V6000-K Keyphasor® Card

V6000/K card is used for phase and speed analysis from tachometer inputs. Up to 4 tachometers may be connected to each V6000/K card. Signals from proximity probes / optical pickup / digital TTL / magnetic sensors are all supported. This card enables speed protection and also sends the phase speed data to Vibsens-Pro condition monitoring software. It has dry relay outputs for machine speed range protection. For vibration phase analysis there must be only once pre revolution pulse while for speed measurement and control there may be multi pulse per revolution and should be set by the front panel key pad.

SIG inputs on V6000/K card rear panel are intended for the connection of rotational speed sensors. These signals are available on the BNC connectors on the front panel of V6000/K card. They can also be routed under Vibsens-PRO condition monitoring software control to serve other inputs as a speed / phase reference. This option is especially useful in multi-channel post processing such as orbit and polar plot.

TX LED indicator on V6000/V front panel. If blinking shows the communication between the card and gate way card and if it is off it shows no connection to gateway card.

Alarm & trip output LEDs indicate if any of the input channels overall value exceeds predefined set values for alarm or trip of the corresponding channel.

Key pad buttons to select and browse for configuring each channel.

ERROR LED which if on indicates one of the 4 input transducers has problems in cabling and if this LED is flashing it shows the problem has just been resolved and if it is off it indicates that all the transducers have proper cabling.

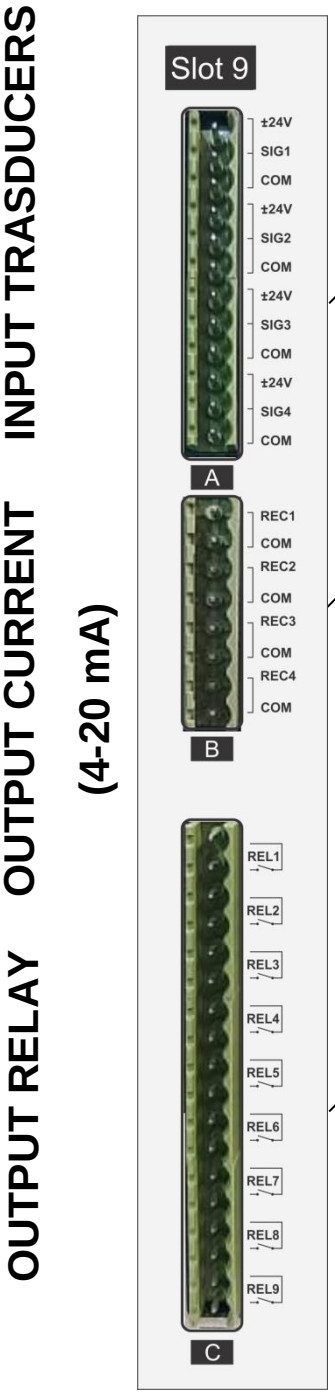
BNC buffered transducers outputs for 4 channels. These connectors are available for each input to be connected to portable data loggers.

High visible digital display which is used to show the value of each channel as well as configuration of the card.

V6000/K Front Panel Elements

V6000-K Keyphasor ® Card

Datasheet



V6000/K is produced in two type: 2 input & 4 input versions. V6000/K rear panel has 12 terminals for connecting tachometers to it. There are three terminals per channel. First one ±24 is the power supply terminal for transducer it can be either +24 or -24 V DC based on the jumper selected.

There are four 4-20 mA outputs to be connected to external recorders or PLC/DCS system. These four outputs are called REC1 to REC4 located on V6000/K rear panel. Output scaling of speed to 4-20 mA is done by front panel keypad buttons. If the V6000/K card ordered is 2 channel

There are 9 relays on the rear panel of each V6000/K card. Relays 1 to 8 are by default assigned to Alarm / Trip from tachometer 1 to 4. If the card is V6000/K2 having 2 speed inputs, 8 relays can be assigned in a way that there are two alarms for each channel. This option is useful in applications in which speed is to be controlled in two bounds i.e. speed should neither get less than a set value nor exceed another value.
For example in some turbines it is vital to have protection on turbine speed to control it between 2900 to 3100 RPM. So they need four alarm and trip values:
Alarm lower level: 2950 Trip lower level: 2900
Alarm upper level: 3050 Trip upper level: 3100
Whenever speed passes one of the above levels one of the output relays would be activated. For 4 input V6000/K this function is limited since there are 4 relays for 4 tachometers. In this configuration user can setup the card by front panel key pad so that whenever one of the lower / upper bounds is exceeded the corresponding relay is activated.

V6000/V Back Panel Elements