



## DEFROST CONTROLS, ELECTRICAL ACCESSORIES, CABLE & CONTROL PANELS

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L  
SECTION

## FSW EZ Range of Electronic Controllers

New range of electronic controllers made exclusively to **FSW** specification by Eliwell. Three models available for high, medium and low temperature applications called the **EZ-HT, EZ-MT & EZ-LT**.

The **EZ** range are supplied complete with NTC probes dependent on model, but can be changed via the parameters to accept PTC probes if required. See specification table below for full details of each controller.

**FSW EZ-HT** is a single relay module which is suitable as a thermostat or digital temperature read out, preset to +3°C.

| CODE | MODEL | DESCRIPTION                                |
|------|-------|--|
| L670 | EZ-HT | High Temperature Controller Preset to +3°C |

**FSW EZ-MT** is a three relay module for compressor, defrost and evaporator fans plus temperature display, preset to 0°C

| CODE | MODEL | DESCRIPTION                                 |
|------|-------|---|
| L672 | EZ-MT | Medium Temperature Controller Preset to 0°C |

**FSW EZ-LT** is a three relay module for compressor, defrost and evaporator fans plus temperature display, preset to -18°C

| CODE | MODEL | DESCRIPTION                                |
|------|-------|--|
| L671 | EZ-LT | Low Temperature Controller Preset to -18°C |



Specification Table for FSW EZ Range of Controllers

| MODEL | DEFROST TYPE | RANGE           | COMP RELAY (FLA) | FAN DELAY | ALARM TYPE | PROBE INCLUDED | SUPPLY VOLTAGE |
|-------|--------------|-----------------|------------------|-----------|------------|----------------|----------------|
| EZ-HT | Off Cycle    | Preset to +3°C  | 12 amp           | No        | No Alarm   | Yes (1 x NTC)  | 230V (50/60HZ) |
| EZ-MT | Time/Temp    | Preset to 0°C   | 12 amp           | Yes       | No Alarm   | Yes (2 x NTC)  | 230V (50/60HZ) |
| EZ-LT | Time/Temp    | Preset to -18°C | 12 amp           | Yes       | No Alarm   | Yes (2 x NTC)  | 230V (50/60HZ) |

## Eliwell Digifrost Controllers

Front dimensions: 74mm x 32mm – cut out: 71mm x 29mm  
 Models available for 12 volt DC/AC supply or 230 volt 50Hz.  
 The controls are supplied excluding probes but preset for NTC probes. They can be altered to work with PTC probes within the parameters. **Please remember to order probes separately.**

Easy to use thanks to the large-digit display and coloured status icons. Dedicated push-buttons provide direct access to the main functions.

| CODE | MODEL       | DESCRIPTION                      |
|------|-------------|----------------------------------|
| L614 | ID-Plus 974 | 12V controller (excludes probes) |

| CODE | MODEL       | DESCRIPTION                       |
|------|-------------|-----------------------------------|
| E460 | ID-Plus 974 | 230V controller (excludes probes) |



| MODEL       | DEFROST TYPE | RANGE                                      | COMP RELAY   | FAN DELAY | ALARM TYPE | PROBE INCLUDED | SUPPLY VOLTAGE      |
|-------------|--------------|--|--------------|-----------|------------|----------------|---------------------|
| ID-Plus 974 | Time/Temp    | NTC -50°C to +110°C<br>PTC -55°C to +140°C | 12 amp (FLA) | Yes       | Buzzer     | NO             | 12V ac/dc (50/60HZ) |
| ID-Plus 974 | Time/Temp    | NTC -50°C to +110°C<br>PTC -55°C to +140°C | 12 amp (FLA) | Yes       | Buzzer     | NO             | 230V (50/60HZ)      |

## Eliwell Controllers

**ICPlus 915** - Two relay two stage thermostat plus temperature display.

| CODE | MODEL      | DESCRIPTION                       |
|------|------------|-----------------------------------|
| L594 | ICPlus 915 | 12V Controller (excluding probes) |



**ID985LX** - Four relay thermostat that can be configured for twin evaporator defrost, plus temperature display.

| CODE | MODEL   | DESCRIPTION                      |
|------|---------|----------------------------------|
| L655 | ID985LX | 12V Controller (excludes probes) |



| MODEL      | DEFROST TYPE | RANGE                                      | COMP RELAY (FLA) | FAN DELAY | ALARM TYPE | PROBE INCLUDED | SUPPLY VOLTAGE |
|------------|--------------|--|------------------|-----------|------------|----------------|----------------|
| ICPlus 915 | N/A          | NTC -50°C to +110°C<br>PTC -55°C to +140°C | 8 Amp            | No        | No Alarm   | NO             | 12V            |
| ID985LX    | Time/Temp    | NTC -50°C to +110°C<br>PTC -55°C to +140°C | 8 Amp            | Yes       | Visual     | NO             | 12V            |

## Eliwell NTC & PTC Probes

### Probes

A wide range of genuine Eliwell NTC or PTC probes available in either 1.5 or 3 metre lengths.

| CODE | MODEL      | TYPE                           |
|------|------------|--------------------------------|
| L628 | PTC - 1.5M | PTC 6 x 30 1.5M PVC Probe      |
| L620 | PTC - 1.5M | PTC 6 x 40 1.5M Silicone Probe |
| L622 | PTC - 3.0M | PTC 6 x 40 3.0M Silicone Probe |
| L624 | NTC - 1.5M | NTC 6 x 40 1.5M Silicone Probe |
| L626 | NTC - 3.0M | PTC 6 x 40 3.0M Silicone Probe |
| L627 | NTC - 1.5M | NTC Tadpole Probe 1.5M Probe*  |

\* These probes are the same probes that are supplied with FSW EZ range of controllers



## Eliwell Transformer

Genuine Eliwell 230V to 12V transformer, to power 1 x controller. Suitable for most other makes of controllers that require a 230-12V 3VA transformer.

| CODE | MODEL    | TYPE                   |
|------|----------|------------------------|
| L640 | TR230/12 | Transformer 230/12 3VA |



## Controller Mounting Box

C-Box is a small compact wall box to suit a single controller with 74mm x 32mm cut out. Box dims: 110 x 110 x 90mm (H x W x D)

EW-1 genuine Eliwell control box is larger than the C-Box also designed for wall mounting a single controller with a 74mm x 32mm front cut out. Dims: 170 x 110 x 100mm (H x W x D)

| CODE | MODEL  | TYPE   |
|------|--------|--|
| L685 | C-Box  | Small Wall Box to Suit Single Controller (Grey)  |
| L644 | EW - 1 | Large Wall Box to Suit Single Controller (Black) |



## Eliwell Master Controllers

The IS972-LX & IS974-LX master controllers are devices suitable for applications on normal or low temperature refrigerating units with fans; they include a master unit and a power slave module EWEM 233 and EWEM 243, connected to each other by a multi-polar cable with quick coupling. PTC probe compatible can be configured for use with NTC probes.



| CODE | MODEL    | DESCRIPTION                 |
|------|----------|-----------------------------|
| L616 | IS972-LX | Eliwell IS972-LX Controller |

| CODE | MODEL    | DESCRIPTION                 |
|------|----------|-----------------------------|
| L617 | IS974-LX | Eliwell IS974-LX Controller |

