



# **BMS & HVAC Short Form Catalogue**

Plug in Relays

Powered BMS SRMV Relays

Electronic Timers

Time Switches

Current Proving Switches

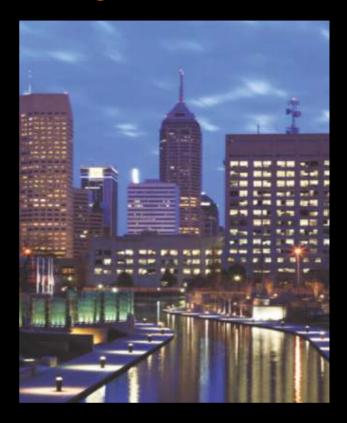
Phase Failure & Sequence Relays

Alarm Integrators & Alarm Panels

Panel Mounted Audibles

Control Panel Lamp Test Modules





BMS 0-10VDC Signal Generators
DC to DC Convertors
Power Supplies
Modular Transformers
Control Panel Transformers
CT Style Current Transducers
Digital Panel Meters
Hour Run Counters
Voltage Surge Arresters

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# INTRODUCTION



Foxtam Controls is a proud British designer and manufacturer of low voltage control and instrumentation products. We are delighted to introduce our short form catalogue specific to the BMS & HVAC market sector.

Founded in 1977 Foxtam Controls has an enviable reputation for engineering well designed, innovative, quality constructed products in line with latest market requirements. Our well funded research and development department, in conjunction with our experienced external sales team, liaises closely with our customers and prospects, bringing well executed products to market in a timely manner.

Supplying control panel and switchgear manufacturers, many products have been developed for specific applications in market sectors such as BMS & HVAC. These products you will find detailed within this dedicated BMS & HVAC catalogue.

We further support our own British manufactured products with carefully selected complimenting products from quality overseas partners. Our partners are generally located within Europe and Taiwan, partners are carefully and continuously vetted to ensure quality and continuity of supply is maintained. Many of our partner relationships have been in existence in excess of 25 years. Partner products specific to the BMS & HVAC sector are also featured within this catalogue.

The team at Foxtam Controls trusts that you will find this catalogue an informative and useful engineering aid to your BMS & HVAC control circuit and system design. We look forward to both welcoming new customers and serving our existing customers in the manner they have come to expect.

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# **FOXTAM 14 PIN, 4PCO RELAYS & SOCKETS**

- LED Indication
- Flag Indication
- Test Button
- Locking Facility
- 5 Amps Rated
- DC Coils with Integral Diode Protection
- Gold Plated Contacts an Option

#### **Relay Ordering Information**

FRP3145/12VDC 12VDC coil FRP3145/24VDC 24VDC coil FRP3145/24VAC 24VAC coil FRP3145/110VAC 110VAC coil FRP3145/230VAC 230VAC coil

Add suffix "GP" after part number of relay if gold plated contacts required

## Socket Ordering Information

PYF-14AEW Socket with marker PYF-14BE Socket with marker

PYF-14AEW

PYF-14BE/3 Triple deck socket with marker







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# **FOXTAM 8 PIN (14 PIN STYLE) DPCO RELAYS & SOCKET**

- LED Indication
- Flag Indication
- Test Button
- Locking Facility
- 10 Amps Rated
- DC Coils with Integral Diode Protection

#### **Relay Ordering Information**

FRP3125/24VDC 24VDC coil FRP3125/24VAC 24VAC coil FRP3125/110VAC 110VAC coil FRP3125/230VAC 230VAC coil **Socket Ordering Information** 

PYF-08AE Socket



# SPCO & DPCO MINIATURE INTERFACE RELAYS & SOCKETS

- Miniature SPCO & DPCO Interface Relays
- Option on DPCO Relays for Test, Flag & LED Indication
- SPCO 12 Amps Rated
- DPCO 8 Amps Rated

### **DPCO Ordering Information**

 HF115F2/12VDC
 DPCO, 12VDC coil

 HF115F2/24VDC
 DPCO, 24VDC coil

 HF115F2/24VAC
 DPCO, 24VAC coil

 HF115F2/110VAC
 DPCO, 110VAC coil

 HF115F2/230VAC
 DPCO, 230VAC coil

HF115FP/12VDC DPCO, 12VDC coil, test, flag & LED
HF115FP/24VDC DPCO, 24VDC coil, test, flag & LED
HF115FP/24VAC DPCO, 24VAC coil, test, flag & LED
HF115FP/110VAC DPCO, 110VAC coil, test, flag & LED
HF115FP/230VAC DPCO, 230VAC coil, test, flag & LED

PI-50BE DPC0 socket

PI-50BE/3 Triple deck DPCO socket
MS16 HF115F2 optional ejector clip
MS25 HF115FP optional ejector clip



PI-50BE



PI-50BE/3

Width of bases 15.7mm

### SPCO Ordering Information

HF115F1/24VDC SPCO, 24VDC coil
HF115F1/24VAC SPCO, 24VAC coil
HF115F1/110VAC SPCO, 110VAC coil
HF115F1/230VAC SPCO, 230VAC coil

PI-35BE SPCO socket MS16 Optional ejector clip



Width of base 15.7mm

PI-35BE



HF115FP



RODUCT GROUP

HF115F1 FH115F2

# SPCO WAFER STYLE INTERFACE RELAY ASSEMBLIES

- Supplied as a Complete Made Up Package of Relay & Socket
- Width Only 6mm
- LED Indication
- Built in Relay Removal Ejector Clip
- 6 Amps Rated

