

## Bourdon Temperature Switches

### Explosionproof Execution

### Electric construction

Degree of protection: IP65 (NEMA 4).

Mode of protection:

- Explosion-proof: Ex-d IIC T6 and T4

- Dust-protected enclosure: Ex-tD A2I IP65 T85 and T135

Electrical safety class: class I (EN61298-2:1997-06)

### Enclosure

Case and cover copper free aluminium alloy, threaded coupling with tamper proof device. Epoxy exterior painting.

Cable entry: 1/2"-14 NPT-F std. - opt. (see point 5 overleaf).

Terminal block: screw-type terminals suitable also for ring terminals. MIL-UL insulating material.

Earthing screws: one inside, one outside.

Max section of earthing wires: 4 mm<sup>2</sup>.

### Electric contacts

(See point 1.1 overleaf). One or two microswitch SPDT, with fixed or adjustable dead band.

The function DPDT is obtained by two micro SPDT with simultaneous action to within 0,2% of span.

### Thermal element

Inert gas filled system (classification SAMA IIIB) consist of Bulb AISI 316, Connection AISI 304 compression fitting with adjustable insertion length, Capillary AISI 316 with stainless steel flexible armor.

### Ranges

from -30 a +600°C (see point 2 overleaf).

### Set point

Adjustable throughout the range and, in case of two microswitches, independently for each one.

Repeatability: better than 0,5% of span.

Note: when the set point is very close (less then 10% of span) to normal temperature, the device must be installed in a vibration free location, and mechanical shocks must be avoided.

### Mounting

- Remote at surface (std.) or 2" pipe (with optional bracket),

### Ambient temperature (operative limits<sup>1</sup>):

Ambient temperature: -40/+85°C

### Equipment

Certified according to Directive ATEX 94/9/EC Group II Category 2GD Annex III+IV

1) In accordance with ISA S51.1

Ex ATEX GAS Ex-d DUST Ex-tD  
Gr. II Cat. 2 GD

PG GOST-R

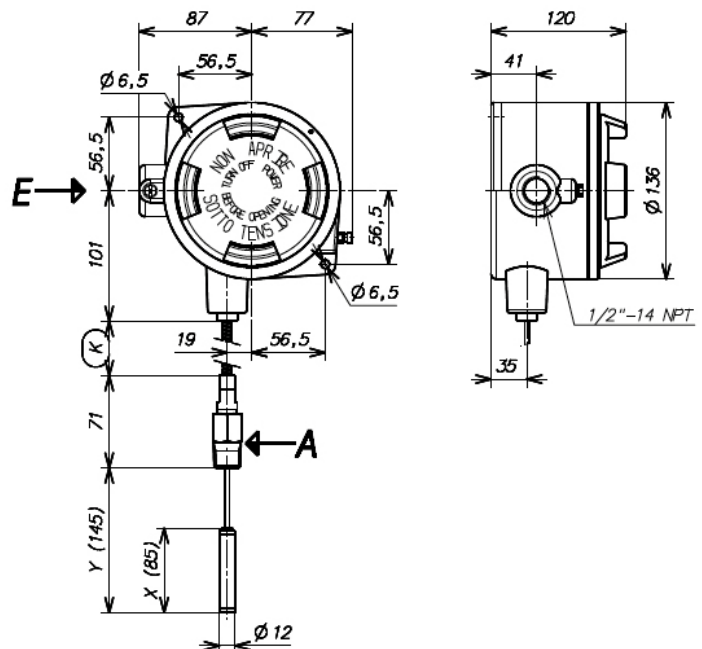
IP65

INMETRO

SIL APPROVED – IEC 61508



### Dimensions (mm) and weights (kg)



A = bulb connection

E = cable entry

Weight: 2,4 kg

## To order

### To order specify:

Model code - Setting range - Pressure connection thread - Cable entry thread - Options if any - Versions.

Example: **TAGUN - K 2 m - 0/100°C - 1/2-14 NPT-M - 1/2-14 NPT-F**

1	MODEL CODE	TAG	FEATURES						
			CONTACT TYPE		ELEC. RATINGS (resistive load) <sup>①</sup>				
	Series				CA / AC	CC / DC			
		UN DN	FIXED dead band	Silver contacts, in air	15A 220V	<u>2A 24V</u> 0,5A 125V 0,25A 220V			
		US DS		Silver contacts, argon sealed T amb -30/+70°C	15A 220V	<u>2A 24V</u> 0,5A 220V			
		UO DO		Gold plated contacts, argon sealed T amb -30/+70°C	1A 125V	<u>0,5A 24V</u>			
		UG DG		Gold plated contacts, in air	1A 125V	<u>0,5A 24V</u>			
		UR ---		ADJUSTABLE dead band silver contacts	<u>20A 220V</u>	<u>2A 24V</u> 0,5A 220V			
				① On instrument nameplate, data <u>underlined</u> only					
1.2	Electric Contacts	1 micro SPDT 2 micro SPDT							
2	CAPILLARY LENGTH	K [m]	2	4	6	8	10		
The insertion length (dimension Y, see drawing) can be varied up to (K*150) mm THE LENGTH K available will be reduced accordingly. example: K=6 m    Y = 145 mm    Y <sub>max.</sub> = 6*150 = 900 mm									
SAMA Scientific Apparatus Makers Association		Classification of the thermal system. CLASS SAMA III B							
3	RANGES	°C	-30/+70	0/100	0/160	0/250	0/400	0/600 <sup>②</sup>	
	PROOF TEMPERATURE	°C	120	120	190	300	500	600	
	MAX. DEAD BAND	°C	U	4,5	4,5	5	6	10	17
			D	15 ÷ 35	15 ÷ 35	18 ÷ 35	21 ÷ 45	33 ÷ 77	50 ÷ 115
			R						
			▶ U = micro UN, US, UO, UG    D = micro DN, DS, DO, DG    R = micro UR						
			② Bulb dimension X=102, Y=163						
4	BULB CONNECTIONS	1/2-14 NPT-M	OPT.:	3/4-14 NPT-M,	G1/2A,	G3/4A			
5	CABLE ENTRY	1/2-14 NPT-F	OPT.:	3/4-14 NPT-F, Gk1/2-F, Gk3/4-F	Adaptors	M20x1,5-F			
6	OPTIONS	Set point calibration							
		Yoke for 2" pipe mounting							
		Helical bulb (for ambient temperature -30/+70°C)							
		Bulb diameter 9,5 mm (Y=195, X=135 mm)							
7	VERSIONS ON REQUEST	NACE	NACE+Off-Shore	Off-Shore	Ammonia	Tropical.	SIL IEC 61508 micro US, UO only		