



THV - THR THERMOSTATS

Compact Thermostat for DIN 35 mm. rail mounting.
Based on bimetallic junction, provides high capacity NO or NC contact.
Two versions available:

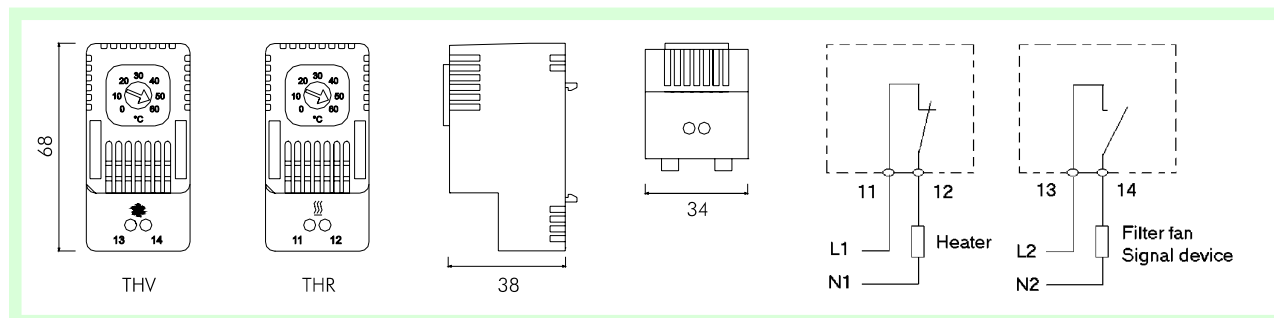
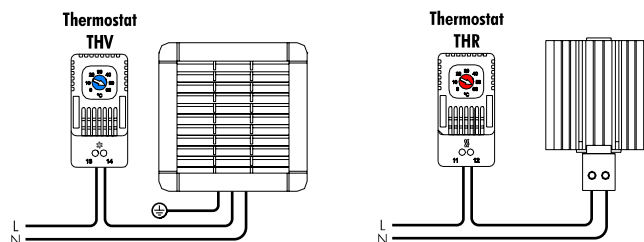


THVxx	NO Contact		Typically used for controlling ventilation devices
THRxx	NC Contact		Typically used for controlling heaters

Features	Unit	THR01	THR02	THR03	THV01	THV02	THV03
Contact function	-	NC	NC	NC	NO	NO	NO
Temperature setting range	°C	-10/+50	0/+60	+20/+80	-10/+50	0/+60	+20/+80
Hysteresis	°C	7 (tolerance +/-4)					
Max. switching current	-						
250Vac resistive load (ind. cos phi 0,6)	A	10 (2)					
120Vac resistive load (ind. cos phi 0,6)	A	15 (2)					
Max. switching power in Vdc	W	30					
Temperature sensor type	-	Thermostatic bimetal					
Contact type	-	Snap action					
Contact resistance	mOhm	< 10					
Service life	cycles	> 100,000					
Electrical connections	-	2-pole terminal for 2.5 mm ² wire					
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035					
Protection degree EN60529	-	IP20					
Operating temperature	°C (°F)	-25/+80 (-13/+176)					
Storage temperature	°C (°F)	-45/+80 (-49/+176)					
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022					
Installation position	-	Variable					
Conformity	-	CE					
Dimensions HxWxD	mm	68x34x38					
Weight	g	48					

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL
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THR - THV

DOUBLE-THERMOSTATS

Compact double thermostat for DIN 35 mm. rail mounting.
Based on bimetallic junction, provide high capacity and separated
NO and NC contacts in different combinations.
Three versions available:

