000/6-cu | £256.27 | 6m | PT-1000 | - | - |
| MWFN-1000/6-cu | £256.57 | 6m | Ni-1000 | - | - |
| MWFN-1000 TK-5000/0,4-cu | £121.84 | 0.4m | Ni-1000 TK-5000 | - | - |
| MWFN-1000 TK-5000/0,3-cu | £190.65 | 3m | Ni-1000 TK-5000 | - | - |
| MWFN-1000 TK-5000/0,6-cu | £270.91 | 6m | Ni-1000 TK-5000 | - | - |
| MEAN TEMPERATURE SENSOR WITH MEASURING TRANSDUCER 0-10V | | | | | |
| MWFM/0-10/0,4-cu | £189.21 | 0.4m | - | 0-10V | -20...80°C |
| MWFM/0-10/0,6-cu | £328.24 | 6m | - | 0-10V | -20...80°C |
| MEAN TEMPERATURE SENSOR WITH MEASURING TRANSDUCER 4-20mA | | | | | |
| MWFM/4-20/6-cu | £328.24 | 6m | - | 4-20mA | -20...80°C |

MWF mean temperature sensor with passive and active output. For the detection of the main temperature prevailing in gasiform media that flow in air ducts, or of the main temperature in air flows produced by coil heating systems or drying ovens. Is enabled to measure the temperature over the entire length of the sensor line. The mean temperature model MWFM transduces, in a temperature-linear manner, the temperature-dependent resistance of the sensor to a voltage signal of 0-10V or a current signal of 4-20mA.

ACCESSORIES FOR THE MWF MEAN TEMPERATURE SENSOR

| Model | List £ | Equipment |
|----------|---------------|--|
| JZ-05/6M | £12.33 | 1 set of installation clips (six metal pieces) |
| MF | £5.88 | Installation flange |

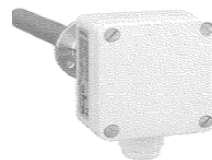


EKF BUILT IN DUCT SENSOR WITH PASSIVE OUTPUT

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|----------------------|--------|-----------------------|--------|-----------------------|--------|
| PT 100 | EKFP-100/50 | £35.27 | EKFP-100/100 | £35.97 | EKFP-100/150 | £37.41 |
| PT 1000 | EKFP-1000/50 | £35.97 | EKFP-1000/100 | £38.13 | EKFP-1000/150 | £39.56 |
| NI 1000 | EKFN-1000/50 | £35.97 | EKFN-1000/100 | £38.85 | EKFN-1000/150 | £41.00 |
| NI 1000/TK 5000 | EKFN-1000 TK 5000/50 | £42.43 | EKFN-1000 TK 5000/100 | £43.86 | EKFN-1000 TK 5000/150 | £45.44 |
| NTC 1 K 8 | EKFC-18/50 | £39.56 | EKFC-18/100 | £41.00 | EKFC-18/50 | £42.43 |
| NTC 3 K | EKFC-03/50 | £31.68 | EKFC-03/100 | £33.83 | EKFC-03/150 | £35.27 |
| NTC 10 K | EKFC-10/50 | £31.68 | EKFC-0/100 | £33.83 | EKFC-10/150 | £35.27 |
| NTC 10 K Prekon | EKFC-10PRE/50 | £31.68 | EKFC-10PRE/100 | £33.83 | EKFC-10PRE/150 | £35.27 |
| NTC 20 K | EKFC-20/50 | £31.68 | EKFC-20/100 | £33.83 | EKFC-20/150 | £35.27 |
| NTC 30 K | EKFC-30/50 | £31.68 | EKFC-30/100 | £33.83 | EKFC-30/150 | £35.27 |
| NTC 50 K | EKFC-50/50 | £31.68 | EKFC-50/100 | £33.83 | EKFC-50/150 | £35.27 |
| KTY 11/6 | EKFY-11/6/50 | £31.68 | EKFY-11/6/100 | £33.83 | EKFY-11/6/150 | £35.27 |
| LM 235Z | EKFLM-50 | £35.97 | EKFLM-100 | £36.69 | EKFLM-150 | £38.13 |

EKF built in duct sensor. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. First column for 50mm dip sleeves, fourth column for 100mm dip sleeves and sixth column for 150mm dip sleeves. See page 95 for dip sleeves.

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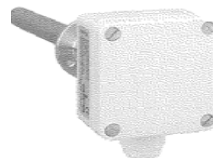


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EKF BUILT IN DUCT SENSOR WITH PASSIVE OUTPUT

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|-----------------------|--------|-----------------------|--------|-----------------------|--------|
| PT 100 | EKFP-100/200 | £38.85 | EKFP-100/250 | £41.72 | EKFP-100/300 | £44.58 |
| PT 1000 | EKFP-1000/200 | £41.00 | EKFP-1000/250 | £44.72 | EKFP-1000/300 | £47.60 |
| NI 1000 | EKFN-1000/200 | £42.43 | EKFN-1000/250 | £44.01 | EKFN-1000/300 | £46.88 |
| NI 1000/TK 5000 | EKFN-1000 TK 5000/200 | £46.88 | EKFN-1000 TK 5000/250 | £47.60 | EKFN-1000 TK 5000/300 | £50.46 |
| NTC 1 K 8 | EKFC-18/200 | £44.72 | EKFC-18/250 | £45.44 | EKFC-18/50/300 | £48.30 |
| NTC 3 K | EKFC-03/200 | £37.41 | EKFC-03/250 | £38.13 | EKFC-03/150/300 | £41.00 |
| NTC 10 K | EKFC-10/200 | £37.41 | EKFC-0/250 | £38.13 | EKFC-10/300 | £41.00 |
| NTC 10 K Prekon | EKFC-10PRE/200 | £37.41 | EKFC-10PRE/250 | £38.13 | EKFC-10PRE/300 | £41.00 |
| NTC 20 K | EKFC-20/200 | £37.41 | EKFC-20/250 | £38.13 | EKFC-20/300 | £41.00 |
| NTC 30 K | EKFC-30/200 | £37.41 | EKFC-30/250 | £38.13 | EKFC-30/300 | £41.00 |
| NTC 50 K | EKFC-50/200 | £37.41 | EKFC-50/250 | £38.13 | EKFC-50/300 | £41.00 |
| KTY 11/6 | EKFY-11/6/200 | £37.41 | EKFY-11/6/250 | £38.13 | EKFY-11/6/300 | £41.00 |
| LM 235Z | EKFLM-200 | £39.56 | EKFLM-250 | £42.43 | EKFLM-300 | £45.30 |

EKF built in duct sensor. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. First column for 200mm dip sleeves, fourth column for 250mm dip sleeves and sixth column for 300mm dip sleeves. See page 95 for dip sleeves.



