

## SELECTION GUIDE

# Industrial Thermoregulation and Panel Lighting

### PRODUCTS FOR PANELS AND ENCLOSURES

7T Series - Thermo-Hygrostats and Thermostats

7F Series - Filter Fans

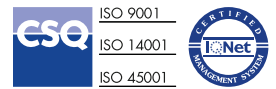
7H Series - Panel Heaters

7L Series - LED panel lights





# ABOUT US



**Finder** was founded in Italy in 1954. Since then it has been designing and manufacturing a wide range of electromechanical and electronic components for both the residential and industrial sectors. Today, thanks to its global vision, Finder now distributes its products around the world through a network of 28 company-owned subsidiaries and more than 80 trade partnerships.

Finder is an international family made up of more than 1300 individuals, all united by the same values and passion for our products.



## 14 500

Different products to satisfy a myriad of applications. From products at the heart of automation to the control of machines, power, time, temperature, liquid level, light and much more.

### OUR PRODUCTS CARRY MORE CERTIFICATIONS THAN ANY OTHER RELAY MANUFACTURER



### FINDER IS AN ITALIAN BRAND WITH A WORLDWIDE PRESENCE

**4** PRODUCTION PLANTS IN EUROPE

**28** SUBSIDIARIES

**80+** OFFICIAL DISTRIBUTORS



# The perfect climate and lighting within control panels



Guaranteed  
performance



High precision



Compact size

## Thermo-hygrostats and Thermostats

### 7T Series

Ensuring the performance of components and instrumentation within control panels and enclosures - often enhancing product life.

## Filter Fans

### 7F Series

New filter fan range to ventilate and safeguard against high enclosure temperatures.

## Panel Heaters

### 7H Series

Preventing the formation of condensation and ensuring the optimum temperature within electrical enclosures.  
Heating power from 25 W to 400 W.

## LED panel lights

### 7L Series

Available in two brightness levels, 600 lumens or 1200 lumens, these new 7L Series LED panel lights featuring magnetic mounting are the ideal solution for perfect lighting for machines and electrical panels.





# 7T Series

Panel Thermo-Hygrostats and Thermostats

# Panel Thermo-Hygrostats



Type 7T.51.0.230.4360

Electronic control  
 Small, compact size (17.5 mm wide)  
 1 NO 10 A - 250 V AC1  
 4 functions  
 Nominal voltage 110...240 V AC/DC  
 Temperature ranges from +10° to +60°C  
 Humidity range up to 90%  
 LED status indication contact ON

Approvals (according to type): **CE** **UK** **EAC** **cRU** **US**



Drying kilns



Industrial refrigeration



Road / tunnel lighting



Industrial furnaces and ovens



Automatic car-washes



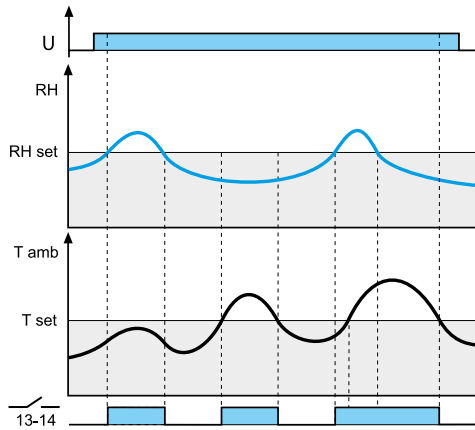
Panels for electrical distribution



Control panels



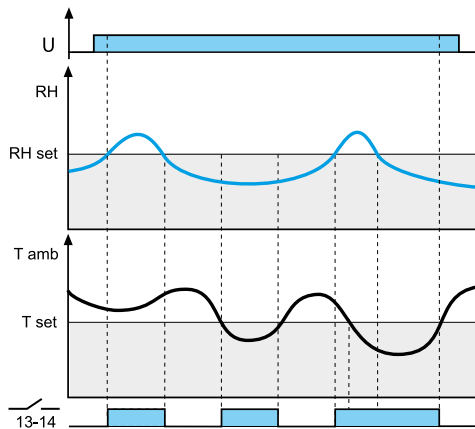
Forced-air ventilators



**HT: RH > RHset OR Tamb > Tset**

Power is permanently applied to the thermo-hygrostat.  
 The contact 13-14 closes if the ambient humidity (RH) is > of set humidity (RHset)  
 OR if the ambient temperature (Tamb) is > of set temperature (Tset).

