

Heaters, Thermostats and **Hygrostats**

Additional Protection for Your Electronics

The formation of condensation is one of the biggest dangers for electrical enclosures. As long as they are working under load, their own warmth prevents water from condensing. If the process is switched off, the electronics cool down. This is where our control cabinet heaters (radiant heaters and fan heaters) provide additional protection for your electronics.

We offer a wide variety of performance class control cabinet heaters which are complemented by thermostats and hygrostats. Combined as a solution, they ensure that the temperature inside the control cabinet is always correct and that the formation of condensation is prevented.

The control of Filterfans® by the FLZ 530 Thermostat represents an intelligent solution for control of the fan, preventing excessive energy usage and reducing the maintenance cost associated with the frequency of replacing filters.

Additionally using a thermostat or hygrostat results in greater reliability of your production process:

- Pinpoint distribution and constant temperature in the control cabinet.
- Additional savings on energy, materials and time.

Pfannenberg's heaters, thermostats and hygrostats expand Pfannenberg's protection to additional outdoor applications such as ATMs, Kiosks, Ticket Machines etc.







• Reduced energy consumption and optimization of the efficiency of the heaters.







THERMAL MANAGEMENT OF ENCLOSURES

Monitoring Temperature, Heating & Controlling Condensate

Pfannenberg's Heaters, Thermostats and Hygrostats detect and keep ambient conditions above dew point to avoid the harmful effects of condensation on your electronics. They can be used as a standalone product or in partnership with our Filterfan[®] and Cooling Unit product lines.



FLH Heaters

This type of heating is ideal for use in larger electrical enclosures. They have an integrated fan that assists the natural convection and provides fast and even distribution of the heat in the electrical enclosure.

The fan heaters are used in combination with a thermostat or hygrostat, for the avoidance of excessively low temperatures or excessively high humidity in the electrical enclosure and also help to avoid the formation of corrosion





PFH-T Fan Heaters with Thermostat

The PFH-T fan heater with thermostat is designed to protect electronics from the effects of low temperatures such as corrosion, freezing or condensation, which can damage critical components within a control enclosure.

FLZ Thermostats

Thermostats are used as temperature controllers and, therefore, for the control of Filterfans® or electrical enclosure heaters. They are available with N.C. (normally closed) / N.O. (normally open) and changeover contacts. In combination with control cabinet heaters you can ensure, besides temperature control, that the control cabinet is 'artificially' dehumidified, in particular in outdoor applications. That means that the temperature is kept above the dew point so that no water condenses out of the air, which could lead to short circuits due to the formation of condensation.





Hygrostats

Hygrostats switch on electrical enclosure heaters or Filterfans® when a preset relative humidity is exceeded. The relative humidity is kept above the dew point and the condensation of water on electrical components and the corrosion of unprotected sheet metal is prevented. A new electronic combination device unites thermostat and hygrostat in one housing.