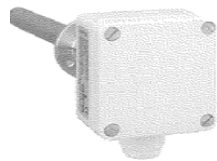
GFL BUILT IN DUCT SENSOR WITH PASSIVE OUTPUT

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|------------------|--------|---------------|-------|--------|-------|--------|
| "0" (NTC 2 K 25) | GFL-0 | £44.01 | - | - | - | - |
| "1" (NTC 1 K) | GFL-1 | £44.01 | - | - | - | - |
| "2" (NTC 47 K) | GFL-2 | £44.01 | - | - | - | - |
| "3" (NTC 8 K) | GFL-3 | £44.01 | - | - | - | - |
| "4" (NTC 10 K) | GFL-4 | £37.41 | - | - | - | - |
| "5" (NTC 50 K) | GFL-5 | £44.01 | - | - | - | - |
| "51" (PTC 1 K) | GFL-51 | £44.01 | - | - | - | - |

GFL built in duct sensor. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. Dip sleeve size is 200mm. See page 95 for dip sleeves.

ACCESSORIES FOR EK/GFL BUILT IN DUCT SENSOR

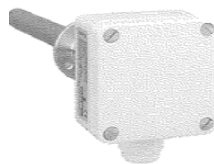
| Model | List £ | Equipment |
|-------|--------------|---------------------|
| MF | £5.88 | Installation flange |



EKGM BUILT IN DUCT SENSOR WITH ACTIVE OUTPUT

| Sensor Tube | Model Output 0...10v | List £ | Model Output 4...20mA | List £ | Model Output 0...10v | List £ |
|------------------------------|----------------------|----------------|-----------------------|----------------|----------------------|----------------|
| 65mm (for 50mm dip sleeve) | EKFM1/0-10/50 | £107.64 | EKFM1/4-20/50 | £109.51 | EKFM2/0-10/50 | £107.64 |
| 115mm (for 100mm dip sleeve) | EKFM1/0-10/100 | £108.22 | EKFM1/4-20/100 | £111.66 | EKFM2/0-10/100 | £108.22 |
| 165mm (for 150mm dip sleeve) | EKFM1/0-10/150 | £109.80 | EKFM1/4-20/150 | £113.09 | EKFM2/0-10/150 | £109.80 |
| 215mm (for 200mm dip sleeve) | EKFM1/0-10/200 | £110.52 | EKFM1/4-20/200 | £113.95 | EKFM2/0-10/200 | £110.52 |
| 265mm (for 250mm dip sleeve) | EKFM1/0-10/250 | £111.23 | EKFM1/4-20/250 | £114.53 | EKFM2/0-10/250 | £111.23 |
| 315mm (for 300mm dip sleeve) | EKFM1/0-10/300 | £114.10 | EKFM1/4-20/300 | £116.82 | EKFM2/0-10/300 | £114.10 |

EKFM built in duct sensor with active output and measuring transducer. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. See page 95 for dip sleeves.


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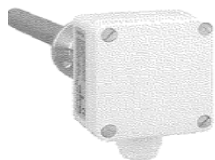
EKGM BUILT IN DUCT SENSOR WITH ACTIVE OUTPUT

| Sensor Tube | Model Output 4-20mA | List £ | Model Output 0...10v | List £ | Model Output 4...20mA | List £ |
|------------------------------|---------------------|----------------|----------------------|----------------|-----------------------|----------------|
| 65mm (for 50mm dip sleeve) | EKFM2/4-20/50 | £109.51 | EKFM3/0-10/50 | £107.64 | EKFM3/4-20/50 | £109.51 |
| 115mm (for 100mm dip sleeve) | EKFM2/4-20/100 | £111.66 | EKFM3/0-10/100 | £108.22 | EKFM3/4-20/100 | £111.66 |
| 165mm (for 150mm dip sleeve) | EKFM2/4-20/150 | £113.09 | EKFM3/0-10/150 | £109.80 | EKFM3/4-20/150 | £113.09 |
| 215mm (for 200mm dip sleeve) | EKFM2/4-20/200 | £113.95 | EKFM3/0-10/200 | £110.52 | EKFM3/4-20/200 | £113.95 |
| 265mm (for 250mm dip sleeve) | EKFM2/4-20/250 | £114.53 | EKFM3/0-10/250 | £111.23 | EKFM3/4-20/250 | £114.53 |
| 315mm (for 300mm dip sleeve) | EKFM2/4-20/300 | £117.40 | EKFM3/0-10/300 | £114.10 | EKFM3/4-20/300 | £117.40 |

EKFM built in duct sensor with active output and measuring transducer. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. See page 95 for dip sleeves.

ACCESSORIES FOR EFKM BUILT IN DUCT SENSOR

| Model | List £ | Equipment |
|-------|--------------|---------------------|
| MF | £5.88 | Installation flange |



IKF1 INDUSTRIAL BUILT IN DUCT SENSOR WITH PASSIVE OUTPUT

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|-----------------------|---------------|------------------------|---------------|------------------------|---------------|
| PT 100 | IKF1P-100/50 | £60.06 | IKF1P-100/100 | £61.35 | IKF1P-100/150 | £61.93 |
| PT 1000 | IKF1P-1000/50 | £62.93 | IKF1P-1000/100 | £63.78 | IKF1P-1000/150 | £65.51 |
| NI 1000 | IKF1N-1000/50 | £63.78 | IKF1N-1000/100 | £65.94 | IKF1N-1000/150 | £66.22 |
| NI 1000/TK 5000 | IKF1N-1000 TK 5000/50 | £70.52 | IKF1N-1000 TK 5000/100 | £71.10 | IKF1N-1000 TK 5000/150 | £71.96 |
| NTC 1 K 8 | IKF1C-18/50 | £62.93 | IKF1C-18/100 | £63.78 | IKF1C-18/150 | £64.93 |
| NTC 3 K | IKF1C-03/50 | £62.93 | IKF1C-03/100 | £63.78 | IKF1C-03/150 | £64.93 |
| NTC 10 K | IKF1C-10/50 | £62.93 | IKF1C-10/100 | £63.78 | IKF1C-10/150 | £64.93 |
| NTC 10 K Prekon | IKF1C-10PRE/50 | £62.93 | IKF1C-10PRE/100 | £63.78 | IKF1C-10PRE/150 | £64.93 |
| NTC 20 K | IKF1C-20/50 | £62.93 | IKF1C-20/100 | £63.78 | IKF1C-20/150 | £64.93 |
| NTC 30 K | IKF1C-30/50 | £62.93 | IKF1C-30/100 | £63.78 | IKF1C-30/150 | £64.93 |
| NTC 50 K | IKF1C-50/50 | £62.93 | IKF1C-50/100 | £63.78 | IKF1C-50/150 | £64.93 |
| KTY 11/6 | IKF1Y-11/6/50 | £62.93 | IKF1Y-11/6/100 | £63.78 | IKF1Y-11/6/150 | £64.93 |
| LM 235Z | IKF1LM-50 | £63.78 | IKF1LM-100 | £64.79 | IKFLM-150 | £66.08 |

IKF1 industrial built in duct sensor. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers used in the machine apparatus and plant engineering sphere. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. Column two is for 50mm dip sleeves, column four for 100mm dip sleeves and column six for 150mm dip sleeves. See page 95 for dip sleeves.