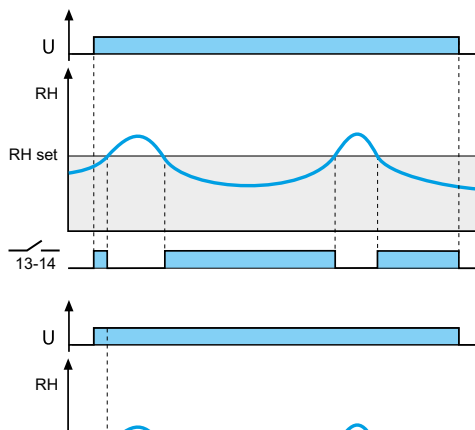
When contact is closed, LED is ON



**TH: RH > RHset OR Tamb < Tset**

The contact 13-14 closes if the ambient humidity (RH) is > of set humidity (RHset)  
 OR if the ambient temperature (Tamb) is < of set temperature (Tset).

When contact is closed, LED is ON



**HL: RH < RHset**

The contact 13-14 closes if the ambient humidity (RH) is < of set humidity (RHset).

When contact is closed, LED is ON



**HM: RH > RHset**

The contact 13-14 closes if the ambient humidity (RH) is > of set humidity (RHset).

When contact is closed, LED is ON

# Panel Thermostats

- Small, compact size (17.5 mm wide)
- 1 NO - 1 NC 10 A - 250 V AC1
- Snap action thermostatic Bimetal sensor
- Wide temperature setting range
- Long electrical life
- 35 mm rail (EN 60715) mount

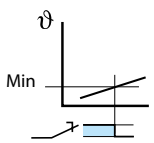
Approvals (according to type):     



Type 7T.81.0.000.240x

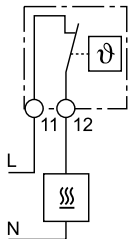


Type 7T.81.0.000.230x



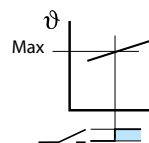
### Heating control

Should the panel temperature fall below the (minimum) set temperature the contact will close to call for heat. The contact will open when this set temperature is exceeded.



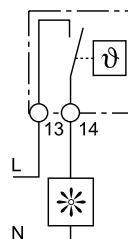
Heating: Red Dial

Temperature ranges: -20° to +40°C  
-20° to +60°C  
0° to +60°C



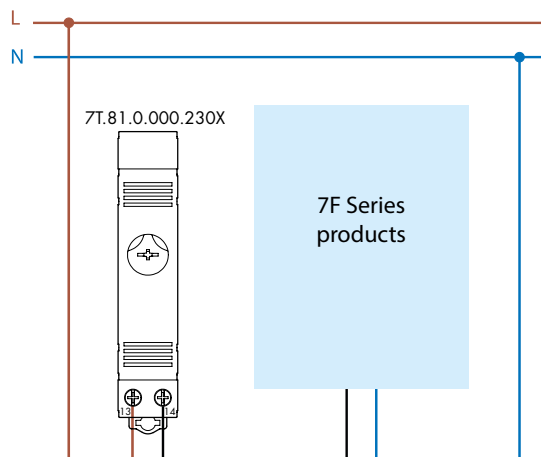
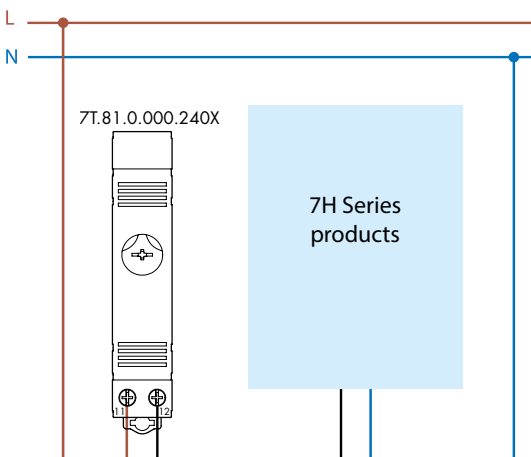
### Ventilation control

Should the panel temperature exceed the (maximum) set temperature then the contact will close to call for cooling. The contact will open when the temperature falls below this set temperature.