HEATERS AND THERMOSTATS QUICK SELECTION CHART

-	Heater Power	Data da alta a	Dimensions WxLxH					
Туре	W	Rated voltage	inches (mm)	UL	cUL	CSA	CE	Page
PFH-T Series Co	mpact Fan Heaters							
PFH-T 200	200	115 - 230 VAC	3.46 (88) x 5.47 (139) x 5.59 (142)	•	•	•	•	116
PFH-T 400	400	115 - 230 VAC	3.46 (88) x 5.47 (139) x 5.59 (142)	•	•	•	•	116
PFH-T 650	650	115 - 230 VAC	3.46 (88) x 5.47 (139) x 5.59 (142)	•	•	•	•	116
PFH-T 800	800	115 - 230 VAC	3.46 (88) x 5.47 (139) x 5.59 (142)	•	•	•	٠	116
PFH-T 1000	1000	115 - 230 VAC	3.46 (88) x 5.47 (139) x 5.59 (142)	•	•	•	٠	116
PFH-T 1200	1200	230 VAC	3.46 (88) x 5.47 (139) x 5.59 (142))	•	•	•	٠	116
FLH-TF Series F	an Heaters with Thermos	stat						
FLH-TF 125	125	115 - 230 VAC	5 x 4.1875 x 5.5 (127 x 106 x 140)	•				116
FLH-TF 200	200	115 - 230 VAC	5 x 4.1875 x 5.5 (127 x 106 x 140)	•				116
FLH-TF 400	400	115 - 230 VAC	7 x 6.1875 x 7.5 (178 x 157 x 191)	•				116
FLH-TF 800	800	115 - 230 VAC	7 x 6.1875 x 7.5 (178 x 157 x 191)	•				116
PRH-M Series M	lini-Radiant Heaters	1						
PRH 010-M	10	110 - 250 VAC	1.77 (45) x 2.95 (75) x 1.16 (29.5)	•	•		•	118
PRH 020-M	20	110 - 250 VAC	1.77 (45) x 2.95 (75) x 1.16 (29.5)	•	•		•	118
PRH 030-M	30	110 - 250 VAC	1.77 (45) x 2.95 (75) x 1.16 (29.5)	•	•		•	118
FLH Series Mini	Radiant & Fan Heaters	1						
FLH 030W	30	110 - 250 VAC	3.94 (100) x 2.76 (70) x 1.97 (50)	•	•		•	118
FLH 045W	45	110 - 250 VAC	3.94 (100) x 2.76 (70) x 1.97 (50)	•	•		•	118
FLH 060W	60	110 - 250 VAC	6.89 (175) x 2.76 (70) x 1.97 (50)	•	•		•	118
FLH 075W	75	110 - 250 VAC	6.89 (175) x 2.76 (70) x 1.97 (50)	•	•		•	118
FLH 100W	100	110 - 250 VAC	6.89 (175) x 2.76 (70) x 1.97 (50)	•	•		•	118
FLH 150W	150	110 - 250 VAC	9.84 (250) x 2.76 (70) x 1.97 (50)	•	•		٠	118
FLH 250	250	115 - 230 VAC	7.34 (186.5) x 3.34 (85) x 4.09 (104)	•	•		٠	118
FLH 400	400	115 - 230 VAC	8.92 (226.5) x 3.34 (85) x 4.09 (104)	•	•		٠	118
FLZ Series Ther	mostats							
FLZ 510	-	100 - 250 VAC / Max. 30 W DC	2.52 x 1.46 x 1.81 (64 x 37 x 46)	•	•	•	•	120
FLZ 520	-	100 - 250 VAC / Max. 30 W DC	2.83 x 1.57 x 1.42 (72 x 40 x 36)	•	•	•	•	120
FLZ 530	-	100 - 250 VAC / Max. 30 W DC	2.83 x 1.57 x 1.42 (72 x 40 x 36)	•	•	•	•	120
FLZ Series Twin	Thermostats			-				
FLZ 541	-	100 - 250 VAC / Max. 30 W DC	3.17 x 2.32 x 1.5 (80.5 x 59 x 38)	•	•		•	122
FLZ 542	-	100 - 250 VAC / Max. 30 W DC	3.17 x 2.32 x 1.5 (80.5 x 59 x 38)	•	•		•	122
FLZ 543	-	100 - 250 VAC / Max. 30 W DC	3.17 x 2.32 x 1.5 (80.5 x 59 x 38)	•	•		•	122
FLZ Series Hygr	ostats							
FLZ 600	-	100 - 250 VAC / Max. 30 W DC	2.52 x 1.46 x 1.81(64 x 37 x 46)	•	•		•	124
FLZ 610	-	100 - 250 VAC / Max. 30 W DC*	3.17 x 2.32 x 1.5 (80.5 x 59 x 38)	•	•		•	124

* See p.125 for more information



available

PFH-T | COMPACT FAN HEATER WITH THERMOSTAT

200 W - 1200 W



FAN HEATER WITH THERMOSTAT FLH-TF 125 W - 800 W



The PFH-T Series Compact Fan Heaters with thermostat

feature our new touch safe design. Ideal for maintaining precise temperatures required for the proper function of electronics, while also protecting equipment from damaging condensation caused by changes in temperature or humidity. Available in 6 models.

