

Digital Daily Time Switch H5F

Daily Time Control with Simple Operations (Operation Day Selection Possible)

- Up to 12 ON/OFF operations (24 for pulse-output operation).
- Special holidays can be handled easily with the holiday setting function.
- Adjustments for sudden schedule changes can be made easily using output override and automatic return operation.
- The operation program can be checked easily with the program check function.
- Enables pulse output operation and summer time setting.
- Incorporates finger-safe terminals.
- Conforms to UL, CSA, and CE marking.
- Meets a variety of mounting requirements: flush mounting, surface mounting, and DIN track mounting.



Model Number Structure

Model Number Legend

H5F-□□B
1 2

1. Mounting method

- None: Flush mounting
F: Surface mounting
K: Surface mounting/track mounting

2. Language

- B: English

Ordering Information

List of Models

Wiring	Mounting method	Model
Screw terminals	Flush mounting	H5F-B
	Surface mounting	H5F-FB
	Surface mounting/track mounting	H5F-KB

Accessories (Order Separately)

Name		Models
Soft cover		Y92A-48F1
Hard cover	For H5F-B	Y92A-48
	For H5F-FB/-KB	Y92A-48E (See note 1.)
Flush Mounting Adapter (See note 2.)		Y92F-30
Mounting Track	50 cm (l) × 7.3 mm (t)	PFP-50N
	1 m (l) × 7.3 mm (t)	PFP-100N
	1 m (l) × 16 mm (t)	PFP-100N2
End Plate		PFP-M
Spacer		PFP-S

Note: 1. Supplied with H5F-KB model.

2. Supplied with H5F-B (flush-mounting) model.

Specifications

■ Ratings

Rated supply voltage	100 to 240 VAC (50/60 Hz)
Operating voltage range	85% to 110% of rated supply voltage
Power consumption	Approx. 2.4 VA at 264 VAC
Control outputs	Contact output: SPST-NO, 15 A at 250 VAC, resistive load, 10 A at 24 VDC, resistive load Minimum applied load: 100 mA at 5 VDC (failure level: P, reference value) NEMA A300 Pilot Duty, 1/3 HP at 120 VAC
External connections	Screw terminals (M3.5 screw)
Terminal screw tightening torque	0.98 to 1.17 N · m

■ Characteristics

Accuracy of operating time	±0.01% ±0.05 s max. (see note 1)	
Setting error		
Influence of voltage		
Influence of temperature		
Cyclic error	±15 s per month (at 25°C)	
Memory protection	Continuous use: 5 years min. (at 25°C); Power-interruption rate of 50%: 10 years min. (at 25°C) (see note 2) (lithium battery)	
Insulation resistance	100 MΩ min. (between current-carrying terminals and exposed non-current-carrying metal parts, between operating power supply circuit and control output circuit and between non-continuous contacts)	
Dielectric strength	2,000 VAC, 50/60 Hz for 1 min (between current-carrying terminals and exposed non-current-carrying metal parts and between operating power supply circuit and control output circuit) 1,000 VAC, 50/60 Hz for 1 min (between non-continuous contacts)	
Noise immunity	1.5 kV (between power terminals) Square-wave noise by noise simulator (pulse width: 100 ns/1 μs, 1-ns rise)	
Vibration resistance	Destruction:10 to 55 Hz with 0.375-mm single amplitude, four cycles each in three directions (8 minutes per cycle) Malfunction:10 to 55 Hz with 0.25-mm single amplitude for 10 minutes each in three directions	
Shock resistance	Destruction:300 m/s ² 3 times each in 6 directions Malfunction:100 m/s ² 3 times each in 6 directions	
Ambient temperature	Operating: -10°C to 55°C (with no icing) Storage: -25°C to 65°C (with no icing)	
Ambient humidity	Operating: 35% to 85%	
Life expectancy	Mechanical (at 20°C): 100,000 operations min. Electrical (at 20°C): 50,000 operations min. (15 A, 250 VAC, resistive load) 50,000 operations min. (1 HP, 250 VAC, motor load) 50,000 operations min. (10 A, 250 VAC, inductive load (cosφ = 0.7)) 50,000 operations min. (100 W, 100 VAC, lamp load) 10,000 operations min. (300 W, 100 VAC, lamp load)	
Approved safety standards	UL508/Listing, CSA C22.2 No. 14, conforms to EN61010-1 (Pollution degree 2/overvoltage category II) Conforms to VDE0106/P100 (finger protection). Conforms to Electrical Appliance and Material Safety Law (for Japan)	
EMC	(EMI) Emission Enclosure: Emission AC mains: (EMS) Immunity ESD: Immunity RF-interference: Immunity Conducted Disturbance: Immunity Burst: Immunity Surge: Immunity Voltage Dip/Interruption: Immunity Magnetic Power Field:	EN61326 EN55011 Group 1 class A EN55011 Group 1 class A EN61326 EN61000-4-2: 4 kV contact discharge (level 2) 8 kV air discharge (level 3) 10 V/m (Amplitude-modulated, 80 MHz to 1 GHz, 1.4 to 2 GHz) (level 3) EN61000-4-6: 10 V (0.15 to 80 MHz) (according to EN61000-6-2) EN61000-4-4: 2 kV power-line (level 3) 1 kV I/O signal-line (level 4) EN61000-4-5: 1 kV line to lines (power and output lines) (level 2); 2 kV line to ground (power and output lines) (level 3) EN61000-4-11: 0.5 cycle, 100% (rated voltage) EN61000-4-8: 30 A/m
Case color	Light gray (Munsell 5Y7/1)	
Weight	H5F-B: approx. 115 g; H5F-KB: approx. 160 g; H5F-FB: approx. 130 g	