IKF1 INDUSTRIAL BUILT IN DUCT SENSOR WITH PASSIVE OUTPUT

| Sensor | Model | List £ | Model | List £ | Model | List £ |
|-----------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|
| PT 100 | IKF1P-100/200 | £62.93 | IKF1P-100/250 | £64.64 | IKF1P-100/300 | £67.95 |
| PT 1000 | IKF1P-1000/200 | £66.65 | IKF1P-1000/250 | £68.09 | IKF1P-1000/300 | £71.53 |
| NI 1000 | IKF1N-1000/200 | £72.68 | IKF1N-1000/250 | £73.39 | IKF1N-1000/300 | £76.83 |
| NI 1000/TK 5000 | IKF1N-1000 TK 5000/200 | £72.68 | IKF1N-1000 TK 5000/250 | £73.39 | IKF1N-1000 TK 5000/300 | £76.83 |
| NTC 1 K 8 | IKF1C-18/200 | £66.22 | IKF1C-18/250 | £67.23 | IKF1C-18/300 | £70.66 |
| NTC 3 K | IKF1C-03/200 | £66.22 | IKF1C-03/250 | £67.23 | IKF1C-03/300 | £70.66 |
| NTC 10 K | IKF1C-10/200 | £66.22 | IKF1C-10/250 | £67.23 | IKF1C-10/300 | £70.66 |
| NTC 10 K Prekon | IKF1C-10PRE/200 | £66.22 | IKF1C-10PRE/250 | £67.23 | IKF1C-10PRE/300 | £70.66 |
| NTC 20 K | IKF1C-20/200 | £66.22 | IKF1C-20/250 | £67.23 | IKF1C-20/300 | £70.66 |
| NTC 30 K | IKF1C-30/200 | £66.22 | IKF1C-30/250 | £67.23 | IKF1C-30/300 | £70.66 |
| NTC 50 K | IKF1C-50/200 | £66.22 | IKF1C-50/250 | £67.23 | IKF1C-50/300 | £70.66 |
| KTY 11/6 | IKF1Y-11/6/200 | £66.22 | IKF1Y-11/6/250 | £67.23 | IKF1Y-11/6/300 | £70.66 |
| LM 235Z | IKF1LM-200 | £67.80 | IKF1LM-250 | £68.94 | IKFLM-300 | £72.39 |

IKF1 industrial built in duct sensor. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers used in the machine apparatus and plant engineering sphere. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. Column two is for 200mm dip sleeves, column four for 250mm dip sleeves, and column six for 300mm dip sleeves. See page 95 for dip sleeves.



IKF1M INDUSTRIAL BUILT IN DUCT SENSOR WITH ACTIVE OUTPUT

| Sensor Tube | Model Output 0...10v | List £ | Model Output 4...20mA | List £ | Model Output 0...10v | List £ |
|------------------------------|----------------------|----------------|-----------------------|----------------|----------------------|----------------|
| 65mm (for 50mm dip sleeve) | IKF1M1/0-10/50 | £151.95 | IKF1M1/4-20/50 | £151.95 | IKF1M2/0-10/50 | £151.95 |
| 115mm (for 100mm dip sleeve) | IKF1M1/0-10/100 | £162.70 | IKF1M1/4-20/100 | £162.70 | IKF1M2/0-10/100 | £162.70 |
| 165mm (for 150mm dip sleeve) | IKF1M1/0-10/150 | £165.27 | IKF1M1/4-20/150 | £165.27 | IKF1M2/0-10/150 | £165.27 |
| 215mm (for 200mm dip sleeve) | IKF1M1/0-10/200 | £167.86 | IKF1M1/4-20/200 | £167.86 | IKF1M2/0-10/200 | £167.86 |
| 265mm (for 250mm dip sleeve) | IKF1M1/0-10/250 | £171.44 | IKF1M1/4-20/250 | £171.44 | IKF1M2/0-10/250 | £171.44 |
| 315mm (for 300mm dip sleeve) | IKF1M1/0-10/300 | £174.31 | IKF1M1/4-20/300 | £174.31 | IKF1M2/0-10/300 | £174.31 |

IKF1M industrial built in duct sensor with active output and measuring transducer. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and container used in the machine, apparatus and plant engineering sphere.. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. See page 95 for dip sleeves.

ACCESSORIES FOR IKF1M BUILT IN DUCT SENSOR

| Model | List £ | Equipment |
|-------|--------------|---------------------|
| MF | £5.88 | Installation flange |



IK1FM INDUSTRIAL BUILT IN DUCT SENSOR WITH ACTIVE OUTPUT

| Sensor Tube | Model Output 4-20mA | List £ | Model Output 0...10v | List £ | Model Output 4...20mA | List £ |
|------------------------------|---------------------|----------------|----------------------|--------|-----------------------|--------|
| 65mm (for 50mm dip sleeve) | IKF1M2/4-20/50 | £151.95 | - | - | - | - |
| 115mm (for 100mm dip sleeve) | IKF1M2/4-20/100 | £162.70 | - | - | - | - |
| 165mm (for 150mm dip sleeve) | IKF1M2/4-20/150 | £165.27 | - | - | - | - |
| 215mm (for 200mm dip sleeve) | IKF1M2/4-20/200 | £167.86 | - | - | - | - |
| 265mm (for 250mm dip sleeve) | IKF1M2/4-20/250 | £171.44 | - | - | - | - |
| 315mm (for 300mm dip sleeve) | IKF1M2/4-20/300 | £174.31 | - | - | - | - |

EKFM built in duct sensor with active output and measuring transducer. For measuring temperatures in liquids and gases that flow in pipes, conduits, air ducts, reservoirs, tanks and containers. If for use in air, the use of a special installation flange is required. For liquids, a nickel plated dip sleeve must be applied. See page 95 for dip sleeves.

ACCESSORIES FOR IKF1M BUILT IN DUCT SENSOR

| Model | List £ | Equipment |
|-------|--------------|---------------------|
| MF | £5.88 | Installation flange |



OF SURFACE TEMPERATURE SENSOR

| Model | List £ | Measuring Range | Sensor |
|------------------|--------|-----------------|-----------------|
| OFP-100 | £29.39 | -20...80°C | PT-100 |
| OFP-1000 | £30.81 | -20...80°C | PT-1000 |
| OFN-1000 | £33.69 | -20...80°C | NI-1000 |
| OFN-1000 TK-5000 | £36.55 | -20...80°C | NI-1000 TK-5000 |
| OFC-18 | £31.53 | -20...80°C | NTC 1 K 8 |
| OFC-03 | £30.81 | -20...80°C | NTC 3 K |
| OFC-10 | £30.81 | -20...80°C | NTC 10 K |
| OFC-10 PRE | £30.81 | -20...80°C | NTC 10 K Prekon |
| OFC-20 | £30.81 | -20...80°C | NTC 20 K |
| OFC-30 | £30.81 | -20...80°C | NTC 30 K |
| OFC-50 | £30.81 | -20...80°C | NTC 50 K |
| OFY-11/6 | £30.81 | -20...80°C | KTY-11/6 |
| OFLM | £32.25 | -20...80°C | LM-235Z |

OF surface temperature sensor. For the detection of temperatures on smooth and even surfaces such as glass, heaters or radiators. The sensor holder is fixed to the surface by means of an adhesive foil. A pressure spring serves for the required surface contact between the sensor and the measuring point to be controlled.



