



#### Miniature Multi-Range Timer

The S1DXM is a small, low-cost time delay relay available in Power On-Delay, Power Flicker, Power One-Shot, and Power One-Cycle configurations. Other features include flush mount capability, quickset dial, LED status indictators, and more!

#### **Key Features**

- Easy and Safe Handling
- · Wide Time Range
- Indicator LEDs Provide Status at a Glance
- · Flush Mountable with Accessories
- 12 Time Ranges Available
- S1DXM-M Multifunctional
- Useable with HJ Relay Terminal Socket
- Space-Saving Design 22.1 x 51.7 x 29.5mm
- UL Recognized, CSA Approved

#### S1DXM Models

You may sort models by clicking the arrows in the appropriate column. If you are searching for a particular model but can't find it, give our model search utility a try. All downloads have moved to our separate downloads center.

Click one of the links below to view all related models. Models will appear below the links.

- Timers
- Accessories

**Currently viewing: S1DXM Timers** 

Model Name	Operation Mode	Time Range	Terminal Type	Control Output Current/ voltage	Mounting Method	Mounting Parts	Operating Voltage	Min. Power Off Time (ms)
Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻	Sort 🔺 🔻
S1DXM- A2C10H- AC120V	Power ON Delay	0.05 min to 10 hr	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	100 to 120 V AC	100
S1DXM- A2C10H- AC220V	Power ON Delay	0.05 min to 10 hr	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	200 to 220 V AC	100
S1DXM- A2C10H- AC240V	Power ON Delay	0.05 min to 10 hr	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	220 to 240 V AC	100
S1DXM- A2C10H-AC24V	Power ON Delay	0.05 min to 10 hr	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	24 V AC	100
S1DXM- A2C10H-DC12V	Power ON Delay	0.05 min to 10 hr	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	12 V DC	100

S1DXM- M2C10H- DC24V	Power On delay-Power Flicker OFF start-Power Flicker On start-Power One Shot	0.05 min to 10 hr	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	24 V DC	100
S1DXM- M2C10M- AC120V	Power On delay-Power Flicker OFF start-Power Flicker On start-Power One Shot	0.05 s to 10 min	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	100 to 120 V AC	100
S1DXM- M2C10M- AC220V	Power On delay-Power Flicker OFF start-Power Flicker On start-Power One Shot	0.05 s to 10 min	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	200 to 220 V AC	100
S1DXM- M2C10M- AC240V	Power On delay-Power Flicker OFF start-Power Flicker On start-Power One Shot	0.05 s to 10 min	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	220 to 240 V AC	100
S1DXM- M2C10M- AC24V	Power On delay-Power Flicker OFF start-Power Flicker On start-Power One Shot	0.05 s to 10 min	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	24 V AC	100
S1DXM- M2C10M- DC12V	Power On delay-Power Flicker OFF start-Power Flicker On start-Power One Shot	0.05 s to 10 min	Relay timed- out	7 A 250 V AC	Flush mount / DIN rail - adapter-	Terminal block, cap, panel cover, rubber gasket, mounting frame, fitting sockets, protective cover	12 V DC	100



## MULTI-RANGE ANALOG TIMER

# S1DXM-A/M Timers

UL File No.: E122222 C-UL File No.: E122222

# **₽**Us ( €



#### **FEATURES**

1. Multiple functions built in

The operation mode and time range can be switched by using the MODE and RANGE switches on the front panel.

- 2. Part number consolidation
- 1) The lineup consists of 64 easy-tochoose models.
- 2) An operation mode fixed type (S1DXM-A) and 4-operation mode switching type (S1DXM-M) are available.
- 3. Cadmium-free contacts used
  To eliminate environmentally harmful
  chemical substances, relays with
  cadmium-free contacts are used.

#### 4. Economically priced

- 1) Prices set to lower costs.
- 2) Further cost reduction when used with
- HJ Relay terminal socket.
- **5. CE marking supported** UL and C-UL approved.