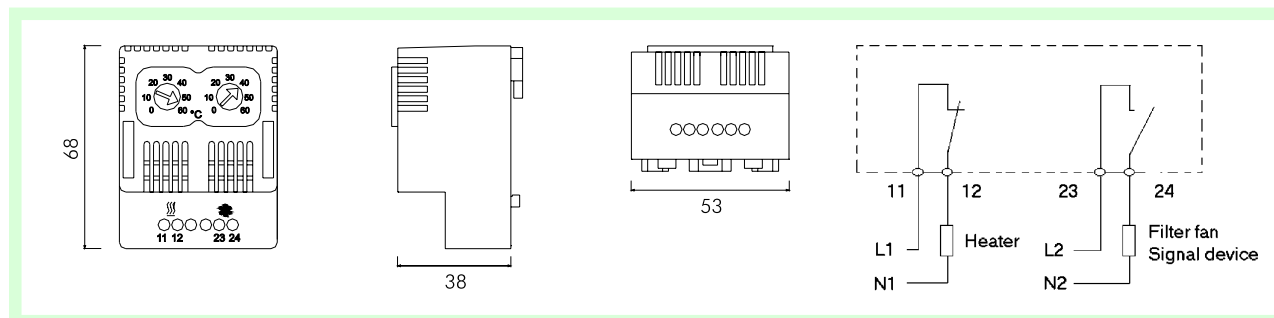
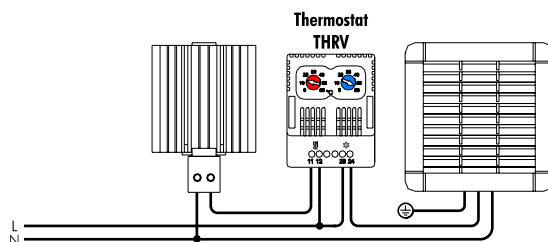


THR13	NC	●	NO	●
THR22	NC	●	NO	●
THV22	NO	●	NO	●

Features	Unit	THR13		THR22		THV22	
Contact function	-	NC	NO	NC	NO	NO	NO
Temperature setting range	°C	-10/+50	+20/+80	0/+60	0/+60	0/+60	0/+60
Hysteresis	°C	7 (tolerance +/-4)					
Max. switching current:							
at 250Vac resistive load (ind. cos phi 0,6)	A					10 (2)	
at 120Vac resistive load (ind. cos phi 0,6)	A					15 (2)	
Max. switching power in Vdc	W	30					
Temperature sensor type	-	Thermostatic bimetal					
Contact type	-	Snap action					
Contact resistance	mOhm	< 10					
Service life	cycles	> 100,000					
Electrical connections	-	2-pole terminal for 2.5 mm ² wire					
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035					
Protection degree EN60529	-	IP20					
Operating temperature	°C (°F)	-25/+80 (-13/+176)					
Storage temperature	°C (°F)	-45/+80 (-49/+176)					
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022					
Installation position	-	variable					
Conformity	-	CE					
Dimensions HxWxD	mm	68x53x38					
Weight	g	80					

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL	GUIDADINPL
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ETUH

THERMO-HYGROSTAT

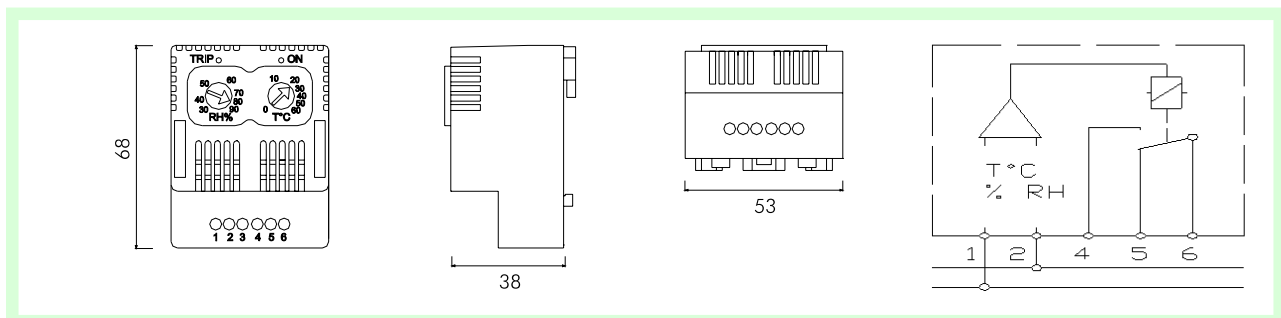
Electronic Hygrothermostat for DIN 35 mm. rail mounting.
Typically used to control enclosure heaters. The change over contact triggers either for high humidity or low temperature, independently set adjustable. LED display of power on and status.