Compact Design

Integrated Fan

UL Certified

508A panels.

same compact housing.

Wide range for heat options from 200W to 1200W all housed in the

Compact fan moves air across the

Heaters are UL Recognized to

NITW2 and NITW8 standards

PTC Heater Technology Uses a self regulating heating

element designed to prevent

overheating and safe operation within your application.

allowing for easy integration into UL

heater elements to provide quick and efficient heating of the enclosure.

Flexible Mounting Options

Unit can be direct mounted or connected to a standard DIN rail without tools using the included snap fastener.

Touch-Safe Outer Housing

Well insulated ABS hightemperature resistant plastic housing material ensures that unit remains cool and safe to touch during operation.

Precise Temperature Control

Built in thermostat allows our heater to be set to the precise temperature required for your application.

Reduced Installation Time Save time and money when installing or moving the unit with our UL listed quick connects.

The FLH-TF Series Fan Heaters with thermostat follow a traditional design proven to provide heat to enclosures. These heaters are designed to protect electronics from low temperatures and moisture caused by high humidity or rapid temperature changes. Available in 4 models.

Surface Mountable Unit can be direct mounted within the enclosure without the need for DIN rails.

Precise Temperature Control Easy to read built in thermostat allows our heater to be set without tools to the precise temperature required.

Integrated Fan Switch Allows circulating fan to run continuous or only when the unit is actively heating.

Best Temperature Guaranteed

Used predominantly for the avoidance of excessively low temperatures or excessively high humidity in the control cabinet.

Standard Performances

Standard performance ratings from 125 to 800 Watts ensure that the units will be compatible with common heater requirements.

UL Certified

Heaters are UL Recognized to NITW2 and NITW8 standards allowing for easy integration into UL 508A panels.

PFH-T Series (200 - 1200 W	/) Comp	act Fan He	eaters			1				
Model Number	Part Number	Voltage (VAC)	Heating performance (W)*	Frequency (Hz)	Power Consumption (W)	Airflow Volume CFM (m3/h)	Starting Current (A)	Width in (mm)	Depth in (mm)	Height in (mm)	Weigh (kg)
PFH-T 200	17020715034	115	200	60	215	30 (50)	9	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
PFN-1 200	17020710034	230	200	50/60	215	30 (50)	9	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
PFH-T 400	17040715034	115	400	60	415	30 (50)	15	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
FFN-1 400	17040710034	230	400	50/60	415	30 (50)	15	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
PFH-T 650	7065715034	115	650	60	665	30 (50)	20	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
	17065710034	230	650	50/60	665	30 (50)	20	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
PFH-T 800	17080715034	115	800	60	815	30 (50)	31	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
	17080710034	230	800	50/60	815	30 (50)	31	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
	17099715034	115	1000	60	1015	47 (80)	25	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
PFH-T 1000	17099710034	230	1000	50/60	1015	47 (80)	25	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
PFH-T 1200	17099810034	230	1200	50/60	1215	47 (80)	31	3.46 (88)	5.47 (139)	5.59 (142)	1.68 (.76)
Design	Housing: ABS	high tempera	ture plastic								
FLH-TF Series	(125 - 800 W	/) Fan H	eaters with	n Thermo	ostat						
FLH-TF 125	17012515407	115	125	60	140	16 (27)	3	4 (102)	5.375 (137)	5.5 (140)	2.2 (1.0)
FLN-1F 123	17012510407	230	125	50/60	140	16 (27)	3	4 (102)	5.375 (137)	5.5 (140)	2.2 (1.0)
FLH-TF 200	17020015407	115	200	60	230	16 (27)	4.5	4 (102)	5.375 (137)	5.5 (140)	2.2 (1.0)
FLN-1F 200	17020010407	230	200	50/60	230	16 (27)	4.5	4 (102)	5.375 (137)	5.5 (140)	2.2 (1.0)
FLH-TF 400	17040015407	115	400	60	440	26 (44)	9	4 (102)	5.375 (137)	7.5 (191)	3.0 (1.4)
	17040010407	230	400	50/60	440	26 (44)	9	4 (102)	5.375 (137)	7.5 (191)	3.0 (1.4)
FLH-TF 800	17080015407	115	800	60	860	26 (44)	14	4 (102)	5.375 (137)	7.5 (191)	3.0 (1.4)
	170 8001 0407	230	800	50/60	860	26 (44)	14	4 (102)	5.375 (137)	7.5 (191)	3.0 (1.4)