## **PRODUCT TYPES**

1. S1DXM-A multi-range timer

No MODE switch, Operation mode (fixed): Power ON-delay

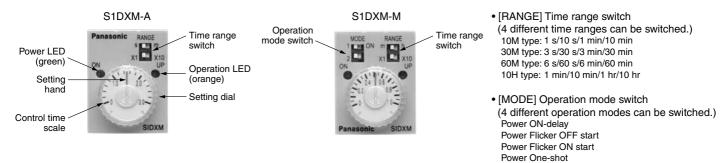
Operating voltage	Time range	Timed-out 2 Form C	Timed-out 4 Form C	
Operating voltage	Time range	Part number	Part number	
	0.05 s to 10 min	S1DXM-A2C10M-DC12V	S1DXM-A4C10M-DC12V	
12V DC	0.2 s to 30 min	S1DXM-A2C30M-DC12V	S1DXM-A4C30M-DC12V	
12V DC	0.5 s to 60 min	S1DXM-A2C60M-DC12V	S1DXM-A4C60M-DC12V	
	0.05 min to 10 hr	S1DXM-A2C10H-DC12V	S1DXM-A4C10H-DC12V	
	0.05 s to 10 min	S1DXM-A2C10M-DC24V	S1DXM-A4C10M-DC24V	
24V DC	0.2 s to 30 min	S1DXM-A2C30M-DC24V	S1DXM-A4C30M-DC24V	
24V DC	0.5 s to 60 min	S1DXM-A2C60M-DC24V	S1DXM-A4C60M-DC24V	
	0.05 min to 10 hr	S1DXM-A2C10H-DC24V	S1DXM-A4C10H-DC24V	
	0.05 s to 10 min	S1DXM-A2C10M-AC24V	S1DXM-A4C10M-AC24V	
24V AC	0.2 s to 30 min	S1DXM-A2C30M-AC24V	S1DXM-A4C30M-AC24V	
	0.5 s to 60 min	S1DXM-A2C60M-AC24V	S1DXM-A4C60M-AC24V	
	0.05 min to 10 hr	S1DXM-A2C10H-AC24V	S1DXM-A4C10H-AC24V	
	0.05 s to 10 min	S1DXM-A2C10M-AC120V	S1DXM-A4C10M-AC120V	
100 to 120V AC	0.2 s to 30 min	S1DXM-A2C30M-AC120V	S1DXM-A4C30M-AC120V	
100 to 120V AC	0.5 s to 60 min	S1DXM-A2C60M-AC120V	S1DXM-A4C60M-AC120V	
	0.05 min to 10 hr	S1DXM-A2C10H-AC120V	S1DXM-A4C10H-AC120V	
	0.05 s to 10 min	S1DXM-A2C10M-AC220V	S1DXM-A4C10M-AC220V	
000 to 000V AC	0.2 s to 30 min	S1DXM-A2C30M-AC220V	S1DXM-A4C30M-AC220V	
200 to 220V AC	0.5 s to 60 min	S1DXM-A2C60M-AC220V	S1DXM-A4C60M-AC220V	
	0.05 min to 10 hr	S1DXM-A2C10H-AC220V	S1DXM-A4C10H-AC220V	
	0.05 s to 10 min	S1DXM-A2C10M-AC240V	S1DXM-A4C10M-AC240V	
000 to 040V AC	0.2 s to 30 min	S1DXM-A2C30M-AC240V	S1DXM-A4C30M-AC240V	
220 to 240V AC	0.5 s to 60 min	S1DXM-A2C60M-AC240V	S1DXM-A4C60M-AC240V	
	0.05 min to 10 hr	S1DXM-A2C10H-AC240V	S1DXM-A4C10H-AC240V	

#### 2. S1DXM-M multi-range timer

With MODE switch, Operation mode (switchable): Power ON-delay, Power Flicker ON start, Power Flicker OFF start, Power One-shot