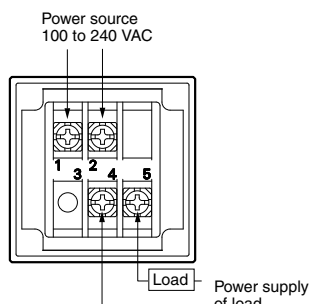
- Note:**
- The total error including the repeat accuracy, setting error, variation due to voltage change, and variation due to temperature change is ±0.01%±0.05 s max. ±0.01% also indicates an error in the time interval of a set time.
 - The total time when power is not being supplied.

Connections

Terminal Arrangement

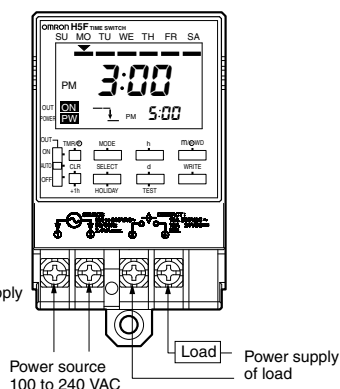
Flush Mounting Models H5F-B

(Rear View)



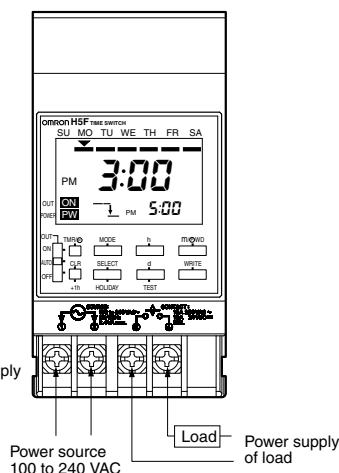
Surface Mounting Models H5F-FB

(Front View)



Surface Mounting/Track Mounting Models H5F-KB

(Front View)



Note: 1. The Time Switch uses M3.5 terminals.

2. The Time Switch output is no-voltage contact output. An external power supply is required to drive the load.
3. Applicable wire: 600-V vinyl-insulated wire (solid wire or twisted wire, copper), 14 to 24 AWG, 2 wires max. per terminal.
4. Applicable tightening torque: 0.98 to 1.17 N·m.
5. Recommended fuse: T2A, 250 VAC, time delay, low breaking capacity.