#### **Relay Ordering Information**

41F-1Z-C2/12VACDC
41F-1Z-C2/24VACDC
41F-1Z-C2/48VACDC
41F-1Z-C2/48VACDC
41F-1Z-C2/48VACDC
41F-1Z-C2/25VAC
41F-1Z-C2/230VAC







# BMS "SRMV" VERY LOW COIL CONSUMPTION SPCO WAFER STYLE INTERFACE RELAY ASSEMBLY

- Nominal Coil Voltage 9VDC
- Pull in Voltage 7.5VDC
- Release Voltage 4VDC
- Coil Consumption 17.8mA
- Width Only 6mm
- Complete with LED Indication
- 6 Amps Rated

#### **Relay Ordering Information**

41F-1Z-C2/9VDC

41F-20 Optional 20 way jumper bar comb 41F-TAG Optional strip of marker tags

Relay assembly







# BMS "SRMV" LOW COIL CONSUMPTION SPCO INTERFACE RELAY & SOCKET

- Nominal Coil Voltage 12VDC
- Pull in Voltage 9VDC
- Release Voltage 1.2VDC
- Coil Consumption 20.8mA
- 10 Amps Rated

### **DPCO Ordering Information**

HF115FH/12VDC Relay
PI-35BE Socket

MS16 Optional ejector clip







# FOXTAM 24VAC/DC POWERED 0-10VDC BMS RELAYS

- Din Rail Mounted
- Fully Enclosed
- 24VAC/DC Powered
- 0-10VDC BMS Signal Compatible
- 0.5mA (Max) Consumption on 0-10VDC Input
- Hysteresis Fixed 5% of Setpoint
- Output SPCO
- 8 Amps Rated
- LED Indication

# **Ordering Information**

YR-1RM Fixed 5VDC setpoint

YR-1RM-S Fixed 5VDC setpoint, with OFF/AUTO/ON override switch

YR-1RM-A Setpoint adjustable 2-10VDC

YR-1RM-AS Setpoint adjustable 2-10VDC, with OFF/AUTO/ON override switch



# FOXTAM MULTI VOLTAGE, MULTI TIME RANGE, MULTI FUNCTION TIMERS, SPCO & 4PCO

- **Din Rail Mounted**
- Width 27mm (1.5 Modules)
- **Available SPCO or 4PCO**
- Multi Voltage 12-250VAC/DC
- Multi Time Range 0.1 Sec to 10 Days
- **Eight Selectable Functions**
- **SPCO Version 16 Amps Rated**
- **4PCO Version 8 Amps Rated**
- **Dual LED Indication**

### Selectable Time Ranges

0.1 - 1 Sec10 - 100 Mins 1 - 10 Secs 1 - 10 Hrs 10 - 100 Secs 10 - 100 Hrs

1 - 10 Mins 1-10 Days

**Ordering Information** SPC0 timer UNI-1M 4PCO timer UNI-4M

#### **Selectable Timing Functions**

Α: On Delay H:

Interval Timer

C: Delay Off via Trigger Input (Trailing Edge)

Delay Off via Trigger Input (Leading Edge)



Delayed Pulse (Once Only)

D: Flasher (Pause First) Пŀ Flasher (Pulse First)

Latching Relay "Pulse On, Pulse Off"



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# FOXTAM SLIMLINE MULTI VOLTAGE, MULTI TIME RANGE, MULTI **FUNCTION TIMER, SPCO**

- **Din Rail Mounted**
- Width 18mm (1 Module)
- **SPCO**
- Multi Voltage 12-240VAC/DC
- Multi Time Range 0.1 Sec to 100 Hours
- **Ten Selectable Functions**
- 8 Amps Rated
- **Dual LED Indication**

#### **Selectable Time Ranges**

1 - 10 Hrs 0.1 - 1.8ec1 - 10 Secs 10 - 100 Hrs 0.1 - 1 Min 0.1-1 Hr

1 - 10 Mins

#### **Selectable Timing Functions**

On Delay Δ.

AT: Delay on via Trigger Input (Leading Edge) DI: Flasher (Pulse First)

D:

Flasher (Pause First)

Delay Off via Trigger Input (Trailing Edge)

ATC: Delay On & Delay Off via Trigger Impulse On & Off via Trigger Input Interval with Optional Trigger CT: Delay Off via Impulse Trigger Input Latching Relay "Pulse On, Pulse Off"



#### Ordering Information

MINI-1M SPC0 timer

# FOXTAM MULTI VOLTAGE, MULTI TIME RANGE, ASYMMETRICAL CYCLIC TIMERS, SPCO & 4PCO

- **Din Rail Mounted**
- Width 27mm (1.5 Modules)
- Available SPCO or 4PCO
- Multi Voltage 12-250VAC/DC
- T1 & T2 Both Multi Time Range 1 Sec to 100 Days
- Selectable "Pulse First" or "Pause First
- **SPCO Version 16 Amps Rated**
- **4PCO Version 8 Amps Rated**
- **Dual LED Indication**

#### Selectable Time Ranges Both T1 & T2

1 - 10 Secs 1 – 10 Hrs 10 - 100 Secs 10 - 100 Hrs 1 - 10 Mins 1 - 10 Days 10 - 100 Mins 10 - 100 Days

#### **Ordering Information**

UNI-1D SPCO asymmetrical cyclic timer UNI-4D 4PCO asymmetrical cyclic timer





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# FOXTAM MULTI VOLTAGE, DUTY CHANGEOVER RELAYS, TIME RANGE SELECTABLE, SPCO & 4PCO

