



BOURDON
The Original by Baumer

Main Features

- Excellent repeatability
- Dead band adjustment for regulation
- Fix dead band for control and alarm

Applications

- Energy safety equipment
- Power generation safety equipment
- Pressurized chambers control
- Liquid level control



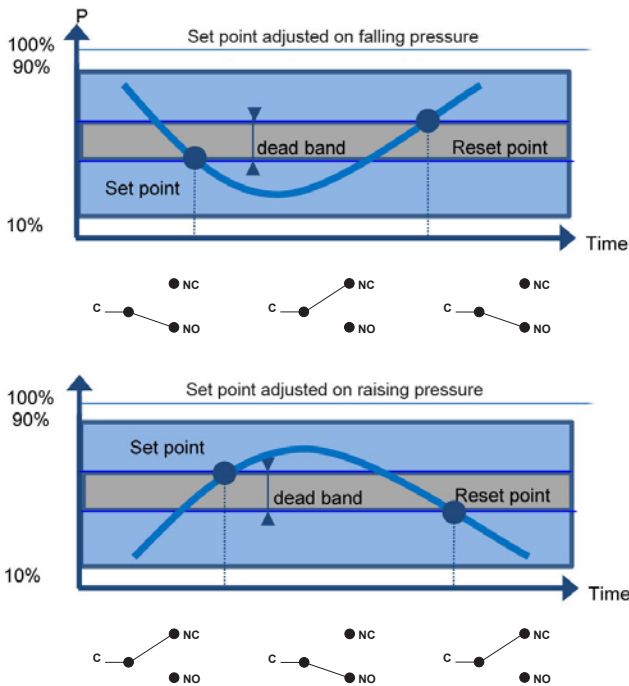
Technical Data

Pressure range	-200 mbar ... 0 to 60 ... 600 bar	Scale	Internal. Accuracy on reading $\pm 5\%$ FS
Temperatures	<u>Pressure range codes 101 to 153</u>	Cover	Zamak blue painted Captive stainless steel screws
	Medium : -15 ... + 150°C	Case	Black Zamak
	Ambient : -25 ... + 70°C		
	Storage : -40 ... + 70°C	<u>Pressure range codes 200 to 602</u>	Mounting
Repeatability	Medium : -50 ... + 200°C	Ground connection	Via internal terminal block
	Ambient : -25 ... + 55°C	Electrical connection	Terminal block with plastic cable gland for $\varnothing 7$ to 10.5 mm
	Storage : -40 ... + 70°C	Electrical function	See ordering code details on page 5
	CE conformity	Low Voltage Directive LVD 2006/95/EC Pressure Equipment Directive PED 97/23/EC	Adjustment
Protection rating	IP 66 (EN 60529)		
Process Connection	Stainless steel 1.4404 (316L)		
Sensing element	<u>Pressure range codes 101 to 153</u>		
	Flanges : Stainless steel 1.4404 (316L)		
	Diaphragm : Viton®		
	<u>Pressure range codes 200 to 209</u>		
Bellow :	Stainless steel 1.4404 or 1.4432 (316L)		
	<u>Pressure range codes 600 to 602</u>		
	Piston : Nickel plated steel		

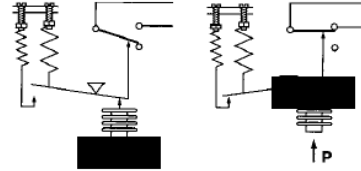
Options

Customer specific set point adjustment	Code SETP
Oxygen application	Code 0765
Mounting on 2" pipe	Code 0407
Electrical connection : stainless steel connector (Souriau)	Code 2298
Mobile plug for stainless steel connector (Souriau)	Code 2249
Stainless steel tag plate and wire	Code 9941
Lead seal of the adjustment screws	Code 8990

Principle



A flexible sensing element actuates a microswitch by means of a lever. The set point is adjusted by means of a compressible spring installed in opposition.



Set point and reset point must be between 10% and 90% of the selected scale.

