

Pressure control panels BT2000

spectrotec



BT2000-1x1



BT2000-2Lx1

Product features

- Wall mounting pressure control panels
- For non-corrosive technical gases
- Modular design (to be extended to 1x2, 1x3, 2x2, 2x3 etc. cylinders)
- Filter in process gas inlet valve
- Central filter in the regulator
- Pressure regulator with high control accuracy and integrated relief valve
- Shut-off valves with On/Off-position indicator
- Process gas and purge gas valve in the inlet
- Safety pressure gauge acc. to DIN EN ISO 5171
- Designed for easy installation
- Approved for use with oxygen
- Suitable for inlet pressure values of up to 300 bar
- Single-sided and double-sided models available as well as automatic switch-over
- Piston type regulators for outlet pressure values of up to 50 or 100 bar available
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Technical data

Type	single-stage
Inlet pressure P_1	max. 300 bar
Outlet pressure P_2 for 2L-models:	max. 10/20/50/100 bar 8-12 bar / 17-23 bar / 46-54 bar / 95-105 bar

Materials

Body:	brass
Diaphragm ($P_2 \leq 20$ bar):	EPDM
Piston ($P_2 > 20$ bar):	brass
Valve seat:	PA
Filter process gas valve:	sintered bronze
Filter regulator:	sintered stainless steel
Mounting plate:	stainless steel

Connectors

Inlets:	G 1/2" male
Outlet relief valve:	1/8"-NPT female
Outlet:	1/4"-NPT female
Pressure gauge 1xn / 2xn:	G 1/4" female
Press. gauge BT2000-2L:	1/4"-NPT female

Temperature range	-20°C to +60°C
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Leak rate	$\leq 10^{-4}$ mbar l/s He
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Weight

BT2000-1 / -2 / -2L:	3,7 / 5,5 / 7,5 kg
Extensions:	1,1 kg (per piece)

Flow rates Q [m³/h] nitrogen

The table below provides approximate values for the flow rate in standard cubic meters of nitrogen at the indicated operating conditions. The flow rates for other gas types may be estimated using the conversion factors from the table on the right.

For detailed flow rate calculations please refer to our data sheet "Performance diagram".

The values refer to a gas supply from just one side.

BT2000	P_2 [bar]			
	1	2,5	4	10
P_1 [bar]				
40	5	13	21	42
20	5	13	21	42
10	5	13	16	-
5	4	11	11	-

