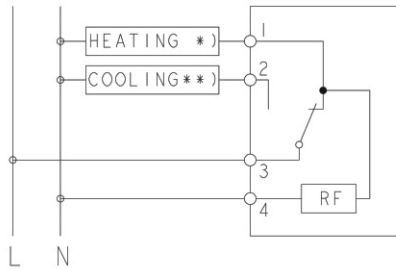


ITEM	PART NO.	QTY.	DESCRIPTION
1	TWR 60	1	THERMOSTAT CONTROLLER
2	HAL 51	1	MOUNTING BRACKET
3		2	SCREW, 3,5 MM DIA X 13 MM LONG, SELF TAPPING, ZINC PL.

APPROVED VENDOR	APPROVED MANUFACTURER	QTY.	
		VENDOR	McLEAN
RUBSAMEN HERR	ALRE-IT REGELTECHNIK	TWR 60	TWR 60

REV		DESCRIPTION	DATE	BY	CHK
1		REVISED CONTROLLER DISPLAY	ECO 96451 3/15/07	JJP	DLN

DWG. NO. TWR 60



\*) in cooling mode:  
indicator contact  
\*\*) in heating mode:  
indicator contact

TYPE	CONTACT	ADJUSTING RANGE	SWITCHING DIFFERENCE	SENSOR
TWR 60	CHANGE OVER	0 - 60°C	1K, WITH THERMAL FEEDBACK	BIMETAL SENSOR

**CAUTION:**  
A LICENSED ELECTRICIAN ONLY IS PERMITTED TO OPEN THIS DEVICE AND TO INSTALL IT ACCORDING TO THE CIRCUIT DIAGRAM IN THE CASING LID / MOUNTING INSTRUCTION. THE RELEVANT SAFETY INSTRUCTIONS HAVE TO BE OBSERVED HEREBY.

**APPLICATION / INSTALLATION:**  
CONNECTION OVER TERMINALS 2,5 MM  
MOUNTING ON A 35 MM STANDARD RAIL  
THE SWITCH CABINET TEMPERATURE CONTROLLER HAS BEEN SPECIALLY DESIGNED FOR THE SUPERVISION AND CONTROL OF TEMPERATURES IN SWITCH CABINETS, DRINK OR CIGARETTE DISPENSERS, ETC. AND IS INSTALLED ON A DIN EN 60715 COMPLIANT STANDARD RAIL. IT CAN BE INSTALLED INDEPENDENT OF ITS POSITION. HOWEVER, CARE MUST BE TAKEN TO INSTALL IT IN NO OTHER BUT AN ENCLOSURE THAT COMPLIES WITH THE PROTECTION CLASS ADMITTED FOR THIS PURPOSE, SUCH AS A SWITCH CABINET FOR EXAMPLE. FOR INSTALLATION ON A SHEETMETAL WALL OR A PROFILED FRAME THE ACCESSORY SET JZ-13 MUST BE USED.

**FUNCTIONING:**  
THE SWITCH CABINET TEMPERATURE CONTROLLER IS AVAILABLE AS BREAK CONTACT (HEATING FUNCTION), MAKE CONTACT (COOLING FUNCTION) OR AS CHANGEOVER CONTACT TYPE. THE DEVICE-SPECIFIC FUNCTIONALITY CAN BE LEARNED FROM THE COLOURED TEMPERATURE SCALE IMPRINT ON THE ADJUSTING KNOB (RED = HEATING, BLUE = COOLING, GREY = CHANGEOVER CONTACT (SEE POINT 3., CONTACT). THE SETTING OF THE SWITCHING POINT IS EFFECTED BY MEANS OF A SCREW DRIVER FOR SLOTTED SCREWS. IN ORDER TO PROTECT THE CONTROLLER AGAINST ANY INADVERTENT MISADJUSTMENT THE ADJUSTING KNOB USED WITH THIS DEVICE IS A LOCKING TYPE.

**TECHNICAL CHARACTERISTICS:**  
CONTROL RANGE: -20 ... 40°C, 0 ... 60°C OR 20 ... 80°C (SEE TYPE PLATE)  
SWITCHING DIFFERENCES (ADJUSTED):  
BIMETAL CONTROLLERS: APPROX. 1K, APPROX. 3K, 4-7K (S. TYPE PLATE)  
CAPILLARY CONTROLLERS: <7K FOR CAPILLARY CONTROLLERS  
CONTACT: SNAP CONTACT AS BREAK CONTACT = NC, MAKE  
CONTACT = NO OR CHANGEOVER CONTACT = CO (SEE TYPE PLATE)

**SWITCHING CAPACITY:**  
BREAK CONTACT/ MAKE CONTACT: 100 V ~ ... 250 V /10(2)A, AT 4 MAX. 30 W  
CHANGEOVER CONTACT- HEATING: 100 V ~ ... 250 V /10(2)A, AT 4 MAX. 30 W  
CHANGEOVER CONTACT- COOLING: 100 V ~ ... 250 V /15(2)A, AT 4 MAX. 30 W