Specification:

| MODEL    | RANGE                                      | COMPRESSOR RELAY    | FAN DELAY | ALARM TYPE | PROBE INCLUDED        | OUTPUTS | SUPPLY VOLTAGE         |
|----------|--|---------------------|-----------|------------|-----------------------|---------|------------------------|
| IS972-LX | NTC -50°C to +110°C<br>PTC -55°C to +140°C | Use EWEM 233 Module | Yes       | Visual     | NO<br>(2 x NTC Req'd) | 3       | From EWEM Slave Module |
| IS974-LX | NTC -50°C to +110°C<br>PTC -55°C to +140°C | Use EWEM 243 Module | Yes       | Visual     | NO<br>(2 x NTC Req'd) | 4       | From EWEM Slave Module |

## Eliwell EWEM Power Slave Modules

Slave modules for IS972 & IS974 Digifrost controllers shown above.

| CODE | MODEL   | DESCRIPTION                     |
|------|---------|---------------------------------|
| L618 | EWEM233 | Power Slave Module for IS972-LX |

| CODE | MODEL   | DESCRIPTION                     |
|------|---------|---------------------------------|
| L619 | EWEM243 | Power Slave Module for IS974-LX |



| MODEL   | COMPRESSOR RELAY | DEFROST RELAY | FAN RELAY | ALARM RELAY | SUPPLY VOLTAGE |
|---------|------------------|---------------|-----------|-------------|----------------|
| EWEM233 | 15 Amp           | 10 Amp        | 8 Amp     | NO          | 230 Volt       |
| EWEM243 | 15 Amp           | 10 Amp        | 8 Amp     | YES (8 Amp) | 230 Volt       |

## Eliwell Master Slave Multi-polar Connection Cable

Multi-polar cable with quick coupling ends, used to join between the Master & Slave units above.

| CODE | MODEL             | DESCRIPTION            |
|------|-------------------|------------------------|
| L632 | Multi Polar Cable | 1.0M - IS972/4 to EWEM |



## Eliwell COLDFACE Coldroom Control Panel



The Eliwell EWRC 500 NT control panel comes complete with circuit breaker, easily accessible via a drop down front panel. Large easy to read LED Display with 6 large size keys for direct access to functions.

Works with NTC or PTC probes, selectable within the parameters. (Supplied with 2 x NTC Probes)

Suitable for chiller and freezer coldroom applications.

| RELAY OUTPUTS            | AMPS        |
|--------------------------|-------------|
| DEFROST                  | 8A          |
| COMPRESSOR               | 12A         |
| FANS                     | 8A          |
| LIGHTS                   | 8A          |
| ALARM                    | 8A          |
| Internal Circuit Breaker | 16 Amps 1ph |

Large high visibility display  
Enclosure rating IP65.  
Dimensions 221(W) x 318 (H) x 107mm (D)  
Reversible hinged door using robust brass 180° hinges



| CODE | MODEL     | DESCRIPTION                      |
|------|-----------|----------------------------------|
| L678 | EWRC500NT | Eliwell EWRC 500 NT with Breaker |

## Dixell Universal-R Controller



The Universal-R replaces most digital thermostats, cooling, heating & off cycle defrost models. It can work with PTC or NTC probes (comes complete with 2 x NTC probes) and is dual voltage, working on either 12V ac/dc or 230Vac. Will also control twin evaporators via a fourth (aux) relay (requires extra probe for this feature).

| CODE | MODEL       | DESCRIPTION                     |
|------|-------------|---------------------------------|
| L155 | Universal-R | Universal Electronic Controller |



## LAE Controllers



Universal digital controllers from LAE: the AT1-5 is off-cycle defrost and the AT2-5 is electric defrost model. (Both controllers are NTC or PTC probe compatible)

| CODE | MODEL   |
|------|---|
| L213 | LAE AT1-5BS2E-AG 230V Controller (c/w 1 x probe)  |
| L214 | LAE AT2-5BS4E-AG 230V Controller (c/w 2 x probes) |

## LAE Probes

The PTC probe shown below suits the old CDC models, but most LAE controllers are now both PTC and NTC probe compatible as standard. NTC Probes are available in 1.5 or 2.0 metre lengths.

| CODE | MODEL                                 |
|------|---------------------------------------|
| L212 | LAE ST1K20P1-T1 PTC Probe x 1.5 Metre |
| L206 | LAE SN4K20P1 NTC Probe x 1.5 Metre    |
| L207 | LAE SN4K20P2 NTC Probe x 2 Metre      |



## RDM PRO 150 Coldroom Control Panel

The Pro 150 panel has been specifically developed to suit a variety of coldroom needs.

The purpose developed enclosure has a detachable display/keypad with 5m long cable (included) for applications where it is desirable to mount the power supply panel away from the user controls.

The Pro 150 includes mains isolator switch.

Each individual relay has circuit breaker protection. (see table below)

Based on RDM's Mercury technology, the controller has parameters that give this product complete flexibility for controlling either high temperature produce (HT) or low temperature freezer coldrooms (LT).

Requires 3 probes per panel (see table below).

| CODE  | MODEL                                       |
|-------|---|
| L1120 | PRO-150-MSB Coldroom                        |
| L1122 | PRO-150 Air Probe 6m (3 required per panel) |

| RELAY OUTPUTS | INTERNAL CIRCUIT BREAKER (1PH) |
|---------------|--------------------------------|
| DEFROST       | 20A                            |
| COMPRESSOR    | 10A                            |
| FANS          | 8A                             |
| LIGHTS        | 6A                             |

### Remote Display:

Removable panel display can be wall mounted remotely from control box. Supplied as standard with 5m cable.



## Carel MasterCella Control Panel

The MD33D2EN00 is a microprocessor based digital controller specifically designed for refrigeration systems. With a protection rating of IP65 the panel can be installed in high moisture areas.

The case can be directly mounted onto a wall on the front of the coldroom, while wiring is made simple by the significant space available inside, inserting the wires from either below or above.

**MasterCella Controller** (Excludes Probes, Please order separately)

| CODE | MODEL                               |
|------|-------------------------------------|
| L215 | MD33D2EN00 Control Panel            |
| L190 | MD33D5FB00 Control Panel + Isolator |

### Probes to Suit MasterCella Control Panel

| CODE | MODEL      |
|------|------------|
| L216 | 1.5M Probe |
| L217 | 3.0M Probe |
| L218 | 6.0M Probe |

Two probes are required one for room control and the other for defrost control. Probes are available in three lengths to aid installation.

**Please order probes separately.**

| RELAY OUTPUTS | AMPERAGE |                                    |
|---------------|----------|------------------------------------|
| COMPRESSOR    | 30A      | Max. running current = 10a 250 vac |
| DEFROST       | 16A      | Resistive 250Vac                   |
| FANS          | 8A       | Resistive 250Vac                   |
| LIGHTS        | 16A      | Resistive 250Vac                   |
| ALARM         | 2A       | Resistive 250Vac                   |

# CAREL



## Danfoss Optyma Control Panel Single Phase

Can control systems up to 2 HP.  
(max controller current 16amps).  
With off-cycle or electric defrost.  
(max defrost load 3kW).  
Direct or pump down compressor stop.  
Simple, wiring with live outputs.  
Simple, flexible programming for ease of use.  
2 Temp probes included - 1 x 1.5m & 1 x 3.0m.  
Enclosure to IP 65.



| CODE | MODEL                               |
|------|-------------------------------------|
| L255 | AK-RC101 - Single Phase             |
| L253 | Spare Probe for 1 & 3ph Controllers |

### Applications:

Complete management of single-phase static or ventilated refrigeration systems up to 2 HP, with off-cycle or electrical defrosting and with direct or pump-down compressor stop. Control of single-phase evaporator unit only with solenoid valve or remote condensing unit.

