

## Pressure and temperature regulators

### Pressure and temperature limiters

#### Pressure regulators - manostats

#### Temperature regulators - thermostats

Designed for two-position pressure, temperature and pressure difference regulation, with a wide range of industrial and household applications.

They are manufactured in the following models:

**Model T** - for dry and humid tropical climates and heavily polluted industrial atmospheres

**Model T** - is certified by EZÚ Praha AO201 pursuant to EN 60730-1, 60730-2-6, 60730-2-9 and related standards

**Model II 2G Ex db eb IIB T6 Gb**, **II 2D Ex tb IIIC T50°C Db** - is approved by FTZÚ Ostrava – Radvanice AO1026, usable in environments IE11 (storage), IE21 (transport) and IE41 (stationary use in locations exposed to weather). May also be used in explosive environments in hazardous areas classified as zones 1, 2, which may sometimes contain gaseous substances mixed with air, classified in groups IIA, IIB pursuant to IEC 60079-20-1; may also be used in explosive environments in hazardous areas classified as zones 21, 22, containing layers, deposits and accumulations of flammable dust group IIIC and where may occasionally occur explosive atmospheres of combustible dust in the air. For further details see EN 1127-1..., EN 60079-10-1.

When installed, the regulator should be placed in a position protected from ultraviolet light.

Ex regulators are supplied with the accessories according to the schematic on the type sheets designated Ex.

All models may be fitted with type A or B switches.

The desired range and infinitely adjustable differential are adjusted using two control screws.

#### Pressure limiters

#### Temperature limiters

Designed for regulation circuits, reacting to electrical contacts switching when the temperature or pressure rises above a certain limit.

They are put into standby mode by pressing the RESET button.

They are supplied as model T with type A or B switches.

They are approved and certified by EZÚ Praha AO201 pursuant to EN 60730-1, 60730-2-6, 60730-2-9 and related standards. The desired temperature or pressure is adjusted using two control screws.

#### Common technical data

Working environment: cold and hot.

Temperature specified in the box for each type.

Protection class: IP65 for all models.

Vibration during operation: frequency  $f = 10$  to  $55$  Hz, amplitude  $s_2 =$  up to  $0.15$  mm, in bursts up to amplitudes  $s_2 = 0,35$  mm.

Option to seal regulator settings. Optional accessories and spare parts are common - see "Accessories".

#### Terminology

**Instability** - deviation in working values derived from number of production deviations and deviations resulting from long-term operation (can be regularly adjusted).

**Time factor** - time constant  $T$  in sec., which pursuant to EN 60730-2-9 is equivalent to 63.2 % of the temperature difference of two baths (two baths method).

**Adjustable differential** - smoothly adjustable difference between lower and upper pressure or temperature limits within the range of min. and max. differential.

**Differential a-b-c** - indicates differential:

a - at beginning of range, b - at mean control value, c - at end of range

**Limiters differential** - indicates drop in pressure or temperature at which limiter can be manually reset to standby position.

#### Electrical load and micro switch types:

T, Ex models

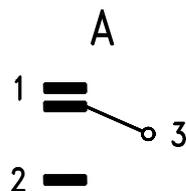
~ 250 V; 10 A  $\cos \varphi = 1$

~ 250 V; 2 A  $\cos \varphi = 0,6$  to  $0,3$

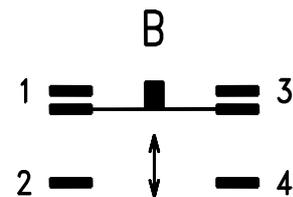
= 250 V; 0,1 A

= 48 V; 0,2 A

min. 100 mA



Switches 2-3 at increasing pressure - temperature  
Switches 1-3 at decreasing pressure - temperature



Switches 2-4 at increasing pressure - temperature  
Switches 1-3 at decreasing pressure - temperature