

Input Board for Turbine Speed Sensors BB0009B1



The board BB0009B1 is a special system interface for connection of turbine speed sensors with an pulse output. The sensors are connected through the preamplifier of VCO2.1 type

The board is designed to connect 3 sensors to the control board of the Z200 family. Its construction and circuit design allows the board to be safely inserted and removed from the live backplane (Hot Swap function).

- **3 input channels for turbine speed sensors**
 - o One input with RS 485 level and one Binary input with 24V DC level in each input channel
- **Input in the front panel for simulation of the input signal from the speed sensor by the pulse generator for purposes of application debugging**
- **For turbines with nominal speed of 15 up to 16000 rev / min**
- **Range of speed measurement is 0 up to 20000 rev / min**
- **Galvanic insulation of inputs from the systém and mutually from each other**
- **Independent assessment of data for each input channel:**
 - o Revolutions [rev / min]
 - o Acceleration [rev / min / s]
 - o Maximal speed [rev / min]
- **Signalling LED on the front panel for indication of the board state**
- **Optional parameters for each input channel:**
 - o number of sensing gear cogs
 - o signal input for measuring of rotations: RS-485 input or binary input or service connector binary input



Electrical Parameters					
Parameter	Conditions	Min.	Stand.	Max.	Units
Number of inputs			3		
Time for rotation speed evaluation			10		ms
Logic level - input	RS485				
Accuracy of rotat. speed measuring	At nominal rotat. speed 3000 rpm		1		mHz
Number of teeth of the sensing wheel		2		170	
Range of speed measurement			0 + 20000		rpm
Frequency range of the signal		0		25000	Hz
Dielectric strength Input / System		700			V DC
Dielectric strength Input / Input		700			V DC
Power supply		21	24	26	V
Consumption			160	220	mA

Z200

