

70	1	2	А	D	т	A2
Series	Variation	Contact Arrangement	Coil Voltage	Time Range	Aux. Switch Options	Optional Features or Enclosures
70	1 On-Delay 2 Off-Delay	2 Double Pole Double Throw 4 Four Pole Double Throw 4 Four Pole Double Throw 7 12VDC 8 60VDC 5 250VDC 7 550VDC 1 60VDC 9 16VDC	A 120V 60Hz B 240V 60Hz C 480V 60Hz D 550V 60Hz E 24V 60Hz G 240V 50Hz G 240V 50Hz H 12V 60Hz I 6V 60Hz J 208V 60Hz K Dual Voltage (combines A & B)	Models 7012, 7022,7024           A         .1 to 1 sec           B         .5 to 5 sec           C         1.5 to 15 sec           D         5 to 50 sec           E         .20 to 200 sec           F         1 to 10 min           H         3 to 30 min           I         6 to 60 min           J         3 to 120 cyc           K         1 to 300 sec	L 1 Form C** LL 2 Form C** T 1 Form C ** On-Delay Models Only	A1     Single Quick-Connect Terminals       A2     Double Quick-Connect       B     Plug-in connectors       GZ     Total Enclosure with bottom KO's       H     Hermetically Sealed       11     Tamper-Proof (Opaque)       12     Tamper-Proof (Clear)       K     Explosion-Proof       M     Dust-Tight       P     Octal Plug Adapter
	V 32VDC M 28VDC W 96VDC N 48VDC	Model 7014	<b>D</b> 10 to 100 sec	S Dial Stops W Water-Tight		
		Y 6VDC Z 220VDC	0 24VDC P 120VDC	A .2 to 2 sec B .7 to 7 sec C 2 to 20 sec	E 30 to 300 sec F 1.5 to 15 min H 3 to 30 min	X Panel Mount

Continued on next page....



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7000 Series offers distinct improvements over earlier models. The wide range of variations available, the oversize time-calibrated adjustment knobs, and modular assembly are but a few of the features designed into the 7000 Series. All components used in the manufacturing of these relays have been custom-designed for their specific role in the overall timing function—providing stability and repeat accuracy never before available in an electro-pneumatic timer.

The basic operating types are available—"On-Delay" models provide a delay period on energization, at the end of which the switch contacts transfer. De-energizing the unit during the delay period immediately recycles the unit, readying it for another full delay period on re-energization. In "Off-Delay" models, the switch transfers immediately upon energization, and the delay period does not begin until the unit is de-energized. At the end of the delay period the switch returns to its original position. Re-energizing the unit during the delay period immediately recycles the timer, readying it for another delay period on de-energization. No power is required during the timing period. Reset times (maximum): On-Delay models—.050 second; Off-Delay models—.050 second (AC); .100 second (DC).

The AGASTAT 7000 Series offers the ease of adjustment and resetting of the time period by means of a calibrated dial head. Timing is set simply by turning the dial (in either direction) to the desired time value. In the zone of approximately 25° separating the high and low ends of timing ranges A, D, E, and K, instantaneous operation (no time delay) will occur. All other ranges produce an infinite time delay when the dial is set in this zone.

Normal mounting of the unit is in a vertical position, from the back of the panel. Four tapped holes are provided in the back plate of the unit, making it interchangeable with earlier AGASTAT models. A front mounting bracket is also supplied with each basic unit, for installation from the front of the panel.

#### ON-DELAY MODEL 7012 (DELAY ON PICK-UP)

Applying continuous voltage to the coil (L<sup>1</sup>-L2) starts a time delay lasting for the preset time. During this period the normally closed contacts (3-5 and 4-6) remain closed. At the end of the delay period the normally closed contacts break and the normally open contacts (1-5 and 2-6) make. The contacts remain in this transferred position until the coil is de-energized, at which time the switch instantaneously returns to its original position. De-energizing the coil, either during or after the delay period upon re-energization, regardless of how often the coil voltage is interrupted before the unit has been permitted to "time-out" to its full delay setting.

#### OFF-DELAY MODEL 7022 (DELAY ON DROP-OUT)

Applying voltage to the coil (for at least .050 second) will instantaneously transfer the switch, breaking the normally closed contacts (1-5 and 2-6), and making the normally open contacts (3-5 and 4-6). Contacts remain in this transferred position as long as the coil is energized. The time delay begins immediately upon de-energization. At the end of the delay period the switch returns to its normal position. Reenergizing the coil during the delay period will immediately return the timing mechanism to a point where it will provide a full delay period upon subsequent de-energization. The switch remains in the transferred position.

