

## K40-R for Ratiometric signals

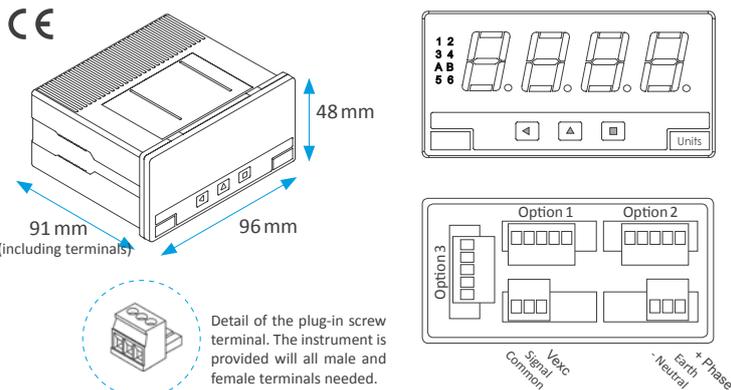
Panel meter with 20 mm digit height, in 96x48 mm (1/8 DIN) standard size, for panel mount. Accepts potentiometric signals and ratiometric sensors. Provides excitation voltage for the sensor. Universal high and low AC and DC power options. Optional retransmission and control modules with relays, analog outputs and serial outputs.



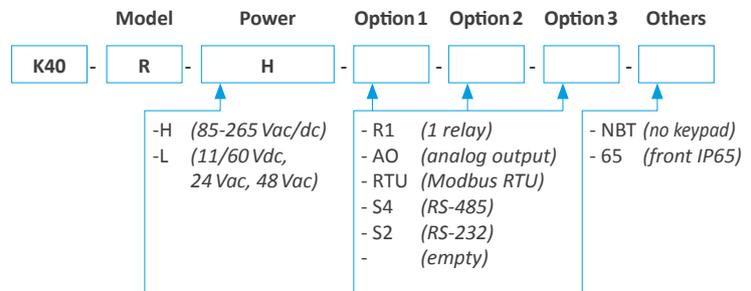
### Technical specifications

|                                    |  |
|------------------------------------|--|
| Digits                             | 4  |
| Reading                            | 9999 / -1999   |
| Decimal point                      | configurable   |
| Led color                          | red  |
| Digit height                       | 20 mm  |
| Signal ranges                      | potentiometers from 200 Ohms to 5 MOhms<br>ratiometric signals |
| Excitation voltage                 | +5 Vdc (max. 35 mA)  |
| Accuracy                           | 0.15% F.S. ±1 digit  |
| Offset drift                       | 10 ppm/°C  |
| Span drift*                        | 35 ppm/°C<br><i>*span drift value includes offset drift</i>    |
| Readings                           | 5 readings / second  |
| Refresh                            | 5 refresh / second   |
| Response time                      | <200 mSec. (0 % to 99 % signal)                                |
| Input impedance                    | 932 KOhm   |
| Power 'H'                          | 85 to 265 Vac/dc (isolated 2500 Veff)                          |
| Power 'L'                          | 11 to 60 Vdc y 24/48 Vac (isolated 15000 Veff)                 |
| Retransmission and control options | relays, analog output, serial communications, ...              |
| Consumption                        | <1.5 W (meter only)<br><4.0 W (meter with options)             |
| Protection                         | IP54 standard (optional IP65)                                  |
| Connections                        | plug-in screw terminal   |
| Weight                             | <150 grams   |
| Mounting                           | panel  |
| Front size                         | 96 x 48 mm   |
| Panel cut-out                      | 92 x 44 mm   |
| Deep                               | 91 mm (including terminals)                                    |
| Operating temperature              | 0 to 50 °C   |

### Dimensions and connections



### Order reference



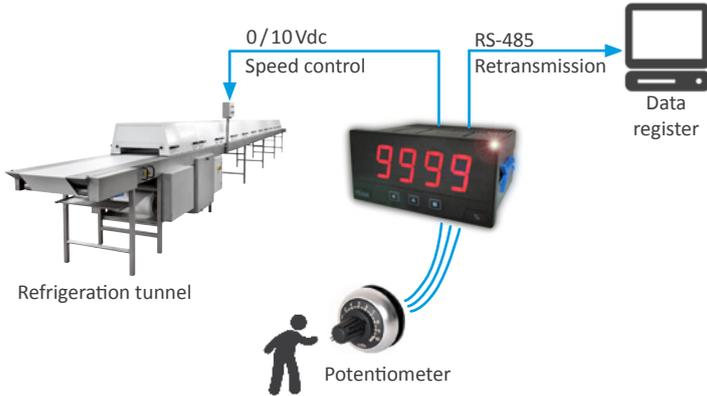
\* Relays R1 with contacts (NC / NO / Common), max. 250 Vac 8 A  
 \* Special options with 4 and 6 relays.  
 \* Analog outputs and serial outputs, isolated.

