BOP02
Digital input/output module

Overview

- Atlas overspeed protection
- Two independent channels
- Compatible with 3-wire inductive proximity switches, PNP type
- 8 digital outputs per channel with settable (programmable) action and polarity ranges (NC/NO)
- Maximum capacitry: 12 modules per 19" rack
- LED indications: active input and output signals
- LED indications: active and faulty signals (RAD/KVR)

Application

Basic application of BOP02 module is measurement of rotation speed of turbine in thermo and hydroelectric plants. Pulse signal frequency is proportional to the turbine rotation speed. Based on turbine speed in real time, the module generates digital outputs (8 per channel). One of the outputs is typically an overspeed protection signal. All outputs are programmable in terms of action and polarity (NC/NO). The module consists of a built-in prescaler that enables reactions based on 1, 2, 4, or 8 digital input signals. The input signal is bufferable and can be sent up to 100 m away.

Design

Double Eurocard: 233.4x162.5mm. Front mask dimensions are 262x30mm so as to fit into 19" racks.

Interface

Number of inputs	2
Number of outputs	16
Interface type	optocoupler
Galvanic isolation	2kV between the input and electronic part

Technical specifications

Input signal voltage level	Vs = 24/VDC
Input current	7 mA (14 mA when forwarding input signal)
Voltage supply	5VDC from communication bus
Measuring range	0 to 5000 rpm
Precision	0.01%
Scan period	1 ms
Power consumption	130 mA @ 5V
Working temperature	0 to50°C
Relative humidity	5 to 95%