- Din Rail Mounted
- Width 27mm (1.5 Modules)
- Available SPCO or 4PCO
- Multi Voltage 12-250VAC/DC
- Time Range Selectable 1 Day to 30 Days
- Proving Function 10 Secs
- SPCO Version 16 Amps Rated
- 4PCO Version 8 Amps Rated
- Dual LED Indication

### **Selectable Changeover Times**

10 Secs Fixed 14 Days Fixed 1 Day Fixed 30 Days Fixed

7 Days Fixed

#### **Ordering Information**

UNI-1B SPCO duty changeover relay UNI-4B 4PCO duty changeover relay





# FOXTAM SINGLE MODULE DIGITAL PROGRAMMABLE TIME SWITCH

- Din Rail Mounting, Single Module Width 18mm
- Weekly or Daily Programmable
- 6 On & 6 Off Programmes
- Manual Override
- Block Programmable
- 100 Hour Battery Backup
- 1NO Contact Output
- 16 Amps Resistive Rated
- Choice of Auxiliary Supply Voltages 24VDC, 24VAC, 110VAC, 230VAC



FOX.TSD-1/Aux Supply Specify 24VDC, 24VAC, 110VAC, 230VAC







# **ELECTROMECHANICAL TIME SWITCHES**

- Suitable for Din Rail, Front Panel or Surface Mounting
- 100 Hour Battery Reserve
- Daily Version 15 Min Captive Tappets
- Weekly Versions 2 Hours Captive Tappets
- Override Switch On/Off/Auto
- Choice of AC & DC Supply Voltages

#### **Ordering Information**

ALPHA QRD/Aux Supply ALPHA QRD/Aux Supply ALPHA QRS/Aux Supply ALPHA QRS/Aux Supply Daily time switch, specify; 12VAC, 24VAC, 110VAC, 230VAC Daily time switch, specify; 12VDC, 24VDC, 48VDC Weekly time switch, specify; 12VAC, 24VAC, 110VAC, 230VAC

Weekly time switch, specify; 12VDC, 24VDC, 48VDC







# **FOXTAM "CT STYLE" CURRENT PROVING SWITCHES**

- Din Rail Mounted "Panel Builder Friendly"
- Compact 45mm Width
- Two Adjustable Versions 0.2-20 Amps or 2-200 Amps
- Self Powered from Flowing Current
- No Separate Auxiliary Supply Required
- Dual LED Indication
- Output 1NO, Rated 0.5 Amps 30VAC/DC

#### **Ordering Information**

FOX.CS-020 CT switch, adjustable range 0.2-20 Amps FOX.CS-200 CT switch, adjustable range 2-200 Amps







# FOXTAM IN LINE CURRENT PROVING SWITCHES

- **Din Rail Mounted Width 22.5mm**
- **Powered From Own Monitored Supply**
- No Separate Auxiliary Supply Required
- Five Adjustable Versions Sensing Ranges From 1mA to 10 Amps
- **Hysteresis Fixed 1%**
- **SPCO Relay Output**
- 8 Amps Rated
- **Dual LED Indication**

#### **Ordering Information**

YRI-41/1mA-100mA YRI-41/10mA-1A YRI-41/30mA-3A YRI-41/50mA-5A YRI-41/100mA-10A



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As standard the above devices are supplied for a 230VAC L-N (L-E) potential +/-15%, on request other potentials are available

The YRI-41's can be used to monitor a single supply leg of a 3 phase motor, by passing one phase into terminal A1 and out on terminal B1 to the load. The panel Neutral needs to be connected to terminal A2 even if the load does not have a Neutral connection

# **FOXTAM MULTI RANGE IN LINE CURRENT PROVING SWITCH**

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- **Din Rail Mounted Width 27mm**
- **Powered From Own Monitored Supply**
- No Separate Auxiliary Supply Required
- Four Selectable Ranges 100mA-1A, 300mA-3A, 500mA-5A, 1-10A
- Hysteresis Fixed 1%
- Adjustable "Delay to Energise" Time Delay 1-10 Secs
- **SPCO Relay Output**
- 16 Amps Rated
- **Dual LED Indication**

**Ordering Information** MOD-I

The above device is for use on a 230VAC L-N (L-E) potential +/-10%

The MOD-I can be used to monitor a single supply leg of a 3 phase motor, by passing one phase into terminal A1 and out on the relevant "I" terminal to the load. The panel Neutral needs to be connected to terminal A2 even if the load does not have a Neutral connection

# FOXTAM DEDICATED THREE PHASE IN LINE CURRENT PROVING **SWITCH**

- **Din Rail Mounted Width 48mm**
- **Powered From Own Monitored Supply**
- No Separate Auxiliary Supply Required
- Adjustable Sensing Range 250mA to 10 Amps
- **Hysteresis Fixed 1%**
- **SPCO Relay Output**
- 8 Amps Rated
- **Dual LED Indication**

**Ordering Information** YWRI-43/250mA-10A

The above device is for use on a 415VAC L-L potential +/-10%







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# **AC "CT" STYLE CURRENT TRANSDUCERS**

- Solid Core & Split Core Versions
- Din Rail Mounted
- Moulded Case Insulation up to 600VAC
- Self Powered 0-5VDC & 0-10VDC Outputs
- 24VDC Loop Powered 4-20mA Output



CS-650-R1 Primary range: 0-10A / 0-20A / 0-50 Amps selectable by a switch, output self powered 0-5VDC CS-650-R2 Primary range: 0-50A / 0-100A / 0-150 Amps selectable by a switch, output self powered 0-5VDC