*Heating performance (Ta = +68 °F/+20 °C) Approvals (see the Quick Selection Chart found at the beginning of this section)

Housing: aluminum metal



Design

FLH-TF **Traditional Design** (NITW2, NITW8)





For additional technical data,

drawings and manuals.

www.pfannenbergusa.com

PRH-M | MINI RADIANT HEATERS 10 W - 30 W





FLH | RADIANT & FAN HEATERS 30 W - 400 W



The PRH-M Mini-Radiant Heaters are available in 3 models ranging from 10 W - 30 W. These small heaters are ideal for small outdoor enclosures, preventing condensate formation.

Easy Mounting Options

Unit can be connected to a standard DIN rail without tools using the included snap fastener.

Multiple Performance Ratings

The PRH-M is available in 3 different heating performance based models from 10 W to 30 W. Choose the total heat to be distributed based on your calculated requirements.

Ultra Compact Design

At just slightly over 1" wide and under 3" tall, this compact design easily installs into areas that have a limited installation space.

Durable Long-Lasting

With its rugged design, solid construction and no moving parts you can count on the PRH-M Heater to perform consistently over a long period of time.

Reduced Installation Time

The PRH-M Heater supports multiple voltage and includes a hard wired 12" (300 mm) electronic cord to easily install within the electrical enclosure.

UL Certified

Heaters are UL Recognized to NITW2 standards allowing for easy integration into UL 508A panels.

The FLH Heaters are available as a radiant heater or as a forced air heater for larger wattages. These heaters are designed to protect electronics from low temperatures and moisture caused by high humidity or rapid temperature changes.

Easy Mounting Options

Unit can be connected to a standard DIN rail **without tools** using the included snap fastener.

Heat Distribution

Our larger FLH 250 and FLH 400 Heaters include a fan to help circulate the heat in larger enclosures, ensuring quick and even distribution.

Durable Long-Lasting

With its rugged design and solid construction you can count on the FLH Heaters to perform consistently over a long period of time.

Reduced Installation Time Save time and money when installing or moving the unit with our UL listed quick connects.

UL Certified Heaters are UL Recognized allowing for integration into UL 508A panels.

PRH-M Series (PRH-M Series (10 - 30 W) Mini Radiant (PTC) Heaters													
Model Number	Part Number	Voltage (VAC)	Heating performance (W)*	Frequency (Hz)	Power Consumption (W)	Starting Current (A)	Width in (mm)	Depth in (mm)	Height in (mm)	Weight Ib (kg)				
PRH 010-M	17000105317	110-250	10	50/60	10	1.0	1.16 (29.5)	1.77 (45)	2.95 (75)	.19 (.09)				
PRH 020-M	17000205317	110-250	20	50/60	20	1.1	1.16 (29.5)	1.77 (45)	2.95 (75)	.26 (.12)				
PRH 030-M	17000305317	110-250	30	50/60	30	1.2	1.16 (29.5)	1.77 (45)	2.95 (75)	.26 (12)				
Design	Black anodized Al	uminum												
FLH Series (10 ·	- 150 W) Radia	ant Heate	rs - With e	xtruded	aluminum	body								