Ventilation: Blue Dial

Temperature ranges: -20° to +40°C  
-20° to +60°C  
0° to +60°C



# 7F Series

Filter Fans and  
Exhaust Filters

# Filter Fans

Easily replaceable filter mat  
Minimal depth within enclosure  
Air volume (24... 100)m<sup>3</sup>/h  
Time-saving installation and maintenance  
Very low acoustic noise  
Protection category IP54/Type 12  
Black colour RAL 9004 available

Approvals (according to type):     



Drying kilns



Textile  
machines



Machines  
for paper  
processing



Machines for  
ceramics



Wood-  
processing  
machines



Panels for  
electrical  
distribution



Control  
panels



Forced-air  
ventilators



**Type 7F.20.8.xxx.1020**  
Operating voltage (120 or 230)V AC  
Air volume 24 m<sup>3</sup>/h  
Rated power 13 W  
Size 1

**Type 7F.20.9.024.1020**  
Operating voltage 24V DC  
Air volume 24 m<sup>3</sup>/h  
Rated power 3.6 W  
Size 1



**Type 7F.20.8.xxx.2055**  
Operating voltage (120 or 230)V AC  
Air volume 55 m<sup>3</sup>/h  
Rated power 22 W  
Size 2

**Type 7F.20.9.024.2055**  
Operating voltage 24V DC  
Air volume 55 m<sup>3</sup>/h  
Rated power 9 W  
Size 2



**Type 7F.20.8.xxx.3100**  
Operating voltage (120 or 230)V AC  
Air volume 100 m<sup>3</sup>/h  
Rated power 22 W  
Size 3

**Type 7F.20.9.024.3100**  
Operating voltage 24V DC  
Air volume 100 m<sup>3</sup>/h  
Rated power 22 W  
Size 3



# Exhaust Filters





The size of the Exhaust Filter should match the size of the Filter Fan to achieve the best ventilation within the cabinet.

Time-saving installation and maintenance

Easily replaceable filter mat

Protection category IP54/Type 12

Black colour RAL 9004 available

Approvals (according to type):    



**Type 7F.02.0.000.1000**  
For Filter Fans  
Type 7F.20.x.xxx.1020

Size 1



**Type 7F.02.0.000.2000**  
For Filter Fans  
Type 7F.20.x.xxx.2055

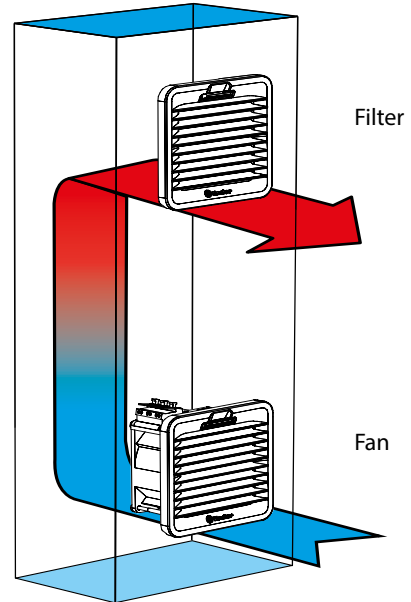
Size 2



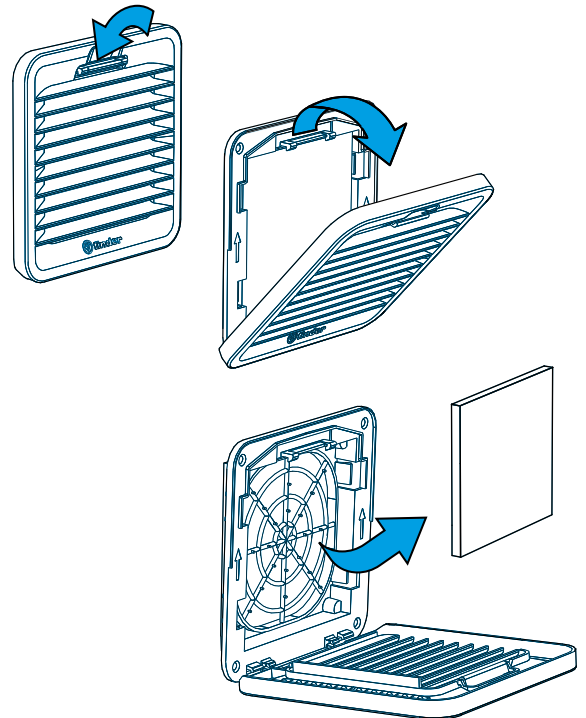
**Type 7F.02.0.000.3000**  
For Filter Fans  
Type 7F.20.x.xxx.3100