CS-650-200 Primary range: 0-200 Amps, output self powered 0-5VDC

CS-651-R1 Primary range: 0-10A / 0-20A / 0-50 Amps selectable by a switch, output self powered 0-10VDC

CS-651-100 Primary range: 0-100 Amps, output self powered 0-10VDC CS-651-200 Primary range: 0-200 Amps, output self powered 0-10VDC

**Split Core Ordering Information** 

SC-650-R1 Primary range: 0-10A / 0-20A / 0-50 Amps selectable by a switch, output self powered 0-5VDC SC-650-R2 Primary range: 0-50A / 0-100A / 0-150 Amps selectable by a switch, output self powered 0-5VDC

SC-650-200 Primary range: 0-200 Amps, output self powered 0-5VDC

SC-651-R1 Primary range: 0-20A / 0-20A / 0-60 Amps selectable by a switch, output self powered 0-10VDC SC-651-R2 Primary range: 0-50A / 0-100A / 0-150 Amps selectable by a switch, output self powered 0-10VDC

SC-651-200 Primary range: 0-200 Amps, output self powered 0-10VDC







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Also available are loop powered 4-20mA output variants in both solid core and split core, including TRMS versions covering a frequency range of 20-400Hz, suitable for current measurement on the secondary side of VFD's

# AC/DC "CT" STYLE RS485 MODBUS OUTPUT CURRENT TRANSMITTERS & ENERGY (MULTI PARAMETER) TRANSMITTERS

- Din Rail Mounted
- Current only Devices
- Multi Parameter "Energy" Devices
- Universal AC/DC Monitoring up to 300 Amps AC / 400 Amps DC
- Voltages up to 800VAC / 1000VDC Universal
- TRMS Measurement AC 20Hz-2KHz Current Versions
- TRMS Measurement AC 1-400Hz Energy Versions
- Class 0.5 Accuracy
- RS485 MODBUS output
- Supply Voltage Nominal 24VDC

**Ordering Information** 

QI-50-V-485 Current transmitter 0-50 Amps AC/DC, serial RS485 MODBUS output & 0-10VDC signal

QI-300-V-485 Current transmitter 0-150 & 0-300 Amps switchable AC/DC, serial RS485 MODBUS output & 0-10VDC signal

QI-POWER-485-LV Energy multi parameter transmitter, 0-50 Amps, up to 80VAC or 100VDC, output RS485 MODBUS RTU, parameters Volts, Peak Volts,

Current, Peak Current, Watts, Var, VA, Hz, COS, KWh import, KWh export, THD

QI-POWER-485 Energy multi parameter transmitter, 0-50 Amps, up to 800VAC or 1000VDC, output RS485 MODBUS RTU, parameters Volts, Peak Volts,

Current, Peak Current, Watts, Var, VA, Hz, COS, KWh import, KWh export, THD

QI-POWER-485-300-LV Energy multi parameter transmitter, 0-300 Amps/80VAC or 0-400 Amps/100VDC, output RS485 MODBUS RTU, parameters Volts, Peak Volts,

Current, Peak Current, Watts, Var, VA, Hz, COS, KWh import, KWh export, THD

QI-POWER-485-300 Energy multi parameter transmitter, 0-300 Amps/800VAC or 0-400 Amps/1000VDC, output RS485 MODBUS RTU, parameters Volts, Peak Volts,

Current, Peak Current, Watts, Var, VA, Hz, COS, KWh import, KWh export, THD







QI-POWER-485-LV QI-POWER-485



QI-POWER-485-300-LV QI-POWER-485-300

### FOXTAM THREE PHASE FAILURE & SEQUENCE RELAYS

- Din Rail Mounted Width 27mm
- Available in 3 Wire or 4 Wire Versions
- SPCO or DPCO Output Versions
- Self Powered
- Transformer Technology Internally
- Dual LED Indication
- Monitors Phase Failure & Phase Sequence
- 4 Wire Versions Neutral Loss
- Monitors Voltage to 80% on all 3 Phases
- Monitors Voltage to 60% on 1 Phase Drop
- SPCO Rated 16 Amps
- DPCO Rated 8 Amps

### **Ordering Information**

MOD-P-1	3 wire, SPCO
MOD-P-2	3 wire, DPCO
MOD-PN-1	4 wire, SPCO
MOD-PN-2	4 wire, DPCO

Also available are phase failure & sequence relays with adjustable voltage control and time delays





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# **FOXTAM DC TO DC CONVERTERS**

- Din Rail Mounted
- Input Supply Healthy LED Indication
- Output Supply Healthy LED Indication
- Indefinite Sort Circuit Protection
- I/O Isolation 1500VDC
- Wide Input Voltage Ranges 9-36VDC & 18-75VDC
- Choice of Outputs 5VDC, 12VDC, 24VDC (+/-2%)
- Maximum Output Load 6 Watts

# Ordering Information

Y24D5D	Input voltage 9-36VDC, output voltage 5VDC
Y24D12D	Input voltage 9-36VDC, output voltage 12VDC
Y24D24D	Input voltage 9-36VDC, output voltage 24VDC
Y48D5D	Input voltage 18-75VDC, output voltage 5VDC
Y48D12D	Input voltage 18-75VDC, output voltage 12VDC
Y48D24D	Input voltage 18-75VDC, output voltage 24VDC