ALF CLIP-ON TEMPERATURE SENSOR WITH PASSIVE AND ACTIVE OUTPUT

| Model | List £ | Measuring Range | | Output | Sensor |
|---|---------|-----------------|-----------|--------|------------------|
| | | Passive | Active | | |
| ALFP-100 | £22.94 | -30...105°C | - | - | PT-100 |
| ALFP-1000 | £24.37 | -30...105°C | - | - | PT-1000 |
| ALFN-1000 | £24.37 | -30...105°C | - | - | NI-1000 |
| ALFN-1000 TK-5000 | £28.38 | -30...105°C | - | - | NI-1000 TK-5000 |
| ALFC-18 | £27.66 | -30...105°C | - | - | NTC 1 K 8 |
| ALFC-03 | £20.06 | -30...105°C | - | - | NTC 3 K |
| ALFC-10 | £20.06 | -30...105°C | - | - | NTC 10 K |
| ALFC-10PRE | £20.06 | -30...105°C | - | - | NTC 10 K Prekon |
| ALFC-20 | £20.06 | -30...105°C | - | - | NTC 20 K |
| ALFC-30 | £20.06 | -30...105°C | - | - | NTC 30 K |
| ALFC-50 | £20.06 | -30...105°C | - | - | NTC 50 K |
| ALFY-11/6 | £20.06 | -30...105°C | - | - | KTY-11/6 |
| ALFLM | £23.65 | -30...105°C | - | - | LM-235Z |
| ALF-0 | £27.95 | -30...105°C | - | - | "0" (NTC 2 K 25) |
| ALF-2 | £27.95 | -30...105°C | - | - | "2" (NTC 47 K) |
| ALF-3 | £27.95 | -30...105°C | - | - | "3" (NTC 8 K) |
| ALF-4 | £27.95 | -30...105°C | - | - | "4" (NTC 10 K) |
| ALF-5 | £27.95 | -30...105°C | - | - | "5" (NTC 50 K) |
| ALF-51 | £27.95 | -30...105°C | - | - | "51" (PTC 1 K) |
| CLIP ON TEMPERATURE SENSOR, ACTIVE | | | | | |
| ALFM/0-10 | £103.06 | - | 0...100°C | 0-10V | - |
| ALFM/4-20 | £103.06 | - | 0...100°C | 4-20mA | - |

ALF clip-on temperature sensor with passive and active output. For the detection of temperatures at conduits, pipes or heaters. The active clip-on sensor ALFM transduces, in a temperature-linear manner, the temperature-dependent resistance of the sensor to a voltage signal of 0 to 10V or to a current signal of 4-20mA.



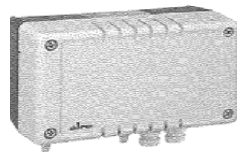
DF DIFFERENTIAL PRESSURE MEASURING TRANSDUCER

| Model | List £ | Current Output | Power Supply | Output | Measuring Range |
|-------------|----------------|----------------|--------------|---------|-----------------|
| DF-50UGT3 | £294.57 | 4...20 mA | 15...30 V= | 0...10V | 0...50 Pa |
| DF-100UGT3 | £260.31 | 4...20 mA | 15...30 V= | 0...10V | 0...100 Pa |
| DF-300UGT3 | £215.15 | 4...20 mA | 15...30 V= | 0...10V | 0...300 Pa |
| DF-500UGT3 | £215.15 | 4...20 mA | 15...30 V= | 0...10V | 0...500 Pa |
| DF-1000UGT3 | £215.15 | 4...20 mA | 15...30 V= | 0...10V | 0...1000 Pa |
| DF-2000UGT3 | £215.15 | 4...20 mA | 15...30 V= | 0...10V | 0...2000 Pa |
| DF-3000UGT3 | £215.15 | 4...20 mA | 15...30 V= | 0...10V | 0...3000 Pa |
| DF-7000UGT3 | £215.15 | 4...20 mA | 15...30 V= | 0...10V | 0...7000Pa |

DF differential pressure measuring transducer. For the supervision of filters and the measuring of filling levels in the ventilation, air conditioning and clean room engineering sphere. Also suited for the measuring of over and negative pressures as well as differential pressures that occur in non-aggressive gasiform types of media.

ACCESSORIES FOR THE DF DIFFERENTIAL PRESSURE MEASURING TRANSDUCER

| Model | List £ | Equipment |
|---------|--------------|---|
| JZ-06/1 | £6.45 | Connection set including plastic conduit connections, 2 x 90° elbows, 2 extension pieces, 4 self-tapping screws and a 2m hose |



MUD PRESSURE MEASURING TRANSDUCER

| Model | List £ | Output | Temperature of the Medium/Ambient Temperature | Measuring Range |
|---|---------|--------|---|-----------------|
| PRESSURE MEASURING TRANSDUCER 0-160 MBAR | | | | |
| MUD/0-10/0,16 | £181.75 | 0-10V | -40...100°C | 0-160 mbar |
| MUD/4-20/0,16 | £184.63 | 4-20mA | -40...100°C | 0-160 mbar |
| PRESSURE MEASURING TRANSDUCER 0-2.5 BAR | | | | |
| MUD/0-10/2.5 | £174.73 | 0-10V | -40...100°C | 0-2.5 bar |
| MUD/4-20/2.5 | £177.60 | 4-20mA | -40...100°C | 0-2.5 bar |
| PRESSURE MEASURING TRANSDUCER 0-6 BAR | | | | |
| MUD/0-10/6 | £174.73 | 0-10V | -40...100°C | 0-6 bar |
| MUD/4-20/6 | £177.60 | 4-20mA | -40...100°C | 0-6 bar |
| PRESSURE MEASURING TRANSDUCER 0-10 BAR | | | | |
| MUD/0-10/10 | £174.73 | 0-10V | -40...100°C | 0-10 bar |
| MUD/4-20/10 | £177.60 | 4-20mA | -40...100°C | 0-10 bar |
| PRESSURE MEASURING TRANSDUCER 0-25 BAR | | | | |
| MUD/0-10/25 | £174.73 | 0-10V | -40...100°C | 0-25 bar |
| MUD/4-20/25 | £177.60 | 4-20mA | -40...100°C | 0-25 bar |
| PRESSURE MEASURING TRANSDUCER 0-60 BAR | | | | |
| MUD/0-10/60 | £174.73 | 0-10V | -40...100°C | 0-60 bar |
| MUD/4-20/60 | £177.60 | 4-20mA | -40...100°C | 0-60 bar |

MUD pressure measuring transducer. For the measuring of pressures that occur in non-aggressive gasiform or liquid media used in the hydraulic, pneumatic, machine plant engineering and/or process technology sphere. The stainless steel membrane is absolutely vacuum tight.





Controls UK
Temperature, Pressure, Humidity & Flow

FS AIRFLOW MEASURING TRANSDUCER

| Model | List £ | Output | Equipment |
|-------|---------|---------------------|--|
| FS-K3 | £324.38 | 0...10V or 4...20mA | Duct sensor for the sensing of flows (sensor length 200mm) |
| FS-3 | £373.25 | 0...10V or 4...20mA | Duct sensor for the sensing of flows including remote sensor and 1m long cable (sensor length 150mm) |

FS airflow measuring transducer. For the detection of air velocities and the commutation of these variables to an electric standard signal within the range from 0 to 10 V or 4 to 20 mA. Specially suited for the application as a duct sensor in the refrigeration, air conditioning, ventilation engineering and process technology sphere.