Size 3

## Mounting arrangement of Filter Fan and Exhaust Filter



### Replacement of Filter mat



# 7F Series

Filter Fans and  
Exhaust Filters

# Filter Fans

Minimal depth within enclosure  
Air volume (250...550)m<sup>3</sup>/h  
Very low acoustic noise  
Protection category (according to type): IP54/Type 12  
Black colour RAL 9004 available

Approvals (according to type): **CE** **UK** **EAC** **cRA<sup>®</sup>** **us**



Drying kilns



Textile  
machines



Machines  
for paper  
processing



Machines for  
ceramics



Wood-  
processing  
machines



Panels for  
electrical  
distribution



Control  
panels



Forced-air  
ventilators



### Type 7F.20.8.xxx.4250

Operating voltage (120 or 230)V AC  
Air volume 250 m<sup>3</sup>/h  
Rated power 45 W  
Size 4



### Type 7F.20.8.xxx.4400

Operating voltage (120 or 230)V AC  
Air volume 400 m<sup>3</sup>/h  
Rated power 70 W  
Size 4



**NEW**

### Type 7F.20.8.xxx.5550

Operating voltage (120 or 230)V AC  
Air volume 550 m<sup>3</sup>/h  
Rated power 76 W  
Size 5

# Exhaust Filters

The size of the Exhaust Filter should match the size of the Filter Fan to achieve the best ventilation within the cabinet.

Minimal depth within enclosure  
Protection category IP54/Type 12  
Black colour RAL 9004 available

Approvals (according to type): **CE** **UK** **ERC** **cRA<sup>®</sup>US**

## Filter Fans - Available versions

Standard versions	Reverse flow versions	Size
7F.20.8.120.1020	7F.21.8.120.1020	1
7F.20.8.120.2055	7F.21.8.120.2055	2
7F.20.8.120.3100	7F.21.8.120.3100	3
7F.20.8.120.4250	7F.21.8.120.4250	4
7F.20.8.120.4400	7F.21.8.120.4400	4
<b>NEW</b> 7F.20.8.120.5550	7F.21.8.120.5550	5
7F.20.8.230.1020	7F.21.8.230.1020	1
7F.20.8.230.2055	7F.21.8.230.2055	2
7F.20.8.230.3100	7F.21.8.230.3100	3
7F.20.8.230.4250	7F.21.8.230.4250	4
7F.20.8.230.4400	7F.21.8.230.4400	4
<b>NEW</b> 7F.20.8.230.5550	7F.21.8.230.5550	5
7F.20.9.024.1020	7F.21.9.024.1020	1
7F.20.9.024.2055	7F.21.9.024.2055	2
7F.20.9.024.3100	7F.21.9.024.3100	3
7F.20.9.024.4250	7F.21.9.024.4250	4



