# Grässlin Electronic Controls

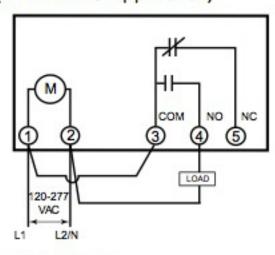
Panel, Surface/DIN Rail or Flush Mount - 24-Hour or 7-Day



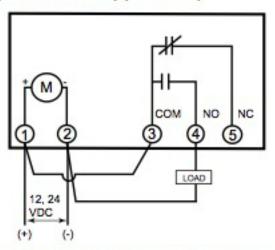
FM1D14

### Wiring Diagrams

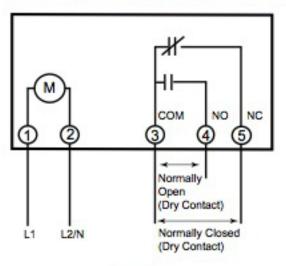
Typical Wiring (24-277 VAC Application)



Typical Wiring (12/24 VDC Application)



NO & NC Switching Configuration





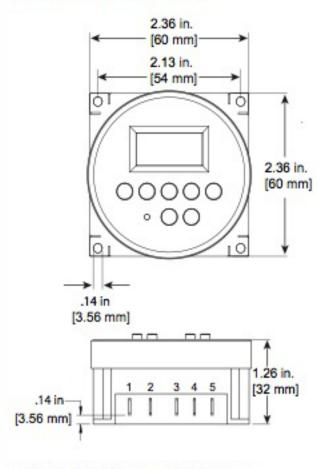
#E10694



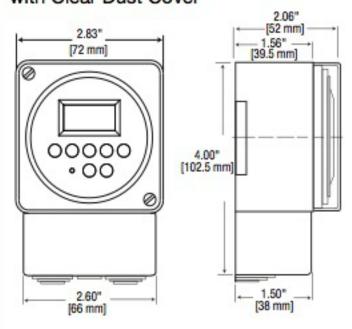
Ratings	
Supply Voltage	12 VDC, 24 VAC/VDC, 120-277 VAC, 50/60 Hz
Power Consumption	1.4 W
Switch Type	SPDT
Contact Ratings (NO)	1007/00mi C
General Purpose	15 A, 277 VAC
Tungsten	1000 W, 120 VAC
Ballast	8 A, 277 VAC
Pilot Duty	B300
Electronic Ballast	4.9 A, 120 VAC
Motor	10 FLA, 60 LRA @ 250 VAC; 1/2 HP @ 120 VAC; 1 HP @ 250 VAC
Contact Ratings (NC)	
General Purpose	15 A, 277 VAC
Resistive	12 A, 24 VDC
Ballast	8 A, 120 VAC
Motor	10 FLA, 60 LRA @ 250 VAC; 1/2 HP @ 120/240 VAC
Operating Temperature	-40° F to 131° F (-40° C to 55° C) Limited display function at -13° F
Cut-out Dimensions (Flush Mount) H x W	2 %" x 2 %" (66 mm x 66 mm)
Wiring Terminals	200 300 300 20 20 20
FMD14, FMD14E	1/4" quick connect terminals
FMD14A	Screw terminals for #24 to #10 AWG Wire
Shipping Weight	FM1D14 .23 lbs; FM1D14A .53 lbs; FM1D14E .26 lbs
Warranty	1-year limited

#### **Dimensions**

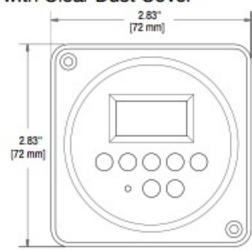
#### FM1D14 Panel Mount



#### FM1D14A Surface/DIN Rail with Clear Dust Cover



#### FM1D14E Flush Mount with Clear Dust Cover



# FM1D14 Series

# 15 A, 1-Circuit Timer Modules

The FM1D14 Series is a great value electronic time-based control solution for ventilating, heating, cooling, lighting or other electrical loads in commercial and industrial applications. These one channel time switches are programmable for 24-hour or 7-day schedules. The FM1D14 series is intended for either panel, surface, flush or DIN rail mounting. Flush and surface/DIN rail (A & E models) are completely enclosed in a plastic housing and include a terminal cover, dust cover and subbase for installation and hard wiring.