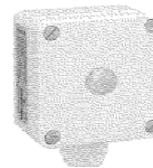
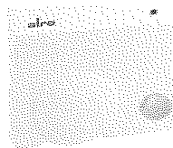
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RBS INDOOR & ABS OUTDOOR MOTION SENSOR

| Model | List £ | Sensing Coverage | Detection Distance | Supply Voltage | Output |
|-------|---------|------------------|--------------------|----------------|--------|
| RBS | £250.85 | 360° | Max. 10m | 24V~/= | Relay |
| ABS | £213.86 | 360° | Max. 10m | 24V~/= | Relay |

RBS indoor and ABS outdoor motion sensor. The RBS sensor recognizes the presence of persons in office rooms, living spaces and business rooms. The ABS sensor recognizes the presence of persons and motions in outdoor areas, industrial halls or greenhouses.

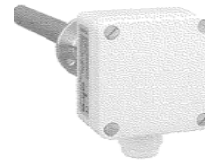
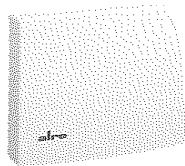


RLS ROOM AIR QUALITY SENSOR AND KLS DUCT AIR QUALITY SENSOR

| Model | List £ | Ambient Temperature | Running-in time | Supply Voltage | Output |
|-------|----------------|---------------------|-----------------|----------------|-----------------------|
| RLS | £216.45 | 0...50°C | Approx. 1 hour | 24V~/= | 0-10V, 4-20mA |
| RLS/R | £232.21 | 0...50°C | Approx. 1 hour | 24V~/= | 0-10V, 4-20mA, relay* |
| KLS | £299.58 | 0...50°C | Approx. 1 hour | 24V~/= | 0-10V, 4-20mA |
| KLS/R | £319.65 | 0...50°C | Approx. 1 hour | 24V~/= | 0-10V, 4-20mA, relay* |

*Relay contact suited only for the switching of safety extra low voltage (SELV), max 30VAC, 120VDC1 (0.2) A.

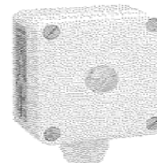
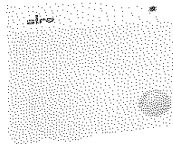
RLS room air and KLS duct air quality sensors. The first serves for the requirement-dependent ventilation of living spaces, offices or restaurants. It evaluates the pollution of these spaces with gases. It is not suited for the execution of a selective CO2 measurement.



RHS INDOOR AND AHS OUTDOOR BRIGHTNESS SENSOR

| Model | List £ | Measuring Range | Range of Application | Supply Voltage | Output |
|--------------|----------------|-----------------|----------------------|----------------|--------|
| RHS/0-10 | £95.32 | 0...20klx | - | 24V~/= | 0-10V |
| AHS/0-10 | £109.65 | 0...20klx | -20...70°C | 24V~/= | 0-10V |
| AHS/0-10/50 | £115.39 | 0...50klx | -20...70°C | 24V~/= | 0-10V |
| AHS/0-10/100 | £126.86 | 0...100klx | -20...70°C | 24V~/= | 0-10V |

RHS indoor and AHS outdoor brightness sensors. The indoor sensor serves for the control of lighting installations, awnings and blinds. The device is especially suited for the supervision of light conditions in the workplace. The outdoor sensor serves the same purpose in exterior areas such as greenhouses, industry halls or storage depots.



AFT/ATFT TEMPERATURE AND HUMIDITY MEASURING TRANSDUCER

| Model | List £ | Measuring Range (Humidity) | Ambient Temperature | Operating Voltage | Equipment |
|------------|----------------|----------------------------|---------------------|-------------------|--|
| ATFT | £208.56 | 10...90% r.H | -5...55°C | 0-10V, 4-20mA | Temperature/humidity 0-10V/4-20mA |
| AFT/P100 | £193.51 | 10...90% r.H | -5...55°C | 0-10V, 4-20mA | Humidity 0-10V/4-20mA, temperature sensor PT100 |
| AFT/P1000 | £193.51 | 10...90% r.H | -5...55°C | 0-10V, 4-20mA | Humidity 0-10V/4-20mA, temperature sensor PT1000 |
| AFT/NI1000 | £197.81 | 10...90% r.H | -5...55°C | 0-10V, 4-20mA | Humidity 0-10V/4-20mA, temperature sensor NI1000 |

AFT/ATFT temperature and humidity measuring transducer for use in outdoor areas. Especially suited for applications in the building automation, refrigeration, air conditioning and ventilating engineering or clean room technology sphere.

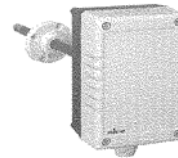
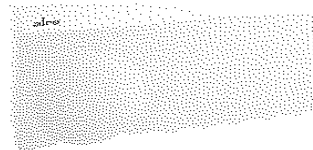


TF/FF/FTF TEMPERATURE AND HUMIDITY MEASURING TRANSDUCER

| Model | List £ | Measuring Range | Output | Equipment |
|--------|---------|-----------------|----------|----------------------------------|
| FF-R2 | £175.73 | 0...50°C | 4...20mA | Humidity room sensor |
| TF-R2 | £102.48 | 0...50°C | 4...20mA | Temperature room sensor |
| FTF-R2 | £213.14 | 0...50°C | 4...20mA | Humidity/temperature room sensor |
| FF-R1 | £175.73 | 0...50°C | 0...10V | Humidity room sensor |
| TF-R1 | £102.48 | 0...50°C | 0...10V | Temperature room sensor |
| FTF-R1 | £213.14 | 0...50°C | 0...10V | Humidity/temperature room sensor |
| FF-K2 | £199.96 | 0...50°C | 4...20mA | Humidity duct sensor |
| TF-K2 | £109.65 | 0...50°C | 4...20mA | Humidity duct sensor |
| FTF-K2 | £258.15 | 0...50°C | 4...20mA | Humidity/temperature duct sensor |
| FF-K1 | £199.96 | 0...50°C | 0...10V | Humidity duct sensor |
| TF-K1 | £109.65 | 0...50°C | 0...10V | Temperature duct sensor |
| FTF-K1 | £258.15 | 0...50°C | 0...10V | Humidity/temperature duct sensor |

T= Temperature
 F= Humidity
 FT= Humidity/Temperature
 R= Room Installation
 K= Duct Installation

TF/FF/FTF temperature and humidity measuring transducer (room and duct version). For the detection of temperatures (type TF), of the relative humidity (type FF) or of both temperature and humidity (type FTF). Especially suited for use within the refrigeration, air conditioning and ventilation engineering sphere.