**Type 7F.02.0.000.4000**  
For Filter Fans  
Type 7F.20.x.xxx.4250 or  
Type 7F.20.8.xxx.4400

Size 4



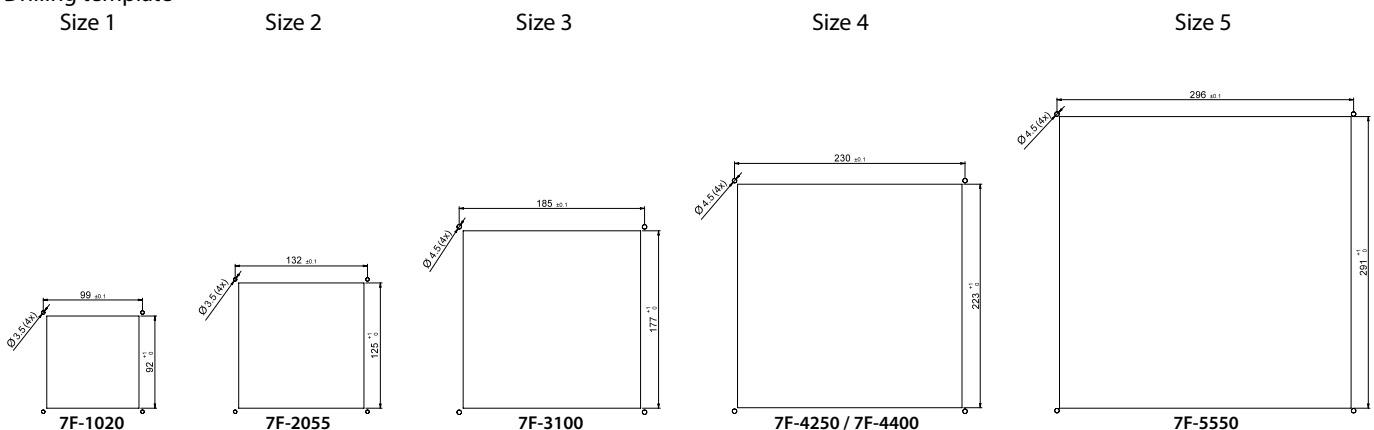
**Type 7F.02.0.000.5000**  
For Filter Fans  
Type 7F.20.8.230.5550

Size 5

## Components

Standard-Filter Fan	Standard-Exhaust Filter	Filter mat	Size
7F.20.8.xxx.1020	7F.02.0.000.1000	07F.15	1
7F.20.8.xxx.2055	7F.02.0.000.2000	07F.25	2
7F.20.8.xxx.3100	7F.02.0.000.3000	07F.35	3
7F.20.8.xxx.4250	7F.02.0.000.4000	07F.45	4
7F.20.8.xxx.4400	7F.02.0.000.4000	07F.47	4
<b>NEW</b> 7F.20.8.230.5550	7F.02.0.000.5000	07F.55	5
7F.20.9.024.1020	7F.02.0.000.1000	07F.15	1
7F.20.9.024.2055	7F.02.0.000.2000	07F.25	2
7F.20.9.024.3100	7F.02.0.000.3000	07F.35	3
7F.20.9.024.4250	7F.02.0.000.4000	07F.45	4

## Drilling template



# 7H Series

## Panel Heaters

# Panel Heaters

Nominal voltage 120 or 230 V AC  
 PTC resistor, self regulating heating system  
 Fan assisted heaters  
 Fast wiring terminals  
 Safe touch  
 Clip for 35 mm rail (EN 60715) mount