#### **Applications**

The FM1D14 Series Electronic Time Control is a light duty commercial time switch ideal for 12 VDC, 24 VAC/VDC or 120-277 VAC singlephase applications such as:

- Generator exercising
- · Scheduling occupied/unoccupied ventilation system operation
- Parts washer Commercial refrigeration
- Pumps/motors/fans control HVAC control circuits
- Photovoltaic control Landscape lighting Security gates

#### **Features**

- 24-Hour or 7-day applications
- 14 Setpoint programs
- Easy to program
- Manual override with status indication
- Self-recharging battery with backup protection up to 2500-hours
- LCD display
- · 5 Preset adjustable block programs
- A & E models come with clear dust cover

Model #	Mounting	Input Voltage	Programs
FM1D14-12U		12 VDC, 50/60 Hz	14
FM1D14-24U	Panel	24 VAC/VDC, 50/60 Hz	14
FM1D14-AV-U		120-277 VAC, 50/60 Hz	14
FM1D14A-12	100,000	12 VDC, 50/60Hz	14
FM1D14A-24	Surface/ DIN Rail	24 VAC/VDC, 50/60Hz	14
FM1D14A-AV		120-277 VAC, 50/60Hz	14
FM1D14E-12		12 VDC, 50/60Hz	14
FM1D14E-24	Flush	24 VAC/VDC, 50/60Hz	14
FM1D14E-AV		120-277 VAC, 50/60Hz	14

#### Accessories

Surface/DIN Rail Mount Kit	FM-SU
Flush Mount Kit	FM-FU
Clear Dust Cover for Panel Mount Timers	DC-FME

#### SPECIFIERS GUIDE

Furnish and install a Grässlin FM1D14\_\_\_\_24-Hour/7-Day Electronic Time Switch. This 1-circuit control shall have 24-Hour/7-Day programming, 7 ON and 7 OFF setpoint programs, and five preset block programs to allow a selection of any combination of days for different weekday schedules. The LCD shall display time of day in AM/PM format. A Daylight Saving Time Adjustment button shall also be provided. The time switch will be programmable to-the-minute and also offer a manual override for temporary ON/OFF to the next scheduled event. The LCD shall provide load status indication. The SPDT relay output will be rated for 15 A General Use @ 277 VAC. For carry-over, the timer module shall have a self-recharging battery with 2500 hour reserve carry-over. The time switch shall be\_\_\_\_\_(Panel) (Surface/DIN Rail), or (Flush) Mountable.



2.37° 60.1 mm

\_\_ 1.56" \_\_ [39.5 mm]

4.00" [102.5 mm

**Dimensions** 

FM1D20 Panel Mount

2.12° 53.7 mm

000,00

- Ø.13\* 3.4 mm

with Clear Dust Cover

2.83"

[72 mm]

000,00

[66 mm]

FM1D20E Flush Mount with Clear Dust Cover

FM1D20A Surface/DIN Rail

## FM1D20 Series

## 16 A, 1-Circuit Timer Modules

The FM1D20 Series Electronic Time Controls are for ventilating, heating, cooling, lighting or other electrical loads in commercial and industrial applications. These one-channel time switches are programmable for 24-hour or 7-day schedules. They are intended for either panel, surface, flush, or DIN rail mounting. Flush and surface/DIN rail (A & E models) are completely enclosed in a plastic housing and include a terminal cover, dust cover and subbase for installation and hard wiring.

#### **Applications**

These light-duty, commercial time switches are ideal for 24 VAC/VDC or 120, 240 VAC single phase applications, such as:

- · Generator exercising
- Scheduling occupied/unoccupied ventilation system operation
- Parts washer Commercial refrigeration
- Pumps/motors/fans control HVAC control circuits
- Lighting control
   Landscape lighting
   Security gates

#### **Features**

- 24-Hour or 7-day applications
- 20 Setpoint programs
- Three preset adjustable block programs
- Easy-to-follow menu driven programming
- Manual override with status indication
- Battery backup
- Large LCD
- Daylight Saving Time adjustment
- A & E models come with clear dust cover

Model #	Mounting	Voltage	Programs
FM1D20-24U		24 VAC/VDC, 50/60Hz	20
FM1D20-120U	Panel	120 VAC, 50/60Hz	20
FM1D20-240U		240 VAC, 50/60Hz	20
FM1D20A-24		24 VAC/VDC, 50/60Hz	20
FM1D20A-120	Surface/ DIN Rail	120 VAC, 50/60Hz	20
FM1D20A-240		240 VAC, 50/60Hz	20
FM1D20E-24		24 VAC/VDC, 50/60Hz	20
FM1D20E-120	Flush	120 VAC, 50/60Hz	20
FM1D20E-240		240 VAC, 50/60Hz	20

## Accessories

Surface/DIN Rail Mount Kit	FM-SU
Flush Mount Kit	FM-FU
Clear Dust Cover for Panel Mount Timers	DC-FME