### Main characteristics:

Direct control of defrosting elements, evaporator fans, room light with outputs directly connectible to the various units. Automatic fuse protect the refrigeration unit. Stylish ABS housing with transparent cover for access to the automatic fuse, all with an IP65 protection rating so that panel can be used outside the room. LED indicators and large display show system status. User-friendly keypad. Display resolution to 0.1 °C.

## Danfoss Optyma Control Panel Three Phase

Can control systems up to 7.5 HP.  
With off-cycle or electric defrost.  
Direct or pump down compressor stop.  
Simple, wiring with live outputs.  
Simple, flexible programming for ease of use.  
Selection of function mode for compressor - pumpdown / thermostat.  
Direct control of compressor, condenser / evaporator fans,  
defrosting heaters, compressor oil heater, solenoid valve.  
2 Temp probes included - 1 x 1.5m & 1 x 3.0m.  
Enclosure to IP 65.



| CODE | MODEL                                      |
|------|--|
| L256 | AK-RC103 - Three Phase 4HP (4.5 - 6.3A)    |
| L257 | AK-RC103 - Three Phase 4HP (7.0- 10.0A)    |
| L258 | AK-RC103 - Three Phase 7.5HP 11.0 - 16.0A) |
| L259 | AK-RC103 - Three Phase 7.5HP 14.0- 20.0A)  |
| L253 | Spare Probe for 1 & 3ph Controllers        |

### Description:

The OPTYMA three-phase is a controller for refrigeration systems with a three-phase compressor or for controlling the three-phase evaporating unit only, for complete cold room management. Front access to the automatic fuse and motor protector for the compressor and an innovative design combine to make it the ideal choice for effective refrigeration control. Complete management of three-phase refrigerating systems up to 7.5 HP static or ventilated, with off-cycle or electrical defrosting.

## Universal Coldroom Control Panels

### Universal Coldroom Control Panels:

- Technopolymer enclosure / RAL7035 (Grey) / Top entry / IP55
- Door interlocked isolator
- Contactor for 1ph/3ph DOL compressor (selectable) - MMS\* or MCB
- Evaporator control via Eliwell EWPlus 974 controller
- Indications via controller display only
- Coldroom door switch connections to stop fans
- Pump-down or non pump-down (selectable)
- Suitable for air defrost applications
- MCB & illuminated switch for coldroom lights
- MCB for drain heater • NTC probes included



### 1PH/3PH Compressor/1PH Evaporator Fan/1PH Defrost/Coldroom Lightswitch

| CODE  | MODEL        | COMP (AMPS)    | EVAP FAN | DEFROST   | SIZE (mm)       |
|-------|--------------|----------------|----------|-----------|-----------------|
| L1000 | GBUC-EEW-001 | MMS 2.5 - 4    | 1ph 4.5A | 1ph 4.1kW | 310 x 390 x 130 |
| L1001 | GBUC-EEW-002 | MMS 4 - 6      | 1ph 4.5A | 1ph 4.1kW | 310 x 390 x 130 |
| L1002 | GBUC-EEW-003 | MMS 6 - 9      | 1ph 4.5A | 1ph 4.1kW | 310 x 390 x 130 |
| L1003 | GBUC-EEW-004 | MMS 9 - 13     | 1ph 4.5A | 1ph 4.1kW | 310 x 390 x 130 |
| L1004 | GBUC-EEW-005 | MMS 13 - 17    | 1ph 4.5A | 1ph 4.1kW | 310 x 390 x 130 |
| L1006 | GBUC-EEW-000 | MCB 18 Amp Max | 1ph 4.5A | 1ph 4.1kW | 310 x 390 x 130 |

\*MMS Manual Motor Starter (thermal overload)

## Universal Electric Defrost Evaporator Panels

- Technopolymer enclosure / RAL7035 (Grey) / Top entry / IP55
- Door interlocked isolator
- Evaporator control via Eliwell EWPlus 974 controller
- Indications via controller display only
- Coldroom door switch connections to stop fans
- MCB & illuminated switch for coldroom lights
- MCB for drain heater
- MCB for door heater
- NTC probes included



### 1PH Evaporator Fan/1PH/3PH Defrost/Coldroom Lightswitch/Door Heater

| CODE  | MODEL         | EVAP FAN | DEFROST    | SIZE (mm)       |
|-------|---------------|----------|------------|-----------------|
| L1100 | GBUE-EEW-01E  | 1ph 4.5A | 1ph 4.1kW  | 310 x 390 x 130 |
| L1101 | GBUE-EEW-02E  | 1ph 4.5A | 3ph 12.4kW | 310 x 390 x 130 |
| L1102 | GBUE-EEW-03E  | 1ph 8A   | 3ph 12.4kW | 310 x 390 x 130 |
| L1103 | GBUE-EEW-04E  | 1ph 8A   | 3ph 15.5kW | 310 x 390 x 130 |
| L479  | GBUE-EEW-01A2 | 1ph 4.5A | NO DEFROST | 310 x 390 x 130 |

## Universal Electric Defrost Twin Evaporator Control Panel

- Technopolymer enclosure / RAL7035 (Grey) / Top entry / IP55
- Door interlocked isolator
- Twin evaporator control via Eliwell EWPlus 978 controller
- Indications via controller display only
- Coldroom door switch connections to stop fans
- MCB & illuminated switch for coldroom lights
- MCB for drain heater
- MCB for door heater
- NTC probes included



### 1PH Evaporator Fan/1PH/3PH Defrost/Coldroom Lightswitch/Door Heater

| CODE  | MODEL        | EVAP FAN   | DEFROST   | SIZE (mm)       |
|-------|--------------|------------|-----------|-----------------|
| L1104 | GBUE-EEW-1E2 | 1ph 8A x 2 | 1ph 3.3kW | 390 x 470 x 130 |
| L1105 | GBUE-EEW-3E2 | 1ph 8A x 2 | 3ph 9.9kW | 390 x 470 x 130 |



## Trafag Pressure Transducers

Swiss based Trafag is a leading international supplier of high quality sensors and monitoring instruments for measurement of pressure and temperature. The industrial pressure transducer NAT 8252 features an exceptionally long-term stable thin-film-on-steel sensor cell with triple (optionally 5-fold) overpressure safety.

The robust design and the wide temperature range from -40°C to +125°C qualify the NAT 8252 as the ideal solution for a wide range of demanding applications. 1/4" SAE internal flare thread with depressor.



| CODE  | MODEL                                       |
|-------|---|
| L3000 | NAT 8252 Pressure Transducer (0-30 Bar)     |
| L3001 | NAT 8252 Pressure Transducer (-1 to 8 Bar)  |
| L3002 | NAT 8252 Pressure Transducer (-1 to 12 Bar) |
| L3010 | 4 Pin Connecting Lead 5m                    |

## BLUESCIENCE UV AIR DISINFECTION SYSTEM

Convert your air-conditioning system into a powerful air-sanitiser in just 15 minutes.

BlueScience utilises the disinfectant properties of UV-c light to convert an air-conditioning unit into a powerful air sanitiser. Warm and contaminated air is pulled in through the top of the unit, where it is then cooled via the unit's cooling coil. BlueScience immerses the air around the cooling coil in UV-c light, sanitising it during the process. The cool air is then dispensed by the air-conditioning unit free of virus, bacteria, moulds and odours.



### Standard LED Driver & 700mm UV-C LED Strip Kit

An easy retro-fit system for all existing air-conditioning units, to treat and protect the air, providing constant UV disinfection, every time it passes through the unit. This standard kit includes: LED Driver, 1m extension cable, 700mm UV-c 18 LED Strip, AC unit safety seal, store front display sticker and installation guide.

| CODE | DESCRIPTION                                   |
|------|---|
| L430 | BlueScience LED Driver & 700mm UV-c LED Strip |



### Pro-Kit UV-C 1000mm LED Strip Upgrade Kit

Firstly you must purchase the Standard Kit and install the LED Driver & 700mm LED Strip. The Pro-Kit can then be added by adding the splitter (supplied with the Pro-Kit).

