

Weekly

Astronomical



TS2M1-1-16A-230V
Size : 35mm (Width)



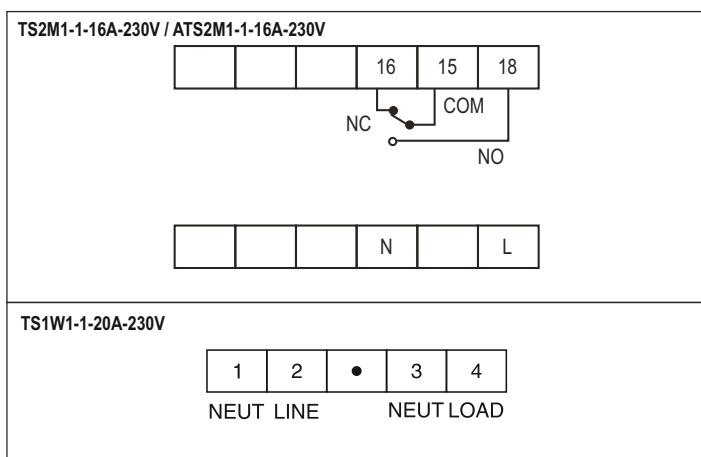
TS1W1-1-20A-230V
Size : 60 x 60 mm



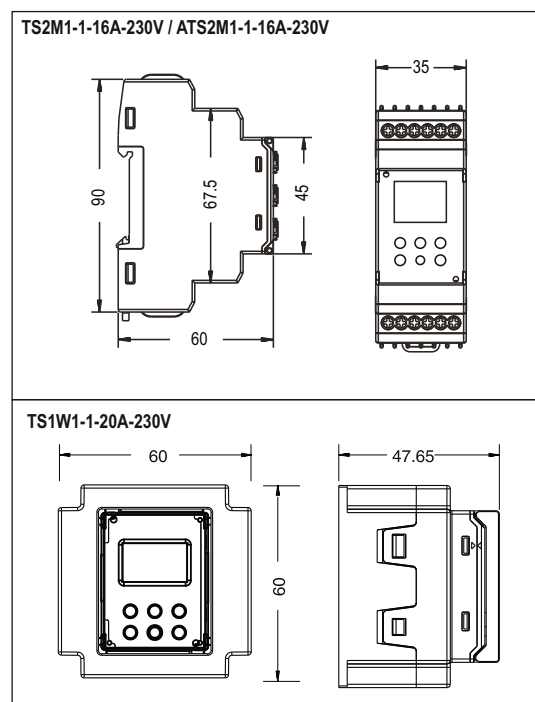
ATS2M1-1-16A-230V
Size : 35mm (Width)

FEATURES	<ul style="list-style-type: none"> • Din Rail Mount • 50 ON - OFF Steps per day • 1 C/O SPDT • 10+ years battery life 	<ul style="list-style-type: none"> • Wall Mount • 50 ON - OFF Steps per day • 1 NO & Neutral • 10+ years battery life 	<ul style="list-style-type: none"> • Din Rail Mount • Latitude / Longitude precise to a minute with the time zone. • Sunrise / Sunset or Twilight rise / set trigger modes • 1 C/O SPDT • 10+ years battery life
DISPLAY	Text LCD (Without Backlight)		
RTC ACCURACY	15 Minutes a year @ 25°C		
OUTPUT CONTACT	1 C/O SPDT	1 NO & Neutral	1 C/O SPDT
CONTACT RATING	16A @ 250V AC	20A @ 250V AC	16A @ 250V AC
OPERATION PERIOD	1 Week		
WEEKLY PROGRAM	Total 50 ON Steps and 50 OFF Steps 2 Programs x 25 Steps 3 Programs x 16 Steps 4 Programs x 12 Steps 5 Programs x 10 Steps 6 Programs x 08 Steps 7 Programs x 07 Steps 8 Programs x 06 Steps		
MINIMUM SETTING UNIT	1 second		
HOLIDAY SETTINGS	16 Dates		
CLOCK	12-hr. (AM / PM) and 24-hr. selection		
RELAY OPERATING MODE	Auto / Temporary Override / Permanent Override ON / Permanent Override OFF		
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	230V AC ±10% / 110V AC ±10%		

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
TS2M1-1-16A-230V	230V AC	---
TS2M1-1-16A-230V-CE	230V AC	CE
TS1W1-1-20A-230V	230V AC	---
TS1W1-1-20A-230V-CE	230V AC	CE
TS2M1-1-16A-110V	110V AC	---
TS2W1-1-20A-110V	110V AC	---
ATS2M1-1-16A-230V	230V AC	---