#### SPECIFIERS GUIDE

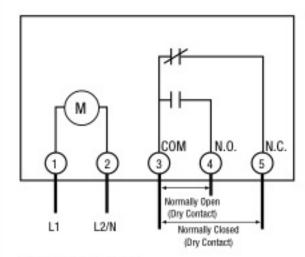
Furnish and install a Grässlin FM1D20\_\_\_\_24-Hour/7-Day Electronic Time Switch. This 1-circuit control shall have 24-Hour/7-Day programming, 10 ON and 10 OFF setpoint programs, and three preset block programs to allow a selection of any combination of days for different weekday schedules. The LCD shall display time of day in AM/PM or 24-Hour (military time) format. A Daylight Saving Time Adjustment button shall also be provided. The time switch will be programmable to-the-minute and also offer a manual override for temporary ON/OFF to the next scheduled event. The LCD shall provide load status indication. The SPDT relay output will be rated for 16 A Resistive @277 VAC. Reserve carry-over of 7 years (non-replaceable, non-rechargeable battery). The time switch shall be\_\_\_\_\_\_(Panel), (Surface/DIN Rail) or (Flush) Mountable.



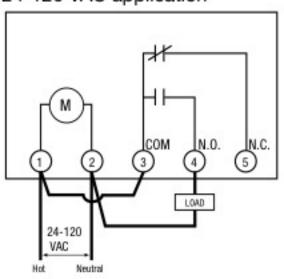
FM1D20

## Wiring Diagrams

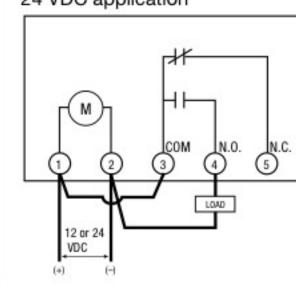
NO/NC Switch Configuration

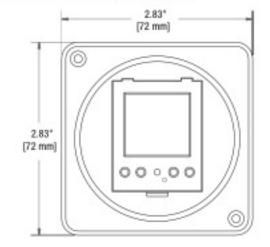


Typical wiring 24-120 VAC application



Typical wiring 24 VDC application









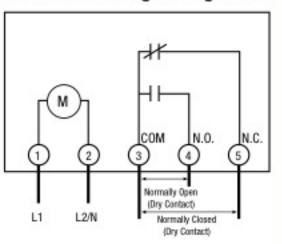
#210054	
Ratings	
Supply Voltage	24 VAC/VDC, 120, 240 VAC, 50/60 Hz
<b>Power Consumption</b>	4 VA
Switch Type	SPDT
Contact Ratings (NO)	
Resistive	16 A, 277 VAC
Tungsten	600 W, 120 VAC; 1000 W, 240 VAC
Ballast	12 A, 120 VAC; 8 A, 240 VAC
Pilot Duty	360 VA, 120 VAC; 720 VA, 240 VAC
Motor	½ HP, 120 VAC; 1 HP, 240 VAC
Contact Ratings (NC)	
Resistive	16 A, 277 VAC
Pilot Duty	8 A, 24 VDC
	360 VA, 120 VAC
Operating	-13° F to 131° F (-25° C to 55° C)
Temperature:	Limited display function at -13°
Cut-out Dimensions (Flush)	2 %" x 2 %" (66 mm x 66 mm)
HxW	
Wiring Terminals	
FM1D20, FM1D20E	1/4" quick connect terminals
FM1D20A	Screw terminals for #24 to #10 AWG Wire
Shipping Weight	.10 lbs (FM1D20A .53 lbs) (FM1D20E .26 lbs)
Warranty	1-year limited