Then connect the 700mm LED Strip (supplied with the standard-kit) and 1000mm LED Strip (supplied with the Pro-Kit) into the splitter.

| CODE | DESCRIPTION                               |
|------|---|
| L431 | BlueScience Pro-Kit UV-c 1000mm LED Strip |



### BlueScience Portable UV Radiometer (for UV-c)

Portable UV-c Intensity meter with 4.0 digit LCD display. Integrated sensor & display, Absolute Power, Dose & Max Power Displayed.

Applications: UV-c intensity measurements, UV-c light transmittance measurements. 143mm H x 73mm W x 31mm D

| CODE | DESCRIPTION                               |
|------|---|
| L434 | BlueScience Pro-Kit UV-c 1000mm LED Strip |



### BlueScience PPE - Eyewear & Safety Gloves

UV-c Safety Glasses, anti-scratch. Reliable protection against specified levels of hazardous UV radiation.

PU coated gloves for the safest handling.

| CODE | DESCRIPTION                                  |
|------|--|
| L432 | BlueScience Approved Safety Glasses          |
| L433 | BlueScience Approved PU Coated Safety Gloves |



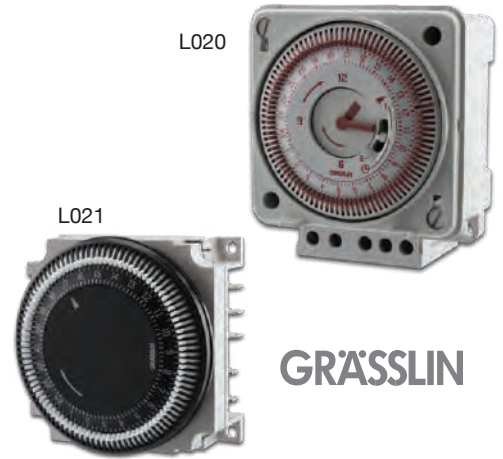
## Grasslin Compact Mechanical Time Switches

Two different 24 hour mechanical time switches, with slight differences. Please check specification table to ensure you choose timer that best suits your application.

| CODE | MODEL                  | DESCRIPTION                     |
|------|------------------------|---------------------------------|
| L020 | MIL-72A (Tactic 111.1) | Grasslin Time Clock with Hands  |
| L021 | FM1/STu                | Grasslin Time Clock w/out Hands |

**L020:** Time clock has terminal screw electrical connections with clip on terminal cover and plastic clock-face cover (not shown).

**L021:** Time clock has push on crimp connections, but NO clock-face or electrical terminal cover, so designed for mounting inside a panel.



| CODE | MODEL   | SUPPLY VOLTAGE | CURRENT RESISTIVE | CURRENT INDUCTIVE | PROGRAMMING STEPS  | CYCLE  | MANUAL OVERRIDE | MOUNT OPTIONS* | SIZE (mm) |
|------|---------|----------------|-------------------|-------------------|--------------------|--------|-----------------|----------------|-----------|
| L020 | MIL-72A | 250V AC        | 16 amp            | 8 amp             | 15 min each tappet | 24 hrs | NO              | S, P & D       | 72 x 80   |
| L021 | FM1/STu | 250V AC        | 16 amp            | 8 amp             | 15 min each tappet | 24 hrs | NO              | S              | 62 x 62   |

\* MOUNTING OPTIONS:- S = SURFACE, P = PANEL, D = DIN-RAIL

## Flash Compact Time Clock

The Flash Compact clock is an OEM style 24hr time switch with 20 minute minimum interval. Programming by unlosable segments (attached to the time switch). A red zone is uncovered by the segment when put into the ON state; in the OFF state this red zone is covered.

| CODE | MODEL                         |
|------|-------------------------------|
| L012 | FLSH200 24 Hour Defrost Timer |



## Replacement Bigatti Time Clock

This CDC13102 alternative time clock replaces old model Bigatti timer models: SB1-82, SB3-81 & SB3-82 as Bigatti are no longer in business.

2 x 16(4)A 250VAC contacts.

Adjustable defrost cycle from 1 - 12 (24hrs)

Adjustable defrost duration 2-60 min. Adjustable fan delay 0- 14 min

| CODE | MODEL                  |
|------|------------------------|
| L013 | CDC13102 Defrost Timer |



## Supco EDT20/21 Electronic Adjustable Defrost Timers

Adjustable Defrost Frequency: 4, 6, 8, 10, 12 hours

Adjustable Defrost Time: 10, 15, 20, 30, 35 minutes

The EDT-20 and 21 are identical apart from the contact rating the EDT-20 is rated at 5 amp and the EDT-21 at 20 amp.

| CODE | MODEL  | CONTACT RATING |
|------|--------|----------------|
| L038 | EDT-20 | 5 amp          |
| L039 | EDT-21 | 20 amp         |



## Omron® 30 Amp Relay

30 Amp 240V SPNO Relay complete with retaining clip.

Perfect for mounting in control panels when original relays won't carry the load or space is at a premium.

52.5mm (Long) x 33.5mm (Deep) x 53mm (High)

| CODE | DESCRIPTION                                     |
|------|---|
| L050 | Omron G7L-1A-T Relay (including retaining clip) |



## Supco Universal Relay Clip On

Supco ICG Universal One Size Relay for all compressors from 1/12 to 1/2 HP.

This solid state device will replace most relays.

Easy to install, clip on or screw on.

Can be used with or without a start capacitor.

| CODE | MODEL               |
|------|---------------------|
| L100 | ICG Universal Relay |



Supco®

## Supco Universal Relay Push On

Supco PO-230 Universal Push on Relay

One size for all compressors from 1/12 to 1/2HP.

This solid state device will replace most relays.

Easy to install, pushes directly onto a compressor terminals.

Can be used with or without a start capacitor.

| CODE | MODEL                          |
|------|--------------------------------|
| L101 | PO-230 Universal Push on Relay |



Supco®

## Supco Universal Relay and Overload

Four models available to suit compressors from 1/8 to 1/2 HP.

Can be used with or without a start capacitor.

Pre-wired for fast, simple installation. Complete with mounting clip.

| CODE | MODEL | DESCRIPTION   |
|------|-------|---------------|
| L105 | R082  | 1/12 - 1/8 HP |
| L106 | R062  | 1/6 - 1/5 HP  |
| L107 | R042  | 1/4 - 1/3 HP  |
| L108 | R022  | 1/2- HP       |



Supco®

## Supco Universal Potential Relay

PR-90 Universal Potential Relay

Replaces all potential starting relays for compressors up to 5HP.

Any voltage between 110 and 270 volt a.c.

Replaces thousands of O.E.M models.

Reduces van stock.

Universal fixing bracket.

Screw on or push-on terminals.

| CODE | MODEL                           |
|------|---------------------------------|
| L103 | PR-90 Universal Potential Relay |



Supco®

## Eaton Cold Room Door Switch

Quality coldroom door switch used to shut off evaporator fans when door is opened to reduce heat loss. Also used to turn cold room lights on and off. 1 x N/O 1 x NC contact. Rounded plunger as standard on L077, easily converted to roller lever style plunger with addition of code L078.

| CODE | MODEL                               |
|------|-------------------------------------|
| L077 | LS-S11 Double Pole Door Switch      |
| L078 | LS-XLB Roller Lever (to suit above) |



**EATON**  
Powering Business Worldwide

## Start Capacitors

Start Capacitors 275v RMS - 50 Hz.  
Capacitance Tolerance: 0 + 25%



| CODE | RATING  |
|------|---------|
| L115 | 40 mfd  |
| L116 | 60 mfd  |
| L117 | 80 mfd  |
| L118 | 100 mfd |
| L119 | 125 mfd |
| L120 | 150 mfd |

If two capacitors are connected in parallel the total capacitance is the sum of their values.