Also available are DC to DC converters with input voltages up to 1200VDC







# **FOXTAM ADJUSTABLE 0-10VDC OUTPUT SIGNAL GENERATOR**

- Din Rail Mounted Width 22.5mm
- Separate Input & Output LED Indication
- Choice of Input Voltages 24VAC, 110VAC, 230VAC
- Output Adjustable 0-10VDC
- Minimum Impedance 1K Ohms
- Maximum Impedance Infinity Ohms
- Maximum Permitted Output Load 10mA
- Ideal for "Hand/Off/Auto" Applications for BMS Control Inputs



Y24A0-10D 24VAC supply voltage Y110A0-10D 110VAC supply voltage Y230A0-10D 230VAC supply voltage







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# FOXTAM ADJUSTABLE 0-10VDC OUTPUT SIGNAL GENERATOR, COMPLETE WITH REMOTE POTENTIOMETER KIT

- Din Rail Mounted Width 22.5mm
- Separate Input & Output LED Indication
- Choice of Input Voltages 24VAC, 110VAC, 230VAC
- Output Adjustable 0-10VDC
- Minimum Impedance 1K Ohms
- Maximum Impedance Infinity Ohms
- Maximum Permitted Output Load 10mA
- Ideal for "Hand/Off/Auto" Applications for BMS Control Inputs
- Supplied with a 22.5mm Front Panel Mounted Potentiometer
- Supplied with 3m Connecting Cable from Potentiometer to Generator (Do not Shorten)

**Ordering Information** 

Y24A0-10DRP 24VAC supply voltage Y110A0-10DRP 110VAC supply voltage Y230A0-10DRP 230VAC supply voltage



# **FOXTAM SWITCH MODE POWER SUPPLIES**

10VDC / 2.5 Amps 12VDC / 2.08 Amps 24VDC / 1.04 Amps

- Din Rail Mounted
- Primary Voltage 100-240VAC Universal
- Adjustment on Output Voltage +/-10%
- LED Indication







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# FOXTAM SWITCH MODE POWER SUPPLIES 12VDC / 4.16 Amps 24VDC / 2.08 Amps

- Din Rail Mounted
- Primary Voltage 100-240VAC Universal
- Adjustment on Output Voltage +/-10%
- LED Indication

### **Ordering Information**

FOX.PSU-2 050/12VDC Output, 12VDC / 4.16 Amps FOX.PSU-2 050/24VDC Output, 24VDC / 2.08 Amps





# FOXTAM SWITCH MODE POWER SUPPLY 24VDC / 4.16 Amps

- Din Rail Mounted
- Primary Voltage 100-120VAC & 200-240VAC Switchable
- Adjustment on Output Voltage +/-10%
- LED Indication

# **Ordering Information**

FOX.PSU-2 100/24VDC Output, 24VDC / 4.16 Amps







# **FOXTAM SWITCH MODE POWER SUPPLIES**

12VDC / 12.5 Amps 24VDC / 6.25 Amps

- **Din Rail Mounted**
- Primary Voltage 100-120VAC & 200-240VAC Switchable
- Adjustment on Output Voltage +/-10%
- **LED Indication**

#### **Ordering Information**

FOX.PSU-2 150/12VDC Output, 12VDC / 12.5 Amps FOX.PSU-2 150/24VDC Output, 24VDC / 6.25 Amps







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# FOXTAM SWITCH MODE POWER SUPPLY 24VDC / 12.5 Amps

- **Din Rail Mounted**
- Primary Voltage 100-120VAC & 200-240VAC Switchable
- Adjustment on Output Voltage +/-10%
- **LED Indication**
- **Built in Cooling Fan**

#### **Ordering Information**

FOX.PSU-2 300/24VDC Output, 24VDC / 12.5 Amps





# FOXTAM SWITCH MODE POWER SUPPLY 24VDC / 20.8 Amps

- **Din Rail Mounted**
- Primary Voltage 100-120VAC & 200-240VAC Switchable
- Adjustment on Output Voltage +/-10%
- **LED Indication**
- **Built in Cooling Fan**

### **Ordering Information**

FOX.PSU-2 500/24VDC Output, 24VDC / 20.8 Amps





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# **FOXTAM SWITCH MODE POWER SUPPLIES**

12VDC / 1.67 Amps (Output Voltage Adjustable 10.8-13.2V) 24VDC / 1 Amp (Output Voltage Adjustable 21.6-26.4V)

- **Din Rail Mounted**
- Primary Voltage 85-264VAC / 120-370VDC Universal
- **Adjustment on Output Voltage**
- **LED Indication**

#### **Ordering Information**

FOX.PSU-3 020/12VDC Output, 12VDC / 1.67 Amps FOX.PSU-3 020/24VDC Output, 24VDC / 1 Amp





# **FOXTAM SWITCH MODE POWER SUPPLIES**

12VDC / 5 Amps (Output Voltage Adjustable 12-15V) 24VDC / 2.5 Amps (Output Voltage Adjustable 24-30V)

- **Din Rail Mounted**
- Primary Voltage 85-264VAC / 120-370VDC Universal
- **Adjustment on Output Voltage**
- **LED Indication**
- **Extra Pair of Common Output Terminals**
- Output Confirmation Relay Contact 1NO Rated 1 Amp / 30VDC Max



FOX.PSU-3 060/12VDC Output, 12VDC / 5 Amps FOX.PSU-3 060/24VDC Output, 24VDC / 2.5 Amps







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# **FOXTAM SWITCH MODE POWER SUPPLIES**

12VDC / 7.5 Amps (Output Voltage Adjustable 12-15V) 24VDC / 4 Amps (Output Voltage Adjustable 24-30V)

