

## 2064 Panelmeter for incremental sensors

- For quadrature incremental sensors (A-B)
- Input frequency range 0..25 kHz
- Quadruple resolution
- Up and down count
- Reset via external contact
- Red or green 6-digit LED display
- Serial output RS-232 and RS-485
- Display scaling also as a floating point value
- 2 - 3 alarm relays
- Front panel protection IP65
- Sensor supply 24 VDC, max. 150 mA
- Power supply 85..240 VAC or 12..32 VDC/ 24 VAC



The panelmeter 2064 is designed to display the position of incremental sensors. The incremental sensor has two output channels and the direction of rotation is indicated on the basis of the phase shift of the channels A and B. The panelmeter counts the number of pulses from both the sensor outputs and the channel whose pulse edge rises up first determines the direction of rotation.

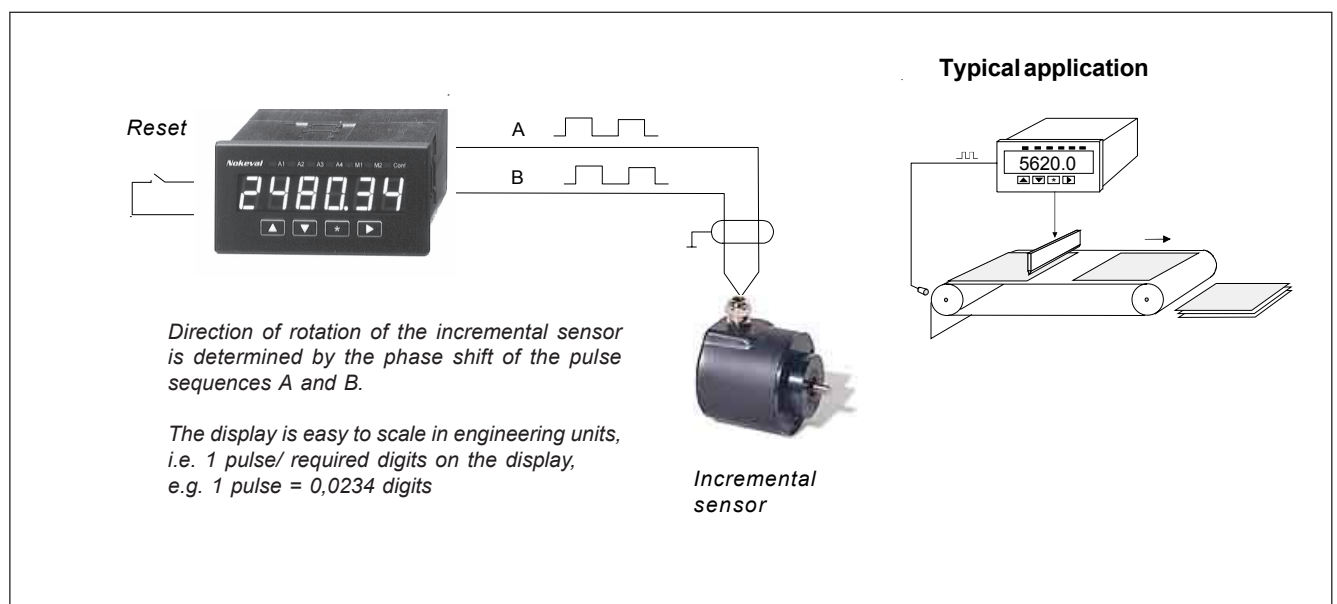
The pulse number to be counted can be scaled so that the incoming pulse is given an integer value or a floating point value, which is either added or subtracted depending on the direction of rotation. For example one incoming pulse may equal to 3.234 on the display.

The options available are 2 or 3 alarm relays and serial output RS-232 or RS-485. The serial output can only be used for reading the display value.

Separate passwords can be set for access to the configuration menu and alarms. Brightness of the display is selectable. The front panel protection rating is IP65, i.e. it can be mounted onto cabinet doors without any separate protecting cover.