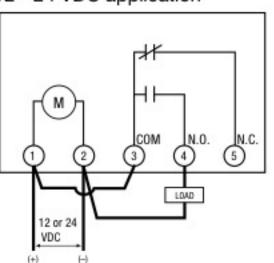
FM1D50

### **Wiring Diagrams**

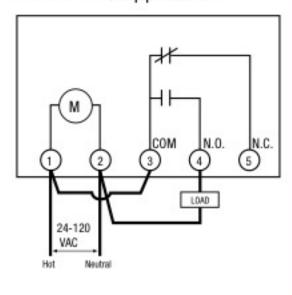
NO/NC Switching Configuration



Typical wiring 12 - 24 VDC application

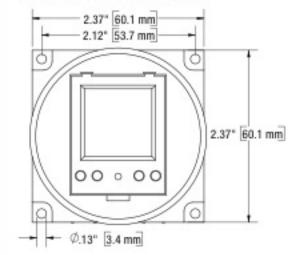


Typical wiring 24-120 VAC application

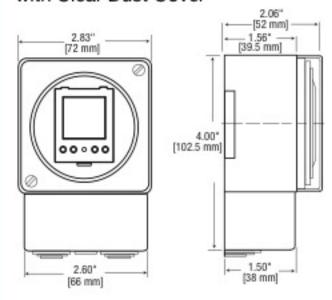


#### **Dimensions**

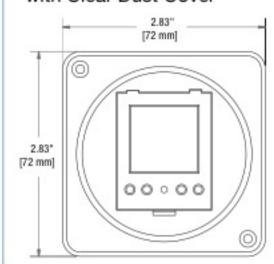
#### FM1D50 Panel Mount



FM1D50A Surface/DIN Rail with Clear Dust Cover



FM1D50E Flush Mount with Clear Dust Cover







Ratings:	
Supply Voltage	12, 24 VAC/VDC, 120, 240 VAC, 50/60 Hz
Power Consumption	4 VA
Switch Type	SPDT
Contact Ratings (NO)	
Resistive	16 A, 277 VAC
Tungsten	600 W, 120 VAC; 1000 W, 240 VAC
Ballast	12 A, 120 VAC; 8 A, 240 VAC
Pilot Duty	360 VA, 120 VAC; 720 VA, 240 VAC
Motor	½ HP, 120 VAC; 1 HP, 240 VAC
Contact Ratings (NC)	
Resistive	16 A, 277 VAC
Pilot Duty	8 A, 24 VDC; 360 VA, 120 VAC
Operating Temperature	-13° F to 131° F (-25° C to 55° C)
	Limited display function at -13°F
Cut-out Dimensions (Flush) H x W	2 %" x 2 %" (66 mm x 66 mm)
Wiring Terminals	
FM1D50, FM1D50E	1/4" quick connect terminals
FM1D50A	Screw terminals for #24 to #10 AWG Wire
Shipping Weight	.10 lbs. (FM1D50A .53 lbs) (FM1D50E .26 lbs)
Warranty	1-year limited

# FM1D50 Series

# 16 A, 1-Circuit Timer Modules

The FM1D50 Series Electronic Time-Based Controls enable switching of ventilation, heating, cooling, lighting or other electrical loads in commercial and industrial applications. These one channel time switches are programmable for 24-hour or 7-day schedules. They are intended for panel, surface, flush, or DIN rail mounting. Flush and surface/DIN rail models (A & E models) are completely enclosed in a plastic housing and include a terminal cover, dust cover and subbase for installation and hard wiring.

#### **Applications**

The FM1D50 Series Electronic Time Controls are light duty, commercial time switches ideal for 12, 24, VAC/VDC or 120, 240 VAC single phase applications such as:

- Generator exercising
- · Scheduling occupied/unoccupied ventilation system operation
- Parts washer Commercial refrigeration
- Pumps/motors/fans control HVAC control circuits
- Photovoltaic control Landscape lighting Security gates

#### **Features**

- 24-Hour or 7-day applications
- 50 Setpoint programs
- · Two preset adjustable block programs
- · Easy-to-follow menu driven programming
- Manual override with status indication
- Battery backup
- Large LCD
- Seven available languages: English, German, French, Italian, Spanish, Portuguese, and Dutch
- Auto Daylight Saving Time feature
- A & E Models come with clear dust cover

Mounting	Model	Voltage	Programs
	FM1D50-12U	12 VAC/VDC, 50/60 Hz	50
Panel	FM1D50-24U	24 VAC/VDC, 50/60 Hz	50
Panei	FM1D50-120U	120 VAC, 50/60 Hz	50
	FM1D50-240U	240 VAC, 50/60 Hz	50
	FM1D50A-12	12 VAC/VDC, 50/60 Hz	50
Surface/	FM1D50A-24	24 VAC/VDC, 50/60 Hz	50
DIN Rail	FM1D50A-120	120 VAC, 50/60 Hz	50
	FM1D50A-240	240 VAC, 50/60 Hz	50
	FM1D50E-12	12 VAC/VDC, 50/60 Hz	50
Flush	FM1D50E-24	24 VAC/VDC, 50/60 Hz	50
riusii	FM1D50E-120	120 VAC, 50/60 Hz	50
	FM1D50E-240	240 VAC, 50/60 Hz	50

#### Accessories

Surface/DIN Rail Mount Kit	FM-SU
Flush Mount Kit	FM-FU
Clear Dust Cover for Panel Mount Timers	DC-FME

#### SPECIFIERS GUIDE

Furnish and install a Grässlin FM1D50\_\_\_ 24-Hour/7-Day Electronic Time Switch. This 1-circuit control shall have 24-Hour/7-Day programming. The timer shall also offer 25 ON and 25 OFF setpoint programs and include two preset block programs to allow a selection of any combination of days for different weekday schedules. The LCD shall display time-of-day in AM/PM or 24-Hour (military time) format and provide load status indication. Auto Daylight Saving Time Adjustment provided. The time switch will be programmable to-the-minute and also offer a manual override for ON/OFF to the next scheduled event. The SPDT relay output will be rated for 16 A Resistive @ 277 VAC. Reserve carry-over of 3 years (non-replaceable, non-rechargeable battery). The time switch shall be\_\_\_\_\_\_(Panel) (Surface/DIN Rail) or (Flush) Mountable.