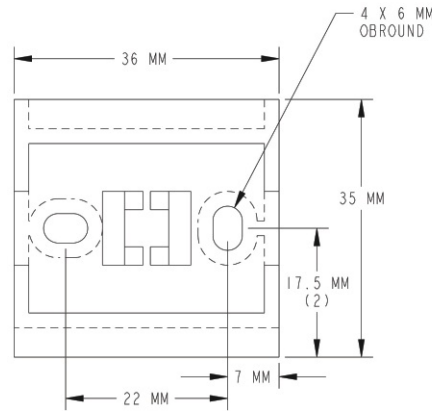
**CAUTION:** OWING TO THE THERMAL FEEDBACK, THE CONTROLLER (CO) REQUIRES A SUPPLY VOLTAGE OF 230 V~!  
**CAUTION:** WHEN SETTING THE TEMPERATURE OF THE BREAK CONTACT (NC) AND OF THE CHANGEOVER CONTACT (CO) TO USE IT AS A BREAK CONTACT, CARE MUST BE TAKEN TO ADD THE MAXIMUM HYSTERESIS (THAT CONSISTS OF THE SWITCHING DIFFERENCE AND THE OPERATING TEMPERATURE TOLERANCE) TO THE REQUIRED MINIMUM TEMPERATURE. IF, FOR INSTANCE, THE TEMPERATURE IN THE SWITCH CABINET MAY NOT FALL BELOW 5°C, THE CONTROLLER MUST BE SET TO 5+7+3 = 15°C (WITH A SWITCHING DIFFERENCE OF 4-7 K AND TOLERANCE OF ±3 K).

SWITCHPOINT TOLERANCE: ±3 K  
SENSOR: BIMETAL  
PROTECTION CLASS: 0, ADMISSIBLE PROTECTION CLASS TO BE ENSURED BY THE PLACE OF INSTALLATION CHOSEN

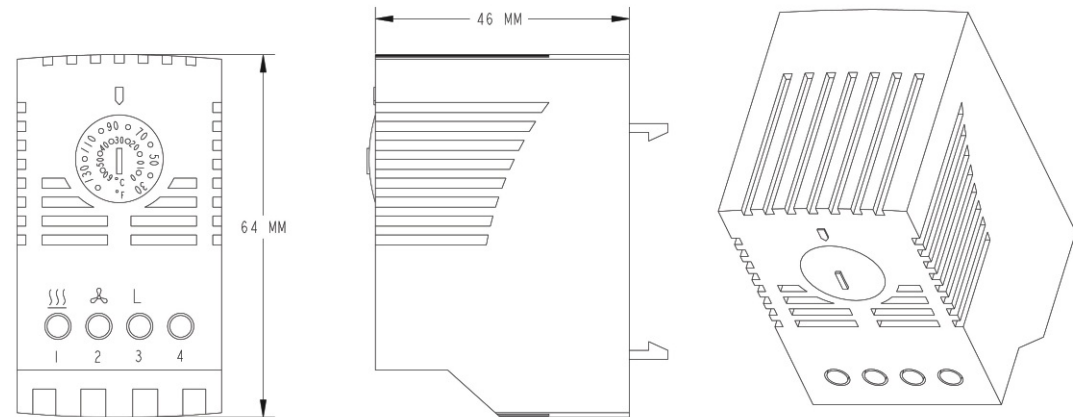
DEGREE OF PROTECTION: IP 20  
CONNECTION: 0,5 ... 2,5 MM, TERMINAL SCREWS  
BIMETAL CONTROLLER: T 40 (-20 ... 40°C); T 60 (0 ... 60°C); T 80 (20 ... 80°C)  
AMBIENT TEMPERATURE:

STORAGE TEMPERATURE: -20 ... 80°C  
WEIGHT  
BIMETAL CONTROLLER: APPROX. 50 G  
HOUSING: PLASTIC (UL94 V-0), LIGHT GREY (RAL 7035)  
CERTIFICATIONS: UL: E254658 VDE: 40013215

**MOUNTING BRACKET HAL 51**  
- FOR MOUNTING THERMOSTATS AND SMALL DEVICES  
- WIDTH: 35  
- MATERIAL: PLASTIC, RAL 7035



## TH100F Temperature Controller



**ATTENTION:**  
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES:  
DECIMALS .XX ± 0.05  
DECIMALS .XX ± 0.15  
DECIMALS .X ± 0.3  
ANGULAR ± 1 DEGREE  
MATERIAL:

DRAWN: JJP  
CHECKED: DLN  
DATE: 8/17/06  
DATE: 8/17/06  
DATE: 8/17/06

APPROVED: DATE:

SCALE: NONE

SIZE C

**McLean**  
THERMAL

TEMPERATURE CONTROLLER,  
BIMETAL

BULK: 10-3053-01  
SPEC:

SHEET 1 OF

DWG. NO. TWR 60