Operating valtage	Time range	Timed-out 2 Form C	Timed-out 4 Form C
Operating voltage	Time range	Part number	Part number
	0.05 s to 10 min	S1DXM-M2C10M-DC12V	S1DXM-M4C10M-DC12V
12V DC	0.2 s to 30 min	S1DXM-M2C30M-DC12V	S1DXM-M4C30M-DC12V
120 DC	0.5 s to 60 min	S1DXM-M2C60M-DC12V	S1DXM-M4C60M-DC12V
	0.05 min to 10 hr	S1DXM-M2C10H-DC12V	S1DXM-M4C10H-DC12V
	0.05 s to 10 min	S1DXM-M2C10M-DC24V	S1DXM-M4C10M-DC24V
24V DC	0.2 s to 30 min	S1DXM-M2C30M-DC24V	S1DXM-M4C30M-DC24V
24V DC	0.5 s to 60 min	S1DXM-M2C60M-DC24V	S1DXM-M4C60M-DC24V
	0.05 min to 10 hr	S1DXM-M2C10H-DC24V	S1DXM-M4C10H-DC24V
	0.05 s to 10 min	S1DXM-M2C10M-AC24V	S1DXM-M4C10M-AC24V
24V AC	0.2 s to 30 min	S1DXM-M2C30M-AC24V	S1DXM-M4C30M-AC24V
24V AU	0.5 s to 60 min	S1DXM-M2C60M-AC24V	S1DXM-M4C60M-AC24V
	0.05 min to 10 hr	S1DXM-M2C10H-AC24V	S1DXM-M4C10H-AC24V
	0.05 s to 10 min	S1DXM-M2C10M-AC120V	S1DXM-M4C10M-AC120V
100 to 120V AC	0.2 s to 30 min	S1DXM-M2C30M-AC120V	S1DXM-M4C30M-AC120V
100 to 1200 AC	0.5 s to 60 min	S1DXM-M2C60M-AC120V	S1DXM-M4C60M-AC120V
	0.05 min to 10 hr	S1DXM-M2C10H-AC120V	S1DXM-M4C10H-AC120V
	0.05 s to 10 min	S1DXM-M2C10M-AC220V	S1DXM-M4C10M-AC220V
200 to 220V AC	0.2 s to 30 min	S1DXM-M2C30M-AC220V	S1DXM-M4C30M-AC220V
200 to 220V AC	0.5 s to 60 min	S1DXM-M2C60M-AC220V	S1DXM-M4C60M-AC220V
	0.05 min to 10 hr	S1DXM-M2C10H-AC220V	S1DXM-M4C10H-AC220V
	0.05 s to 10 min	S1DXM-M2C10M-AC240V	S1DXM-M4C10M-AC240V
220 to 240V AC	0.2 s to 30 min	S1DXM-M2C30M-AC240V	S1DXM-M4C30M-AC240V
220 10 240V AC	0.5 s to 60 min	S1DXM-M2C60M-AC240V	S1DXM-M4C60M-AC240V
	0.05 min to 10 hr	S1DXM-M2C10H-AC240V	S1DXM-M4C10H-AC240V

## **PART NAMES**



## **OPERATION MODE AND TIME RANGE SETTING**

Operation mode	Operation mode switch
Power ON-delay	1 ON 2
Power Flicker OFF start	1 ON 2
Power Flicker ON start	1 ON 2
Power One-shot	1 ON 2

Tii	me range swit	ch
s (m) X1		m (h) X10
The time setting ranges each for 0.05 seconds an	4 types for an	

Notes: 1. The product is factory shipped with all settings on the OFF side (left).

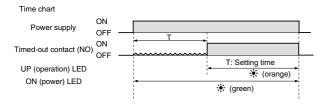
- Do not operate the switches with a sharp-edged object such as a knife blade.
- The power must be turned off when setting the time range or operation mode. Operating the switches with the power on is a cause of breakdown and malfunction.
- 4. Use a force of under  $5\,\mathrm{N}$  to operate the DIP switches when setting the time range and operation mode.

## **OPERATION MODE**

#### 1. S1DXM-A multi-range timer

#### **Power ON-delay operation**

• When power is turned on, the output contact operates after the set time. The output contact remains on until the power is turned off.

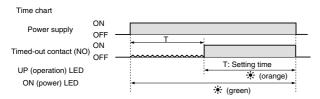


## 2. S1DXM-M multi-range timer

## **Power ON-delay operation**

[MODE] switch 1: OFF, switch 2: OFF

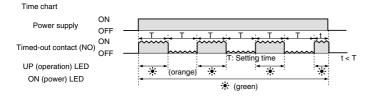
• When power is turned on, the output contact operates after the set time. The output contact remains on until the power is turned off.



## **Power Flicker ON start operation**

[MODE] switch 1: ON, switch 2: OFF

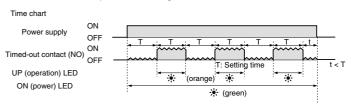
• When power is turned on, the output contact operates repeatedly at the set time. The output contact outputs at the same time power turns on.



## Power Flicker OFF start operation

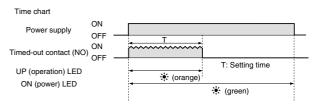
[MODE] switch 1: OFF, switch 2: ON

 When the power is turned on, the output contacts repeatedly operate at the set time. The output contact begins from the off state.



#### **Power One-shot operation** [MODE] switch 1: ON, switch 2: ON

When power is turned on, the output contact performs the on operation at the same time power turns on, only for the set time.