17.5mm Din Rail Timers



600DT

Size : 17.5 x 90 x 60mm



600ST

Size : 17.5 x 90 x 60mm



600XU

Size : 17.5 x 90 x 60mm



600SD

Size : 17.5 x 90 x 60mm



642SQ-A

Size : 17.5 x 90 x 60mm



642XA

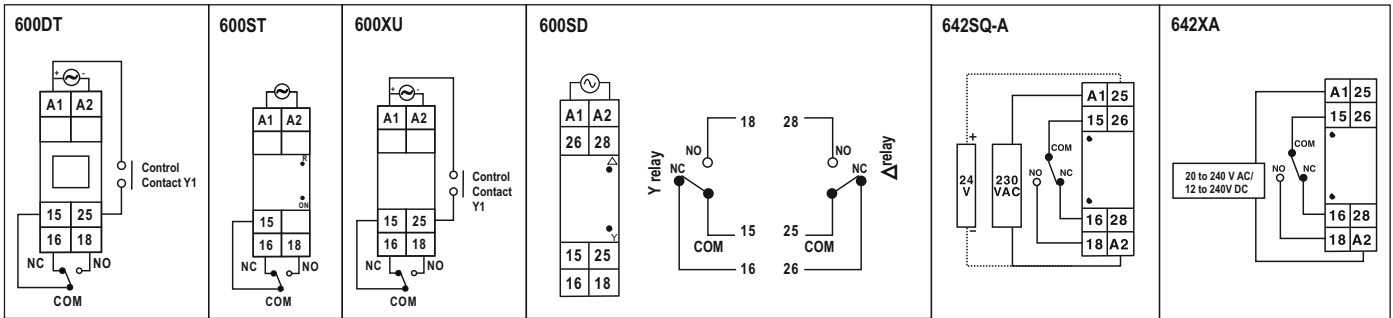
Size : 17.5 x 90 x 60mm

FEATURES	<ul style="list-style-type: none"> Digital Timer 15 Functions 8 Time Ranges 1 C/O SPDT 	<ul style="list-style-type: none"> Single Function 10 Time Ranges 1 C/O SPDT 	<ul style="list-style-type: none"> 13 Functions 10 Time Ranges 1 C/O SPDT 	<ul style="list-style-type: none"> Star Delta 1 C/O Relay each for Star & Delta 	<ul style="list-style-type: none"> 2 Functions 8 Time Ranges 1 C/O SPDT 	<ul style="list-style-type: none"> 2 Functions 8 Time Ranges 1 C/O SPDT
MODES	A, B, C, D, E, F, H, J, K, L, P, Q, R, T, U	A	A, B, C, Ci, D, E, F, H, I, J, K, Ai, Bi	Star - Delta	ON delay / Interval	ON delay / Interval
TIME RANGES	99.9sec / min / hr, 999sec / min / hr 9:59min:sec, 9:59hr:min	0.1 - 1sec, 0.3 - 3sec, 1 - 10sec, 3 - 30sec, 0.1 - 1min, 0.3 - 3min, 1 - 10min, 3 - 30min, 0.1 - 1hr, 0.3 - 3hr	0.1sec	Runup time : 3 - 30sec, 6 - 60sec Change over : 50/100ms	0 - 3sec / min, 0 - 10sec / min, 0 - 30sec / min, 0 - 60sec / min	0 - 3sec / min, 0 - 10sec / min, 0 - 30sec / min, 0 - 60sec / min
RESOLUTION	0.1sec	0.1sec	0.1sec	---	0.3sec	0.3sec
ACCURACY	Setting : ± 0.1% of set time or ±50ms (whichever is greater) For Y contact operation : +100ms, Repeat : ± 0.1 %	Setting : ±5% of F.S Repeat : ±0.5% (F.S. = Full Scale) Pause time accuracy : ±5% ±5ms				
OUTPUT CONTACT	1 C/O SPDT	1 C/O SPDT	1 C/O SPDT	1 C/O Relay each for Star & Delta	1 C/O SPDT	
CONTACT RATING	8 A @ 250V AC			5A @ 250V AC or 24V DC		
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	20 to 240V AC / DC	240V AC, 110V AC, 24V DC	20 to 240V AC 12 to 240V DC	110V AC, 230V AC	230V AC, 24V AC/DC	20 to 240V AC 12 to 240V DC

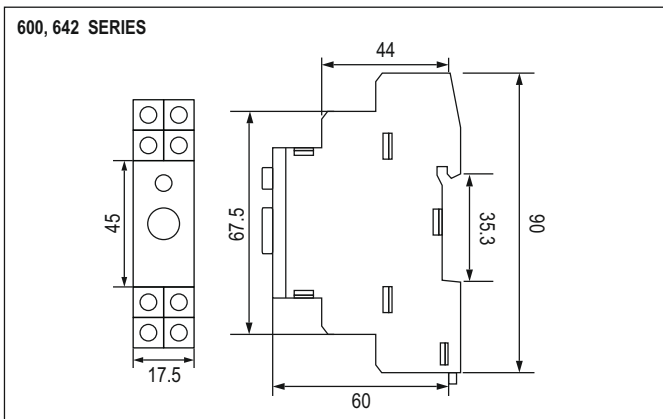
Modes

600DT	A - On delay, B - Interval, C - Asymmetrical cyclic OFF first, D - Asymmetrical cyclic ON first, E - Repeat cycle equal OFF first, F - Repeat cycle equal ON first, H - Pulse output, J - Delay on break, K - Delay on make/Delay on break, L - Interval after break, P - Single shot, Q - Retriggerable Single shot, R - Latching relay, T - Delay on make with Totalise, U - Interval with Totalise
600ST & 600XU	A - On delay, B - Interval, C - Repeat cycle equal OFF first, Ci - Repeat cycle equal ON first, D - Pulse output 500ms fixed, E - Delay on break, F - Delay on make/Delay on break, H - Interval after break, I - Single shot, J - Retriggerable Single shot, K - Latching relay, Ai - Delay on make with Totalise, Bi - Interval with Totalise