FLH Series (10 -	- 150 W) Radia	ant Heate	rs - With e	xtruded	aluminum	body				
FLH 030W	17003005007	110-250	30	50/60	30	1.2	2.76 (70)	1.97 (50)	3.94 (100)	.55 (.25)
FLH 045W	17004505007	110-250	45	50/60	45	1.8	2.76 (70)	1.97 (50)	3.94 (100)	.55 (.25)
FLH 060W	17006005007	110-250	60	50/60	60	2.5	2.76 (70)	1.97 (50)	6.89 (175)	.99 (.45)
FLH 075W	17007505007	110-250	75	50/60	75	4.5	2.76 (70)	1.97 (50)	6.89 (175)	1.12 (.51)
FLH 100W	17010005007	110-250	100	50/60	100	5.0	2.76 (70)	1.97 (50)	6.89 (175)	1.12 (.51)
FLH 150W	17015005007	110-250	150	50/60	150	7.5	2.76 (70)	1.97 (50)	9.84 (250)	1.7 (.77)
FLH Series (250	- 400 W) Fan	Heaters -	With extr	uded alu	minum bo	dy				
FLH 250	17025015007	115	250	60	260	2.2	3.35 (85)	4.09 (104)	7.34 (186.5)	2.29 (1.04)
FLH 230	17025010007	230	250	50/60	260	1.1	3.35 (85)	4.09 (104)	7.34 (186.5)	2.29 (1.04)
FLH 400	17040015007	115	400	60	410	3.6	3.35 (85)	4.09 (104)	8.92 (226.5)	2.65 (1.20)
	17040010007	230	400	50/60	410	1.8	3.35 (85)	4.09 (104)	8.92 (226.5)	2.65 (1.20)

FLH Series (10 ·	- 150 W) Radi	ant Heate	rs - With e	xtruded	aluminum	body				
FLH 030W	17003005007	110-250	30	50/60	30	1.2	2.76 (70)	1.97 (50)	3.94 (100)	.55 (.25)
FLH 045W	17004505007	110-250	45	50/60	45	1.8	2.76 (70)	1.97 (50)	3.94 (100)	.55 (.25)
FLH 060W	17006005007	110-250	60	50/60	60	2.5	2.76 (70)	1.97 (50)	6.89 (175)	.99 (.45)
FLH 075W	17007505007	110-250	75	50/60	75	4.5	2.76 (70)	1.97 (50)	6.89 (175)	1.12 (.51)
FLH 100W	17010005007	110-250	100	50/60	100	5.0	2.76 (70)	1.97 (50)	6.89 (175)	1.12 (.51)
FLH 150W	17015005007	110-250	150	50/60	150	7.5	2.76 (70)	1.97 (50)	9.84 (250)	1.7 (.77)
FLH Series (250) - 400 W) Fan	Heaters -	- With extr	uded alu	minum bo	dy				
FLH 250	17025015007	115	250	60	260	2.2	3.35 (85)	4.09 (104)	7.34 (186.5)	2.29 (1.04)
FLH 230	17025010007	230	250	50/60	260	1.1	3.35 (85)	4.09 (104)	7.34 (186.5)	2.29 (1.04)
FLH 400	17040015007	115	400	60	410	3.6	3.35 (85)	4.09 (104)	8.92 (226.5)	2.65 (1.20)
	17040010007	230	400	50/60	410	1.8	3.35 (85)	4.09 (104)	8.92 (226.5)	2.65 (1.20)
Design	Aluminum profile,	brightly anodize	d							

*Heating performance (Ta = +68 °F/+20 °C)

Approvals (see the Quick Selection Chart found at the beginning of this section)

Available Models:







For additional technical data, drawings and manuals. www.pfannent





FLZ 510-530 | THERMOSTATS

The FLZ 510-530 Series Thermostats are available in 3

different models. The FLZ 510 comes with a change over contact, the FLZ 520 comes with a N.C contact and the FLZ 530 comes with a N.O. contact. These are designed to work with cabinet heaters and Filterfans® to control the internal cabinet temperature.