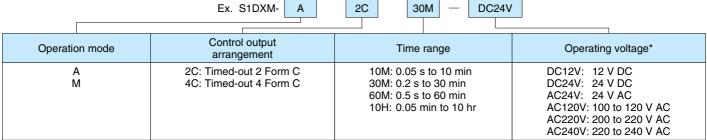


## TIME RANGE SETTING

Туре		Time	scale	Time	unit	Min. scale	Max. scale		Setting	g range									
	10M type			S	m	0.05	1	0.05 to 1s	0.5 to 10s	0.05 to 1m	0.5 to 10m								
S1DXM-A	30M type	X1	X10	S	m	0.2	3	0.2 to 3s	2 to 30s	0.2 to 3m	2 to 30m								
STDXIVI-A	60M type	\ \ \ \ \	ΧI	ΧI	ΧI	ΛI	ΧI	ΛI	^1	X10	S	m	0.5	6	0.5 to 6s	5 to 60s	0.5 to 6m	5 to 60m	
	10H type			m	h	0.05	1	0.05 to 1m	0.5 to 10m	0.05 to 1h	0.5 to 10h								
	10M type	X1	X1	V4	V4	V4	V4	V4				S	m	0.05	1	0.05 to 1s	0.5 to 10s	0.05 to 1m	0.5 to 10m
S1DXM-M	30M type								X10	S	m	0.2	3	0.2 to 3s	2 to 30s	0.2 to 3m	2 to 30m		
S I D X IVI-IVI	60M type			X10	S	m	0.5	6	0.5 to 6s	5 to 60s	0.5 to 6m	5 to 60m							
	10H type			m	h	0.05	1	0.05 to 1m	0.5 to 10m	0.05 to 1h	0.5 to 10h								

Note: The time setting range is the combination of the time scale (X1 or X10) on the dial and the time unit (s, m, or h). Example: When dial reads 1, time scale is X1 and time units is seconds, then it is 1 second.

## ORDERING INFORMATION



30M

For other operating voltage types, please consult us.

## S1DXM-A/M

## **SPECIFICATIONS**

Item				Specifi	cations					
	Rated operating	ng voltage	24VAC	100 to 120VAC	200 to 220VAC	220 to 240VAC	12VDC	24VDC		
	Rated frequen	псу		50/60Hz	common	•	-	_		
	Rated power		Max. 3 VA (at 24 VAC)	Max. 3 VA (at 100 VAC)	Max. 3 VA (at 200 VAC)	Max. 3 VA (at 220 VAC)	Max. 2 W (at 12 VDC)	Max. 2 W (at 24 VDC)		
	consumption	During time delay	Approx. 3mA	Approx. 3mA	Approx. 3mA	Approx. 3mA	Approx. 5mA	Approx. 3mA		
		After time delay	Approx. 80mA	Approx. 20mA	Approx. 13mA	Approx. 13mA	Approx. 70mA	Approx. 40mA		
Rating	Rated control	oonooity.		Time	d -out 2 Form C: 7A	250V AC (resistive	load)			
	nated control	Сараспу		Time	d -out 4 Form C: 5A	250V AC (resistive	load)			
	Operation mod	de		(Power display: ON	Power on delay l/green; Operation of		t is on): UP/orange	)		
			4 switchable c		S1D) N-delay/Power Flick l/green; Operation o					
	Operating time Power off time		Max. ±1 %	, (power off time ch	nange at the range of	of 0.1 s to 1 h), 1 s	range: Max. ±1 % a	nd 10 ms*3		
Time accuracy*1	Voltage error		Max. ±1 % (a	at the operating volt	age changes betwe	en –20 to +10%), 1	s range: Max. ±1 %	6 and 10 ms*3		
	Temperature e	error	ı	•	ambient temp. at the			)		
	Setting error				x. ±10%, 1 s range:					
	Contact arrangement		Timed-out 2 Form C, Timed-out 4 Form C							
Contact	Contact resist	ance (Initial value)	Max. 100mΩ (at 1A, 6V DC)							
	Contact materia		Timed-out 2 Form C type: Silver alloy, Au plating							
			Timed-out 4 Form C type: Silver alloy, Au plating							
Life	Mechanical (c		Min. 10 <sup>7</sup>							
	Electrical (con	,	2×10 <sup>5</sup> (at rated control capacity)							
	Vibration resistance	Functional	10 to 55Hz: 1 cycle/min double amplitude of 0.25mm (10min on 3 axes)							
Mechanical		Destructive Functional	10 to 55Hz: 1 cycle/min double amplitude of 0.375mm (1h on 3 axes)							
	Shock resistance	Destructive	Min. 98m/s² (4 times on 3 axes)							
		rating voltage range	Min. 980m/s² (5 times on 3 axes)							
	Reset time	rating voitage range	80 to 110% of rated operating voltage  Max. 0.1s							
		stance (Initial value)	Between live and dead metal parts, between input and output, between contact sets, between contacts  Min. 100 M $\Omega$ (at 500 V DC megger)							
Electrical	Breakdown voltage (Initial value)		Between live and dead metal parts: 1,500 Vrms for 1 min Between input and output: 1,500 Vrms for 1 min Between contact sets: 1,500 Vrms for 1 min Between contacts: 1,000 Vrms for 1 min							
	Max. temperat	ture rise	70°C 158°F							
	Ambient temp	erature	-10 to 50°C +14 to 122°F							
	Ambient humi	dity			35 to 85% RH (r	non-condensing)				
Operating	Air pressure				860 to 1	060 hPa				
conditions	Ripple rate			DC type only, tra	nsmission wave red	ctification (ripple rate	e: approx. 48%)*2			
	Mass (Weight)	)			Appro	x. 45 g				
	Protective con	Protective construction IEC standard: IP40 (IP50 when using ADX18008 protective cover)								