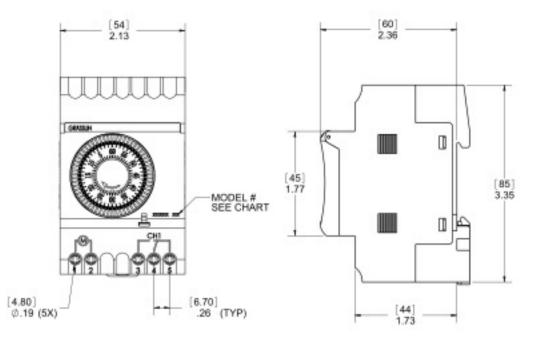
# Grässlin Mechanical Time Switches

Cycle Timer Modules

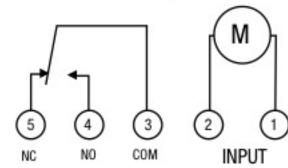
TALENTO121-120

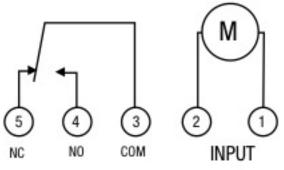
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#### **Dimensions**



Switch Configuration





#### **Features**

- 1.25 minute resolution
- Up to 24 ON/OFF times per hour

**Talento 121 Series** 

16 A, 1-Hour Repeat Cycle Time Switch

electromechanical one-hour time switch intended as a low-cost

load in a pattern which will repeat every hour. Captive trippers

allow setting up to 24 ON and 24 OFF times in 1.25-minute

conjunction with a Grässlin 24-hour or 7-day Time Switch to

provide repeat cycle timed switching only during selected periods of the day or week. It may be DIN rail mounted, or

The Talento 121 is a synchronous motor driven

repeat cycle timer for industrial processes and other

increments over a one-hour period. It may be used in

mounted in a Grässlin indoor or outdoor enclosure.

applications. It provides continuous ON/OFF cycling of a

- Captive trippers
- SPDT 16 A switch
- DIN rail or enclosure mounting
- 3-Way override

Ratings	
Supply Voltage	120, 208-240 VAC, 60 Hz
Switch Type	SPDT, Isolated Contacts
Resistive	16 A, 125-250 VAC, 60 Hz
Tungsten	750 W, 250 VAC, 60 Hz
Operating Temperature	-13° F to 130° F (-25° C to 55° C)
Operating Humidity	0 to 95% RH, non-condensing
Dimensions H x W x D	3.35" x 2.13" x 2.36" (8.5 mm x 5.4 mm x 6.0 mm)
Wiring Connections	Screw terminals for up to #12 AWG wire
Ship Weight	.66 lbs (.29 kg)
Warranty	1-year limited

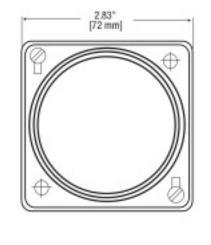
RoHS

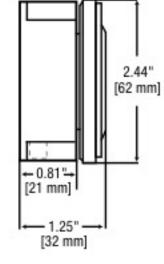
2002/95/EC

Model #	Input Voltage	Mounting	Total Cycle Time	Timing Interval per Tripper
TALENT0121-120	120 VAC, 60 Hz	DIN Rail	1-Hr	1.25-Min
TALENT0121-240	208-240 VAC, 60 Hz	DIN Rail	1-Hr	1.25-Min
GMX121-0-120	120 VAC, 60 Hz	Type 3R Enclosure	1-Hr	1.25-Min

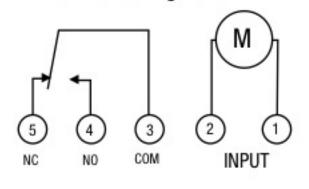
FM1S12HU-120U

## **Dimensions**





Switch Configuration











Ratings		
Supply Voltage	120 VAC, 60 Hz	
Power Consumption	1 VA	
Switch Rating	SPDT	
Resistive	21 A, 250 VAC	
Inductive	1 HP, 125 VAC; 2 HP, 240 VAC	
Tungsten	1350 W, 120 VAC	
Dimensions H x W	2.60" x 2.83" (66 mm x 72 mm)	
Wiring Connections	1/4" quick-connects	
Shipping Weight	.15 lbs (.07 kg)	
Warranty	1-year limited	

# FM1S12HU-120U

# 21 A, 12-Hour Repeat Cycle Time Switch

The FM1S12HU-120U is a sychronous motor driven electromechanical 12-hour time switch intended as a low cost repeat cycle timer for industrial processes and other applications. It provides continuous ON/OFF cycling in a pattern which will repeat every 12 hours. Captive trippers allow setting up to 48 ON and 48 OFF times in 7.5 minute increments over a 12-hour period.