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
600DT	20 to 240V AC/DC	CE
600DT-CU		CE RoHS
600XU	20 to 240V AC, 12 to 240V DC	CE
600XU-A-1-CU		CE RoHS
600SD-2-230	230V AC	CE
600SD-2-230-CU-RoHS		CE RoHS
600SD-2-110V	110V AC	CE
600SD-2-110-CU		CE
600ST	240V AC	CE
600ST-CU		CE RoHS
600ST-110V	110V AC	---
600ST-24V	24V DC	---
642SQ-A	230VAC, 24 AC/DC	---
642XA	20 to 240V AC, 12 to 240VDC	---

22.5mm Din Rail Timers



800XU
Size : 22.5 x 75 x 101mm



800XA
Size : 22.5 x 75 x 101mm



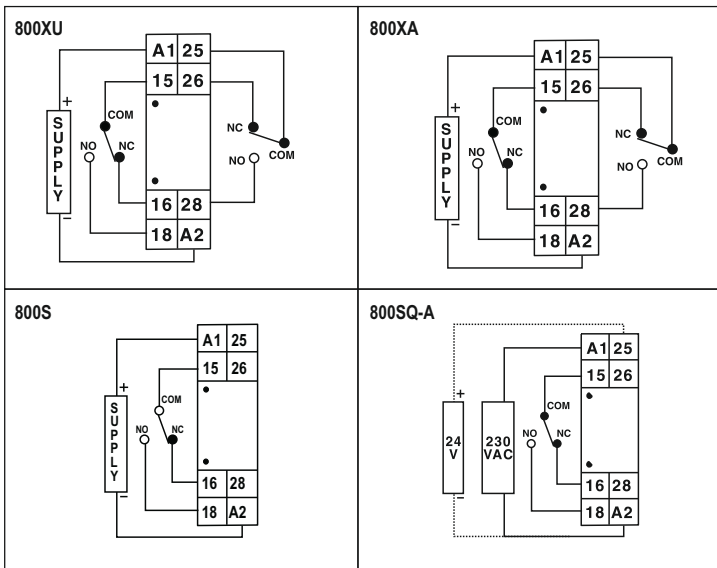
800SQ-A
Size : 22.5 x 75 x 101mm



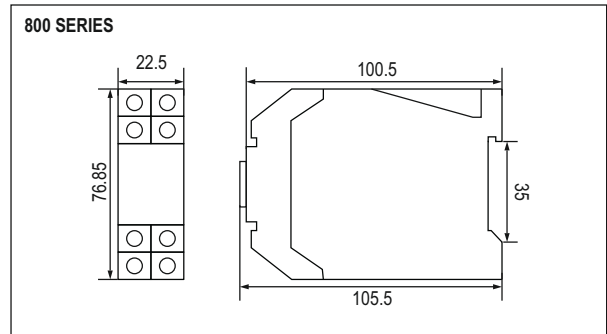
800S
Size : 22.5 x 75 x 101mm

FEATURES	<ul style="list-style-type: none"> • 2 Functions • 12 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • 2 Functions • 8 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • 2 Functions • 8 Time Ranges • 1 C/O SPDT 	<ul style="list-style-type: none"> • Single Function • 2 Time Ranges • 1 C/O SPDT
MODES	ON delay / Interval			ON delay
TIME RANGES	1 / 3 / 10 / 30sec / min / hr	3 / 10 / 30 / 60sec / min	3 / 10 / 30 / 60sec / min	30sec, 60sec (factory set)
RESOLUTION	0.1sec	0.3sec	0.3sec	---
ACCURACY	Setting : ±5% of Full Scale Repeat : ±0.5% or 50ms (Whichever is greater)			
OUTPUT CONTACT	2 C/O DPDT	2 C/O DPDT	1 C/O SPDT	1 C/O SPDT
CONTACT RATING	5A @ 250V AC or 24V DC			
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	20 to 240V AC, 12 to 240V DC	20 to 240V AC, 12 to 240V DC	230V AC & 24V AC/DC	230V AC, 415V AC, 12V DC

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
800XU	20 to 240VAC, 12 to 240V DC	---
800XU-CU		CE, UL
800XA	20 to 240V AC, 12 to 240V DC	---
800XA-CE		CE
800SQ-A	230V AC, 24V AC/DC	---
800SQ-A-230-CU		CE, UL
800S-1-ON-30S-230	230V AC	---
800S-1-ON-60S-230		---
800S-1-ON-30S-415	415V AC	---
800S-1-ON-60S-415		---