Standard factory adjustment

Setpoint at 50% of the scale on falling pressure

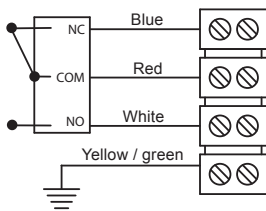
Customer specific factory adjustment (option SETP)

The following specifications have to be given with the order:

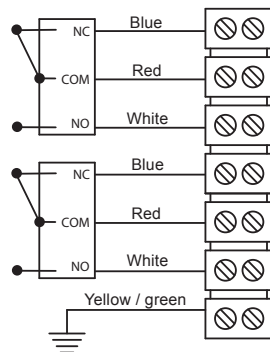
- Setpoint value
- Adjustment on falling or raising pressure
- Dead band value when using an adjustable dead band switch

Electrical connections

1 SPDT



2 SPDT



Micro switches characteristics

Switch code	N (T)	A (B)	M (K)	C (W)	E (F)	H	D (V)	J
Type	Tropicalized	Standard	Gold contact	Hermetic	Ultra sensitive	Manual reset	Ultra sensitive Hermetic	Manual reset
6 Vdc	0.1 ... 8 A	0.4 ... 15 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	N/A	0.4 ... 4 A	N/A
12 Vdc	0.1 ... 8 A	0.4 ... 15 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	N/A	0.4 ... 4 A	N/A
24 Vdc	0.1 ... 8 A	0.4 ... 6 A	10 ... 50 mA	5 mA ... 4 A	0.4 ... 1 A	0.1 ... 8 A	0.4 ... 4 A	N/A
30 Vdc	0.1 ... 8 A	0.4 ... 6 A	10 ... 50 mA	5 mA ... 3 A	0.4 ... 1 A	0.1 ... 8 A	0.4 ... 2 A	0.1 ... 10 A
48 Vdc	0.1 ... 8 A	0.4 ... 6 A	10 ... 50 mA	5 mA ... 3 A	N/A	0.1 ... 8 A	N/A	0.1 ... 10 A
110 Vdc	N/A	0.1 ... 0.5 A	10 ... 50 mA	5 mA ... 1 A	N/A	N/A	N/A	N/A
220 Vdc	N/A	0.1 ... 0.25 A	10 ... 50 mA	5 mA ... 0.5 A	N/A	N/A	N/A	N/A
115 Vac	0.1 ... 10 A	0.4 ... 15 A	10 ... 50 mA	50 mA ... 3 A	0.4 ... 10 A	0.1 ... 10 A	N/A	0.1 ... 10 A
250 Vac	0.1 ... 5 A	0.2 ... 15 A	10 ... 50 mA	50 mA ... 2.5 A	0.2 ... 10 A	0.1 ... 5 A	N/A	0.1 ... 5 A