#### FOUR POLE AGASTAT

With the addition of an extra switch block at the bottom of the basic unit, this version of the 7000 series offers four pole switching capacity with simultaneous timing or two step timing. The two step operation is achieved by adjustment to your specifications. In all other respects this 7000 series unit is identical to the other basic models of the series. This additional feature adds only  $1\frac{14}{7}$  to the height and  $\frac{16}{7}$  to the depth.

#### PANEL MOUNT AGASTAT

Combines the proven performance and reliability of the 7000 series electropneumatic operation with the modern design and adjustability of a panelmounted timer. All the time ranges are calibrated directly in linear increments. Simple single hole mounting. Specifications and operation identical to the standard 7000 series timers. To designate panel mount add "X" to part number when ordering.

#### AGASTAT 7000 SERIES TIME/DELAY/RELAY, FRONT PANEL MOUNT 8 Watts, DPDT contacts, 10 Amps (resistive)

electro sonic

e Matte, Br Br contacte, revanpe (recletive)					
Cat. No.	Input Voltage	Time Range	Option	Net Price	
TIME DELAY	TIME DELAY ON PULL-IN				
7012-AA 7012-AB 7012-AC 7012-AD 7012-AE	120VAC 120VAC 120VAC 120VAC 120VAC 120VAC	.1 to 1 Sec. .5 to 5 Sec. 1.5 to 15 Sec. 5 to 50 Sec. 20 to 200 Sec.		\$339.69 344.57 301.48 344.57 344.57	
7012-AF 7012-AH 7012-AI 7012-AK	120VAC 120VAC 120VAC 120VAC	1 to 10 Min. 3 to 30 Min. 6 to 60 Min. 1 to 300 Sec.	 	380.94 393.07 429.48 344.57	

#### AGASTAT 7000 SERIES TIME/DELAY/RELAY, FRONT PANEL MOUNT 8 Watts, DPDT contacts, 10 Amps (resistive)

o watts, DPDT contacts, To Amps (resistive)					
Cat. No.	Input Voltage	Time Range	Option	Net Price	
TIME DELA	TIME DELAY ON PULL-IN (CONTINUED)				
7012ACL	120VAC	1.5 to 15 Sec.	Aux. Switch Instant Transfer	\$380.94	
7012BC	240VAC	1.5 to 15 Sec.	—	344.57	
7012NC	48VAC	1.5 to 15 Sec.	—	373.68	
7012PA 7012PB 7012PK	125VDC 125VDC 125VDC	.1 to 1 Sec. .5 to 5 Sec. 1 to 300 Sec.		373.68 373.68 373.68	
7012PC 7012PD 7012PF 7012PJ	125VDC 125VDC 125VDC 125VDC 125VDC	1.5 to 15 Sec. 5 to 50 Sec. 1 to 10 Min. 3 to 120 Hz		373.68 373.68 410.09 373.68	
7012PJX	125VDC	3 to 120 Hz	Panel Mount Horizontal	414.93	

#### AGASTAT 7000 SERIES TIME/DELAY/RELAY, FRONT PANEL MOUNT 8 Watts, DPDT contacts, 10 Amps (resistive)

,					
Cat. No.	Input Voltage	Time Range	Option	Net Price	
TIME DELAY	ON DROP-OUT				
7022-AA	120VAC	.1 to 1 Sec.	_	\$344.57	
7022-AB	120VAC	.5 to 5 Sec.	—	344.57	
7022-AC	120VAC	1.5 to 15 Sec.	—	301.48	
7022-AD	120VAC	5 to 50 Sec.	—	344.57	
7022-AE	120VAC	20 to 200 Sec.	—	344.57	
7022-AF	120VAC	1 to 10 Min.	_	380.94	
7022-AH	120VAC	3 to 30 Min.	—	393.07	
7022-AI	120VAC	6 to 60 Min.	—	429.48	
7022-AK	120VAC	1 to 300 Sec.	—	344.57	
7022BC	240VAC	1.5 to 15 Sec.		344.57	
7022PB	125VDC	.5 to 5 Sec.	—	373.68	
7022PK	125VDC	1 to 300 Sec.		373.68	
7022PC	125VDC	1.5 to 15 Sec.	—	373.68	

#### **AUXILIARY SWITCH OPTIONS**

Auxiliary switches may be added to switch additional circuits, provide two-step timing action or furnish electrical interlock for sustained coil energization from a momentary impulse, depending on the type selected and its adjustment. Because of their simple attachment and adjustment features, they can be installed at the factory or in the field. All auxiliary switches are SPDT with contact rated at 10 amperes at 125 volts, AC.