## Run Capacitors

Run Capacitors 440v RMS - 50 Hz.  
Tolerance:  $\pm 5\%$



| CODE | RATING |
|------|--------|
| L123 | 3 mfd  |
| L124 | 5 mfd  |
| L125 | 10 mfd |
| L126 | 15 mfd |
| L127 | 20 mfd |
| L129 | 25 mfd |
| L128 | 30 mfd |

If two capacitors are connected in parallel the total capacitance is the sum of their values.

## Eaton Contactors Enclosures & Overloads

Eaton Contactors (formerly Moeller) available in 2 versions.  
1 version with 4 N/O contacts and the other version with 4 N/O contacts plus a removable aux contact with 1 x N/O and 1 NC contact.

### Eaton Contactors

| CODE | MODEL                   | RATING  |
|------|-------------------------|---|
| L045 | DIL M9-10               | 16 amp 4 N/O  |
| L046 | DIL M9-10 + Aux Contact | 16 amp 4 N/O on Contactor<br>Plus 1 x N/O & 1 x NC on Aux |
| L047 | DIL M17+ Aux Contact    | 30 amp 4 N/O on Contactor<br>Plus 1 x N/O & 1 x NC on Aux |

### Eaton Contactor Enclosure

Clear fronted enclosure allowing plenty of space to accommodate contactor with auxiliary contact and overload

| CODE | MODEL | RATING  |
|------|-------|---------|
| L052 | CiD   | DIL M17 |

### Eaton Overloads

Wide range overloads to suit most applications.

| CODE | MODEL   | RATING       |
|------|---------|--------------|
| L060 | ZB12-4  | 2.4 to 4 amp |
| L061 | ZB12-6  | 4 to 6 amp   |
| L062 | ZB12-10 | 6 to 10 amp  |
| L063 | ZB32-16 | 10 to 16 amp |
| L064 | ZB32-24 | 16 to 24 amp |

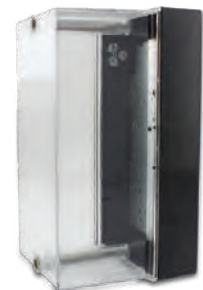


Powering Business Worldwide



L045

L046/L047



# Danfoss Contactors, Enclosures & Overloads

We offer a wide range of Danfoss, contactors, enclosures, overloads, and delay timers etc. Widely used throughout the refrigeration industry.



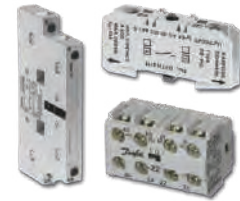
## Contactors (240V)

| CODE | MODEL        | RATING |
|------|--------------|--------|
| L260 | CI 9-3 Pole  | 9 amp  |
| L261 | CI 9-4 Pole  | 9 amp  |
| L262 | CI 12-3 Pole | 12 amp |
| L263 | CI 12-4 Pole | 12 amp |
| L264 | CI 16-3 Pole | 16 amp |
| L265 | CI 15-4 Pole | 15 amp |
| L266 | CI 20-3 Pole | 20 amp |
| L267 | CI 25-3 Pole | 25 amp |
| L268 | CI 30-3 Pole | 30 amp |



## Auxiliary Contacts

| CODE | MODEL | DESCRIPTION     |
|------|-------|-----------------|
| L272 | CB-NO | Normally Open   |
| L273 | CB-NC | Normally Closed |



## Contactor Coil Only

| CODE | MODEL        | DESCRIPTION             |
|------|--------------|-------------------------|
| L274 | 24 Volt Coil | To suit 6-30A Contactor |



## Thermal Overloads

| CODE | MODEL            | RATING        |
|------|------------------|---------------|
| L276 | T1 16C 1.8 - 2.8 | 1.8 - 2.8 amp |
| L277 | T1 16C 2.7 - 4.2 | 2.7 - 4.2 amp |
| L278 | T1 16C 4.0 - 6.2 | 4.0 - 6.2 amp |
| L279 | T1 16C 6.0 - 9.2 | 6.0 - 9.2 amp |
| L280 | T1 16C 8.0 - 12  | 8.0 - 12 amp  |
| L281 | T1 16C 11 - 16   | 11 - 16 amp   |



## Enclosures

| CODE | MODEL | DESCRIPTION |
|------|-------|-------------|
| L290 | BCI   | Plain       |
| L291 | BCI 1 | Stop Button |



## Delay Timers

| CODE | MODEL            | RATING            |
|------|------------------|-------------------|
| L284 | ETB 0.5 - 20 Sec | 24 to 65 v.a.c.   |
| L285 | ETB 4 - 160 Sec  | 24 to 65 v.a.c.   |
| L286 | ETB 0.5 - 20 Sec | 110 to 240 v.a.c. |
| L287 | ETB 4 - 160 Sec  | 110 to 240 v.a.c. |



## Aspen Xtra Electrical Isolators

4 Pole 20 or 32A isolators from The ASPEN Xtra Range. Separate back plate with spirit level for ease of installation. Surface mountable with or without backplate. Removable switch for ease of wiring. IP66 rated for interior and exterior use. Lockable 'OFF' position (up to two padlocks) and 'ON' position.



| CODE | TYPE     | DESCRIPTION            |
|------|----------|------------------------|
| L374 | AX6001/2 | 20 Amp 4 pole isolator |
| L375 | AX6002/2 | 32 Amp 4 pole isolator |

### 13 Amp Metal Clad Switched Fused Spur with Neon

- Manufactured to BS 1363 part 4
- Mounting box with 1 x 20mm knockouts in each side and rear face
- Removable flex outlet bung to front of switch

| CODE | TYPE   | DESCRIPTION                           |
|------|--------|---------------------------------------|
| L369 | MC551F | 13A M/C Switched Fused Spur with Neon |



### 20 Amp Metal Clad Double Pole Switch with Neon

- Manufactured to BS EN 60669-1 : 2000
- Easy access generous terminals
- Mounting box has full selection of 20mm knockouts

| CODE | TYPE    | DESCRIPTION                     |
|------|---------|---------------------------------|
| L371 | GMC20SN | 20A M/C D/Pole Switch with Neon |



### 13 Amp Switched Fuse Spur with Neon

A standard design - suitable for domestic or commercial installations. Colour coded terminals with backed out captive screws for easy installation. Flex outlet with cord grip in the lower edge with removable knockout. Flush neon indicator.

| CODE | TYPE  | DESCRIPTION                       |
|------|-------|-----------------------------------|
| L372 | BG951 | 13A Switched Fused Spur with Neon |



### 10 Amp 3 Pole MK Fan Isolator Switch

The fan isolator can be used as a double or triple pole isolator. In addition it includes a clear on/off indicator and the front plate and features a fan isolator symbol for easy circuit identification.