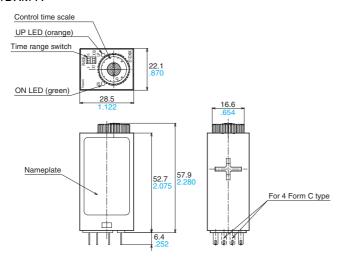
Notes: \*1. Unspecified measuring conditions are rated operating voltage (in case of DC type, ripple rate of 5% or less), ambient temp. 20°C 68°F, and power off time 1 second.

\*2. When using with a transmission wave rectification, vibration resistance and shock resistance properties worsen compared to when using a stabilized power supply.

\*3. Power one-shot 1 s range: +2% and 10 ms

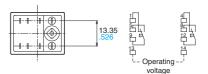
**DIMENSIONS** mm inch

#### 1. S1DXM-A

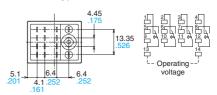


#### Tolerance: ±05 ±.020

# Terminal layouts and Wiring diagram Timed-out 2 Form C type

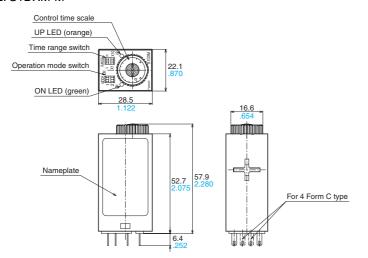


## Timed-out 4 Form C type



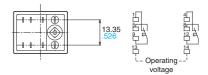
<sup>\*</sup> For the DC operating type, terminal 14 is "+" and terminal 13 is "-".

#### 2. S1DXM-M

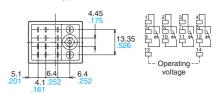


## Tolerance: $\pm 05 \pm .020$

# Terminal layouts and Wiring diagram Timed-out 2 Form C type



#### Timed-out 4 Form C type



 $<sup>^{\</sup>star}$  For the DC operating type, terminal 14 is "+" and terminal 13 is "–".

## **APPLICABLE STANDARD**

Safety standard	EN61812-1	Pollution Degree 2/Overvoltage Category II (2 Form C type); Pollution Degree 1/Overvoltage Category II (4 Form C type)
	(EMI)EN61000-4-4	
	Radiation interference electric field strength	EN55011 Group1 ClassA
	Noise terminal voltage	EN55011 Group1 ClassA
	(EMS)EN61000-6-2	
	Static discharge immunity	EN61000-4-2 4 kV contact (level 2)
		8 kV air (level 2)
	RF electromagnetic field immunity	EN61000-4-3 10 V/m AM modulation (80 MHz to 1 GHz) (level 3)
		10 V/m pulse modulation (895 MHz to 905 MHz) level 3)
EMC	EFT/B immunity	EN61000-4-4 2 kV (power supply line) (level 3)
		1 kV (signal line) (level 3)
	Surge immunity	EN61000-4-5 1 kV (power line) (level 2)
	Conductivity noise immunity	EN61000-4-6 10 V/m AM modulation (0.15 MHz to 80 MHz) (level 3)
	Power frequency magnetic field immunity	EN61000-4-8 30 A/m (50 Hz) (level 4)
	Voltage dip/Instantaneous stop/Voltage fluctuation immunity	EN61000-4-11 10 ms, 30% (rated voltage)
		100 ms, 60% (rated voltage)
		1,000 ms, 60% (rated voltage)
		5,000 ms, 95% (rated voltage)