Features	Unit	ETUH11	ETUH22
Power supply	V/Hz	120/50-60	230/50-60
Temperature setting range	°C	0/+60	
Temperature Hysteresis (accuracy)	°C	2 (+/-1)	
Relative Humidity setting range	RH%	30-90	
Relative Humidity Hysteresis	%	5	
Reaction time	sec	60	
Max. switching current			
NO at 250Vac resistive load	A	5	
NO at 120Vac resistive load	A	10	
NC at 250Vac resistive load	A	3	
NC at 120Vac resistive load	A	6	
at 30 Vdc	A	3	
Contact type	-	Change over	
Contact resistance	mOhm	< 10	
Service life, n. cycles	cycles	> 100,000	
Electrical connections	-	5-pole terminal for 2.5 mm ² wire	
Optical signal	-	LED	
Casing	-	PA6, UL94 V0 self-extinguishing, light grey RAL 7035	
Protection degree EN60529	-	IP20	
Operating/Storage temperature	°C (°F)	-20/+80 (-4/+176)	
Mounting	-	Clip for mounting on DIN rail 35 mm EN50022	
Installation position	-	Vertical	
Conformity	-	CE	
Dimensions HxWxD	mm	68x53x38	
Weight	g	105	

Accessories

DIN rail bracket	GUIDADINPL	GUIDADINPL
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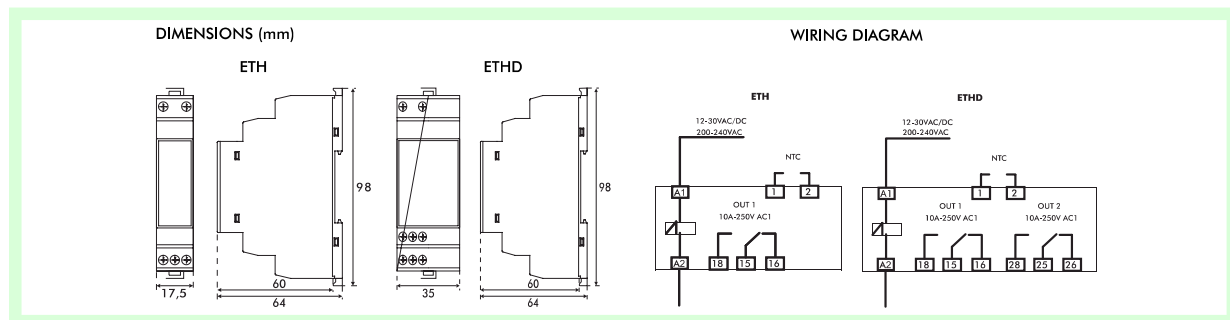
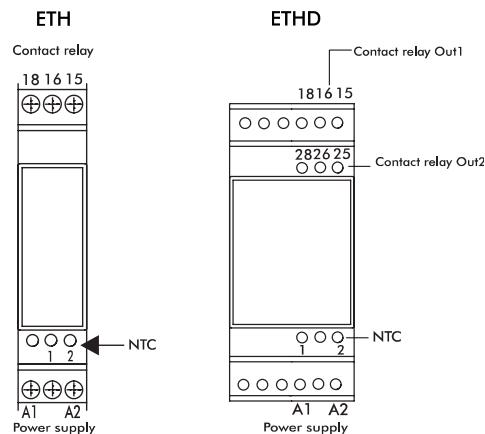
ETH - ETHD

TEMPERATURE CONTROLLERS

Compact Size - 1 DIN Module (17,5mm) or 2 DIN modules (35mm)
 Supply 24AC/DC or 240VAC
 Din rail mounting
 Digital adjustment of temperature (2 red digit)
 Appropriate for temperature control inside electric panel (fan and resistor control)
 NTC probe input
 1 or 2 relay outputs