### Functions included

- Segment linearization. . . . . up to 20 segments for linearization of signals from irregular shaped volumes, tanker ships, ...
- 'Fast access' menu . . . . . a single press on the front keypad gives access to alarm setpoint modification, special functions, memory of maximum and minimum reading, ...
- 'Field correction' function . . . for fast and easy offset corrections when installing on the field.
- 'On power-up' function . . . . . protects remote systems by delaying the output and control signals at cold start-up.
- 'Measure' function . . . . . for troubleshooting purposes, it displays the actual signal at input terminals, directly in Vdc, without scaling.
- Alarms . . . . . with one or two setpoints, independent activation and deactivation delays, hysteresis, optional manual deactivation of the relay.
- Inverted relay . . . . . for security applications, relay can be configured with inverted function.
- Display filters. . . . . recursive filters for noisy signals, optional reading in predefined steps, configurable fixed digits, ...
- Brightness . . . . . 5 levels of brightness intensity.
- Password . . . . . blocks access to configuration menu.

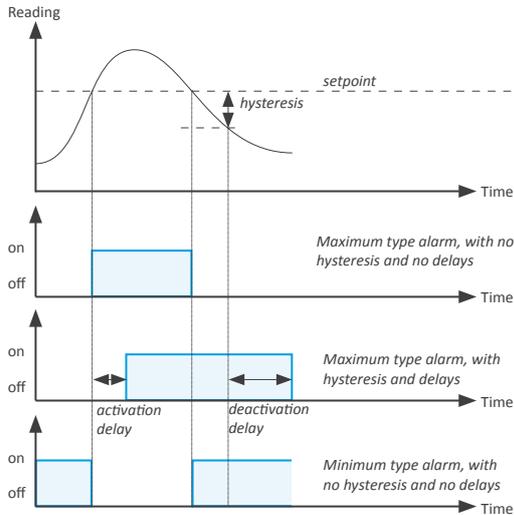
## Application example

Manual control of the transit time through a food refrigeration tunnel. The operator controls the speed by manual adjustment of a potentiometer. The K40-R meter can be scaled to read the motor speed in RPM or the transit time in minutes. The display controls the motor speed variator of the system with a 0/10 Vdc signal. Additionally, a serial retransmission module can be added for information at the control center or quality records of the freezing times applied.



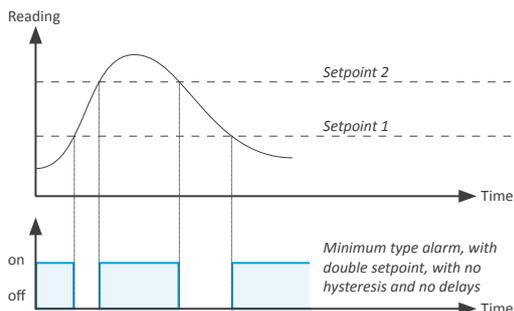
## Alarms example

Alarms with one setpoint, configurable deactivation hysteresis, independent activation and deactivation delays.



## Double setpoint alarms

Alarms with double setpoint, configurable as maximum or minimum, allow to create activation or deactivation windows..



## Other options and accessories

Options for K Series of instruments and mounting accessories for 96x48 mm housings of K Series.



NBT - Without front keypad



WME - Wall mount housing



DRA - DIN rail mount adapter



65 - IP65 front sealing



THM - Benchtop housing



KIP - Protector IP65



KA96 - 96x96 mm adapter

## Web documentation

K40-P user's manual  
K40-P datasheet

[www.fema.es/docs/3566\\_K40-R\\_manual\\_i.pdf](http://www.fema.es/docs/3566_K40-R_manual_i.pdf)  
[www.fema.es/docs/3565\\_K40-R\\_datasheet\\_i.pdf](http://www.fema.es/docs/3565_K40-R_datasheet_i.pdf)

## Reading distances

Reading distances and series of product for panel meters with digit height starting at 10 mm and up to 100 mm.

| Digit height (mm) | 10  | 14       | 20       | 60     | 100    |
|-------------------|-----|----------|----------|--------|--------|
| Reading distance  | 4 m | 5 m      | 8 m      | 20 m   | 40 m   |
| Series            | L35 | Series M | Series K | BDF-24 | BDF-44 |