The MK26-22-R is a rotational speed monitor designed to compare two pulse sequences (e.g. from two rotating parts on motors, gears, turbines etc.) and to monitor these sequences for slip/synchronous operation. This makes the device especially suitable for belt-drive and conveyor belt monitoring.

To monitor slip, i.e. the difference between the two rotational speeds, two independent limit values can be adjusted. Thus one relay output can be used for alarm indications and the other relay output for shut-down functions.

Each limit value can be adjusted separately via a rotary switch in a range of 3...30 % in ten steps.

The device provides selectable output functions of the limit value relays to match the individual application. The limit value relays can be programmed for normally open mode (system working correctly: relays de-energised) or for normally closed mode (system working correctly: relays energised). Linking terminals 4/8 selects the NO mode while leaving them open provides the NC mode.

Both limit value relays S1 and S2 are monitored by a separate dual colour LED. An illuminated yellow LED indicates that the respective relay is energised.

The two NAMUR inputs are monitored for wire-break and short-circuit. If the NC mode has been selected and a fault in the input circuit occurs, both limit value relays de-energise; in the NO mode both relays energise for approx. 20 ms. Insufficient supply voltage during operation is also indicated by a short activation of the relays for 20 ms.

A fault in the input circuit (I) is indicated by the illuminated red LED of limit value relay S1; a fault in the input circuit (II) by the red LED of relay S2.

A green LED indicates that the device is powered.
Slip Monitors

A floating average can be formed to steady the input signals of both inputs. This is especially important if more than one target per revolution is to be monitored. Via the rotary switch AVR up to ten cycles can be adjusted to form the average.

For the start-up phase of the drive a start-up time delay between 0.3...30 s can selected in ten steps using the according rotary switch. In the NC mode the output relays are energised during the selected start-up delay time to prevent system shut-down due to an underspeed indication.

The start-up time delay can be activated by a potential-free NO contact or by applying supply voltage (terminals 3 and 7 linked).

In the NO mode, the relays remain de-energised during system start-up.