Ultra Compact Design
At just slightly over 1.5"
wide and under 3" tall, this
compact design easily installs
into areas that have a limited

installation space.

Durable Long-Lasting With its rugged design and solid construction you can count on the FLZ Thermostat

to perform consistently over a

long period of time.

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Easy Mounting Options Unit can be connected to a standard DIN rail without tools using the included snap fastener.



Unique Temperature Control In combination with control cabinet heaters, they control temperature inside the control cabinet.

Models come color coded, blue dial for cooling and red dial for heating control.

Energy Savings Solution

In combination with Filterfans® the FLZ Thermostat can control the operation of the fan, turning it off and on based on a set temperature. This provides an environmental balance through energy reduction.

UL Certified for 508A Panels Thermostats are UL Recognized allowing for integration into UL 508A panels.

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FLZ 510-530	0 Series The	rmostat									
Model Number	Part Number RAL 7035 (Light Grey)	Setting Range °F / °C	Volt (VAC)	age (DC)	Type of contact	Switching Temperature difference (K)	Switching point tolerance (K)	Width in (mm)	Depth in (mm)	Height in (mm)	Weight Ib (kg)
FLZ 510	17103000000	0-60 °C	100- 250	max. 30 W	changeover with spring contact	1²/3	± 3	1.46 (37)	1.87 (47.5)	2.34 (59.5)	.16 (.07)
	17103000010	32-140 °F	100- 250	max. 30 W	changeover with spring contact	1²/3	± 3	1.46 (37)	1.87 (47.5)	2.34 (59.5)	.16 (.07)
FLZ 520	17111000000	0-60 °C	100- 250	max. 30 W	N.C. with spring contact ¹	<7	± 4	1.57 (40)	1.42 (36)	2.83 (72)	.11 (.05)
	17111000010	32-140 °F	100- 250	max. 30 W	N.C. with spring contact ¹	<7	± 4	1.57 (40)	1.42 (36)	2.83 (72)	.11 (.05)
FLZ 530	17121000000	0-60 °C	100- 250	max. 30 W	N.O. with spring contact ¹	<7	± 4	1.57 (40)	1.42 (36)	2.83 (72)	.11 (.05)
FLZ 550	17121000010	32-140 °F	100- 250	max. 30 W	N.O. with spring contact ¹	<7	± 4	1.57 (40)	1.42 (36)	2.83 (72)	.11 (.05)
Additional D	ata			FLZ	510	FLZ	520		FLZ 530		
Operating temp	erature range				-	40 +176 (-40) +80)				°F (°C)
Connection					screw terminal t	for cable cross-	section 0.5 t	o 2.5 mm²			
Suitable for the	operation of :			fan and	heater	heat	er				
Type of mountin	ıg				snap fastening for 3	35mm profile ba	ars according	to EN 6071	5		

¹N.C. = normally closed / N.O. = normally open

²For 230 V AC operation only Approvals (see the Quick Selection Chart found at the beginning of this section)

FLZ 510 1K e

RF



Available Models:

LN



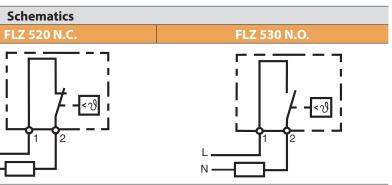
*Note: The size listed on this page is for the FLZ 510. Please see the chart on the opposite page for dimensions of our FLZ 520/530 Models







For additional technical data. drawings and templates.