FOR 7012 & 7012-X MODELS (T.D. on pull-in); For instant transfer use model code "L" Auxiliary switch kit. This switch is non-adjustable. For two step timing, use model code "T" Auxiliary switch kit. The first delay is independently adjustable, up to 30% of the overall delay (recommended maximum 100 seconds).

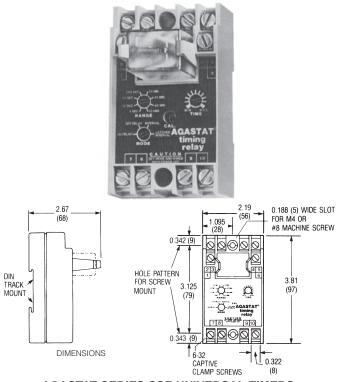
FOR 7022 & 7022-X Models (T.D. on drop-out); For either instant transfer or two step timing, use model code "T" Auxiliary switch kit. The switch is factory adjusted to give instant transfer operation, but may be easily adjusted in the field to provide two step timing. The first delay is independently adjustable, up to 30% of the overall delay (recommended maximum 100 seconds).

FOR 7012 & 7012-X MODELS (T.D. on pull-in); This Auxiliary switch provides two form C contacts for instantaneous transfer, use model code "LL" Auxiliary switch.

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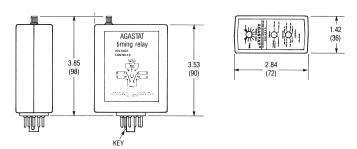
### AGASTAT SERIES SSF UNIVERSAL TIMERS

The Series SSF heavy duty timer offers four user-selectable timing modes, and a choice of eight timing ranges. One universal unit accommodates seven standard operating voltages through the selection of the appropriate plug-in DPDT output relay. In addition, SSF timers offer high repeat accuracy, outstanding transient protection and reliable performance. Designed for surface, DIN rail or machine tool relay channel mounting, they feature front screw terminals and can be precisely set by the TC-1 calibrator. Operating Modes: 1 On-Delay, 2 Off-Delay, 3 Interval, 4 Latching Interval. Mode Selection: Screwdriver adjustment; Recessed 4-position selector switch. Range Selection: Screwdriver adjustment; Recessed 8-position selector switch. Timing Adjustment: Potentiometer adjustment with reference calibrations, with recessed screwdriver slot. Timing Ranges: .1-3 sec., .33-10 sec., 1-30 sec., 4-120 sec., 33-10 min., 1-30 min., 2-60 min., and .33-10 hrs. Accuracy Overall: ±3%. Reset Time (All Modes): 0.100 sec. Relay Release Time: Types 1 and 3, 0.030 sec. (with factory installed relay). Relay Operating Time: Types 2, 3, 4, 0.040 sec. (with factory installed relay). Mounting Terminals: Surface or DIN rail mounting case with screw terminals. Output: DPDT Relay 10 amps Resistive, 28VDC/120VAC 1/3 HP, 120/240VAC 345 VA.

Cat. No.	Operating Voltage/ Description	Net Price
SSFR90A	120VAC 50/60Hz., 10 amps	\$151.08
SSFR90X*	Universal (Relay Dependent)	144.88

\*NOTE: The unit requires a user supplied P&B K10 series output relay with a coil voltage of 24, 48, 120 or 240 VAC or 24, 48 or 125VDC.

