A-Series 22.5mm Timers
A1DE-X / A1DCS-X / A1DN-X / A1DA / A1D-S / A1DH-1

Features

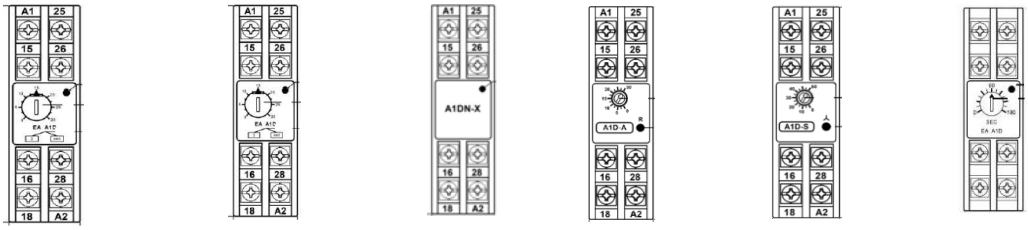
- Suitable for Din-Rail mounting.
- Terminal block safety protective cover.
- LED indication for timing in progress.

Ordering Information

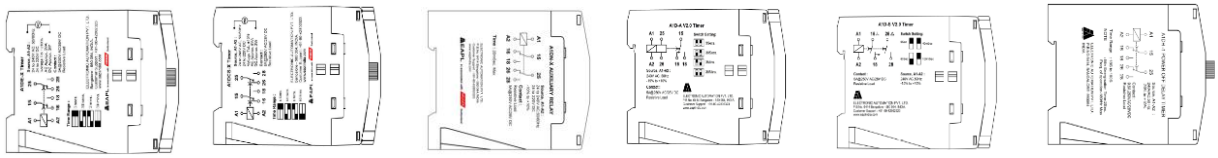
Models	Function	Source Voltage	Time Selection	Output
A1DE-X	Interval	24V AC to 240V AC, 24V DC to 220V DC	0.3Secs to 30Mins	2 C/o Relay
A1DCS-X	Cyclic Equal Off- On		0.6Secs to 60Mins	
A1DN-X	Auxiliary Relay		20m Sec	
A1DA[1]	Signal-Off Delay	110V AC / 240V AC	0.3Secs to 30Mins	1 C/o Relay
A1D-S	Star Delta	110V AC / 240V AC / 415V AC	0.6Secs to 60Secs ##TD 40ms / 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta
A1DH-1	Power-Off Delay	240V AC**	18Secs to 180Secs	2 C/o Relay ***

**: Minimum 2secs of aux. supply has to be applied for each cycle, else timer may malfunction .
***:Contact Rating: 0.5 A @ 250 V AC / 28V DC Resistive .
##: TD – Transfer Delay time is the time between closure of star function and start of delta.
1: Energizes the timer relay with a free from potential signal Command and on removal starts the timing.

Front View A1DE-X A1DCS-X A1DN-X A1DA A1D-S A1DH-1



Side View A1DE-X A1DCS-X A1DN-X A1DA A1D-S A1DH-1



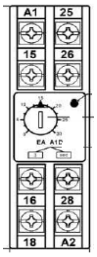
Over-all Dimension

Models	Dimension Details in mm		
	W	H	D
A1DE-X/A1DCS-X/A1DN-X/A1DA/A1D-S/A1DH-1	22.5	75	103.8