- Din Rail Mounted
- Primary Voltage 85-264VAC / 120-370VDC Universal
- Adjustment on Output Voltage
- LED Indication
- Extra Pair of Common Output Terminals
- Output Confirmation Relay Contact 1NO Rated 1 Amp / 30VDC Max

**Ordering Information** 

FOX.PSU-3 100/12VDC Output, 12VDC / 7.5 Amps FOX.PSU-3 100/24VDC Output, 24VDC / 4 Amps





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# FOXTAM MODULAR SWITCH MODE POWER SUPPLIES

12VDC / 1 Amp 24VDC / 0.5 Amps

- Din Rail Mounted Modular Construction
- Only 1 Module Width (17.5mm)
- Primary Voltage 100-240VAC Universal

**Ordering Information** 

FOX.PSU-1 012/12VDC Output, 12VDC / 1 Amps FOX.PSU-1 012/24VDC Output, 24VDC / 0.5 Amps





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# **FOXTAM MODULAR SWITCH MODE POWER SUPPLIES**

12VDC / 2 Amps (Output Voltage Adjustable 12-14VDC) 24VDC / 1 Amp (Output Voltage Adjustable 24-28VDC)

- Din Rail Mounted Modular Construction
- 2 Modules Width (35mm)
- Primary Voltage 100-240VAC Universal
- Adjustment on Output Voltage

**Ordering Information** 

FOX.PSU-1 024/12VDC Output, 12VDC / 2 Amps FOX.PSU-1 024/24VDC Output, 24VDC / 1 Amp





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# FOXTAM MODULAR SWITCH MODE POWER SUPPLY 24VDC / 1.25 Amps (Output Voltage Adjustable 24-28VDC)

- Din Rail Mounted Modular Construction
- 3 Modules Width (53.5mm)
- Primary Voltage 100-240VAC Universal
- Adjustment on Output Voltage

**Ordering Information** 

FOX.PSU-1 030/24VDC Output, 24VDC / 1.25 Amps





# **FOXTAM MODULAR SWITCH MODE POWER SUPPLIES**

12VDC / 5 Amps (Output Voltage Adjustable 12-14VDC) 24VDC / 2.5 Amp (Output Voltage Adjustable 24-28VDC)

- Din Rail Mounted Modular Construction
- 4 Modules Width (70mm)
- Primary Voltage 100-240VAC Universal
- Adjustment on Output Voltage

**Ordering Information** 

FOX.PSU-1 060/12VDC Output, 12VDC / 5 Amps FOX.PSU-1 060/24VDC Output, 24VDC / 2.5 Amp







# FOXTAM MODULAR DIN RAIL MOUNTED 24VAC SECONDARY TRANSFORMERS

- Din Rail Mounted Modular Construction
- Primary Voltage 230VAC +/-10%
- 24VAC Secondary
- VA Sizes 10VA to 75VA
- Built in Primary Side PTC or Fuse Protection

#### **Ordering Information**

FOX.TXM 0010/24VAC 10VA / 24VAC, 2 modules width 35mm, PTC protection 20VA / 24VAC, 3 modules width 52.5mm, PTC protection 35VA / 24VAC, 5 modules width 87.5mm, removable fuse protection FOX.TXM 0050/24VAC 50VA / 24VAC, 6 modules width 105mm, removable fuse protection 63VA / 24VAC, 8 modules width 140mm, removable fuse protection 75VA / 24VAC, 8 modules width 140mm, removable fuse protection 75VA / 24VAC, 8 modules width 140mm, removable fuse protection





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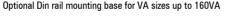
# **FOXTAM CONTROL PANEL TRANSFORMERS**

- Quality Double Wound Isolating Transformers
- Non Welded Construction Means Cool Operation
- With Primary Winding Earth Screen
- Earth Terminal
- Primary Voltage Multi Tap 0-230-400-415-440V
- Secondary Multi Tap 0-12-24V
- VA Sizes 30VA to 3200VA
- Isolation 4KV Between Windings
- Isolation 2KV Between Chassis & Earth
- Tropicalised Construction
- Optional Din Rail Mounting Base for VA Sizes up to 160VA