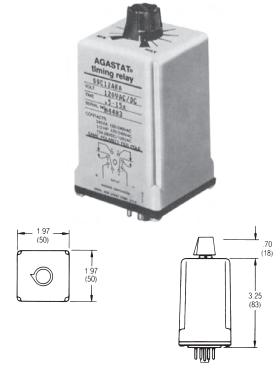




#### AGASTAT SERIES SCF MULTI-MODE MULTI-RANGE PLUG-IN TIMERS

The series SCF external plug-in timer provides a wide choice of operating voltages with a minimum of inventory—reducing maintenance and downtime costs. It offers four user-selectable timing modes and a span of 0.1 second to 10 hours through eight overlapping time ranges, plus easy screwdriver setting ±1% repeat accuracy. An external knob allows adjustment within each time range. An 11-pin octal socket is also available for surface or DIN rail mounting. The timer may be quickly and precisely set with the TC-1 calibrator. Operating Modes: 1 On-Delay, 2 Off-Delay, 3 Interval, 4 Latching Interval. Mode Selection: Screwdriver adjustment; Recessed 4-position selector switch. Time Selection: Screwdriver adjustment; Recessed 8-position selector switch. Timing Adjustment: Potentiometer adjustment with reference calibrations, with external knob. Timing Ranges: .1-3 sec., .33-10 sec., 1-30 sec., .4-120 sec., .33-10 min., 1-30 min., 2-60 min., and .33-10 hrs. Reset Time (All Modes): 0.035 sec. Mounting/Terminals: 11-Pin octal type plug for use with mating socket.

Cat. No.	Operating Voltage/ Description	Net Price
SCFRX902BA	120VAC 50/60Hz./125VDC, 5 amps.	\$180.46
ACCESSORY		
BCSF11SC	11-Pin Octal Socket For SCF.	21.01



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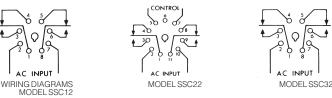
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#### AGASTAT SSC SERIES TRANSIENT PROTECTED INDUSTRIAL SOLID STATE TIMING RELAYS

The AGASTAT SSC Series Timing Relays provide industrial control designers the accuracy and reliability of military grade solid state timers at industrial price levels. Through improved circuit design, they eliminate many of the problems associated with low cost R-C timers-a transistorized voltage sensing circuit does away with large-value dropping resistors, reducing the internal heat which destroys the accuracy and shortens the life of conventional design. Current drain is correspondingly minimized-25 mA maximum for 120 VAC units. The unique circuit also eliminates the need for supplementary temperature-compensation components, providing unusual stability over a broad operating temperature range of  $-30^{\circ}$ C to  $+65^{\circ}$ C. Under typical conditions, repeat accuracy falls within ±1% of set time. SSC Series timers from Electro Sonic's stocks have a nominal operating voltage of 120 VAC (50-60 Hz), with a voltage tolerance of +10%, -15%. Other operating voltages are available to special order. Standard models are transient protected. Contacts are DPDT, rated 10 amps resistive. Dielectric strength: 1000 VAC between terminals and case between mutuallyisolated terminals. All models are housed in a nylon plug-in case, 1.97" square × 3.95" high (including adjustment knob).

#### MODEL SSC12-120 VAC 50-60 Hz & 120 VDC **DELAY ON ENERGIZATION** POTENTIOMETER ADJUST

Applying line voltage to pin #2 and #7 initiates the time delay. Contacts transfer at the end of the timing cycle. Output resets within .02 seconds (maximum) after removal of line voltage. Voltage must be removed and reapplied to recycle the timer. In contrast to conventional delay-on-energization units, this circuit incorporates protection against premature output switching when power is removed prior to time out. 8-pin octal base.

Cat. No.	Timing Range	Net Price
SSC12AAA SSC12ABA SSC12ACA	.1 to 3 Sec. .5 to 15 Sec. 1 to 30 Sec.	\$113.16 113.16 113.16
SSC12AFA SSC12AGA SSC12AIA SSC12ALA	6 to 180 Sec. 10 to 300 Sec. 2 to 60 Min. 20 Sec. to 10 Min.	110.40 113.16 113.16 113.16 113.16

#### MODEL SSC22-120 VAC 50-60 Hz & 120 VDC **DELAY ON DE-ENERGIZATION** POTENTIOMETER ADJUST

Input voltage must be applied continuously or at least 0.050 second to pins #2 and #10 before Control Switch closure. Closure of a dry switch (not supplied) across pins #5 and #7 simultaneously transfers the output and resets the timer. Maximum rest time 0.025 seconds. Switch must remain closed for at least 25 milliseconds for timer to be within specifications. Operating switch initiates the time delay, after which the output drops out. Control (switch) may be reapplied immediately to begin a new cycle. If control is re-applied during the time delay, the timer will be reset to zero but the output will remain energized. 11-pin octal base.