Operation

Operation

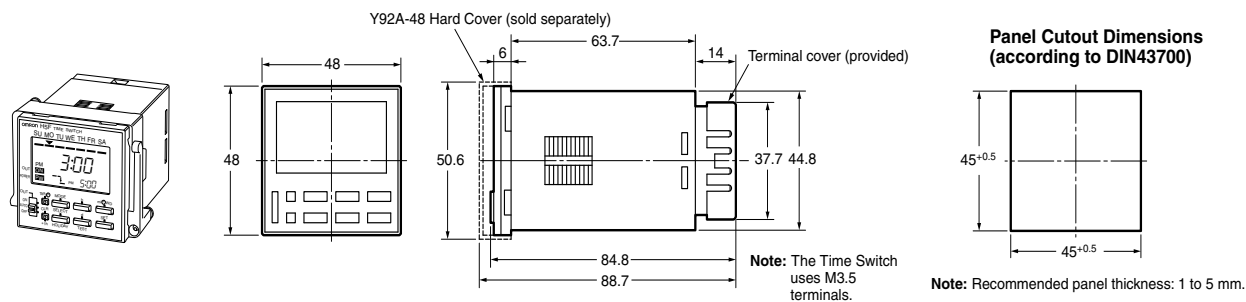
Operation method	Digital quartz
Time range	24 h × 7 days (Operation days can be specified.)
Operation	<ol style="list-style-type: none"> 1. Daily operation (Multiple-day operation possible.) 2. Pulse-output operation (Pulse width can be set in units of 1 s from 1 to 59 s and in units of 1 min from 1 to 60 min.) 3. Partial operation on specified day (One or some of the operations for certain days can also be executed on other days.) 4. Forced ON/OFF operation 5. Holiday operation 6. Output override and automatic return operation
Display	<ol style="list-style-type: none"> 1. Day, hours (12-hour (am/pm) or 24-hour clock), minutes (0:00 to 11:59 a.m./ 0:00 to 11:59 p.m., 0:00 to 23:59) 2. Digital display by LCD. Character height: 8 mm 3. Digital display of present time and time schedules for operation 4. Timing chart display of present time and time schedules for operation
Other functions	Program check function, summer time function
Number of circuits	1 independent circuit
Minimum setting unit	1 min
Minimum set interval	1 min
Number of operations that can be set	24 (see note)

Note: Up to 12 ON/OFF operations are possible per day. (For pulse-output operation, the number is 24.)

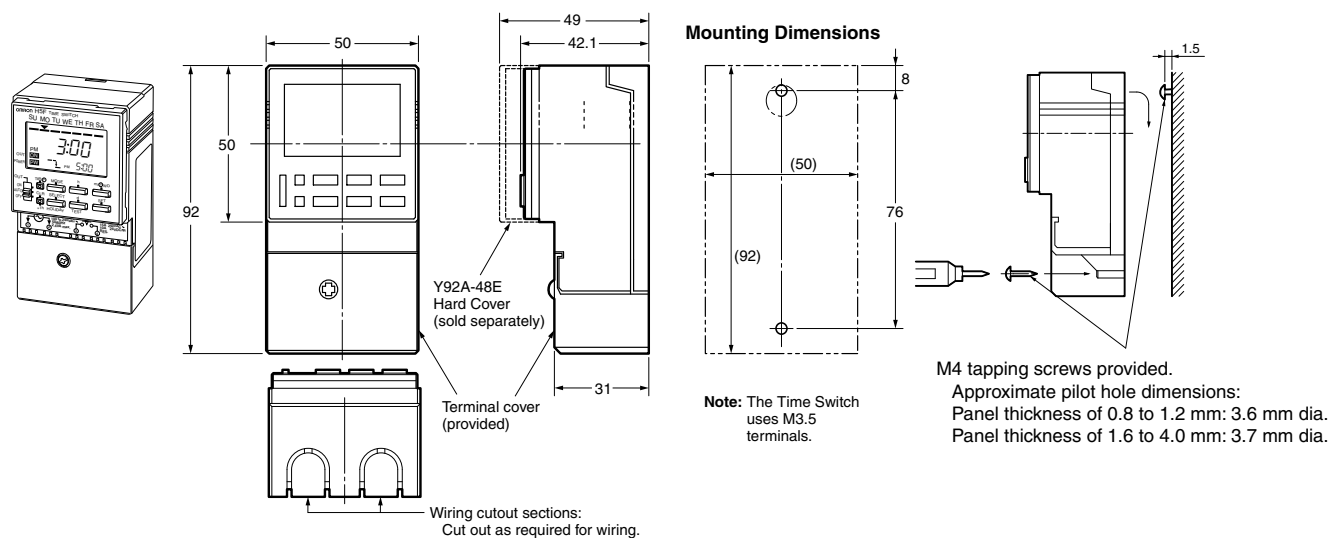
Dimensions

Note: All units are in millimeters unless otherwise indicated.

H5F-B (provided with Y92F-30 Flush Mounting Adapter) (Flush Mounting)



H5F-FB (Surface Mounting)



H5F-KB (Surface/Track Mounting)