MISCELLANEOUS

THK/NHK/SWK/SW DIP SLEEVE/PROTECTIVE SPIRAL FOR KR/LR 80/85 AND FOR SLEEVE AND AIR SENSORS

| Model | List £ | Length | Diameter | Max. Pressure (P/bar) | Material |
|---|---------------|--------|-----------|-----------------------|---------------------|
| DIP SLEEVES FOR KR 80/85 | | | | | |
| THK-100 | £13.10 | 100mm | 8 x 10mm | 20 | Nickel-plated brass |
| THK-120 | £13.10 | 120mm | 8 x 10mm | 20 | Nickel-plated brass |
| THK-200 | £15.36 | 200mm | 8 x 10mm | 20 | Nickel-plated brass |
| THK-280 | £18.84 | 280mm | 8 x 10mm | 20 | Nickel-plated brass |
| THK-600 | £30.20 | 600mm | 8 x 10mm | 20 | Nickel-plated brass |
| NTHK-100 | £36.35 | 100mm | 8 x 10mm | 40 | V4 A (1.4571) |
| NTHK-120 | £34.10 | 120mm | 8 x 10mm | 40 | V4 A (1.4571) |
| NTHK-200 | £37.57 | 200mm | 8 x 10mm | 40 | V4 A (1.4571) |
| NTHK-280 | £38.70 | 280mm | 8 x 10mm | 40 | V4 A (1.4571) |
| THK-100 X 17 | £21.09 | 100mm | 15 x 17mm | 20 | Nickel-plated brass |
| THK-200 X 17 | £25.70 | 200mm | 15 x 17mm | 20 | Nickel-plated brass |
| NTHK-100 X 17 | £35.84 | 100mm | 15 x 17mm | 40 | V4 A (1.4571) |
| NTHK-200 X 17 | £39.22 | 200mm | 15 x 17mm | 40 | V4 A (1.4571) |
| PROTECTIVE SPIRAL FOR LR 80 | | | | | |
| SWK-100 | £11.98 | 100mm | 11 x 17mm | - | Nickel-plated steel |
| SWK-120 | £13.10 | 1220mm | 11 x 17mm | - | Nickel-plated steel |
| SWK-200 | £15.36 | 200mm | 11 x 17mm | - | Nickel-plated steel |
| SWK-280 | £18.84 | 280mm | 11 x 17mm | - | Nickel-plated steel |
| PROTECTIVE SPIRAL FOR CAPILLARIES IN AIR DUCTS (JET/JMT/JTF/WR81) & INSTALLATION OF ALL HF SLEEVE & LF AIR SENSORS | | | | | |
| SW-200 | £14.84 | 200mm | 11 x 17mm | - | Nickel-plated steel |
| SW-200-12 | £14.84 | 200mm | 11 x 17mm | - | Nickel-plated steel |



TH/NTH/DIP SLEEVES FOR CAPILLARY AND FROST PROTECTION THERMOSTATS AND HF SLEEVE SENSORS

| Model | List £ | Length | Diameter | Max. Pressure (P/bar) | Material |
|---|---------------|------------------------------------|-----------|-----------------------|---------------------|
| FOR Ø7MM HF SLEEVE SENSORS AND JET/JMT/WR81 & JTF THERMOSTATS (TH/NTH-140 WITH JTF ONLY) | | | | | |
| TH-55 | £12.59 | 55mm | 8 x 10mm | 20 | Nickel-plated brass |
| TH-100 | £13.62 | 100mm | 8 x 10mm | 20 | Nickel-plated brass |
| TH-140* | £14.33 | 140mm | 10 x 12mm | 20 | Nickel-plated brass |
| TH-200 | £16.58 | 200mm | 8 x 10mm | 20 | Nickel-plated brass |
| TH-280 | £19.96 | 280mm | 8 x 10mm | 20 | Nickel-plated brass |
| NTH-100 | £36.35 | 100mm | 8 x 10mm | 40 | V4 A (1.4571) |
| NTH-140* | £38.09 | 140mm | 10 x 12mm | 40 | V4 A (1.4571) |
| NTH-200 | £35.84 | 200mm | 8 x 10mm | 40 | V4 A (1.4571) |
| NTH-280 | £38.70 | 280mm | 8 x 10mm | 40 | V4 A (1.4571) |
| *Suited for all types with an X in the type designation code e.g. JET-1...X or JMT-202X | | | | | |
| PROTECTIVE COPPER SLEEVE FOR SLEEVE SENSOR HF UP TO 8.9MM | | | | | |
| THF | £5.94 | For installation into the pavement | | | |



HF/EKF/IKF/MWF DIP SLEEVES & INSTALLATION FLANGE FOR 6MM SLEEVE SENSORS

| Model | List £ | Length | Diameter | Max. Pressure (P/bar) | Material |
|---|---------------|--------|-----------|-----------------------|-------------------------------------|
| Dip sleeves with insertion, also suitable for empty enclosures of the KR series. | | | | | |
| THMs/50 | £8.61 | 50mm | 7 x 10mm | 20 | Nickel-plated brass |
| THMs/100 | £9.17 | 100mm | 7 x 10mm | 20 | Nickel-plated brass |
| THMs/150 | £9.60 | 150mm | 7 x 10mm | 20 | Nickel-plated brass |
| THMs/200 | £9.89 | 200mm | 7 x 10mm | 20 | Nickel-plated brass |
| THMs/250 | £10.32 | 250mm | 7 x 10mm | 20 | Nickel-plated brass |
| THV/50 | £19.92 | 50mm | 6.3 x 9mm | 40 | Stainless steel |
| THV/100 | £20.78 | 100mm | 6.3 x 9mm | 40 | Stainless steel |
| THV/150 | £23.22 | 150mm | 6.3 x 9mm | 40 | Stainless steel |
| THV/200 | £24.79 | 200mm | 6.3 x 9mm | 40 | Stainless steel |
| THV/250 | £26.23 | 250mm | 6.3 x 9mm | 40 | Stainless steel |
| THV/300 | £29.10 | 300mm | 6.3 x 9mm | 40 | Stainless steel |
| THVH/50 | £31.39 | 50mm | 6.3 x 9mm | 40 | Stainless steel with 80mm neck pipe |
| THVH/100 | £32.82 | 100mm | 6.3 x 9mm | 40 | Stainless steel with 80mm neck pipe |
| THVH/150 | £34.26 | 150mm | 6.3 x 9mm | 40 | Stainless steel with 80mm neck pipe |
| THVH/200 | £35.70 | 200mm | 6.3 x 9mm | 40 | Stainless steel with 80mm neck pipe |
| THVH/250 | £37.12 | 250mm | 6.3 x 9mm | 40 | Stainless steel with 80mm neck pipe |

ACCESSORIES FOR HEATING TECHNOLOGY AND SENSOR APPLICATIONS

| Model | List £ | Equipment |
|-------------|---------------|--|
| PROTECTOR01 | £33.11 | Protector ball/sun/rain protection, stainless steel, 150 x 90 x 47mm |
| FRAME | £3.74 | Cover frame |
| KR 80.1 | £17.16 | Empty enclosure with 2 pole terminal |
| MUD-A | £7.03 | Adaptor G1/2" for pressure measuring transducer MUD |