22.5mm Din Rail Timers



800SD-2
Size : 22.5 x 75 x 101mm



800XC
Size : 22.5 x 75 x 101mm



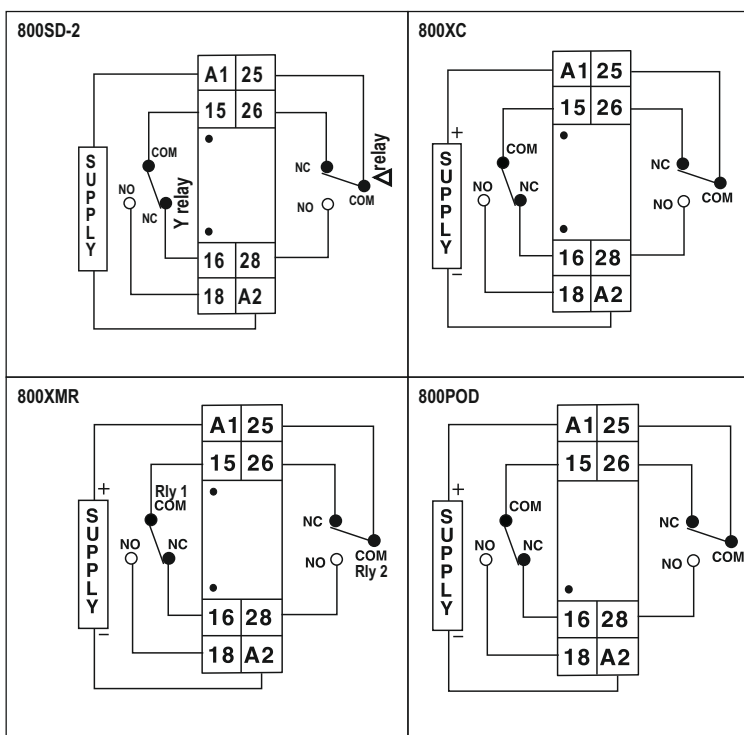
800XMR
Size : 22.5 x 75 x 101mm



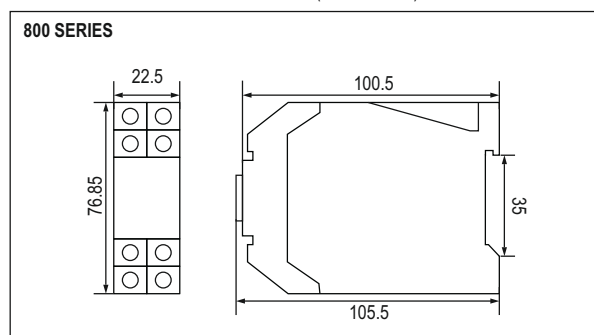
800POD
Size : 22.5 x 75 x 101mm

FEATURES	<ul style="list-style-type: none"> • Star Delta • 2 Time Ranges • 1 C/O relay each for Star & Delta 	<ul style="list-style-type: none"> • 2 Functions • 6 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • Forward Pause Reverse • 1 C/O Relay each for Forward & Reverse 	<ul style="list-style-type: none"> • True Power OFF delay • Fixed Time Ranges • 2 C/O DPDT
MODES	Star - Delta	Asymmetrical Cyclic ON first or OFF first	Forward - Pause - Reverse	True Power OFF delay
TIME RANGES	Run up time range : 30 / 60sec Change over : 50 / 100msec	1 / 10sec / min / hr for both ON & OFF time	ON time : 1 / 2 / 4 / 8min Pause time : 10 / 20 / 40 / 80s	60sec, 180sec
RESOLUTION	---	0.1sec	---	---
ACCURACY	Setting : $\pm 0.5\%$ or 50ms (Whichever is greater) Repeat : $\pm 5\%$ of full scale			Setting : $\pm 10\%$ of full scale, Repeat : $\pm 2\%$ or 100ms
OUTPUT CONTACT	1 C/O Relay each for Star & Delta	2 C/O DPDT	1 C/O each for Forward & Reverse	2 C/O DPDT
CONTACT RATING	5A @ 250V AC or 24V DC			
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	110V AC, 230V AC 230 to 450V AC	20 to 240V AC, 12 to 240V DC	20 to 240V AC, 12 to 240V DC	110 to 240V AC/DC

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
800SD-2-230	230V AC	---
800SD-2-230-CU		CE
800SD-2-110	110V AC	---
800SD-2-110-CU		CE
800SD-2-415	230 to 450V AC	---
800XC	20 to 240V AC, 12 to 240V DC	---
800XC-CU		CE
800XMR	20 to 240V AC, 12 to 240V DC	---
800POD-180S	110 to 240V AC/DC	CE
800POD-60S		CE