#### **Features**

- 21 A SPDT switch
- Captive trippers enable up to 48 ON and 48 OFF times in 7.5-minute intervals
- Panel mount

Model #	Input Voltage	Total Cycle Time	Timing Interval per Tripper
FM1S12HU-120U	120 VAC, 60 Hz	12-Hr	7.5-Min

#### Accessories

Clear Dustcover	DC-FME-A
Surface/DIN Rail Mount	FM-SU
Flush Mount Kit	FM-FU
Outdoor Enclosure	E200
Indoor Enclosure	E150



# FM1 Series

# 21 A, 1-Circuit, Panel Mount Timer Modules

The FM1 Series Timer Modules are designed to be integrated inside of a machine control panel, circuit board, or other equipment. They are a simple and low cost alternative for applications that do not require more than 21 A or 2 HP, 240 VAC. The FM1 is designed for 24-hour or 7-day control or overriding a functional typical state of a heating, ventilation, refrigeration, lighting, security, or pump system. The FM1 series is ideal for 12, 24 VAC/VDC,120 or 208/240VAC single-phase general applications.

#### **Applications**

- Commercial refrigeration Pool & Spa Ventilation
- Hot water pump circulation Hydroponic systems
- Lighting panel control
   Landscape lighting
- · Bug and pest control systems · Aerobic waste water systems

#### **Features**

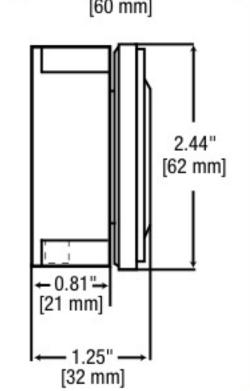
- 21 A SPDT Switch
- Captive trippers with 15-minute intervals on 24-hour models and 2-hour intervals on 7-day models
- 7-Day carry-over battery backup on Q models
- Noise immune ideal for robust applications
- · Synchronous drive or quartz drive Q models with self-recharging battery backup
- True clock face, easy-to-set
- Available with or without override
- Compact size
- Clear plastic cover (DC-FME-A), sold separately below
- · Standalone or with indoor/outdoor enclosure, sold separately below



FM1STUZH

# FM1 Panel Mount Series 2.13" [54 mm] 2.36" [60 mm]

**Dimensions** 



# **Wiring Diagrams** Override Mode I = permanent ON 3-Way Manual (L)= automatic Override Switch () = permanent OFF (L) Switch Configuration 3

Model #	Model #	Voltage	Override	MIN ON/
Synchronous	Quartz w/ Battery Backup	CONTROL		OFF Time
24-Hour		19.		
FM1STUZ-24U	FM1QTUZ-24U*	24 VAC, 60 Hz	No	
FM1STUZ-120U	FM1QTUZ-120U*	120 VAC, 60 Hz	No	
FM1STUZ-240U	FM1QTUZ-240U*	208/240 VAC, 60 Hz	No	
FM1STUZ220/50	( <b>-</b> )	220, 50 Hz	No	15-Min
FM1STUZH-24U	FM1QTUZH-24U*	24 VAC, 60 Hz	Yes	13-WIII
FM1STUZH-120U	FM1QTUZH-120U*	120 VAC, 60 Hz	Yes	
FM1STUZH-240U	-	208/240 VAC, 60 Hz	Yes	
FM1STUZH220/50	_	220, 50 Hz	Yes	
7-Day	co.			
FM1SWUZ-24U		24 VAC, 60 Hz	No	
FM1SWUZ -120U	FM1QWUZ-120U*	120 VAC, 60 Hz	No	
FM1SWUZ -240U	FM1QWUZ-240U*	208/240 VAC, 60 Hz	No	0 Hr
FM1SWUZH-24U	-	24 VAC, 60 Hz	Yes	2-Hr
FM1SWUZH -120U	FM1QWUZH-120U*	120 VAC, 60 Hz	Yes	
FM1SWUZH -240U	FM1QWUZH-240U*	208/240 VAC, 60 Hz	Yes	