Approvals (according to type): **CE** **UK** **EAC** **cRU** **us**



Drying kilns



Hoists and cranes



Road / tunnel lighting



Plastic moulding machines



Automatic car-washes



Panels for electrical distribution



Control panels



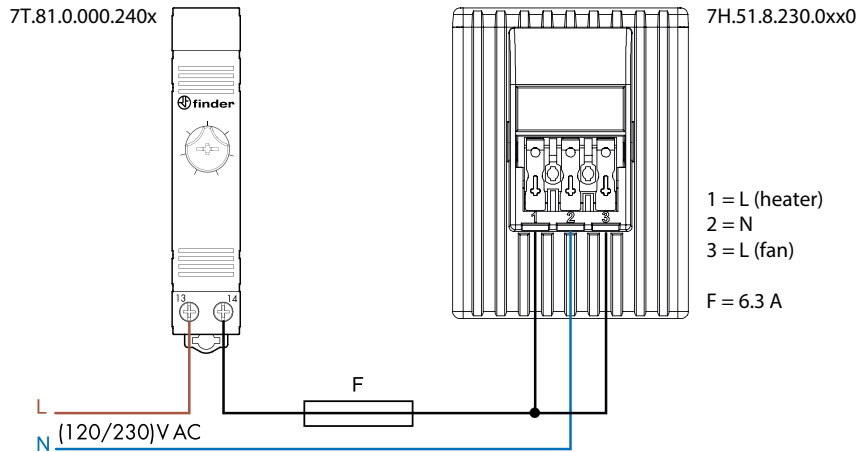
Forced-air ventilators



**Type 7H.51.8.230.0250**  
 Heater power 250 W  
 Fan assisted  
 Dimensions (w x h x d): 88.2 x 28.7 x 67 mm



**Type 7H.51.8.230.0400**  
 Heater power 400 W  
 Fan assisted  
 Dimensions (w x h x d): 88.2 x 28.7 x 67 mm



### NOTE

Separate supply (L) terminals for the heater and the internal fan allow them to be powered independently. So, dependent on the specific situation, the installer might wish the heating element to be controlled by an upstream thermostat but require the fan to run continuously (although the latter will significantly reduce the product's life).

# Panel Heaters

Nominal voltage (110...230)V AC/DC  
 PTC self regulating heating system  
 Screw terminals  
 Safe touch  
 Clip for 35 mm rail (EN 60715) mount

Approvals (according to type): **CE** **UK** **ERC** **cRA<sup>®</sup>US**



**Type 7H.51.0.230.0025**  
 Heater power 25 W



**Type 7H.51.0.230.0100**  
 Heater power 100 W  
 Dimensions (w x h x d): 70 x 140 x 63 mm

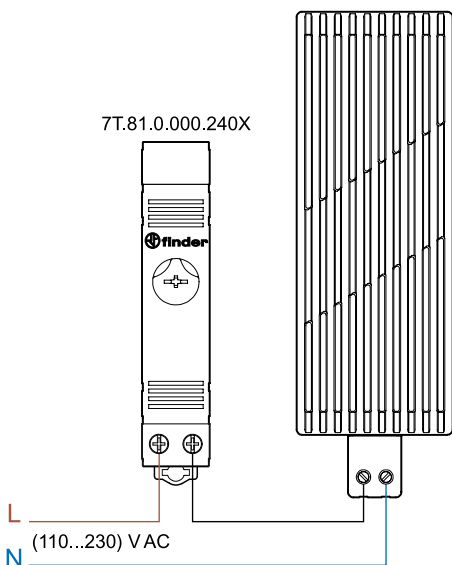


**Type 7H.51.0.230.0150**  
 Heater power 150 W  
 Dimensions (w x h x d): 70 x 220 x 63 mm

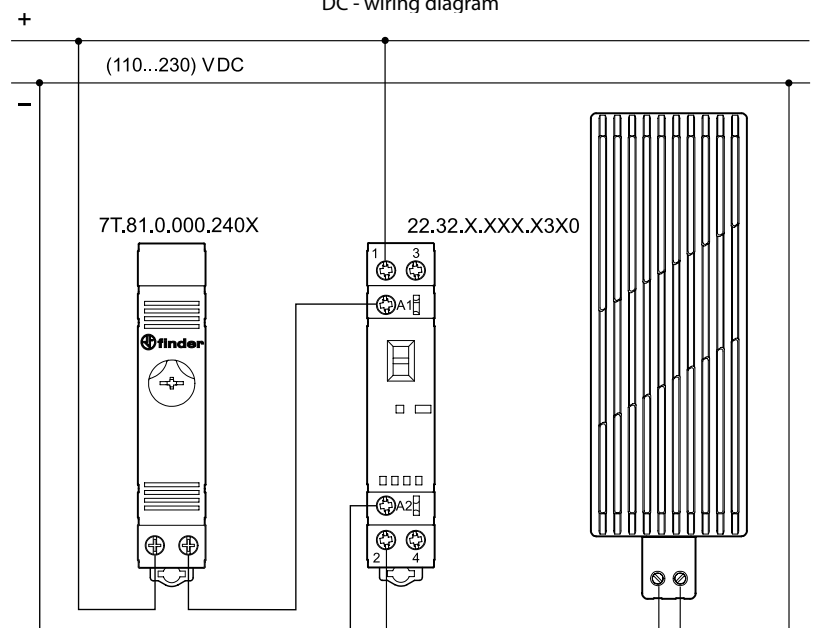
**Type 7H.51.0.230.0050**  
 Heater power 50 W