Plug / Panel Mounting Timers



55XU
Size : 48 x 48mm



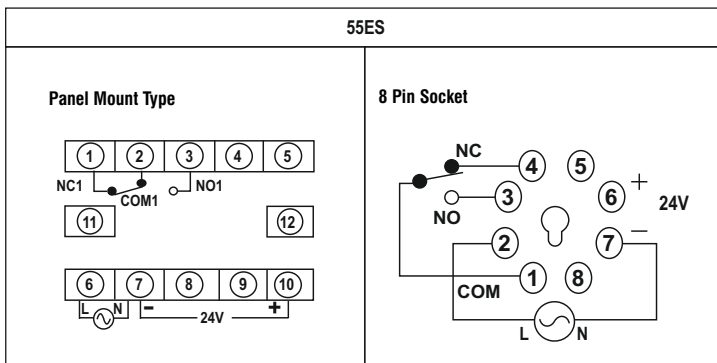
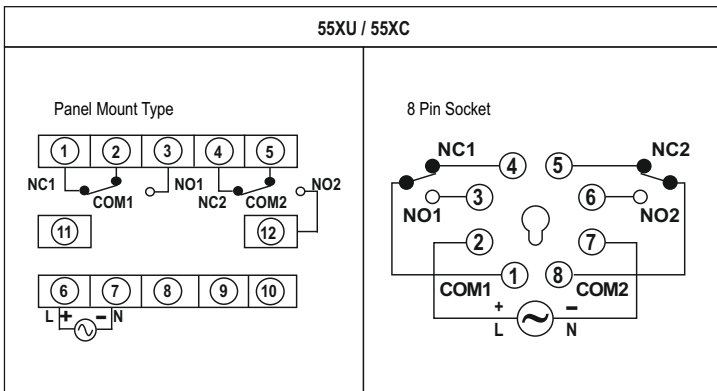
55XC
Size : 48 x 48mm



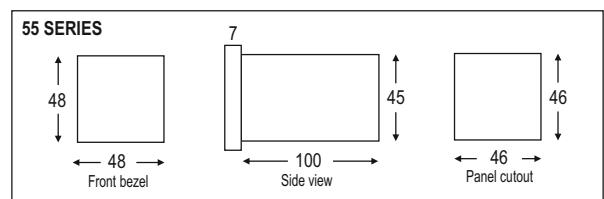
55ES
Size : 48 x 48mm

FEATURES	<ul style="list-style-type: none"> • 2 Functions • 12 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • 2 Functions • 6 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • 2 Functions • 8 Time Ranges • 1 C/O SPDT
BASE TYPE	P8 - 8 pin plug, T8 - Screw terminal		
MODES	ON delay / Interval	Asymmetrical Cyclic ON first or OFF first	ON delay / Interval
TIME RANGE	1 / 3 / 10 / 30sec min / hr	1 / 10sec / min / hr for both ON & OFF time	3 / 10 / 30 / 60sec / min
RESOLUTION	0.1sec	0.1sec	0.3sec
ACCURACY	Setting : $\pm 5\%$ of full scale, Repeat : $\pm 0.5\%$ or 50 ms (whichever is greater)		
OUTPUT CONTACT	2 C/O DPDT	2 C/O DPDT	1 C/O SPDT
CONTACT RATING	5A @ 250V AC or 24V DC		
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	20 to 240V AC, 12 to 240V DC	20 to 240V AC, 12 to 240V DC	230V AC & 24V AC/DC, 110V AC & 24V AC/DC

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
55XC-P8	20 to 240V AC, 12 to 240V DC	---
55XC-P8-CU		CE RoHS,
55XC-T8		---
55XC-T8-CU		CE RoHS,
55XU-P8	20 to 240V AC, 12 to 240V DC	---
55XU-P8-CU		CE RoHS,
55XU-T8		---
55XU-T8-CU		CE RoHS,
55ES-P8-230	230V AC & 24V AC/DC	---
55ES-P8-230-CU		CE,
55ES-T-230		---
55ES-T-230-CU	110V AC & 24V AC/DC	CE,
55ES-P8-110		---
55ES-P8-110-CU		CE,
55ES-T-110		---
55ES-T-110-CU	CE,	