Adjustable ranges

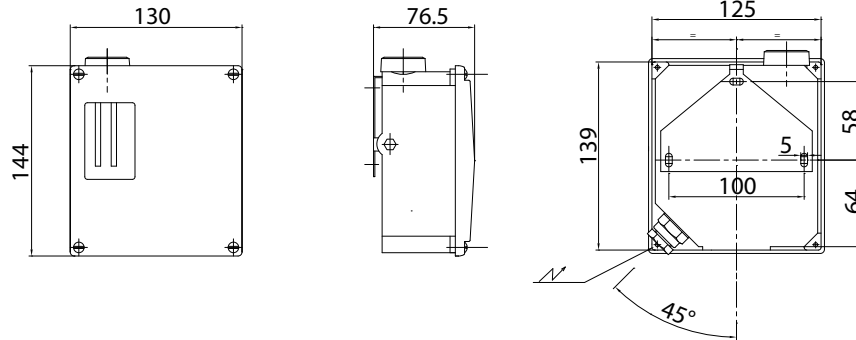
Scale	P. Max accidental	Code	Micro-switch dead band ¹⁾									
			Adjustable dead band				Fixed dead band					
			N (T*)	A (B*)	M (K*)	C (W*)		E (F*)		H	D (V*)	J
			10%	90%	10%	90%	10%	90%	10%	90%	10%	90%
mbar	bar		mbar									
-50 ... 0	0.15	101	2 - 25	2.5 - 25	6.5 - 25	7.5 - 25	0.5	0.5	2.5	3		
-2 ... 10	0.15	102	1 - 5	1.2 - 5	4.5 - 5	4.5 - 5	0.3	0.3	1.5	1.5		
-5 ... 50	0.15	103	1.2 - 15	2 - 15	5 - 15	7 - 15	0.4	0.4	1.5	2.5		
-8 ... 100	0.15	104	1.5 - 25	2 - 25	5 - 25	10 - 25	0.5	0.5	2	2.5		
-200 ... 0	1	151	6 - 80	8 - 80	15 - 80	15 - 80	2	3	7.5	10		
0 ... 200	1	152	6 - 80	8 - 80	15 - 80	15 - 80	2	3	7.5	10		
0 ... 400	1	153	15 - 150	20 - 150	30 - 150	35 - 150	4	6	18	25		
bar	bar	Code	mbar									
-1 ... 0	1.5	200	25 - 250	35 - 250	80 - 250	95 - 250	5	6	30	42		
-1 ... 2.5	7	201	80 - 1200	100 - 1200	150 - 1200	200 - 1200	22	25	96	120		
0 ... 0.2	1.5	202	15 - 100	20 - 100	60 - 100	65 - 100	4	5	18	24		
0.05 ... 1	1.5	203	20 - 400	25 - 400	80 - 400	95 - 400	4	5	24	30		
0.5 ... 10	30	204	200 - 3000	250 - 3000	650 - 3000	850 - 3000	45	50	240	300		
3.5 ... 25	30	205	600 - 5000	1200 - 5000	750 - 5000	1300 - 5000	60	100	720	1440		
bar	bar	Code	bar									
5 ... 50	65	206	1 - 10	2 - 10	2.5 - 10	3 - 10	0.15	0.2	1.5	2.5		
5 ... 100	220	207	2.5 - 15	3 - 15	5.5 - 15	6.5 - 15	0.7	0.9	3	3.5		
20 ... 150	220	208	2.5 - 15	3.5 - 15	5.5 - 15	6.5 - 15	0.7	1	3	4.5		
-1 ... 3.5	30	209	0.15 - 1.5	0.2 - 1.5	0.65 - 1.5	0.85 - 1.5	0.045	0.050	0.2	0.25		
25 ... 175	800	600	20 - 80	30 - 80	30 - 80	35 - 80	14	14	24	36		
30 ... 350	800	601	20 - 100	30 - 100	30 - 100	35 - 100	16	16	24	36		
60 ... 600	800	602	20 - 120	30 - 120	30 - 120	35 - 120	16	16	24	36		

(*) For version with 2 microswitches lower values of the dead band must be multiplied x 1.5

¹⁾ The value of the dead band is depending on the value of the set point.

This table contains the dead band values for set point adjustment at 10% and 90% of the selected scale. For adjustable dead band the lower value corresponds to the dead band spring totally released and the higher corresponds to the dead band spring fully tensed. For other set points the dead band value can be calculated by linear interpolation between the values at 10% and 90%.

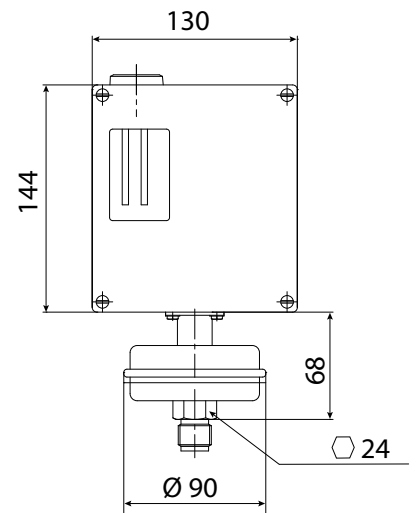
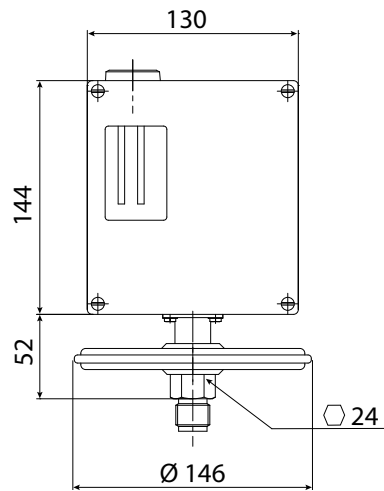
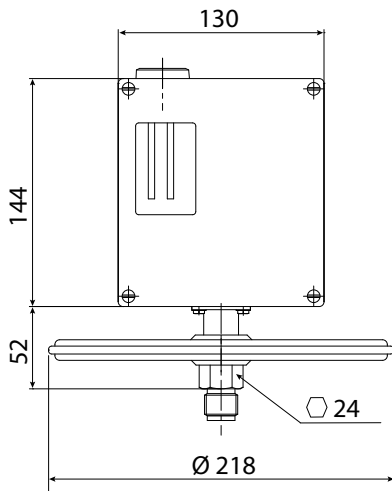
Dimensions (mm)