■ Specifications

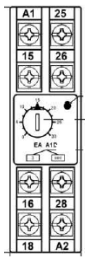
Parameters / Models	A1DE-X	A1DCS-X	A1DN-X	A1DA	A1DS	A1DH-1
Function	Interval timer	Equal ON – OFF cyclic timer	Auxiliary relay	Signal OFF delay timer	Star to delta changeover timer with star time & transfer time settable	Power OFF delay timer
Rated supply Voltage	24 to 240V AC & 24 to 220V DC			240V AC		
Operating voltage range	-10% to +10% of rated voltage			-15% to +10% of rated voltage		-20% to +10% of rated voltage
Rated Frequency	50 / 60Hz ± 5%			50Hz ± 5%		
Allowable ripple (for DC supply)	3% maximum			-		
Power consumption	AC approx.5VA DC approx.3W			A C approx.10VA	A C approx.15VA	
Control output	2 c/o rated for 5A @ 250VAC/28VDC resistive load			1 C/O Rated for 5A @ 250VAC/28VDC resistive load	Rated for 5A @250V AC / 28V DC resistive load	2 c/o rated for 5A @ 250VAC/28VDC resistive load
Time range	0.3Sec to 30Min	0.6Sec to 60Min	20mSec Max	0.3Sec to 30Min	0.6 Sec to 60 Sec Transfer time 40mSec, 100mSec	18Sec to 180Sec
Range selection	3Sec,30Sec, 3Min,30Min	6Sec,60Sec,6Min,60Min	-	3Sec,30Sec,3Min,30Min	0.6 Sec to 60 Sec Transfer time 40mSec,100mSec ± 10mSec	-
Setting accuracy	± 10% max. w.r.t full scale ± 100mSec		-	± 10% max. w.r.t full scale ± 100mSec		
Repeat accuracy	± 1% max. ± 100mSec		-	± 1% max. ± 100mSec		± 2% max. ± 100mSec
Recovery time	100mSec minimum				150mSec minimum	-
Variation due to voltage change	± 2% max. ± 100mSec		-	± 2% max. ± 100mSec		
Variation due to temperature change	± 5% max. ± 100mSec		-	± 5% max. ± 100mSec		
Variation due to frequency change	± 2% max. ± 100mSec		-	± 2% max. ± 100mSec		
Ambient temperature	Operation: -10^0 C to $+55^0$ C Storage : -25^0 C to $+80^0$ C					
Humidity	MAX 85% RH @ 40^0C					
Electrical life	10^5 operations minimum					
Mechanical life	10^6 operations minimum					
Rated frequency of operation	1800 ± 5% operations per hour max					
Insulation resistance	>100M ohms @ 500V DC					
Dielectric strength	01) 1.5KV AC (rms), 50Hz for 1minute.(Between input terminals & enclosure) 02) 1.5KV AC (rms), 50Hz for 1minute.(Between relay contact terminals & enclosure) 03) 1.5KV AC (rms), 50Hz for 1minute.(Between input terminals & relay contact terminals) 04) 2.0KV AC (rms), 50Hz for 10-30sec.(Between pole to pole of the relay) 05) 1.0KV AC (rms), 50Hz for 10-30sec.(Between open contacts of the relay)		01) 1.5KV AC (rms), 50Hz for 1minute.(Between input terminals & enclosure) 02) 1.5KV AC (rms), 50Hz for 1minute.(Between relay contact terminals & enclosure) 03) 1.5KV AC (rms), 50Hz for1minute.(Between input terminals & relay contact terminals) 04)1.0KV AC (rms),50Hz for 10-30sec.(Between open contacts of the relay)	01) 2.5KV AC, 50Hz for 1 minute. (Between current carrying & noncurrent carrying parts) 02) 1.5KV AC, 50Hz for 1 minute. (Between contacts & control circuit) 03) 750V AC, 50Hz for 1 minute. (Between non-continuous contact of the relay)		01) 2.5KV AC, 50Hz for 1 minute. (Between current carrying & noncurrent carrying parts) 02) 1.5KV AC, 50Hz for 1 minute. (Between contacts & control circuit) 03) 1KV AC, 50Hz for 1 minute. (Between non-continuous contact of the relay)
Electrical connection	Screw type terminals with self lifting clamps					
Dimension (W x H x D)	22.5x 75x 103.8mm (W x H x D)					

Connection and Terminal Details



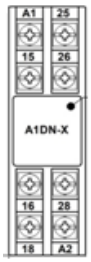
A1, A2: Source Voltage
15, 16, 18: C1, NC1, NO1
25, 26, 28: C2, NC2, NO2

A1DE-X



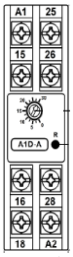
A1, A2: Source Voltage
15, 16, 18: C1, NC1, NO1
25, 26, 28: C2,

A1DCS-X



A1, A2: Source Voltage
15, 16, 18: C1, NC1, NO1
25, 26, 28: C2, NC2, NO2

A1DN-X



A1, A2: Auxiliary supply 240VAC
15, 16, 18: C, NC, NO

A1DA

A1, A2: Source Voltage
15, 25: Common 1 & 2
18, 28: Normally open 1 & 2

A1D-S

A1, A2: Source Voltage
15, 16, 18: C1, NC1, NO1
25, 26, 28: C2, NC2, NO2

A1DH-1

Note: ● For Signal off delay timer Model A1DA start signal should be potential free closure for a minimum of 150m Sec .

● For Power off delay timer Model A1DH-1 minimum energisation time will be 2Sec.