Dimensions (w x h x d): 41 x 125 x 41 mm

AC - wiring diagram



DC - wiring diagram





# 7L Series

LED panel lights

## LED panel lights

Type 7L.43.0.xxx.xx00 - Brightness level: 600 lumens

Type 7L.46.0.xxx.xx00 - Brightness level: 1200 lumens

Direct magnetic mounting or through a screw-fixed metallic support




Power supply - Multi-voltage: 12...48 V AC/DC and 110...240 V AC/DC

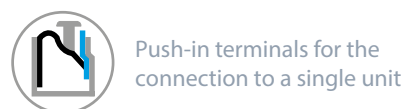
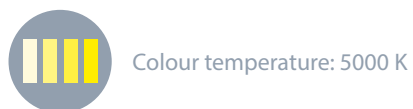
Low energy consumption

Nominal power consumption: 6 W (600 lm), 9 W (1200 lm)

Push-in terminals for the connection to a single unit

Plug-in terminals for the connection to a single or multiple units (up to 7 lamps)

Approvals (according to type):   



Design by MINELLI | FOSSATI

**NEW**

Code Lamps	Lumen	Code Lamps	Lumen	Supply voltage	Switching	Connections
7L.43.0.024.0100	600	<b>7L.46.0.024.0100</b>	<b>1200</b>	024 = (12...48)V AC/DC	<b>Direct switching</b>	Push-in terminals
7L.43.0.024.0200	600	<b>7L.46.0.024.0200</b>	<b>1200</b>	024 = (12...48)V AC/DC	<b>Direct switching</b>	Plug-in terminals
7L.43.0.230.0100	600	<b>7L.46.0.230.0100</b>	<b>1200</b>	230 = (110...240)V AC/DC	<b>Direct switching</b>	Push-in terminals
7L.43.0.230.0200	600	<b>7L.46.0.230.0200</b>	<b>1200</b>	230 = (110...240)V AC/DC	<b>Direct switching</b>	Plug-in terminals
7L.43.0.024.1100	600	7L.46.0.024.1100	1200	024 = (12...48)V AC/DC	Via ON/OFF switch	Push-in terminals
7L.43.0.024.1200	600	7L.46.0.024.1200	1200	024 = (12...48)V AC/DC	Via ON/OFF switch	Plug-in terminals
7L.43.0.024.2100	600	7L.46.0.024.2100	1200	024 = (12...48)V AC/DC	Via movement detector	Push-in terminals
7L.43.0.024.2200	600	7L.46.0.024.2200	1200	024 = (12...48)V AC/DC	Via movement detector	Plug-in terminals
7L.43.0.230.1100	600	7L.46.0.230.1100	1200	230 = (110...240)V AC/DC	Via ON/OFF switch	Push-in terminals
7L.43.0.230.1200	600	7L.46.0.230.1200	1200	230 = (110...240)V AC/DC	Via ON/OFF switch	Plug-in terminals
7L.43.0.230.2100	600	7L.46.0.230.2100	1200	230 = (110...240)V AC/DC	Via movement detector	Push-in terminals
7L.43.0.230.2200	600	7L.46.0.230.2200	1200	230 = (110...240)V AC/DC	Via movement detector	Plug-in terminals

1

Direct switching



2

Switching via motion detector



3

Switching via ON/OFF soft latch switch



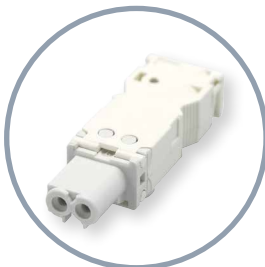
Magnetic fixing direct to metallic panel



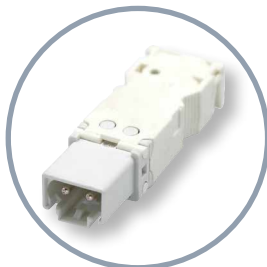
Magnetic fixing via screw-fixed metallic support



Rotational adjustment 30°



**Type 07L.11**  
Socket for connection to a 2-core cable (2 x 1.5 mm<sup>2</sup>), e.g. H05VV-F, 2 x 1.5 mm<sup>2</sup>  
Loose item - for the input side (included in the package)



**Type 07L.12**  
Plugs for connection to a 2-core cable (2 x 1.5 mm<sup>2</sup>), e.g. H05VV-F, 2 x 1.5 mm<sup>2</sup>  
Loose item - for the output side (not included)



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