Pressure range codes : 101 - 102 - 103 - 104
Weight : 3 kg

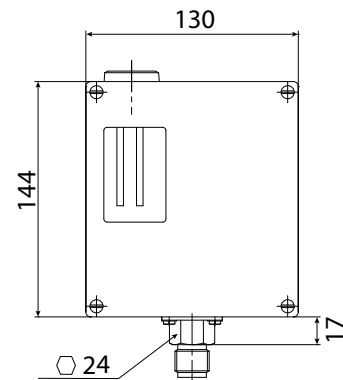
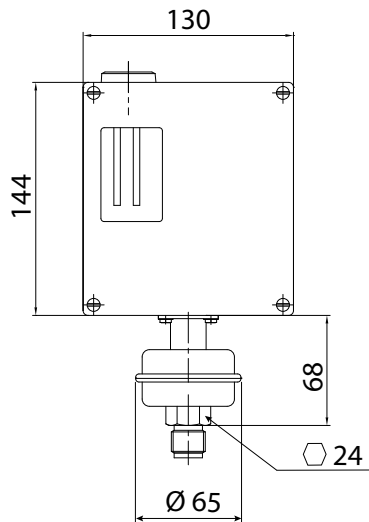
Pressure range codes : 151 - 152 - 153
Weight : 2.8 kg

Pressure range codes : 200 - 202 - 203
Weight : 2.5 kg



Pressure range codes : 201
Weight : 2.4 kg

Pressure range codes : 204 - 205 - 206 - 207
208 - 209 - 600 - 601 - 602
Weight : 2 kg



Ordering details RPPN

	RP	PN	-	A	.	xxx	/
Model							
Industrial pressure switch	RP						
Approvals							
Standard version without ATEX approval		PN					
			-				
Type of micro switches							
Deadband							
1 SPDT standard changeover switch				Adjustable		A	
2 SPDT standard changeover switch				Adjustable		B	
1 SPDT hermetically changeover switch				Adjustable		C	
2 SPDT hermetically changeover switch				Adjustable		W	
1 SPDT ultra sensitive changeover switch				Fix		E	
2 SPDT ultra sensitive changeover switch				Fix		F	
1 SPDT hermetically, ultra sensitive changeover switch				Fix		D	
2 SPDT hermetically, ultra sensitive changeover switch				Fix		V	
1 SPDT gold contact changeover switch				Adjustable		M	
2 SPDT gold contact changeover switch				Adjustable		K	
1 SPDT tropicalized changeover switch				Adjustable		N	
2 SPDT tropicalized changeover switch				Adjustable		T	
1 SPDT changeover switch, manual reset, opening on raising pressure				Fix		H	
1 SPDT changeover switch, manual reset, opening on falling pressure				Fix		J	
Pneumatic changeover contact, NO						Z	
Pneumatic changeover contact, NC						Y	
Type							
Standard						A	
Process connection							
G 1/2 male (standard)							3
1/2 NPT male							6
1/4 NPT female							8

Pressure range (mbar)	Pressure range (kPa)	
-50 ... 0	-5 ... 0	101
-2 ... 10	-0.2 ... 1	102
-5 ... 50	-0.5 ... 5	103
-8 ... 100	-0.8 ... 10	104
-200 ... 0	-20 ... 0	151
0 ... 200	0 ... 20	152
0 ... 400	0 ... 40	153
Pressure range (bar)	Pressure range (kPa)	
-1 ... 0	-100 ... 0	200
-1 ... 2.5	-100 ... 250	201
0 ... 0.2	0 ... 20	202
0.05 ... 1	5 ... 100	203
0.5 ... 10	50 ... 1000	204
3.5 ... 25	350 ... 2500	205
5 ... 50	500 ... 5000	206
5 ... 100	500 ... 10000	207
20 ... 150	2000 ... 15000	208
-1 ... 3.5	-100 ... 350	209
25 ... 175	2500 ... 17500	600
30 ... 350	3000 ... 35000	601
60 ... 600	6000 ... 60000	602

Options to be added behind the / (see example below)

Ordering example with options