ACCESSORIES FOR HEATING TECHNOLOGY/AIR CONDITIONING TECHNOLOGY/INDUSTRIAL TECHNOLOGY AND SENSORS

| Model | List £ | Description |
|--------------|---------------|--|
| JZ-04 | £8.71 | Capillary tube for air duct installation purposes including 30cm protective hose. (For use with frost protection thermostats JTF and capillary controllers JMT, WR and JET). |
| JZ-05/06K | £8.19 | 1 set of installation clips for frost protection thermostat JTF (6 pieces). Made of plastic (max. 145°C). |
| JZ-05/6M | £8.81 | 1 set of installation clips for frost protection thermostat JTF (6 pieces). Made of metal. |
| JZ-06/1 | £6.45 | Set with plastic duct connections (angle, 2x90°, 2 extensions (90mm), 4 self-tapping screws, 2m hose (dia. 6mm))for differential pressure switches JDW and JDL and pressure measuring transducer DF. |
| JZ-07 | £3.59 | Installation bracket for frost protection thermostat JTF. |
| JZ-08 | £13.72 | Spare tag for air flow sensing relay JSL. |
| JZ-09 | £13.72 | Spare paddle (4 pieces) for flow monitor JSF (sizes from 1" to 8"). |
| JZ-10 | £1.28 | Installation bracket for JDL-109/-113 and JDW-3/5/-10 including 6 screws. |
| JZ-14 | £1.28 | Sealing set for frost protection thermostats JTF-1...-25. |
| JZ-17 | £4.39 | Adapter plate for Berlin 3000 design housing (hardwired) |
| JZ-18 | £4.39 | Snap-on adaptor plate for Berlin 3000 design housing (radio controller can be removed). |
| JZ-20-1 | £14.64 | Wall bracket for duct hygrostat HI, for duct measuring transducers TF,FF, FTF, FS-K3 and air flow monitor JSL-20K. |
| FS-HI | £8.44 | Sensor protection for duct hygrostat HI. |
| PAP-01-14 | £3.79 | Adaptor plate for Pikolo design housing (PTR01, PETA, PETR, PHY, PTF and RF). |
| WP-01 | £3.02 | Heat conduction paste (2ml). |
| ATRS-1 | £1.33 | Temperature fixing set ATR-83.0.. |



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| 601 | Three phase fan and pump motor speed controller | 6 |
| 605 | Three phase fan and pump motor speed controller | 6 |
| BJ2 | Automatic speed controller for single phase fans and pumps | 5 |
| BJ2-2P | Temperature and pressure sensed condenser fan speed controls | 1 |
| BJ2-2T | Temperature and pressure sensed condenser fan speed controls | 1 |
| BJ6 | Automatic speed controller for single phase fans and pumps | 5 |
| BJ6-2P | Temperature and pressure sensed condenser fan speed controls | 1 |
| BJ6-2T | Temperature and pressure sensed condenser fan speed controls | 1 |
| BJ8 | Automatic speed controller for single phase fans and pumps | 5 |
| BJ10/2P | Temperature and pressure sensed condenser fan speed controls | 1 |
| BJ10/2T | Temperature and pressure sensed condenser fan speed controls | 1 |
| BJ12/2P | Temperature and pressure sensed condenser fan speed controls | 1 |
| BP2 | Manual speed control for fans and pumps | 2 |
| BP3 | Manual speed control for fans and pumps | 2 |
| BP6 | Manual speed control for fans and pumps | 2 |
| BP8 | Manual speed control for fans and pumps | 2 |
| BP20 | Manual speed control for fans and pumps | 2 |
| CJ3 | Automatic speed controller for single phase fans and pumps | 4 |
| CJ6 | Automatic speed controller for single phase fans and pumps | 4 |
| CJ8 | Automatic speed controller for single phase fans and pumps | 4 |
| DP1.5 | Single phase motors | 3 |
| DP3 | Single phase motors | 3 |
| DP6 | Single phase motors | 3 |
| FJ2 | Automatic speed controller for single phase fans and pumps | 5 |
| FMP3 | Manual speed control for fans and pumps | 2 |
| FMP6 | Manual speed control for fans and pumps | 2 |
| FMP10 | Manual speed control for fans and pumps | 2 |
| TP1 | Single phase motors | 3 |
| TP3 | Single phase motors | 3 |
| TP5 | Single phase motors | 3 |
| TP7 | Single phase motors | 3 |
| TP13 | Single phase motors | 3 |



TEMPERATURE AND PRESSURE SENSED CONDENSER FAN SPEED CONTROLS

SINGLE PHASE MOTORS

| Model | List £ | Set Point Control | Proportional Band | Run Currents (amps) | IP Protection Class | Variable Speed | Hard Start |
|---------|----------------|---|-------------------|---------------------|---------------------|---------------------------------|------------|
| BJ2-2T | £76.15 | 26°C...47°C | ±1.5°C...± 7°C | 2.0 | 44 | According to sensed temperature | 3 secs |
| BJ6/2T | £145.50 | 20°C...60°C | ± 6°C (Fixed) | 6.0 | 00 | According to sensed temperature | 3 secs |
| BJ10/2T | £126.47 | 20°C...60°C | ± 6°C (Fixed) | 10.0 | 0 | According to sensed temperature | 3 secs |
| BJ6/2P | £292.37 | 7-15 bar L models 12-20 bar H models | 1-3 bar | 6.0 | 55 | According to sensed pressure | 5 secs |
| BJ10/2P | £315.49 | 7-15 bar L models 12-20 bar H models | 1-3 bar | 10.0 | 00 | According to sensed pressure | 5 secs |
| BJ12/2P | £405.24 | 7-15 bar L models 12-20 bar H models | 1-3 bar | 12.0 | 55 | According to sensed pressure | 5 secs |

CONTROL FEATURES OF THE MODELS

| Model | Features |
|---------|--|
| BJ2-2T | Temperature sensors for easy retrofit, infinitely variable speed control, adjustable set point, minimum fan speed & proportional band, auto switching from heating to cooling on heat pumps and HP select. |
| BJ6/2T | Temperature sensors for easy retrofit, infinitely variable speed control, adjustable set point & minimum fan speed and fixed proportional band. |
| BJ10/2T | |
| BJ6/2P | Pressure sensors requiring no capillary connection, infinitely variable speed control, adjustable set point, minimum fan speed & proportional band and minimum speed or fan cut off mode. |
| BJ10/2P | |
| BJ12/2P | |



MANUAL SPEED CONTROL FOR FANS AND PUMPS

SINGLE PHASE MOTORS

| Model | List £ | Material | Maximum/Manual Switch | Run Currents (amps) | IP Protection Class | Variable Speed | Isolation Switch |
|-------|----------------|--------------------------|---|---------------------|---------------------|------------------------------|------------------|
| FMP3 | £125.10 | Aluminium facia/PVC base | Switch to maximum to provide full speed | 3.0 | 40 | Petentiometer on facia | On/off switch |
| FMP6 | £138.71 | Aluminium facia/PVC base | Switch to maximum to provide full speed | 6.0 | 40 | Petentiometer on facia | On/off switch |
| FMP10 | £242.06 | Steel | Not on this model | 10.0 | 54 | Petentiometer on facia | On/off switch |
| BP2 | £67.24 | Aluminium facia/PVC base | Switch to maximum to provide full speed | 2.0 | 40 | Petentiometer on front facia | On/off switch |
| BP3 | £100.63 | Aluminium facia/PVC base | Switch to maximum to provide full speed | 3.0 | 40 | Petentiometer on front facia | On/off switch |
| BP6 | £116.95 | Aluminium facia/PVC base | Switch to maximum to provide full speed | 6.0 | 40 | Petentiometer on front facia | On/off switch |
| BP8 | £214.18 | Plastic | Not on this model | 8.0 | 55 | Petentiometer on front facia | On/off switch |
| BP20 | £441.05 | Metal case | Not on this model | 17.0 | 54 | Petentiometer on front facia | On/off switch |