Single Display, Multifunction Timers



XT532
Size : 48 x 48mm



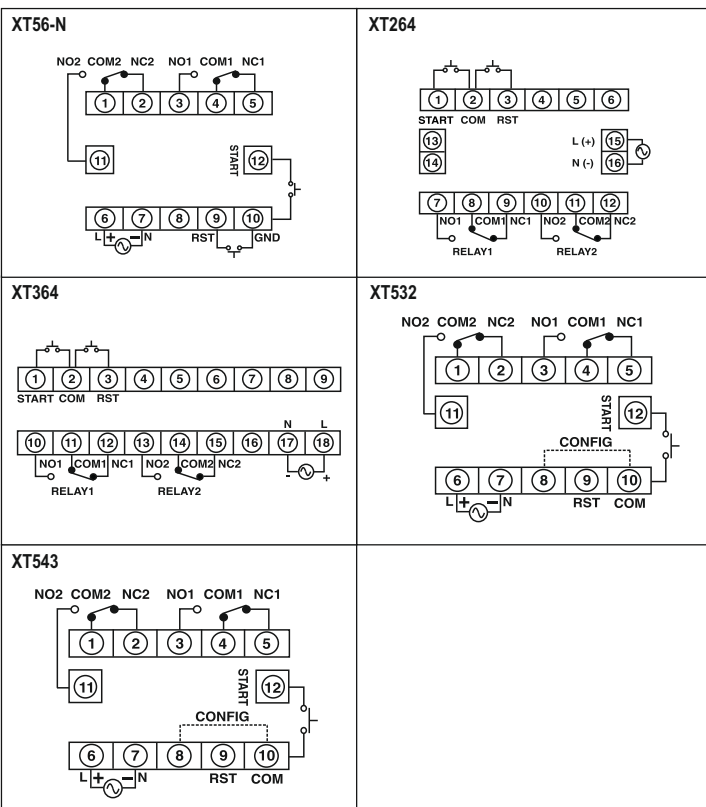
XT543
Size : 48 x 48mm



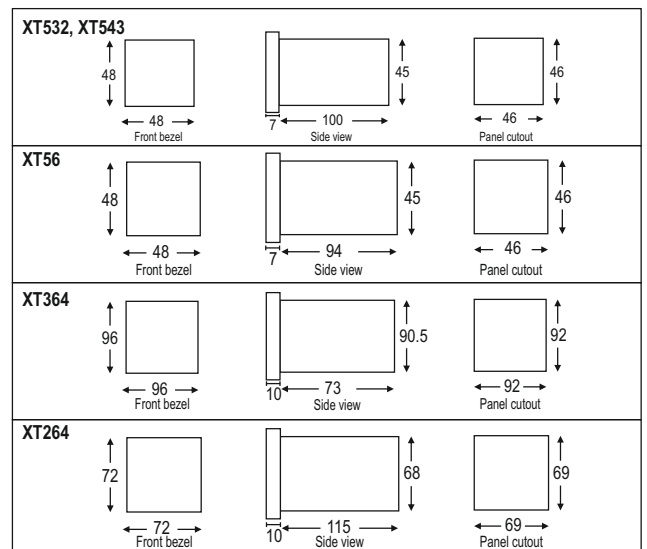
XT56 **XT264** **XT364**
Size : 48 x 48mm Size : 72 x 72mm Size : 96 x 96mm

FEATURES	<ul style="list-style-type: none"> • Single set point • 4 Functions • 6 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • Single set point • 4 Functions • 9 Time Ranges • 2 C/O DPDT 	<ul style="list-style-type: none"> • Single set point • 2 Functions • 6 Time Ranges • 2 C/O DPDT
DISPLAY	2 digits	3 digits	
SET POINT	Single set point		
DELAY MODES	ON delay / Interval / Cyclic ON first / Cyclic OFF first		ON delay / Interval
TIME RANGE	9.9 / 99sec, 9.9 / 99min, 9.9 / 99hr	9.99 / 99.9 / 999sec, 9 : 59min : sec, 99.9 / 999min, 9 : 59hr : min, 99.9 / 999hr	9.99 / 99.9 / 999sec, 99.9 / 999min, 99.9hr
RESOLUTION	0.1sec	0.01sec	
TIME SETTING	---		Pushwheel
RESET / START INPUT	Start : Pulse start	Start : Gate / Pulse start (Programmable)	Start : Pulse start
	Reset : Front panel, Remote reset, On power interruption		
ACCURACY	±0.5% of F.S. or 50 ms		
OUTPUT CONTACT	2 C/O DPDT		
CONTACT RATING	5A @ 250V AC or 24V DC		
MEMORY RETENTION	10 Years	No memory retention	
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	90 to 270V AC/DC	90 to 270V AC/DC, 24V DC (optional)	

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
XT532	90 to 270V AC/DC	---
XT543	90 to 270V AC/DC	---
XT56-N	90 to 270V AC/DC	---
XT56-N-CE	90 to 270V AC/DC	CE
XT56-N-24	24V DC	---
XT264	90 to 270V AC/DC	---
XT364	90 to 270V AC/DC	---