Cat. No.	Timing Range	Net Price
SSC22ABA SSC22ACA	.5 to 15 Sec. 1 to 30 Sec.	\$139.28 139.28
SSC22AGA	10 to 300 Sec.	139.28

#### MODEL SSC32-120 VAC 50-60 Hz & 120 VDC DELAY ON ENERGIZATION WITH INSTANT TRANSFER POTENTIOMETER ADJUST

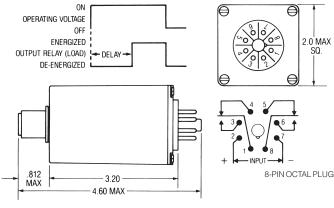
Applying line voltage to Pins #2 and #7 simultaneously transfers the output and initiates the time delay. At the end of the timing period the output returns to its original position. If line voltage is removed during or after the time delay, the output will reset within .025 seconds (maximum). To recycle the timer, line voltage must be removed and reapplied. 8-pin octal base.

Cat. No.	Timing Range	Net Price
SSC32ACA	1 to 30 Sec.	\$134.92



## AGASTAT SST SERIES TRANSIENT PROTECTED INDUSTRIAL SOLID STATE TIMING RELAYS

Fast, easy setting with time-calibrated knob is yours with these versatile timing controls. Digital timing circuitry assures high repeat accuracy. Time delays to 60 minutes. Superior transient protection. 8 or 11-pin plug-in. Rugged construction. Flame-retardant housing. Operating Voltage: 120VAC (50-60 Hz), with a voltage tolerance of ±10%. Standard models are transient protected. Dielectric: 1500 volts RMS min. @ 60 Hz between contacts and circuitry and between line inputs and control circuits



ALL DIMENSIONS IN INCHES

#### MODEL SST1-120 VAC 50-60 Hz.

## **ON DELAY**

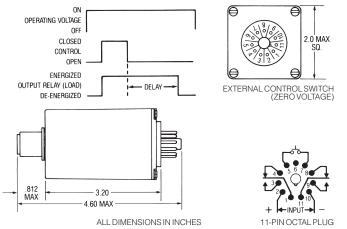
The preset time-delay begins when operating voltage is applied. At the end of the preset time delay, the output relay (load) is energized and remains energized until operating voltage is removed. To reset, remove operating voltage.

Cat. No.	Timing Range	Net Price
SST12AAA SST12ADA	0.1-10 Sec. 1.8-180 Sec.	\$56.02 56.02
SST12AEA	3-300 Sec.	57.42



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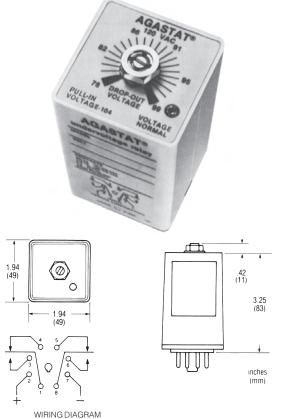




### MODEL SST2-120 VAC 50-60 Hz. OFF DELAY

Operating voltage is applied continuously. The output relay (load) is energized when a normally-open control switch is closed (the load remains energized as long as the control switch is closed). When the control switch is re-opened, the preset time-delay begins. At the end of the preset time-delay, the output relay (load) de-energizes. If the control state is reversed during the time-delay period, the delay generating circuit automatically resets to zero. To reset, close the control switch

Cat. No.	Timing Range	Net Price
SST22AAA SST22ADA	0.1-10 Sec. 1.8-180 Sec.	\$63.04 63.04
SST22AGA	18 Sec30 Min.	63.04



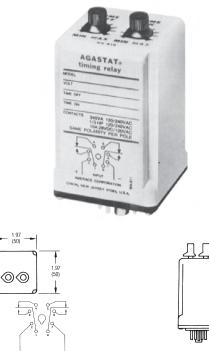
SOCKETS AVAILABLE 8-PIN OCTAL TYPE SOCKET: BCSA08SC