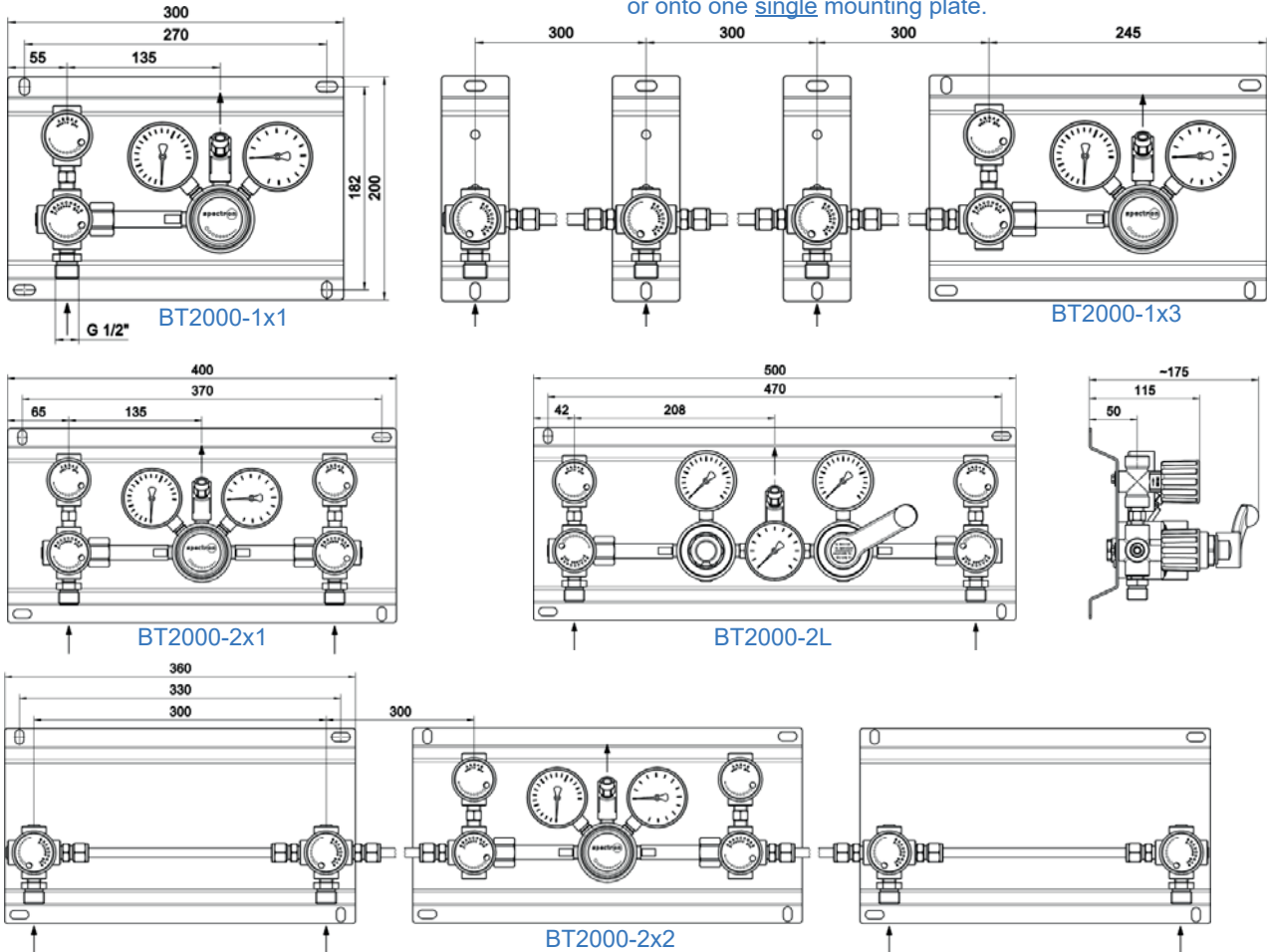
Performance factor $L_{10} = 2,5$

Conversion factors

Gas type	Factor
Argon	0,83
Helium	2,64
Carbon dioxide	0,79
Air	0,98
Oxygen	0,93
Hydrogen	3,71

Dimensions and connections

Extensions may be mounted onto individual mounting plates or onto one single mounting plate.



Ordering information: Pressure control panel BT2000

BT2000 - 1x3 - 10 - M - N2

Type

- 1x1** single-sided 1x1 cylinder control panel
- 1xn** single-sided 1xn cylinder control panel
1x1 panel with n extensions
- 2x1** double-sided 2x1 cylinder control panel
- 2xn** double-sided 2x1 cylinder control panel
2x1 panel with n extensions
- 2Lx1** automatic switch-over 2 cylinder control panel
- 2Lxn** automatic switch-over cylinder control panel
2Lx1 panel with 2xn extensions

For n-cylinder panels the block valves on the regulator panel are used as central shut-off valves.
Therefore one extension per cylinder/bundle is required.
Example 1x3: 1 extension panel with 3 extensions

Gas type

Please specify the gas type with your order!

Inlet pressure indication

- M** pressure gauge
- K** contact pressure gauge

Outlet pressure P_2

- 10** max. 10 bar*
- 20** max. 20 bar*
- 50** max. 50 bar**
- 100** max. 100 bar**
- 200** max. 200 bar** (on request)

* diaphragm type regulator

** piston type regulator