

# OPERATION MANUAL

## Hygrostat (humidity switch) TW 2001

### Description



### Technical data

Humidity switch (hygrostat)	
Regulation range	10...80 % RH
Application range	10...90 % RH, 10...40 °C without condensation
Hysteresis	Nominal 5 % RH (3...8 % RH)
Setting time	Approx. 15 min
Switch rating	Closed 240 V/5 A Öpen 240 V/2.2 A
Switching cycles	>6000 (at maximum rating)
Angle of rotation	304°
Axis diameter	6.32 mm
Dimensions L x B x H	85 x 45 x 25 mm
Certifications	VDE, UL und CSA
CE-conformance	2004/108/EG
Electromagnetic compatibility	DIN EN 60730-1:2012 DIN EN 60730-2-13:2008
Model	Article-No.:
Model for dryer	TW2001-A
Model for humidifiers	TW2001-B
Model with reverser	TW2001-C
Model with reverser	TW2001-D

### Attention

Please avoid extreme mechanical and inappropriate exposure.

The device/product is not suitable for potential explosive areas and medical-technical applications.

### Range of application

- Air dryer, humidifier, air conditioner
- Building instrumentation
- Agriculture, garden centers
- Replacement market for household appliances

### Characteristic features

- Low priced universal hygrostat for various application areas
- Regulation range 10 % to 80 % RH
- Temperature range 10...40 °C
- Hysteresis 5 % nominal, response time 15 minutes
- Three different type of contact modes:  
open, closed or reversible contacts
- Contact rating: **Closed** 240 V AC 5 A **Open** 240 V AC 2.2 A

### Application areas

The hygrostat TW 2001 is an electromechanical regulator for relative humidity. In contrast to electronic devices, the hygrostat does not require any power supply. The switch contact is of high rating and can be directly used for control of electric loads. The switch has contacts for 6.3 mm flat plug.

The physical measuring principle is based on characteristics of hygroscopic polyamide band which is pre-stretched with a spring. The water content in the plastic band is in balance with the relative humidity of surroundings. Depending on the atmosphere humidity, the water content in the polyamide band changes and as a result the length of the band changes. At a certain length, a micro switch gets operated through a lever mechanism.

The switch point setting (10 % bis 80 % RH) is done by a rotary switch. At the end position, the switch is always closed or open, independent of the air humidity value.

The item is supplied without housing. The contemporary safety guidelines are to be followed. Electric connections are to be carried out by only trained personnel!

**TW2001-A:** Model for control of air dryers. The contact switches on if the limiting value is exceeded (closed). Switch rating 240 V AC / 5 A.

**TW2001-B:** Model for control of humidifiers. The contact switches off if the limiting value is exceeded (open). Switch rating 240 V AC / 2.2 A.

**TW2001-C:** Universal-model with reversible contact. Switch rating: Open 240 V AC / 2.2 A; Closed 240 V AC / 5 A.

**TW2001-D:** Universal-model with reversible contact. Switch rating: Open 240 V AC / 2.2 A; Closed 240 V AC / 5 A.