FLZ 541-543 | TWIN THERMOSTATS

The FLZ 541-543 Series Twin Thermostats are available

in 3 different models. The FLZ 541 comes with N.C./N.O. contacts, the FLZ 542 comes with N.C./N.C. contacts and the FLZ 543 comes with N.O./N.O. contacts. Unlike a single thermostat with changeover contacts, connected devices can be switched to different temperature ranges to manage the internal cabinet temperature.

> Independent Controls Control dials are color coded based on the model. The FLZ 541 comes

with a red dial for controlling the

heater and a blue dial for controlling

the fan. The FLZ 542 comes with 2

red dials for controlling 2 heaters

or a heater and alarm. The FLZ

543 comes with 2 blue dials for controlling 2 fans or a fan and alarm.

Energy Savings Solution One unit can control two separate

devices. When controlling a

temperature.

Filterfan® the FLZ Twin Thermostat

can control the operation of the fan,

turning it off and on based on a set

When also controlling a heater, the FLZ Twin Thermostat can turn the heater on and off based

on enclosure temperature. This

UL Certified for 508A Panels

Thermostats are UL Recognized

allowing for integration into UL

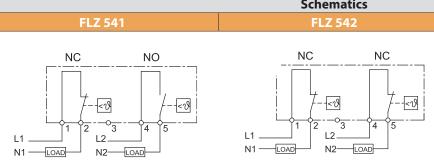
508A panels.

provides an environmental balance through energy reduction.

FLZ 541-543 Se	ries Twin The	rmostats						
Model Number	Part Number RAL 7035 (Light Grey)	Setting Range °F / °C		g contact tage (DC)	Type of contact	Switching Temperature difference (K)	Switching point tolerance (K)	Weight Ib (kg)
FLZ 541	17141000000	0-60 °C	100-250	max. 30 W	N.C. / N.O. with spring contact ¹	<7	± 4	.21 (.09)
FLZ 341	17141000010	32-140 °F	100-250	max. 30 W	N.C. / N.O with spring contact ¹	<7	± 4	.21 (.09)
FLZ 542	17142000000	0-60 °C	100-250 max. 30 W wit		N.C. / N.C. with spring contact ¹	<7	± 4	.21 (.09)
	17142000010	32-140 °F	100-250	max. 30 W	N.C. / N.C. with spring contact	<7	± 4	.21 (.09)
FLZ 543	17143000000	0-60 °C	100-250	max. 30 W	N.O. / N.O. with spring contact	<7	± 4	.21 (.09)
FLZ 343	17143000010	32-140 °F	100-250	max. 30 W	N.O. / N.O. with spring contact	<7	± 4	.21 (.09)
Additional Data		FLZ {	541		FLZ 542	FLZ	543	
Operating temperature	re range			-4() +176 (-40 +80)			°F (°C)
Connection			SCRE	ew terminal for	r cable cross-section 0.	5 to 2.5 mm ²		
Suitable for the operative	ation of :	fan and h	eater	h	eater/alarm	fan/a		
Type of mounting			snap fa	stening for 35	imm profile bars accord	ing to EN 60715		

¹N.C. = normally closed / N.O. = normally open

²For 230 V AC operation only Approvals (see the Quick Selection Chart found at the beginning of this section)



Available Models:

FLZ 541-543 **Twin Thermostats** (0-60 °C or 32-140 °F)



Ultra Compact Design

At slightly over 2" wide and just over 3" tall, this compact design easily installs into areas that have a limited installation space.

Durable Long-Lasting With its rugged design and

solid construction you can count on the FLZ Thermostat to perform consistently over a long period of time.

(80.5

3.17 in.

Easy Mounting Options

Unit can be connected to a standard DIN rail without tools using the included snap fastener.

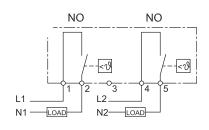






For additional technical data, drawings and manuals.