Dual Display, Multifunction Timers

Sequential Timer



XT546 Size : 48 x 48mm
XT246 Size : 72 x 72mm
XT346 Size : 96 x 96mm



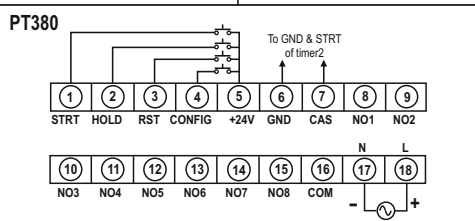
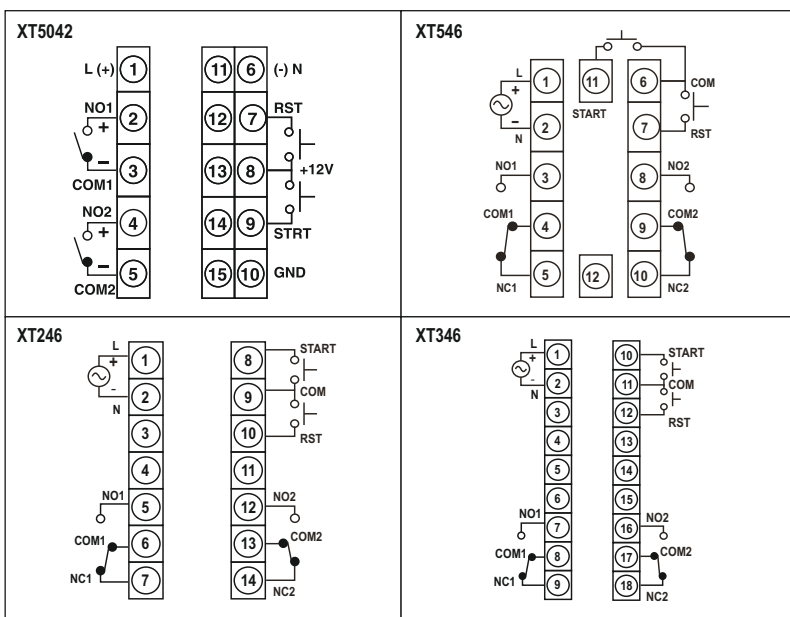
XT5042
 Size : 48 x 48mm



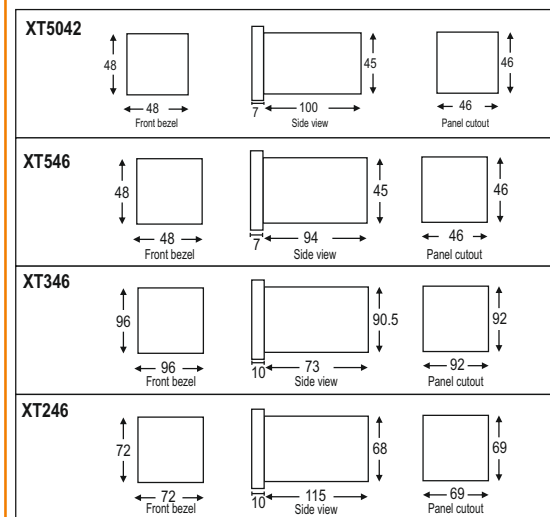
PT380
 Size : 96 x 96mm

FEATURES	<ul style="list-style-type: none"> • Single set point • 4 Functions • 9 Time Ranges • 2 C/O SPDT 	<ul style="list-style-type: none"> • Dual set point • 7 Functions • 9 Time Ranges • 2 C/O SPST 	<ul style="list-style-type: none"> • Sequential timer • 4 Functions • 6 Time Ranges • 8 Channels
DISPLAY	3 digit 7 Segment LED, Dual display	4 + 4 digits	2 + 4 digits
SET POINT	Single set point	Dual set point	Single set point
MODES	ON delay / Interval / Cyclic ON first / Cyclic OFF first	ON delay / Interval / Cyclic ON first / Cyclic OFF first / Forward-Pause-Reverse / Instantaneous + Delayed / Timer / Batch	ON delay / Interval / Cyclic ON first / Cyclic OFF first (Start up delay & no. of cycles programmable for cyclic mode)
TIME RANGES	9.99 / 99.9 / 999sec, 9.59min : sec, 99.9 / 999min, 9.59hr : min, 99.9 / 999hr	99.99 / 999.9 / 9999sec, 99.59min : sec, 999.9 / 9999min, 99.59hr : min, 999.9 / 9999hr	99.99sec, 999.9sec, 99.59min : sec, 99.59hr : min, 999.9hr
RESOLUTION	0.01sec		
TIME SETTING	Front keypad		
NO. OF CHANNELS	--		8 Channels
RESET/START INPUT	Start : Gate / Pulse start (Programmable) Reset : Front panel, Remote reset, On power interruption		Start, Hold
ACCURACY	±0.05% of F.S. or 50ms (whichever is greater)	±0.05% of F.S. or 50ms	±0.5% of F.S. or 50ms (whichever is greater)
OUTPUT CONTACTS	2 C/O SPDT	2 C/O SPST	--
CONTACT RATING	5A @ 250V AC or 24V DC		
MEMORY RETENTION	10 Years	10 Years	10 Years (User selectable)
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	85 to 270V AC, 24V AC/DC (optional)	90 to 270V AC/DC	85 to 270V AC/DC

Terminal Connections



Dimensions (All are in mm)