The panelmeter series 2000 is very flexible and easy to modify by changing input cards for different kinds of sensors, such as temperature sensors, pulse sensors, serial inputs etc. The modification does not require any calibration. The optional cards are the same for all the instruments in this product family. Each panelmeter type has its own datasheet.

Separate field enclosures can be supplied for 1 to 3 panelmeters. The 2064 is also available in the field display series, model 2800-2064.



# Technical specification

## Sensors:

For incremental sensors where the counting direction is indicated by the phase shift of the channels A and B

**Sensor supply:** 5V, 12V tai 24 VDC, max. 100 mA selection with jumpers on input card

**Display scaling:** freely adjustable, e.g. 1 pulse equals to 14,234 on the display

**Input frequency range:** 0..25 kHz  
**Decimal selection:** 0-5 decimals

## Measuring method:

The panelmeter counts the number of pulses from both the channels A and B and the channel whose pulse edge rises up first determines the direction of rotation. Reset by external contact.

## Alarms (optional):

1 to 3 alarm relays (high alarm)  
 The alarm level is easy to set via front panel keys.  
 Relay contacts, max. 230 VAC, 2 A  
 Alternatively 3 I/O-ports, max. 60V, 0.5 A

## Serial output RS-232 or RS-485 (optional):

Serial output only for measurement reading, address and baud rate selectable

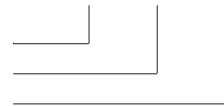
## General:

**Display** 6-digit, bright red (or green) LED, brightness selectable  
**Digit height** 14,5 mm  
**Operating temperature** -10..+60 °C  
**Terminals** removable, wire 2,5 mm<sup>2</sup>  
**Power supply** 85..240 VAC or 12..32 VDC/ 24 VAC  
**Front panel protection** IP65 with a rubber gasket  
**Case material** plastic, colour black  
**Weight** 240 g

## How to order:

### 2064-REL2-230VAC

Type Alarm card  
 Power supply 230 VAC or 12..32 VDC/24 VAC



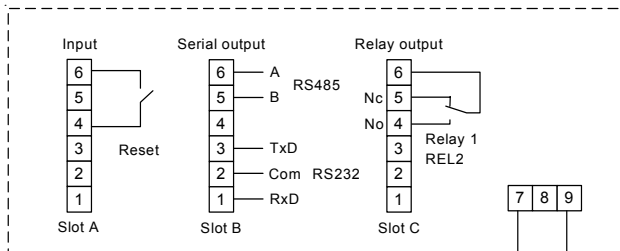
## Optional cards (2 options possible at a time):

Alarm card, 2 relays	2000-REL2
Alarm card, 3 relays	2000-REL3
I/O card (3 I/O lines)	2000-I/O
Serial output RS-232/485	2000-RS

*(When ordering a panelmeter, the "2000" of the cards is left out.)*

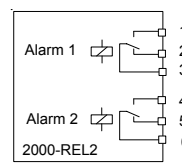
*The panelmeter is also available with a green LED display: please specify 2064GR in the order code.*

## Connection and dimensions:

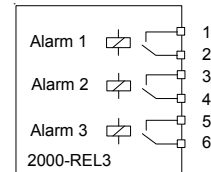


Power supply 85..240 VAC or 12..32 VDC /24 VAC (no polarity)

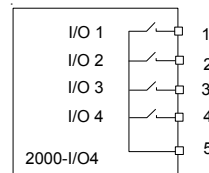
## Alarm relays



**2000-REL2**  
 • 2 relays  
 • Change-over contacts  
 max. 230 VAC/ 2 A



**2000-REL3**  
 • 3 relays  
 • Change-over contacts  
 max. 230 VAC, 2 A



**2000-I/O**  
 • 3 I/O-ports available  
 • 60 V, 100 mA  
 • Selectable direction  
 • Common ground

## Incremental sensor connection