CONTROL FEATURES OF THE MODELS

| Model | Features |
|-------|--|
| FMP3 | Infinitely variable speed control, motor protection, neon indicator, maximum speed/manual control switch and hard start. |
| FMP6 | |
| FMP10 | |
| BP2 | Infinitely variable speed control, illuminated on/off switch, maximum speed/manual control switch and hard start. |
| BP3 | |
| BP6 | |
| BP8 | |
| BP20 | |

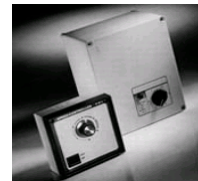


SINGLE PHASE MOTORS

| Model | List £ | Material | Maximum/Manual Switch | Run Currents (amps) | IP Protection Class | Variable Speed | Isolation Switch |
|-------|----------------|-------------------|-----------------------|---------------------|---------------------|------------------------------|----------------------|
| DP1.5 | £48.96 | PVC | Not available | 1.5 | 40 | Potentiometer on front facia | Pent. On front facia |
| DP3 | £88.39 | Painted aluminium | Not available | 3.0 | 40 | Potentiometer on front | On/off switch |
| DP6 | £104.71 | Painted aluminium | Not available | 6.0 | 40 | Potentiometer on front | On/off switch |
| TP1 | £145.96 | ABS | Not available | 1.0 | 40 | Five position rotary | On/off switch |
| TP3 | £174.51 | PVC | Not available | 3.0 | 55 | Five position rotary switch | On rotary switch |
| TP5 | £228.46 | PVC | Not available | 5.0 | 55 | Five position rotary switch | On rotary switch |
| TP7 | £333.16 | PVC | Not available | 7.5 | 55 | Five position rotary switch | On rotary switch |
| TP13 | £598.12 | PVC | Not available | 13.0 | 55 | Five position rotary switch | On rotary switch |

CONTROL FEATURES OF THE MODELS

| Model | Features |
|-------|--|
| DP1.5 | Infinitely variable speed control, on/off switch off knob. |
| DP3 | |
| DP6 | |
| TP1 | Five positions at selected voltages, on/off switch, |
| TP3 | |
| TP5 | |
| TP7 | |
| TP13 | |



AUTOMATIC SPEED CONTROL FOR SINGLE PHASE FANS AND PUMPS

USING DEDICATED SENSORS OR PROCESS CONTROL SIGNAL OUTPUTS

| Model | List £ | Material | Minimum Speed | Run Currents (amps) | IP Protection Class | Variable Speed | Max. Speed |
|-------|----------------|----------|----------------------|---------------------|---------------------|------------------------------|-----------------------|
| CJ3 | £134.63 | PVC | Potentiometer on PCB | 3.0 | 55 | Proportional to input signal | As detected by sensor |
| CJ6 | £140.07 | PVC | Potentiometer on PCB | 6.0 | 55 | Proportional to input signal | As detected by sensor |
| CJ8 | £168.63 | PVC | Potentiometer on PCB | 8.0 | 55 | Proportional to input signal | As detected by sensor |

CONTROL FEATURES OF THE MODELS

| Model | Features |
|-------------------|--|
| CJ3 CJ6 CJ8 | Variable motor speed control via external process control signal, signal 0-10v d.c, 4-20mA, 0-20v phase cut, hard start, adjustable minimum and maximum speeds, printed circuit board or in enclosure to IP55. |

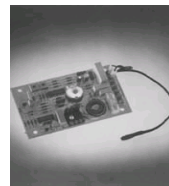


USING DEDICATED SENSORS OR PROCESS CONTROL SIGNAL OUTPUTS

| Model | List £ | Material | Minimum Speed | Run Currents (amps) | IP Protection Class | Variable Speed | Max. Speed |
|-------|----------------|----------|----------------------|---------------------|---------------------|------------------------------|-----------------------|
| BJ2 | £83.00 | ABS | Potentiometer on PCB | 2.0 | 55 | Variable on set temperature | As detected by sensor |
| BJ6 | £116.62 | PVC | Potentiometer on PCB | 6.0 | 55 | Variable on set temperature | As detected by sensor |
| BJ8 | £301.44 | PVC | Potentiometer on PCB | 8.0 | 55 | Variable on set temperature | As detected by sensor |
| FJ2 | £90.35 | ABS | Potentiometer on PCB | 2.0 | 55 | Proportional to input signal | As detected by sensor |

CONTROL FEATURES OF THE MODELS

| Model | Features |
|-------------------|--|
| BJ2 BJ6 BJ8 | Infinitely variable speed control, external set point temperature adjustment, adjustable minimum speed setting, dedicated temperature sensors, on/off switch and hard start. |
| FJ2 | Infinitely variable speed control, adjustable maximum and minimum speeds, switch selectable heating or cooling mode, fixed proportional band, cut off mode and adjustable set point. |



THREE PHASE FAN AND PUMP MOTOR SPEED CONTROL BY FREQUENCY INVERTER

DESIGNED TO MEET QUADRATIC "FAN LAW" TORQUE RATINGS

| Model | List £ | Input Supply | Overload Capacity | Output Frequency | Environmental Protection | Ambient Temperature |
|-------|------------|--|---------------------|----------------------------------|--------------------------|---|
| 601 | POA | 220-240 ± 10% Single phase | 150% for 30 seconds | 0-240 Hz | IP20 | 0-40°C up to 1000m without derating |
| 605 | POA | 220-240 ± 10% Single phase, 380-460V ± 10% three phase | 150% for 60 seconds | 0-480 Hz | IP20 | 0-45°C up to 1000m without derating |
| 584S | POA | 380-460V ± 10% 3 phase supply | 110% for 10 seconds | 0-120/240/480 Hz (programmeable) | IP20 or IP21 NEMA | 0-50°C (0-40 with top cover fitted) to 1000m ASL without derating |

CONTROL FEATURES OF THE MODELS

| Model | Features |
|-------|---|
| 601 | Three phase output from single phase supply, integral digital setup and display, 4 preset speeds or automatic set point 0-10v d.c,4-20mA, easy storage of set up parameters and panel or din rail mounted. |
| 605 | Three phase output from single or three phase supplies, easy to use menu structure programming, 32 character multi-lingual display, 8 preset speeds or automatic set point 0-10v d.c,4-20mA, process P.I.D control, wide viewing angle back lit L.C.D and L.E.D status indication. |
| 584S | Three phase supply - three phase output, easy to use menu structure programming, 32 character multi-lingual display, 8 preset speeds or automatic set point 0-10v d.c, 4-20mA, analogue and digital I/O functions, wide viewing angle back lit L.C.D, L.E.D status indication and 4 skip frequencies. |