### AGASTAT SERIES VMA UNDERVOLTAGE RELAY

MANU (344) CODE

The AGASTAT solid state undervoltage relays protect valuable equipment in DC or single phase AC systems. Two features assure operation only when adequate voltage is available: a calibrated adjustment for the drop out point and a fixed, rather than a floating, pick/up point. The solid state sensing circuit is coupled to an internal DPDT relay for positive load control, with an integral time delay to prevent nuisance tripping. A built in LED signals adequate voltage. Solid state circuitry accuracy and long life. Automatic reset minimizes equipment downtime. PICK-UP: VMAXAA 104 Volts. DROP-OUT RANGE: VMAXAA 78-99 Volts. OPERATING TEMPERATURE RANGE: -30°C to +65°C. POWER CONSUMP-TION: 4 Watts max. DIELECTRIC: 1480 VOLTS. OPERATING LIFE OPERA-TIONS: Electrical 10,000,000; Mechanical 100,000

Cat. No.	Description	Net Price
VMAXAA	120VAC	\$152.35



WIRING DIAGRAM SOCKETS AVAILABLE 8-PIN OCTAL TYPE SOCKET: BCSA08SC

#### AGASTAT SRC SERIES DUAL FUNCTION **REPEAT-CYCLE TIMER**

The Series SRC Dual-Function Repeat-Cycle Timer permits the industrial-control designer to simplify and cost-reduce his systems by combining in one unit both ON and OFF control of a load. It is for applications requiring repetitive ON/OFF cycles of independently variable durations. Advanced circuitry uses high-rel IC's and premium discrete-component protective and timing circuits for high accuracy, stability, and long-term reliability. Its design also provides exceptional immunity to line transient, even in high-stress environments. A premium-quality timer at an industrial-grade price. Time Adjustment: Dual internal potentiometers with individual knobs. Nylon case with 8-pin phenolic base. Output: DPDT Relay 10 amps., resistive, 28 VDC/120 VAC. ½ HP, 120/240 VAC. Currect Drain: Output relay energized 0.015 amp, de-energized 0.005 amp.

#### 120 VAC & DC

Cat. No.	Off-Time* Timing Range	Net Price
SRC72ABBA	.5 to 15 sec.	\$169.85
SRC72ANNA	1 to 30 min.	169.85
*Lease at a solar for a data to a d O a	The Developer (allow A discourse D	EL. 450041.

<sup>1</sup>Insert code for desired On-Time Range as follows: A-.1 to 3 Sec.; B-.5 to 15 Sec.; C-1 to 30 Sec.; D-2 to 60 Sec.; E-4 to 120 Sec.; F-6 to 180 Sec.; G-10 to 300 Sec.; 1-2 to 60 Min.; K-6 to 180 Cycles.; L-20 Sec. to 10 Min.; M-30 Sec. to 15 Min.; N-1 to 30 Min.; P-.1 to 10

680

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3.7 MAX





#### AGASTAT SCE SERIES TRUE OFF-DELAY TIMING RELAY

The AGASTAT SCE Series industrial timing relays provide true off-delay. Timing is initiated upon removal of power. These timers offer excellent transient immunity, and delays of up to 10 minutes. Repeat accuracy is typically better than  $\pm 1\%$ .

Upon application of operating voltage, output relay contacts transfer. When operating voltage is removed, after the time delay period, output relay contacts release. If operating voltage is re-applied prior to expiration of the delay period, the delay will be cancelled and output relay contacts will remain transferred.

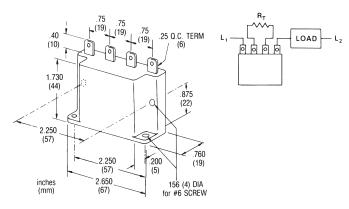
**OPERATING VOLTAGE:** 120V 50/60 Hz or 125 VDC (+10, -15%). **ACCURACY:** Repeat accuracy ±1%. **TIME ADJUSTMENT:** Knob adjustment. **MOUNTING/TERMINALS:** Eight pin octal type plug.

#### AGASTAT SCE SERIES TRUE OFF-DELAY TIMING RELAY

Cat. No.	Timing Range	Operating Range	Net Price
SCERX22AAA SCERX22ABA SCERX22ACA	0.1 to 3 sec. 0.5 to 15 sec. 1 to 30 sec.	120V 50/60 Hz or 125 VDC	\$163.22 163.22 163.22
SCERX22AGA	10 to 300 sec. 20 sec. to 10 min	120V 50/60 Hz or 125 VDC	163.22 163.22

NOTE: Knob Adjust.