Synchronous	Quartz w/ Battery Backup	voitage	Override	OFF Time
Synchronous	Quartz w/ Battery Backup			OFF TIME
24-Hour				
FM1STUZ-24U	FM1QTUZ-24U*	24 VAC, 60 Hz	No	
FM1STUZ-120U	FM1QTUZ-120U*	120 VAC, 60 Hz	No	
FM1STUZ-240U	FM1QTUZ-240U*	208/240 VAC, 60 Hz	No	
FM1STUZ220/50	1 <b>-</b> 1	220, 50 Hz	No	15-Min
FM1STUZH-24U	FM1QTUZH-24U*	24 VAC, 60 Hz	Yes	15-1/1111
FM1STUZH-120U	FM1QTUZH-120U*	120 VAC, 60 Hz	Yes	
FM1STUZH-240U	-	208/240 VAC, 60 Hz	Yes	
FM1STUZH220/50	-	220, 50 Hz	Yes	
7-Day				
FM1SWUZ-24U	_	24 VAC, 60 Hz	No	
FM1SWUZ -120U	FM1QWUZ-120U*	120 VAC, 60 Hz	No	
FM1SWUZ -240U	FM1QWUZ-240U*	208/240 VAC, 60 Hz	No	2 11
FM1SWUZH-24U	-	24 VAC, 60 Hz	Yes	2-Hr
FM1SWUZH -120U	FM1QWUZH-120U*	120 VAC, 60 Hz	Yes	
FM1SWUZH -240U	FM1QWUZH-240U*	208/240 VAC, 60 Hz	Yes	
10		0.40.144.0 J TH 00.1		V

*Quartz models operate at 12-24 VDC/VAC	, 120, or 208/240	VAC and are	Title 20 listed.
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R3730	#E1





COM



INPUT



LR3730 #E10694	2002/95/EC
Ratings	
Supply Voltage	24, 120, 208/240 VAC, 60 Hz; 220, 50 Hz
Quartz Models	12, 24 VAC/VDC, 120, 208/240 VAC, 50/60 Hz
Power Consumption	1 VA
Switch Type	SPDT
Resistive	21 A, 120-250 VAC
Tungsten	1350 W, 120 VAC
Motor	1 HP, 120 VAC; 2 HP, 250 VAC
Operating Temperature	-40° F to 185° F (-40° C to 85° C) -4° F to 131° F (-20° C to 55° C) with battery backup
Battery Backup Option	7-Day carry-over Q Models
Dimensions H x W x D	2.36" x 2.36" x 1.25" (60 mm x 60 mm x 32 mm)
Wiring Terminals	1/4" quick connect terminals
Shipping Weight	.15 lbs. (.07 kg)
Warranty	1-year limited

#### Accessories

Accessories	
Clear Dust Cover	DC-FME-A
Surface/DIN Rail Mount	FM-SU
Flush Mount Kit	FM-FU
Outdoor Enclosure	E200
Indoor Enclosure	E150

#### SPECIFIERS GUIDE

Furnish and install a Grässlin FM1 (24-Hour) (7-Day) Timer Module with\_ (15-Minute) (2-Hour) interval captive trippers and\_ (Quartz) (Synchronous) drive. Input voltage shall \_ (12) (24) VDC, (12) (24) (120) (220) (208/240) VAC, and SPDT switch contacts shall be rated at:

21 A Resistive
 2 HP @ 250 VAC

To set the starting time and to provide time indication, the unit shall incorporate an authentic clock face. For override, the timer module shall contain a 3-way ON/OFF/AUTO switch. For carry-over, the timer module shall have a quartz drive with 7-day reserve carry-over from a self-recharging battery. Installation for panel mounting.