- 10 Amp Rated
- Conforms to BS EN 60669 - 1 : 2000

| CODE | TYPE     | DESCRIPTION             |
|------|----------|-------------------------|
| L376 | K4859WHT | 10A 3 Pole Fan Isolator |



### White Plastic Surface Mount Pattress

The 25mm deep version from Schneider has standard multiple knockouts, the 32mm deep version from MK has ONE cut out for 20mm conduit in the top face, one cut out for 20 or 25mm oval conduit in lower face and one 20mm round push out in the base.

| CODE | TYPE     | DESCRIPTION                           |
|------|----------|---------------------------------------|
| L373 | BG951    | 25mm Deep Pattress                    |
| L379 | K2181WHT | 32mm Deep Pattress with 20mm Knockout |



## Hensel Grey Adaptable Boxes

Quality adaptable boxes made in Germany by Hensel.

IP 65 Rated.

Colour - RAL 7035 Grey.

Complete with cable terminals.

| CODE | TYPE   | SIZE                         |
|------|--------|------------------------------|
| L357 | DM9025 | (H) 88 x (W) 88 x (D) 53mm   |
| L358 | DM9145 | (H) 96 x (W) 96 x (D) 55mm   |
| L359 | K8100  | (H) 125 x (W) 167 x (D) 82mm |



## WISKA Combi 407 Black Adaptable Box

Black IP66/67 adaptable box complete with 3 x 221 series lever cable connectors.

Dimensions: 95 x 95 x 60 mm.

7 x 20mm threaded entries and 1 x 25mm knockout.

Easy access via 1/4 turn screws on lid.

| CODE | TYPE      | SIZE                       |
|------|-----------|----------------------------|
| L361 | Combi 407 | (H) 95 x (W) 95 x (D) 60mm |



## Standard 20mm Cable Glands

Packs of ten 20mm cable glands complete with locknuts.

available in white with 6-12mm cable diameter or black with 6-12mm and 10-14mm cable diameter.

| CODE | DESCRIPTION            | SIZE    |
|------|------------------------|---------|
| L394 | 20mm White Cable Gland | 6-12mm  |
| L420 | 20mm Black Cable Gland | 6-12mm  |
| L422 | 20mm Black Cable Gland | 10-14mm |



## Smartfit Cable Glands

Time saving grey colour cable glands (just snaps into place).

Locknut or threaded hole not required. Push and twist gland to fit in seconds. Available in 20 or 25mm. Easy removal with separate tool.

| CODE | TYPE       | SIZE  |
|------|------------|---|
| L397 | CG/SF-20G  | 20mm Grey Smartfit Gland (10-14mm) (Pack of 10) |
| L398 | CG/SF-25G  | 25mm Grey Smartfit Gland (13-18mm) (Pack of 5)  |
| L399 | CGSFA-2025 | Removal Tool for 20 & 25mm Glands (Pack of 2)   |

SmartfitGland™



## PVC Insulation Tape

See table below for options on single pack of PVC electrical tape.

| CODE | DESCRIPTION                               |
|------|---|
| L328 | 33M (L) x 19mm (W) Black PVC Tape         |
| L329 | 33M (L) x 25mm (W) Black PVC Tape         |
| L330 | 33M (L) x 50mm (W) Black PVC Tape         |
| L319 | 20M (L) x 19mm (W) White PVC Tape         |
| L320 | 20M (L) x 19mm (W) Green PVC Tape         |
| L321 | 20M (L) x 19mm (W) Red PVC Tape           |
| L322 | 20M (L) x 19mm (W) Yellow PVC Tape        |
| L324 | 20M (L) x 19mm (W) Blue PVC Tape          |
| L318 | 20M (L) x 19mm (W) Earth Pattern PVC Tape |



### Smartypak™

Pack of 10 assorted colour PVC tapes: 2 x black, 2 x white, and 1 each of red, yellow, blue, grey, brown and earth pattern tape. (19mm x 20M).

| CODE | TYPE   | DESCRIPTION                              |
|------|--------|--|
| L327 | BJP100 | Pack of 10 Assorted PVC Tapes 19mm x 20M |



## Standard Cable Ties

- 4 different lengths in 2 different widths (4.8 or 7.8mm wide)
- UV resistant for outdoor use
- General operating temperature -40°C to +85°C
- Pack Quantity 100

| CODE | TYPE       | DESCRIPTION                 |
|------|------------|-----------------------------|
| L340 | CT160-4.8B | Black Cable Tie 160 x 4.8mm |
| L341 | CT200-4.8B | Black Cable Tie 200 x 4.8mm |
| L342 | CT300-4.8B | Black Cable Tie 300 x 4.8mm |
| L344 | CT370-7.8B | Black Cable Tie 370 x 7.8mm |



## Releasable Cable Ties

Standard releasable cable ties. The finger latch mechanism allows for simple and quick release of the cable ties for re-use. Ideal for any application where temporary fastening is required. Perfect for both installation and service work. Pack quantity 100.

| CODE | TYPE  | DESCRIPTION                          |
|------|-------|--------------------------------------|
| L347 | ARH37 | Releasable Cable Tie 370 x 7.8mm (W) |



## Cable Tie Mounts

**Self Adhesive Cable Tie Mounts 2 Way:** Black nylon self adhesive cable mounts with 6mm centre screw fixing hole. Dimensions: 25 x 25mm, accepts cable ties up to 4.8mm wide. Pack quantity 100.

**Screw Mounted cable Ties 1 Way:** Black cable tie cradles with 5mm centre screw fixing hole. Dimensions: 15mm (W) x 58mm (L), accepts ties up to 9mm Wide: Pack Quantity 100.

**Wall Plug Cable Tie Mount:** Hammer in fixing, a quick and easy way for securing cables to a wall. Simply drill hole and hammer in. Drill a 7mm hole for use in soft materials (e.g. wood, chipboard, plasterboard etc) and a 8mm hole for hard materials (e.g. brick, stone etc). They are used with cable ties up to 9mm wide.

| CODE | TYPE     | DESCRIPTION                             |
|------|----------|---|
| L345 | SAM25B-2 | Self Adhesive Cable Tie Mounts (PK 100) |
| L346 | CRAD78B  | Screw Mount Cable Tie Cradle (PK 100)   |
| L405 | CTFB9    | Wall Plug Cable Tie Mount (PK 100)      |



## Selectabox™ of Cable Tie Cradles & Self Adhesive Cable Tie Mounts

Good selection of both white and black cable tie mounts and cradles in self adhesive and screw fix version. Handy box for service engineers.

| CODE | TYPE     | DESCRIPTION                             |
|------|----------|---|
| L343 | FSWCTB/S | Assorted Self Adhesive Cable Tie Mounts |



## All Round Fixing Band

Versatile all round band, perfect for everyday use for both installation and service engineers. Pre-drilled no wastage and very strong. Pack quantity 10M (L) x 17mm (W).

| CODE | TYPE     | DESCRIPTION                        |
|------|----------|------------------------------------|
| L400 | ARB17-GA | Galvanised Banding 10M x 17mm Wide |
| L402 | ARB17-BL | Black Banding 10M x 17mm Wide      |
| L404 | ARB17-SS | S/Steel Banding 10M x 17mm Wide    |





## Strip Connectors

12 way strip connectors available in 3 sizes: 5, 15 or 30 Amp.  
or a Selectabox box of assorted strip connectors and plug top fuses.

| CODE | TYPE    | DESCRIPTION                          |
|------|---------|--------------------------------------|
| L332 | 12WSC5  | 5A 12 Way Strip Connector            |
| L333 | 12WSC15 | 15A 12 Way Strip Connector           |
| L334 | 12WSC30 | 30A 12 Way Strip Connector           |
| L335 | FSW-SCF | Asst Box of Strip Connectors & Fuses |

\* See Code L355 below for packs of 13 Amp Plug Top Fuses only.