#### AGASTAT VTM IN-LINE TIMING MODULE

The **AGASTAT VTM** in-line Timing Module provides, in a simple, compact design, remarkable economy, exceptional simplicity, and unprecedented application flexibility. Wired in series with a load circuit, it will control inductive loads of up to 1 Amp, RMS AC or DC. Connecting a resistor of a predetermined value across the centre terminals provides tamperproof delay setting. The VTM will accommodate power-circuit voltages from 24V to 240V, RMS AC or DC. Cost is low compared with conventional TDR's. **OUTPUT**: Solid state SPNO, 1 ampere inductive at nominal operating voltage. **RESISTIVE RATING**: 166 mA AC, 250 mA DC. **INRUSH**: 10 amps for .010 sec. **TIMING ADJUSTMENT**: The time delay period is determined by the connection of a resistor across the centre two terminals. Add 10K ohms of resistance for every additional second of delay required. Maximum delay 1000 seconds. FOR EXAMPLE: 5 seconds = 40K ohms, 10 seconds = 90K ohms. When using variable resistance on centre terminals, lead length must not exceed 6". **CURRENT DRAIN**: .002 amp. (max.). **TERMINALS**: Four ¼" quick-connect terminals for input line, load output and timing resistor connection. **ACCURACY REPEAT OVERALL**: ±2%; **RESET TIME, SECONDS**: 0.1; **TEMPERATURE RANGE, OPERATING**: -30°C to +65°C.

#### AGASTAT VTM SERIES TIMING MODULES

Cat. No.	Input Voltage	Mode of Operation	Net Price
VTM-1	24-240V AC/DC	ON DELAY—VTM-1 in-line timing module is wired in series with the load circuit. Time delay is initiated when power is applied to the series network. Connecting a resistor across the cen- tre terminals provides tamper-proof setting of time delay from 1-1000 seconds.	\$55.43



## AGASTAT VTM SERIES INDUSTRIAL GRADE SOLID STATE MINIATURE TIMING MODULES

The AGASTAT VTM Industrial Grade Solid State Miniature Timing Modules are designed for demanding industrial applications. Time delays to 10 hours. Reliable solid state timing circuitry. Superior transient protection. Compact design. Flame-retardant, solvent-resistant housing. **OUTPUT** VTM1, VTM2, VTM3, VTM4 and VTM7: Solid State, SPNO, 1 amp. @ nominal. **INRUSH:** Not to exceed 20 amps. for 1 cycle, non-repetitive. **TIMING ADJUSTMENT** VTM1, VTM2, VTM3, VTM4 and VTM7: External Potentiometer or Resistor. **CURRENT DRAIN** VTM1: 2mA max., VTM2, VTM3, VTM4 and VTM7: Less than 5mA. **MOUNTING/TERMINALS:** Surface mount with one #8 screw ¼″ × 0.032″ male quick-connect terminals. **REPEAT ACCURACY:** ±1% at constant temperature. **RESET TIME** VTM1: 100 milliseconds max. before time-out, 10 milliseconds max. after time-out, VTM2, VTM3 and VTM4: 50 milliseconds max.. **OPERATING TEMPERATURE:** –40°F to +150°F (–40°C to +65.5°C).

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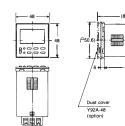
# Omron Industrial Automation





CONNECTING SOCKET FOR H3RN TIMERS			
	Use With		
Cat. No.	Solid State Timer	Net Price	
TRACK MOUNTING/FRONT CONNECTING SOCKET			
P2RF-05-E	H3RN-1/-11	\$6.10	
P2RF-08-E	H3RN-2/-21	10.50	





DIMENSION (ALL UNITS IN MM) H5F-B (FLUSH MOUNTING TYPE)

### **H5F DAILY TIMER** FOR PRECISE TIMER CONTROL

#### FEATURES:

Precise control of both regular and special (e.g., half-day operation) ON/OFF times.
 Can be set for timed or pulsed operation and for multiple-day operation
 Two mounting types available: flush or track mounting.

