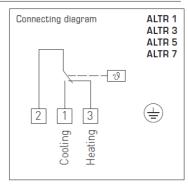
## GB THERMASREG® ALTR 1 / ALTR 3 / ALTR 5 / ALTR 7

Mechanical temperature controllers/contact thermostats THERMASREG® ALTR with switching output (two-position controller) for monitoring, controlling and limitation of temperatures at pipes or vessels, e.g. in connection with hot-water or floor heating systems. The contact temperature controller ALTR is built as one-step device, as adjustable temperature controller TR (with external setting) or as adjustable temperature monitor TW (with internal setting).

TECHNICAL DATA	
Switching capacity: (Contact load)	24 250 V AC $+$ 10 %, 16 A, $\cos\phi=1.0$ 24 250 V AC $+$ 10 %, 1.5 A, $\cos\phi=0.6$ at 24 V AC min. 150 mA
Contact:	dust-proof switch block unit as potential-free single-pole changeover contact
Enclosure:	plastic, material polyamide, 30% glass-globe-reinforced, colour traffic white (similar to RAL 9016)
Enclosure dimensions:	108 x 70 x 73.5 mm (Thor 2)
Cable gland:	M 20 x 1.5; including strain relief
Enclosure temperature:	-35+G5°C
Tolerance:	$T_{min} \pm 5K$ ; $T_{max} \pm 5K$
Design principle:	torsion meter with liquid filling
Process connection:	endless strap in metal tightener (included in the scope of delivery)
Strap dimensions:	$\emptyset = 13 - 92  \text{mm}  (14 - 3)$ , L = 300 mm
Electrical connection:	0.14-2.5 mm² via terminal screws
Protection class:	I (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Standards:	CE conformity, EMC directive 2014/30/EU, low-voltage directive 2014/35/EU
FUNCTION	<b>Heating</b> : The preset setpoint (scale value) is equivalent to the switch-off value of the heating. The switch-on value is lower by the amount of operating difference. Contact 2-3 breaks when temperature rises to the preset value.
	Cooling: The preset setpoint (scale value) is equivalent to the switch-on value of the cooling.  The switch-off value is lower by the amount of operating difference.  Contact 1-2 closes when temperature rises to the preset value.



Type/WG01	Temperature Range	Thermal Operating Difference (fixed) approx.	Max. Capillary Temperature	Item No.	
LTR 1/3/5/7				TR (External setting)	
ALTR-1	-35 +35 °C	5K (±1K)	+60°C	1102-1030-1100-100	
ALTR-3	0 +60°C	5K (±1K)	+75°C	1102-1030-1100-300	
ALTR-5	0 +90°C	5K (±1K)	+120°C	1102-1030-1100-400	
ALTR-7	0+120°C	5K (±1K)	+130°C	1102-1030-1100-500	
Extra charge:	U = Internal setting (TW), e.g. ALTR-1U				