## Selectabox™ of PVC Cable Grommets

Assorted selection of PVC cable grommets in 20 and 25mm in both open and closed versions. Low cost protection for wires and cables passing through metal panels. Quick and easy to install.

| CODE | TYPE    | DESCRIPTION                    |
|------|---------|--------------------------------|
| L416 | FSW-GRO | Asst Box of PVC Cable Grommets |



## Selectabox™ of Piano Key Connectors

These new piano push in wire connectors are ideal for a quick reliable and easy way to join cable, perfect for both service and installation engineers. Quick to connect, quick to release, Takes 0.75 to 2.5mm solid or flexible cables. Operating voltage 400V AC. Operating current 24A (max).

| CODE | TYPE    | DESCRIPTION                      |
|------|---------|----------------------------------|
| L336 | SAB-PKC | Asst Box of Piano Key Connectors |



## Plug Tops and Fuses

13 Amp plug top available in black or white resilient plastic, complete with fitted 13 Amp fuse.

Spare 13 Amp fuses are supplied in a pack of 10.

| CODE | TYPE   | DESCRIPTION                      |
|------|--------|----------------------------------|
| L337 | RPT13W | 13A White Plug Top               |
| L338 | RPT13B | 13A Black Plug Top               |
| L355 | FU1-13 | Pack of 10 x 13A Plug Top Fuses* |

\* See Selectabox Code L335 above for assorted 3, 5 & 13 Amp Plug Top Fuses



## Replacement Kettle Leads

Replacement kettle leads in 240 and 110 Volt versions, ideal as a replacement or spare leads for your vacuum pumps or recovery rigs

| CODE | DESCRIPTION  |
|------|--|
| L406 | 240V Kettle lead with fitted 13A Plug (2m x 1m Long)   |
| L407 | 110V Kettle lead with fitted 16A Plug (2m x 1.5m Long) |



## Replacement 110V 16 Amp Plug/Socket

Replace your damaged 110 Volt 16 amp plug or socket on your extensions leads, transformers, recovery rigs or vacuum pumps with these spare BS approved 110 Volt 16 Amp plugs and sockets.

| CODE | TYPE  | DESCRIPTION            |
|------|-------|------------------------|
| Q161 | 59851 | Draper 110 Volt Plug   |
| Q162 | 63779 | Draper 110 Volt Socket |



## Heatshrink

Standard grade Polyolefin heat shrink packs.  
Both packs contain 5 different colours: black, blue, brown, green/yellow and grey. Each strip is 250mm long choose either 6mm wide or 12.7mm wide.

| CODE | TYPE   | DESCRIPTION               |
|------|--------|---------------------------|
| L410 | SP6EU  | 6.4mm Ø Shrinks to 3mm Ø  |
| L412 | SP12EU | 12.7mm Ø Shrinks to 6mm Ø |



## Selectabox™ of Heatshrinks

Assorted selection of standard grade Polyolefin heat shrinks.  
All heat shrinks 250mm long with various diameters between 6.4 and 12.7mm.  
Safely stored in a quality Selectabox™ container.

| CODE | TYPE   | DESCRIPTION             |
|------|--------|-------------------------|
| L413 | FSW-HS | Asst Box of Heatshrinks |



## Flexible Conduit Kit

Cut to length flexible black conduit in a 10m x 20mm (diameter) continuous length. Simply cut to size and click on the included cable glands, simple, quick and easy to use.  
Kit includes 10 x 20mm cable gland complete with locknuts.

| CODE | TYPE  | DESCRIPTION                           |
|------|-------|---------------------------------------|
| L378 | FX15N | 10m (L) x 20mm Ø Flexible Conduit Kit |



## Plastic Speedfix (Self Adhesive) Trunking

3m lengths of white self adhesive plastic trunking.  
Available in 3 different sizes, see table below for full details.  
Micro version perfect for hiding A/C remote control cables.

| CODE | DESCRIPTION                        | SIZE             |
|------|------------------------------------|------------------|
| L389 | Small Self Adhesive Mini Trunking  | 10mm x 16mm x 3m |
| L384 | Medium Self Adhesive Mini Trunking | 16mm x 16mm x 3m |
| L385 | Large Self Adhesive Mini Trunking  | 25mm x 16mm x 3m |



## Round LED Bulkhead Light Fitting

Melana round LED bulkhead light perfect for freezer & chiller coldrooms  
Operating temp -30°C to +50°C.  
15W IP66 rating cool white 4000k. 308mm ø surface mounted. Suitable for outdoor use. Also perfect for sheds, garages, workshops, offices etc.

| CODE | TYPE    | DESCRIPTION                         |
|------|---------|-------------------------------------|
| L360 | CWS6492 | Melana 15W Round LED Bulkhead Light |



## Bulkhead Light Fittings (Standard or LED)

Standard 100 Watt rectangular bulkhead light fitting  
(L) 250 x (W) 130 x (H) 110mm. IP65 rated.

10 Watt LED rectangular bulkhead light fitting 240mm x 119mm x 110mm. Operating Temp -20°C to +40°C. 6400 Kelvin.

| CODE | TYPE   | DESCRIPTION                          |
|------|--------|--------------------------------------|
| L325 | BJP100 | 100 Watt Bulkhead Light Fitting      |
| L331 | 10WLED | 10 Watt L.E.D Bulkhead Light Fitting |



## Electric Cable

### White Flex

| CABLE TYPE | CORE SIZE MM | 50M COIL | 100M COIL |
|------------|--------------|----------|-----------|
| 2 Core     | 0.75         | L778     | L749      |
| 3 Core     | 0.75         | -        | L750      |
| 3 Core     | 1.50         | L851     | L751      |
| 3 Core     | 2.50         | L852     | L752      |

### Black Flex

| CABLE TYPE | CORE SIZE MM | 50M COIL | 100M COIL |
|------------|--------------|----------|-----------|
| 2 Core     | 0.75         | L855     | L755      |
| 2 Core     | 1.00         | -        | L757      |
| 3 Core     | 0.75         | -        | L756      |
| 3 Core     | 1.50         | L776     | L753      |
| 3 Core     | 2.50         | -        | L754      |
| 4 Core     | 1.50         | L860     | L759      |

### YY Non Screened Multi Flex (Grey)

| CABLE TYPE | CORE SIZE MM | 25M COIL | 100M COIL |
|------------|--------------|----------|-----------|
| 2 Core     | 0.75         | L800     | L699      |
| 2 Core     | 1.00         | L801     | L700      |
| 2 Core     | 1.50         | L802     | L701      |
| 3 Core     | 0.75         | -        | L703      |
| 3 Core     | 1.00         | -        | L704      |
| 3 Core     | 1.50         | -        | L705      |
| 3 Core     | 2.50         | -        | L706      |
| 4 Core     | 0.75         | -        | L707      |
| 4 Core     | 1.00         | -        | L708      |
| 4 Core     | 1.50         | L777     | L709      |
| 4 Core     | 2.50         | -        | L710      |

### SY (Grey Flex with Outer Braid and Clear PVC Coating)

| CABLE TYPE | CORE SIZE MM | 25M COILS | 100M COILS |
|------------|--------------|-----------|------------|
| 2 Core     | 0.75         | -         | L698       |
| 2 Core     | 1.00         | -         | L711       |
| 2 Core     | 1.50         | -         | L712       |
| 3 Core     | 0.75         | -         | L713       |
| 3 Core     | 1.00         | -         | L714       |
| 3 Core     | 1.50         | L780      | L715       |
| 3 Core     | 2.50         | L817      | L716       |
| 3 Core     | 4.00         | -         | L771       |
| 4 Core     | 0.75         | -         | L717       |
| 4 Core     | 1.50         | L775      | L719       |
| 4 Core     | 2.50         | L825      | L720       |
| 5 Core     | 1.50         | -         | L741       |
| 5 Core     | 2.50         | L840      | L730       |
| 7 Core     | 1.50         | -         | L740       |