- Timing chart displayed for at-a-glance confirmation.
  DIN-sized 48 x 48 mm.
- Pulse duration from 1 s to 59 m

#### DIGITAL DAILY TIME CLOCK

Cat. No.	Timing Function	Contact Type	Supply Voltage	Net Price
H5F-B	On/Off Daily Operation	15A-SPST-NO	100 to 240 VAC	\$185.00
H5F-KB	On/Off Daily Operation	15A-SPST-NO	100 to 240 VAC	185.00



### **H5S TIMER** PROVIDES PROMPTED PROGRAMMING, FLEXIBILITY IN PROGRAMS WITHIN THE WEEK

### FEATURES:

- AM/PM display
  24 program steps with quartz accuracy.
  A different program possible each day. Backup battery protects memory for 5 years.
- Field-adjustable ON/OFF cycle and pulse output.
- Easy to use prompted programming
  Pulse duration from 1 s to 59 m
- Protective cover and other accessories may be ordered separately

#### DIGITAL WEEKLY TIME CLOCKS

Cat. No.	Timing Function	Contact Type	Supply Voltage	Net Price
	On/Off, Cycle Operations up to one week	15A-SPST-N.O.X2 15A-SPST-N.O.X2		\$287.00 287.00

#### ACCESSORIES

Description	Net Price
Hard Plastic Cover	\$9.90
Track Mounting Adapter for H5S-FB	9.90
Mounting Track 50 cm (1.64 ft) length	9.30
1 m (3.28 ft) length	15.60
End plate	2.00
	Hard Plastic Cover Track Mounting Adapter for H5S-FB Mounting Track 50 cm (1.64 ft) length 1 m (3.28 ft) length

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## H5CN 1/16 DIN, QUARTZ TIMER WITH FOUR-DIGIT LED DISPLAY

#### FEATURES:

- Five vide ranges to choose from
  Wide-range AC or DC supply voltages
  Elapsed time (UP) or time remaining (DOWN) display available
  Selectable no-voltage reset and gate inputs expand capabilities
  Memory protection circuit available on AC models; order back-up battery separately

from accessories • Easy-to-read 8 mm-high LED display

• Panel mounting adapter, sockets, and accessories may be ordered separately

Cat. No.	Timing Function	Display Type	Net Price
H5CN-XAN-AC100/240	ON-Delay	Elapsed time (up)	\$231.00
H5CN-XBN-AC100/240	ON-Delay	Elapsed time (up)	231.00
H5CN-XCN-AC100/240	ON-Delay	Elapsed time (up)	231.00
H5CN-YAN-AC100/240	ON-Delay	Time Remaining (down)	231.00
H5CN-YBN-AC100/240	ON-Delay	Time Remaining (down)	231.00
H5CN-YCN-AC100/240	ON-Delay	Time Remaining (down)	231.00
H5CN-YDN-AC100/240	ON-Delay	Time Remaining (down)	231.00

Terminal Form = 8-pin Round Socket, Contact Type = SPDT Relay

#### TIMER SOCKETS

#### **OMRON TIMER SOCKET SELECTION GUIDE**

Cat. No.	Description	Net Price		
SOCKETS FOR	SOCKETS FOR H3G-8A, H3G-8C			
PF083A-E	Track Mounting, Top Screw terminals (Molded stand-off ring)	\$7.10		
PF085A	Track Mounting, Top Screw terminals	10.10		
SOCKETS FOR	H3Y2			
PYF08A-E PY08 PY08-0	Track Mounting, Top Screw terminals Back Mounting, Solder Terminals Back Mounting, PCB Terminals	6.10 2.50 2.50		
SOCKETS FOR	H3Y-4			
PYF14A-E PY14 PY14-0	Track Mounting, Top Screw terminals Back Mounting, Solder Terminals Back Mounting, PCB Terminals	9.80 2.90 2.90		
8-PIN SOCKETS FOR H3BF-8, H3BH-8, H3BH-8R, H3CA-8, H3CA-8H, H3C4- A8, H3CR-H8RL, H3CR-H8L, H3CR-F8, H3CR-F8N, H3CR-F8300, H3CR-				
P2CF-08	Bottom surface or track mounting, top screw terminals	9.80		
P3G-08	Back mounting, for use with Y92F-30 mounting adapter, bottom screw terminals	14.90		
11-PIN SOCKETS FOR H3CA-A, 83CR-A, H3CR-F, H3CR-FN TIMERS				
P2CF-11	Bottom surface or track mounting, top screw terminals	11.70		
P3GA-11	Back mounting, for use with Y92F-30 mounting adapter, bottom screw terminals	17.10		

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