# **Ordering Information**

FOX.TX D-CLIP

oracing information								
FOX.TX 0030/24V	30VA / 24VAC	A: 77mm	B: 77mm	C: 75mm	D: 37mm	E: 53mm	F: 4mm	G: 6mm
FOX.TX 0050/24V	50VA / 24VAC	A: 77mm	B: 76mm	C: 80mm	D: 42mm	E: 53mm	F: 4mm	G: 6mm
FOX.TX 0100/24V	100VA / 24VAC	A: 86mm	B: 84mm	C: 80mm	D: 37mm	E: 70mm	F: 4mm	G: 10mm
FOX.TX 0160/24V	160VA / 24VAC	A: 86mm	B: 84mm	C: 89mm	D: 47mm	E: 70mm	F: 4mm	G: 10mm
FOX.TX 0200/24V	200VA / 24VAC	A: 97mm	B: 92mm	C: 98mm	D: 48mm	E: 80mm	F: 4mm	G: 12mm
FOX.TX 0320/24V	320VA / 24VAC	A: 123mm	B: 110mm	C: 95mm	D: 59mm	E: 99mm	F: 12mm	G: 14mm
FOX.TX 0400/24V	400VA / 24VAC	A: 122mm	B: 113mm	C: 98mm	D: 64mm	E: 99mm	F: 12mm	G: 14mm
FOX.TX 0500/24V	500VA / 24VAC	A: 122mm	B: 111mm	C: 108mm	D: 74mm	E: 100mm	F: 12mm	G: 14mm
FOX.TX 0630/24V	630VA / 24VAC	A: 154mm	B: 149mm	C: 120mm	D: 77mm	E: 125mm	F: 8mm	G: 17mm
FOX.TX 0800/24V	800VA / 24VAC	A: 150mm	B: 154mm	C: 158mm	D: 116mm	E: 125mm	F: 8mm	G: 18mm
FOX.TX 1000/24V	1000VA / 24VAC	A: 150mm	B: 149mm	C: 138mm	D: 113mm	E: 124mm	F: 8mm	G: 24mm
FOX.TX 1600/24V	1600VA / 24VAC	A: 198mm	B: 224mm	C: 180mm	D: 108mm	E: 169mm	F: 13mm	G: 12mm
FOX.TX 2000/24V	2000VA / 24VAC	A: 198mm	B: 258mm	C: 211mm	D: 127mm	E: 169mm	F: 19mm	G: 12mm
FOX.TX 2500/24V	2500VA / 24VAC	A: 198mm	B: 260mm	C: 245mm	D: 145mm	E: 169mm	F: 19mm	G: 12mm
FOX.TX 3200/24V	3200VA / 24VAC	A: 242mm	B: 278mm	C: 240mm	D: 112mm	E: 210mm	F: 16mm	G: 22mm







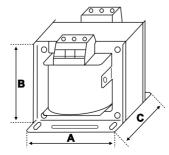


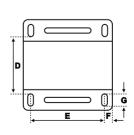


FOX.TX.D-CLIP

The lower 12V secondary voltage tap can be used at half the specified VA rating.

Example, a 100VA / 24VAC transformer can be used at 50VA / 12VAC







Also available from stock are the same transformers in all VA sizes with secondary output voltages of 0-55-110V or 0-115-230V

### **FOXTAM ALARM INTEGRATORS**

- Din Rail Mounted & 11 Pin Plug In Versions
- Choice of Input Ways 8, 9 or 15 Ways
- Multi Input, Common Relay Output
- Often Used in Conjunction with an Audible Alarm
- Internal Construction Highly Tolerant Avalanche Diodes

#### **Ordering Information**

11WA8/Volts\*

YWRICD/Volts\*

YWA9/Volts\*

Din rail, 8 way, output 1NO rated 10 Amps

YWA9/Volts\*

Din rail, 9 way, output 1NO rated 5 Amps

YWA15/Volts\*

Din rail, 15 way, output 1NO rated 5 Amps

\*Specify voltage: 12VAC/DC, 24VAC/DC, 48VAC/DC, 110VAC, 230VAC

All inputs must be of the same voltage and from the same source





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### FOXTAM MUTABLE & REPEATING ALARM INTEGRATORS

- Din Rail Mounted
- Five Input Ways, 1NO Output, Mutable & Repeatable
- Ten Input Ways, 2 x 1NO Outputs, Mutable & Repeatable
- Output Contacts 5 Amps Rated
- Often Used in Conjunction with an Audible Alarm
- Internal Construction Highly Tolerant Avalanche Diodes





#### **Ordering Information**

YWA5/Volts\* 5 way, any alarm input received the output contact energises, cancel input made output contact de-energises even if input is still present, new input received output contact will energise again

YWA10/24VACDC 10 way, any alarm input received both output contacts energise, cancel input made output contact AA de-energises and output contact BB remains

energised so long as the input remains present, any new input received output contact AA will energise again.

\*Specify voltage: 24VAC/DC, 110VAC, 230VAC

All inputs must be of the same voltage and from the same source





YWA5

YWA10

# **FOXTAM FRONT PANEL MOUNTED AUDIBLES**

- Solid State
- Ideal for Hostile Environments
- Mounting Hole Dia. 29mm Clearance
- Continuous Tone or Pulsating Tone Versions

#### **Ordering Information**

 SC01-428
 4-28VDC, continuous tone

 SX01-428
 4-28VAC/DC, continuous tone

 SY01-428
 4-28VAC/DC, pulsating tone

 SC03-115
 30-120VAC/DC, continuous tone

 SC03-250
 50-250VAC, continuous tone

 SP03-250
 50-250VAC, pulsating tone







# **FOXTAM LAMP TEST MODULE (SUITABLE FOR LED LAMPS)**

- Din Rail Mounted Width 48mm
- 8 Ways
- Full Voltage Potential Passed (Important for LED'S)
- Each Way Fully Isolated
- No Back Feeding
- Maximum 1 Amp Lamp Load Per Way
- Saves Time on Panel Wiring



YWACD/Volts\* \*Specify voltage: 12VDC, 24VDC, 12VAC, 24VAC, 110VAC, 230VAC





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# **FOXTAM INDICATOR PANELS**

- 10 Way Indicator Panel
- Choice of LED Colours (Can be Mixed)
- With Built In Lamp Test Button
- 24VAC/DC Supply Voltage
- Common Voltage Output From Indicator Panel "Switched Back in Per Input"
- Dimensions 128.4mm (H) x 85mm (W)

Ordering Information

10 way indicator panel, specify colour of LED per input 1-10 FOX.I10







# **FOXTAM ALARM / INDICATOR PANELS**

- 10 Way Alarm / Indicator Panel
- Choice of LED Colours (Can be Mixed)
- **Dual Relay Outputs**
- Each Input Selectable to R1, R2, or Indicate Only
- Adjustable Time Delay per Relay 0-60 Seconds
- With Built In Lamp Test Button
- 24VAC/DC Supply Voltage
- Common Voltage Output From Alarm / Indicator Panel "Switched Back in Per Input"
- Dimensions 128.4mm (H) x 85mm (W)