Features	Unit	ETH10	ETH14	ETHD10	ETHD14
Power supply	V	200-240 VAC	10-30 VAC/DC	200-240 VAC	10-30 VAC/DC
Input	-	NTC (10k a 25°C)			
Relay	-	1 SPDT output (10A-AC1)		2 SPDT outputs (10A-AC1)	
Control	-	ON/OFF			
Overall accuracy	%	+/- 0.5 full scale			
Display resolution	-	1			
Measurement range	°C	NTC -20 ~ +65°C probe on the controller / NTC -35 ~ +99°C external probe			
Sampling rate	Hz	12			
Display	-	2 red digit			
Parameters programming	-	by keyboard			
Operating temperature	°C	-20 ~ +65			
Operating humidity (no condensate)	RH%	30 ~ 95			
Housing	-	self-extinguishing plastic			
Dimensions HxWxD	mm	17.5x64x98mm(BxHxL) 1 Din rail module		35x64x98mm(BxHxL) 2 Din rail module	
Connections	-	2.5 mm ² screw terminal block			
Mounting	-	DIN rail			
Conformity	-	CE			
Weight	g	45		70	

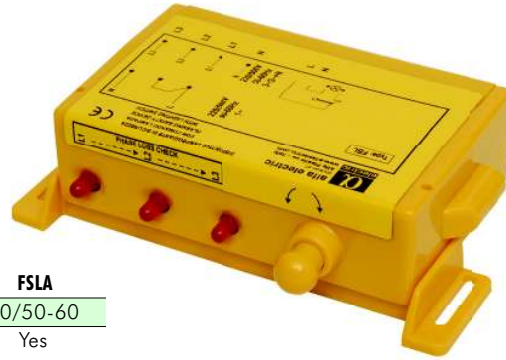




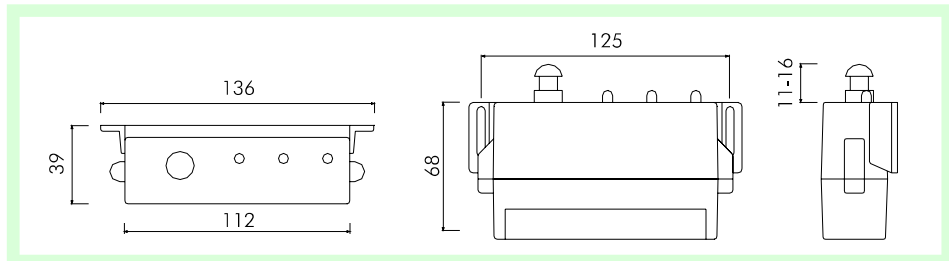
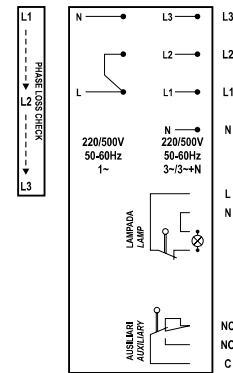
FS

FLASHING SAFETY DEVICE

The flashing safety devices series FS prevents accidents, alerting the operator that the electrical system is live. The FS devices are suitable for connection to three or single-phase lines. FS is also a phase-loss and phase-sequence control device: in case of failure, it points out the missing phase. The device functions can be increased with auxiliary contacts that allow to switch-on the lamp when opening the cabinet door or to control other equipment inside the cabinet (air conditioner, etc.)