### CY Screened Multicore Flex (Grey)

| CABLE TYPE | MM   | 25M  | 100M |
|------------|------|------|------|
| 2 Core     | 0.75 | L779 | L721 |
| 2 Core     | 1.00 | -    | L722 |
| 2 Core     | 1.50 | L832 | L723 |
| 2 Core     | 2.50 | -    | L724 |
| 3 Core     | 0.75 | -    | L731 |
| 3 Core     | 1.50 | -    | L725 |
| 4 Core     | 0.75 | -    | L726 |
| 4 Core     | 1.50 | L838 | L728 |

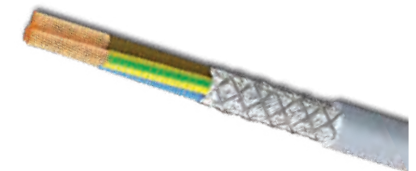
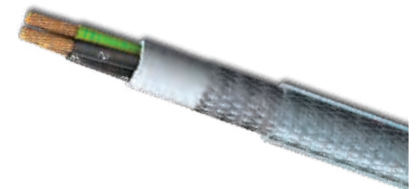
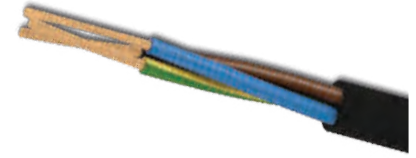
## UV Rated Cable

### FLEXISHEILD Black

| CABLE TYPE | CORE SIZE MM | 50M COIL | 100M COIL |
|------------|--------------|----------|-----------|
| 3 Core + E | 1.5          | -        | L770      |

### SY (Black Flex with Outer Braid and Black UV Rated Outer Coating)

| CABLE TYPE | CORE SIZE MM | 50M COIL | 100M COIL |
|------------|--------------|----------|-----------|
| 3 Core + E | 1.5          | -        | L732      |



## Crimp on Terminals

Wide range of the most popular red, blue or yellow crimp connectors, supplied in packs of 50.

### RED (To suit 0.5 - 1.5mm Wire)

| CODE | MODEL   | TYPE             |
|------|---------|------------------|
| L500 | 43 RER  | 4mm Ring         |
| L501 | 53 RER  | 5mm Ring         |
| L503 | 43 RF   | 4mm Fork         |
| L507 | 15 BSL  | Butt Connector   |
| L508 | 63 RFP  | Female Spade     |
| L509 | 63 RMP  | Male Spade       |
| L510 | 63 RFPT | Insulated Spade  |
| L511 | 63 RPIG | Piggy Back Spade |



### BLUE (To suit 1.5 - 2.5mm Wire)

| CODE | MODEL   | TYPE             |
|------|---------|------------------|
| L530 | 43 BER  | 4mm Ring         |
| L531 | 53 BER  | 5mm Ring         |
| L533 | 43 BF   | 4mm Fork         |
| L534 | 53 BF   | 5mm Fork         |
| L538 | 25 BSL  | Butt Connector   |
| L539 | 63 BFP  | Female Spade     |
| L540 | 63 BMP  | Male Spade       |
| L541 | 63 BFPT | Insulated Spade  |
| L542 | 63 BPIG | Piggy Back Spade |



### YELLOW (To suit 4.0 - 6.0mm Wire)

| CODE | MODEL  | TYPE           |
|------|--------|----------------|
| L560 | 53 YER | 5mm Ring       |
| L561 | 65 YER | 6mm Ring       |
| L562 | 85 YER | 8mm Ring       |
| L565 | 6 BSL  | Butt Connector |



## Heat Shrink Crimp Connectors

Heat shrinkable environmentally sealed, nylon crimp connectors. Protects cable joints from water. Completely insulates and protects electrical connections. Adhesive lining offers greater protection that is more reliable than conventional connectors. Supplied in packs of 50.

| CODE | MODEL   | TYPE   |
|------|---------|--|
| L570 | 533-673 | Red Heat Shrink Butt Connector (0.5 - 1.5mm Wire)  |
| L572 | 533-667 | Blue Heat Shrink Butt Connector (1.0 - 2.5mm Wire) |



## Selectabox™ of Crimp Terminals

Assorted selection of the most popular crimp connectors. Safely stored in a quality Selectabox™ container. Must have item for both service and installation engineers.

| CODE | TYPE    | DESCRIPTION                      |
|------|---------|----------------------------------|
| L568 | FSW-PRE | Asst Box of Pre Insulated Crimps |



## Ratchet Crimping Tool

The RPI ratchet crimp Tool for pre-insulated terminals between 0.5mm<sup>2</sup> - 6.0mm<sup>2</sup> for precise crimping both conductor and insulation in one easy action. New improved ergonomic design for easy crimping. Also available in a kit box format with assorted crimps.

| CODE | MODEL | DESCRIPTION                |
|------|-------|----------------------------|
| L581 | RPI   | Ratchet Crimp Pliers       |
| L585 | PK156 | Ratchet c/w Crimps and Box |



## Flexelec Heater Tapes

CSC2 heaters are designed to be laid inside pipes for draining water from thawing refrigeration equipment installed in cold rooms. They only operate during defrost.

Power output: 40 watts per metre.

Dimensions: 7mm x 5 mm oval cross section.

Supplied with 1m long integrated cold tail.

Fully sealed.

| CODE | LENGTH    |
|------|-----------|
| L130 | 1.0 Metre |
| L131 | 1.5 Metre |
| L132 | 2.0 Metre |
| L133 | 3.0 Metre |
| L134 | 4.0 Metre |
| L135 | 5.0 Metre |
| L136 | 6.0 Metre |



## Flextrace® Self Regulating Heater Tape

Available in two versions, FST or FST/TP both are self regulating 230V heater cables, supplied by the metre.

**Flextrace® FST** thermoplastic insulated plain (non braided) heater tape available in 15 or 25 watt output.

**Flextrace® FST/TP** has thermoplastic insulation, plus a tinned copper braid for earth and mechanical protection, and a black coloured outer anti-corrosion sheath. 15 watts output only.

We strongly recommend the use of a 30mA residual current device to provide maximum safety.

Minimum bend radius 10 mm.

| CODE | DESCRIPTION   |
|------|---|
| L156 | Flextrace FST Plain 15 Watt Plain Heater Tape 15m Roll (Grey) |
| L152 | Flextrace FST Plain 25 Watt Plain Heater Tape 30m Roll (Grey) |
| L146 | Flextrace FST/TP 15 Watt Braided Heater Tape 15m Roll (Blue)  |

Please Note: Flextrace FST and FST/TP is also available to order in 10, 30 and 40 watt options on request.



## Flexkit® Self Regulating Heater Tape Termination Kits

Flexelec kit contains detailed instructions for connecting the heating cable. The kit includes illustrated instructions step by step and all the components to connect the heating element to the power supply or the end of the heating circuit. This heating cable kit is essential to be sure that your trace heating system will work in optimum conditions.

**Flexkit® FS/KIT** for use with plain heater tape.

**Flexkit® FS/KIT-TP** for use with braided heater tape.

| CODE | TYPE  |
|------|---|
| L150 | Flexkit® FS/Kit Single Termination Kit for Plain Heater Tape      |
| L148 | Flexkit® FS/Kit-TP Single Termination Kit for Braided Heater Tape |



Plain Heater Tape Kit



Braided Heater Tape Kit