FOX.DK10 10 way alarm / indicator panel, specify colour of LED per input 1-10







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# FOXTAM MUTABLE & REPEATABLE ALARM ANNUNCIATOR PANELS

- 10 Way Fully Mutable & Repeatable Alarm Annunciator Panels
- **Expandable Via 10 Way Slave Panels (FOX-LKS10)**
- Choice of LED Colours, (Can be Mixed)
- Three Relay Outputs
- Each Input Selectable to R1, R2, R3 or Indicate Only
- Each Relay Output can be Selectable "NO" or "NC"
- Adjustable Time Delay per Relay 0-60 Seconds
- Each Input Selectable to be "Latched" or "Non Latched"
- With Built In Lamp Test Button
- 24VAC/DC Supply Voltage
- Common Voltage Output From Alarm Annunciator Panel "Switched Back in Per Input"
- Dimensions 128.4mm (H) x 170mm (W)



FOX.I KM10 10 way alarm annunciator master panel, specify colour of LED per input 1-10 FOX.LKS10 10 way alarm annunciator slave panel, specify colour of LED per input 1-10





### **ELECTROMECHANICAL HOUR RUN COUNTER**

- Din 48mm
- Panel Cut Out 45mm Square or 50.2mm Dia. Circular
- Standard IP65 Black Front
- **Optional IP65 Panel Sealing Gasket**
- **Optional 55mm Bezel**
- **Optional 72mm Bezel**
- **Ratchet Fixing Clamp**
- **Operation Indication**
- **IP20 Screw Terminals**



632.2/AC Volts\* \*Specify voltage: 24VAC, 110VAC, 230VAC (50Hz)

630.2/10-80VDC

55mm Bezel Optional 55mm bezel 72mm Bezel Optional 72mm bezel

IP65 48mm Gasket Optional IP65 panel sealing gasket







If mounting within a 50.2mm Dia. Hole, either a 55mm or 72mm bezel is required 60Hz voltage supply versions also available Also available from are hour run meters and operation counters in alternative front bezel sizes, both electromechanical and digital

# 4 DIGIT, LED DIGITAL PANEL METERS SCALED FOR DISPLAYING TEMPERATURE OR HUMIDITY FROM AN ANALOGUE INPUT SIGNAL

# **DIN 96x48mm**

- Front Bezel Size 96x48mm
- High Accuracy, Stability & Resolution
- 0-5VDC, 0-10VDC, 4-20mA Input Signals
- Any Other Linear Input Signal Possible
- Scaling to Any Engineering Units & Any Scale Range
- Popular Eamples 0-50°C, 0-100 %RH
- Negative to Positive Scaling Possible

#### **Ordering Information**

CM2-VAD / Specify Input Signal / Specify Scaling Required / ADL (20-56VACDC Aux Supply) CM2-VAD / Specify Input Signal / Specify Scaling Required / ADH (85-264VAC Aux Supply)

# DIN 48x24mm

- Front Bezel Size 48x24mm
- High Accuracy, Stability & Resolution
- 0-5VDC, 0-10VDC, 4-20mA Input Signals
- Any Other Linear Input Signal Possible
- Scaling to Any Engineering Units & Any Scale Range
- Popular Scaling 0-50°C, 0-100 %RH
- Negative to Positive Scaling Possible

#### Ordering Information

CS3S-VAD / Specify Input Signal / Specify Scaling Required / 5VDC Aux Supply CS3S-VAD / Specify Input Signal / Specify Scaling Required / 12VDC Aux Supply CS3S-VAD / Specify Input Signal / Specify Scaling Required / 24VDC Aux Supply

CS3S-VAD / Specify Input Signal / Specify Scaling Required / 48VDC Aux Supply

CS3S-VAD / Specify Input Signal / Specify Scaling Required / ADH (85-264VAC Aux Supply)











A full range of Digital Panel Meters are available in both Din 48x24mm & Din 96x48mm, including meters with analogue outputs, relay outputs and MODBUS outputs. Inputs include both AC & DC, voltage ranges from mV to 4KV, current ranges from uA to 10 Amps. Thermocouple inputs, PT100 & PT1000 inputs are also available, along with potentiometer (Ohms) and pulse frequency inputs.

# **VOLTAGE SURGE ARRESTERS TYPE 2: Imax 40KA 8/20 PER POLE**

- Purchased Per Pole
- Wired in Parallel
- Protection Level Type 2: 8/20 40KA Per Pole
- Suitable for Any System Current Rating
- Suitable for System Voltage up to 550V L-L / 320V L-N (L-E)
- Removable & Replaceable MOV Module
- Flag Indication
- Optional Auxiliary Output Contact

#### **Ordering Information**

PROTEC C 40/320 Without auxiliary output contact PROTEC CR 40/320 With auxiliary output contact







When selecting the nominal voltage required the voltage should be selected on the basis of L-N or L-Earth depending on the system. The standard version recommended for 380-550V L-L or 220-320V L-N systems is the 320V version.

Purchased per pole, per phase. A single phase system will require 2 poles. A three phase, three wire system will require 3 poles.

A three phase, four wire system will require 4 poles, if the Neutral is present it must be protected

Also available are Type 1 & 2 combined direct lightning and voltage surge arresters, please contact us for assistance



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2021 Edition