Ordering Information

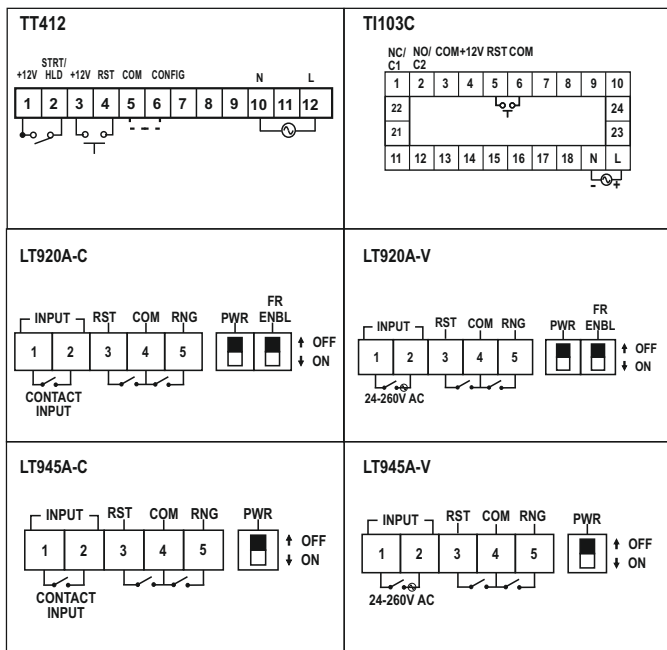
PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION
XT5042	90 to 270V AC/DC	CE
XT5042-CU	90 to 270V AC/DC	CE, RoHS
XT546	85 to 270V AC/DC	CE
XT546-24V	24V AC/DC	---
XT246	85 to 270V AC/DC	CE
XT246-24V	24V AC/DC	---
XT346	85 to 270V AC/DC	CE
PT380	85 to 270V AC/DC	---

TIME INTERVAL METERS

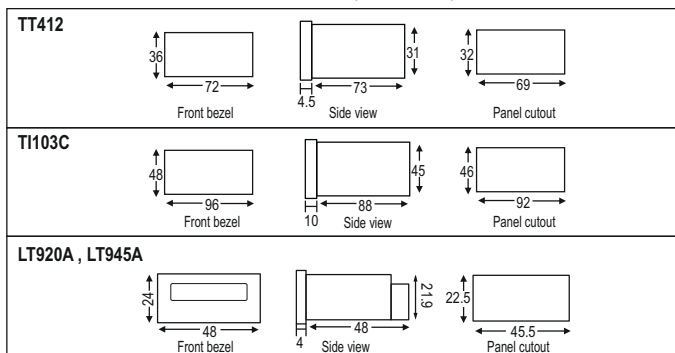


FEATURES	<ul style="list-style-type: none"> • 6 Digits Time Totaliser • Selectable Least Count • Remote Reset 	<ul style="list-style-type: none"> • 4 Digits Time Interval Meter • Range : Auto Ranging, Fixed Ranges 	<ul style="list-style-type: none"> • 8 Digits LCD Time Totaliser • Self Powered • Long Battery Life • Contact / Voltage Input • Front Reset Button 	<ul style="list-style-type: none"> • 8 Digits LCD Time Totaliser • Self Powered • Long Battery Life • Contact / Voltage Input
DISPLAY	6 digits	4 digits	8 digits	
TIME RANGES	99999.9 / 999999sec / min / hr	a) Auto ranging : .0001 to 9999sec b) Fixed ranges : .9999, 9.999, 99.99, 999.9, 9999sec	a) 9999.59.59hr:min:sec b) 999999.99hr	999999.99hr
ACCURACY	±0.05% + 1 count			
INPUT	Mains, Potential free contact, PNP sensor	Potential free & 3 to 30V DC from solid state devices	a) 24 to 260V AC b) Contact input	a) 24 to 260V AC b) Contact input
RESET	Remote (Reset time : 20ms)	Front, Remote (Reset time : 20ms), Auto	Front, Remote	Remote
MEMORY	10 Years	---	5 years	
SUPPLY VOLTAGE (AC : 50 / 60 Hz)	90 to 270V AC/DC		Battery Powered	

Terminal Connections



Dimensions (All are in mm)



Ordering Information

PRODUCT CODE	SUPPLY VOLTAGE	CERTIFICATION	
TI103C	90 to 270V AC/DC	---	
TT412	90 to 270V AC/DC	---	
PRODUCT CODE	INPUT TYPE		CERTIFICATION
	CONTACT	VOLTAGE	
LT920A-C	■	---	---
LT920A-V	---	■	---
LT945A-C	■	---	---
LT945A-V	---	■	---
LT920A-C-CE	■	---	CE
LT920A-V-CE	---	■	CE
LT945A-C-CE	■	---	CE
LT945A-V-CE	---	■	CE

Accessories (Common For All Products)

ADAPTER PLATES - Material: ABS plastic To fit smaller products into 92 x 92mm size or 69 x 69mm size cut outs 	48 x 48mm COLLAR CLAMP Model : ACL4802 	SNUBBER CIRCUIT R - C network to reduce electrical noise Model : APRC01
Model : AP9672 To fit 72 x 72mm product in to 92 x 92mm cutout Model : AP9648 To fit 48 x 48mm product in to 92 x 92mm cutout Model : AP7248 To fit 48 x 48mm product in to 69 x 69mm cutout Model : AP6050 Model : AP4848	TRANSPARENT FULL COVER Material : Poly carbonate Size : to fit for 48 x 48mm products Model : ACF4801 	8 PIN SOCKET Mounting : a) DIN rail mounting b) Surface mounting Model : AS08