Schematics



FLZ 543



FLZ 600 - 610 HYGROSTATS The FLZ 600-610 Series Hygrostat and combined Hygrostat/Thermostat models are ideal for controlling

The FLZ 600-610 Series Hygrostat and combined

cabinet heaters and Filterfans® when a relative humidity is exceeded. Hygrostats help to keep the relative humidity within an enclosure above the dew point, preventing the condensation of water on electrical components and the corrosion of unprotected sheet metal.

FLZ 600-61	0 Series Hy	grostats	/ Hyg	rostat	s-The	rmos	stats						
Model Number	Part Number RAL 7035 (Light Grey)	Setting Range RH	Input voltage (VAC)	Max switching power (A) 115 VAC 230 VAC DC		Type of contact	Switching Temperature difference	Switching point tolerance (K)	Width in (mm)	Depth in (mm)	Height in (mm)	Weight Ib (kg)	
FLZ 600	17207000000	40-90% R.H.	N/A	5 (.2)²	2 (.2) ²	30 W	Mechanical hygrostat, changeover with spring contact	approx. 5%	± 4	1.46 (37)	1.85 (47)	2.36 (60)	.12 (.05)
FLZ 610	17218151000	40-90% R.H. / 32° - 140° F (0°C to + 60°C)	115	8 (.3)²	8 (.3)²	4 A	Electronic hygrostat-ther- mostat combo device, changeover/ relay	approx. 2 K ± 1 K / approx. 4% R.H. ± 1%	± 4	2.32 (59)	1.5 (38)	3.17 (80.5)	.18 (.08)
	17218110000	40-90% R.H. / 32° - 140° F (0°C to + 60°C)	230	8 (.3)²	8 (.3)²	4 A	Electronic hygrostat-ther- mostat combo device, changeover/ relay	approx. 2 K ± 1 K / approx. 4% R.H. ± 1%	± 4	2.32 (59)	1.5 (38)	3.17 (80.5)	.18 (.08)
Additional I	Data			-	FLZ (600			FLZ	610		-	
Operating tem	perature range			+30) +140	(0 +	60)		-4 +140 (-20 +6	0)		°F (°C)
Connection						screw t	erminal for cable of	cross-section 0.8	5 to 2.5 mm ²				
Suitable for the	e operation of :						fan ar	nd heater					

Ultra Compact Design

At just slightly over 1.5" wide and under 3" tall, this compact design easily installs into areas that have a limited installation space.

Durable Long-Lasting

With its rugged design and solid construction you can count on the FLZ Hygrostats to perform consistently over a long period of time.

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Easy Mounting Options Unit can be connected to a standard DIN rail without tools using the included snap fastener.



*Note: The size listed on this page is for the FLZ 600. Please see the chart on the opposite page for dimensions of our FLZ 610 Model.

Energy Savings Solution

The FLZ 600 Hygrostat can control the operation of a Filterfan[®] or heater, turning it on when a preset relative humidity is exceeded. This provides an environmental balance through energy reduction.

The FLZ 610 includes an additional control for operation of a Filterfan® or heater, turning it off and on based on a set temperature.

UL Certified for 508A Panels Thermostats are UL Recognized allowing for integration into UL 508A panels.

Type of mounting ¹N.C. = normally closed / N.O. = normally open ²Max. switching power value in brackets (): inductive load at $\cos \varphi = 0.6$ Approvals (see the Quick Selection Chart found at the beginning of this section) FLZ 600

Available Models:

FLZ 600 Mechanical Hygrostat (0-60 °C or 32-140 °F)

LN



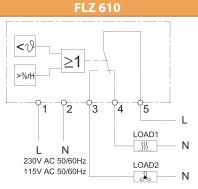


snap fastening for 35mm profile bars according to EN 60715



For additional technical data, drawings and manuals. nbergusa.com

Schematics



FLZ 610 Electronic Hygrostat/ Thermostat Combo (0-60 °C or 32-140 °F)