Features		Unit	FS	FSL	FSLA
Power supply		V/Hz	1ph 115-230/50-60 or 3ph 400/50-60		
FUNCTIONS	Power on, Phase sequence, Phase loss	Yes/No	Yes	Yes	Yes
	Signal	-	n° 3 LEDs, red	n° 3 LEDs, red	n° 3 LEDs, red
	Contact for lamp	Yes/No	No	Yes	Yes
	Contact type	-	-	NC	NC
	Max current	A	-	5	5
	Service life	Cycles	-	> 25.000	> 25.000
	Auxiliary Contact	Yes/No	No	No	Yes
	Contact type	-	-	-	Change over
	Max current	A	-	-	5
	Service life	Cycles	-	-	> 25.000
Probe extension	mm	Adjustable 11-16			
Casing	-	Poly-carbonate, Yellow			
Connection on terminals	mm ²	n. 6x4	n. 8x4	n. 11x4	
Mounting	-	Adjustable fixing bracket 125 mm interlock			
Protection degree EN60529	-	IP20			
Protection class	-	I			
Operating/Storage temperature	°C(°F)	-10 +70 (+14 +158)/-20 +80(-4 +176)			
Installation position	-	Variable			
Dimensions HxWxD	mm	34x112x68 (+16)			
Weight	kg	0.15			
Package dimensions HxWxD	mm	46x145x88			
Conformity	-	CE			



FIN - DOOR LIMIT SWITCH

Required on most enclosures for safety and operation of auxiliary circuits, such as switching on lamps or switching off ventilation/air conditioning when the door is open. FIN Limit switches can be equipped with the optional bracket FINSTAFF for fixing and positioning.

Features	Unit	FINCOR	FINRIP
Contacts type	-	Zb type snap action (1NO+1NC)	
Rated current at 230V(400V) AC15	A	3.1(1.9)	
Protection degree EN60529	-	IP65	
Protection Class	-	II	
Operating temperature	°C	-25 +70	
Rated insulation voltage Ui	V	690	
Service life	Cycles	> 25.000	
Cable inlet	-	PG13,5 cable gland	
Mechanical lock	Yes/No	No	Yes
Dimensions HxWxD	mm	75x31x31	91x31x39
Weight	kg	0.04	0.05





ALFA DT01S1

DIGITAL THERMOSTATS

Universal single-sensor temperature controller, with refrigeration, defrosting exceeding temperature limit alarm functions. Compressor delay time adjustable, limit alarm delay adjustable. Defrost cycle and defrost time programmable.



ALFA DT01S2

Universal double-sensor temperature controller, with refrigeration, defrosting exceeding temperature limit alarm functions. Defrosting cycle calculated by the compressor accumulative working. Compressor delay time adjustable, limit alarm delay adjustable. Defrost cycle and defrost time programmable.



Features	Unit	ALFA DT01S1	ALFA DT01S2
Temperature controlling range	°C	- 40 ~ 50	
Temperature measuring range	°C	- 50 ~ 99	- 40 ~ 50
Refrigeration output contact capacity	A-VAC	10/277	
Defrost output contact capacity	A-VAC	10/277	
Sensor	-	NTC with 2 meters cable (included)	2 NTC with 2 meters cable (included)
Resolution	°C	1	0.1
Accuracy	°C	± 1°C, -50 ~ 70°C; ± 2°C at others	± 1°C
Sensor error delay time	min	1	
Power consumption	W	<3	<5
Power supply	V/Hz	220 AC / 50-60Hz	
Electrical connexion	-	screw terminals for stranded or rigid wire 2.5 mm ²	
Safe level	-	IP65	
Operating temperature	°C	- 0 ~ 60	
Storage temperature	°C	- 30 ~ 75	
Operation umidity	RH%	20% ~ 85% (no condensate)	
Compressor delay time	min	0 - 9	
Temperature calibration	°C	- 5 ~ + 5	
Defrosting cycle	hr	0 - 99 hours adjustable	
Defrosting time	hr	0 - 99 hours adjustable	
Defrosting end temperature	°C	0 ~ 35	
Exceeding temperature limit alarm adjustable range	°C	0 ~ 20	
Mounting	-	inside hole	
Installing hole size	mm	71x29	
Front panel size	mm	75x34.5	
Dimensioni HxWxD	mm	34.5x75x85	
Weight (gross /net)	g	265 / 200	330 / 265
Conformity	-	CE, UL	

