**TNC2000** 

# Rotating speed/phase marker 2-channel monitor type MDA6

# Application

Applied for phase marker signal conditioning required by other dynamic data monitors of TNC2000 rotating machines monitoring system. It provides also the rotating speed measurement.

### Description

MDA6 is a two-channel device for phase marker impulses conditioning and rotating speed measurement.

The input signal from proximity sensor/transducer system is conditioned to TTL 0-5V or 0-10V standard.

The phase marker impulse informs of the moment when the phase marker groove on the shaft is just opposite the phase marker sensor. The phase marker signal is utilized by other system monitors to calculate vector parameters data like amplitude and phase angle of vibration signal spectral harmonics.

MDA6 is a 3U/6T-160 module fitted to 3U/84T TNC2000 system rack. The front panel contains three LEDs and BNC socket with buffered phase marker signal for each of two channels.The LEDs informs of correct channel works and rpm alarm values exceeding.

The RS485 Modbus RTU serial interface provides all data of measured values and OC(open collector) outputs states.

## Performances

#### METROLOGICAL

**Input:** 2 x (-4 to -20V) pulses from proximity transducer,

Input frequency maximum: 30kHz

Auto treshold: minimum signal amplitude for triggering is 4V peak to peak.

### Outputs:

- Serial digital interface RS485 with Modbus RTU protocol
- Two buffered phase marker signal TTL(0-5V)
- at the front plate BNC connector and rear multipoint connector
- 2 x 4(0)-20mA and 2 x (0-10V) DC proportional to rotating speed
- 4 x OC of alarm set point exceeding (two for each channel)
- > 2 x OC of channel inefficiency state
- > 2 x -24 V DC as supply for proximity transducer

Accuracy: ±0,05% of rpm full scale





### ELECTRICAL

**Power consumption:** nominally 1W **ENVIRONMENTAL Operating temperature:** 0°C to +65°C **Humidity:** 95% without condensation

#### MECHANICAL

Weight: 150g Housing material: aluminum front plate Dimensions (h x w x d): 128x30x167xmm Rack space requirements: 3U/6Tx160 Protection: IP00

Ordering Information A1 A2 MDA6- DD - DD - B1 - B2

**A1** Number of input pulses per one shaft revolution in a range 01 to 60 for channel 1

A2 as above but for channel 2

**B1** Rotating speed measuring range in rpm for channel 1 (required for analog outputs)

**B2** as above but for channel 2