7.0000001100			
Model #	Description		
HVAC Power Protection			
2200091	Compressor Defender™ Mounting Bracket		
Defrost Time Con			
DT-B	Defrost Timer Bracket		
15601318A	DTAV40 Plate Assembly		
Electronic Contro	•		
10100040	Battery Holder for ET100		
176ET17A	120 VAC Surge Suppressor		
6ET1398GA	Flush Mount Door Assembly with Lock		
NOISEFILTER	Noise Filter		
ET-NF	Noise Filter for Electronic Controls		
22T338GR	Mounting Bracket for ET90115, ET90215, ET1100, ET1700, ET8000, ET2100, ET2700 and ET2800 Series Electronic Controls		
ET9100	ET90415-ET91615 Replacement Door Assembly		
ET9232	Ethernet Module for ET90000 Upgrade or Replacement		
ET9250	4-Circuit Relay Board for Upgrade or Replacement of ET90415CR-ET91615CR Panels		
12400101	Insulator for ET Series controls (ET1100, ET1700, ET8000, ET2100, ET2700, ET2800 Series)		
ET9500	BEMS Interface Box for ET90000 Series		
Grässlin Time Co	ntrols		
2400109	Wall Plate for KM2ST-1G or KM2STU-1G, Single Gang, White		
2400046	Wall Plate for KM2ST-2D, 2 Gang (Timer and Decorator Switch), White		
2400041	Wall Plate for KM2ST-2G, 2 Gang (Timer and Toggle Switch), White		
2400045	Wall Plate for KM2ST-2R, 2 Gang (Timer and Receptacle), White		
2400051	Wall Plate for KM2ST-3D, 3 Gang (Timer and 2 Decorator Switches), White		
2400042	Wall Plate for KM2ST-3G, 3 Gang (Timer and 2 Toggle Switches), White		
2400043	Wall Plate for KM2ST-4G, 4 Gang (Timer and 3 Toggle Switches), White		
DC-FME	Clear Dust Cover for Mechanical Panel Mount Timers		
DC-FME-A	Clear Dust Cover for Electronic Panel Mount Timers		
FM-FU	FM1 Flush Mount Housing Kit		
FM-SU	FM1 Surface/DIN Rail Kit		
180-0014	FM1 Housing Terminal Base		
Grässlin Hour Me	ters		
691	Housing Base for UWZ48 Surface Mount		
G-53U	FWZ53 Flush Mount Gasket		
BEZ55-GRAYU	55 mm Gray Bezel for UWZ48E		
BEZ55-BLACKU	55 mm Black Bezel for UWZ48E		
BEZ72U	72 mm Gray Bezel for UWZ48E		
BEZ72PU	72 mm Bezel with 3 Pins for Round 3-Bolt Hole Opening for UWZ48E		

MB-48V	DIN Rail Mounting Base for UWZ48E
Model #	Description
LightMaster™ Lic	ghting Control System
LS1	Transparent Sensor 0.2 to 50 fc
LS2	Dark Sensor 10 to 1000 fc
PC1-120	1-Circuit Control Unit 120 VAC
PC2-120	2-Circuit Control Unit 120 VAC
Mechanical Time	
107T119	5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00
	Tripper (Silver) for T8800 and R8800 Series (Day Skipper)
107T73	Replacement Day Wheel Pins (These go into the actual Day Wheel)
119T85	24 VAC, 20 VA (S) Transformer
119T86A	24 VAC Transformer for T8845PV
124T1948	Insulator for Single Pole Time Switch (T101, T102, T171, T172)
124T1949	Insulator for Double Pole Time Switch (T103, T104, T105, T173, T174, T175, T176, T185, WH40)
124T1952	Insulator for Double Pole Time Switch (T103, T104, T105, T173, T174, T175, T176, T185, WH40)
124T1953	Insulator for 4PST Time Switch
124T1954	Insulator for T101B with Independent Motor Wiring
124T2058	Insulator for T1905, T1906, T2006, T2005, C8815, C8825, C8835, C8845, C8855, C8865, C8866
124T2097	Insulator for R8806P101C, T8805P101C, T8845PV
124T2098	Insulator for WH21
124T2375	Insulator for T30004R30
124T905	Insulator for T1905HDM, T1975EHDM, T1975HD, T1976, T1975, T1975ER, T1905
124T907A	Insulator Assembly (S001)
130T1042	Grounding Terminal Bar
131T68GA	125 VAC, 60 Hz Motor and Carry-over for T7400BC and T800BC Series
133T698A	Replacement Snap Switch for T1970 Series
133T700A	Micro Switch for T8800 amd R8800 Series
133T701A	Replacement Snap Switch for T1900 and T2000 Series
133T773A	Replacement Snap Switch for C8800 Series
143T138	Relay Kit, DPST, 3 HP, 240 VAC (S)
143T302A	Relay Kit, Dr 31, 3 Hr, 240 VAC (3)
143T302A	Relay Kit, Assembly (3001)  Relay Kit, DPST, 3 HP, 120 VAC (S)
146T400	Knob-Switch (S)
156T1948A	Trippers for T170, T1400, T1800 Series Includes 1 ON, 1 OFF, and 1 ON with Skipper Extension
156T1949A	Tripper for T185 (Variable 10 to 60 Minute Interval)
156T1950A	Set of 12 Trippers for T1900, T2000, C8800, R8800 and T8800 Series
156T1950AD12	12 Bags of 156T1950A Trippers for T1900, T2000, C8800, R8800, and T8800 Series
156T1954A	14 Skipper Pins for R8800, and T8800 Series

