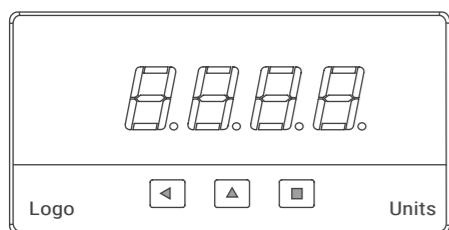
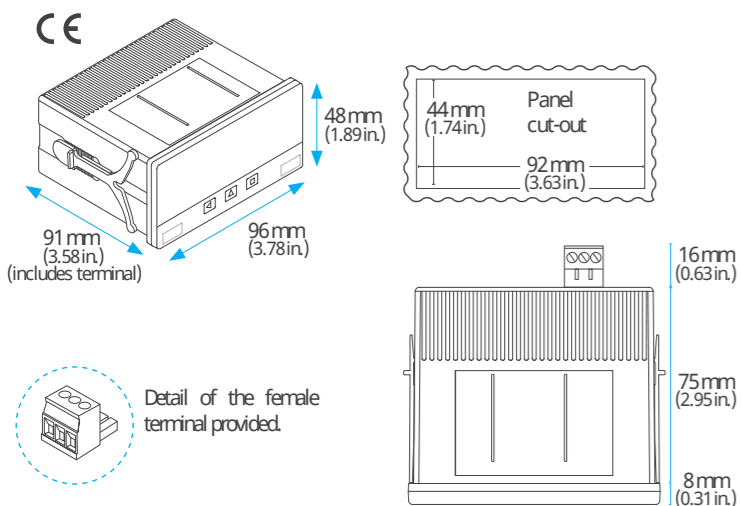


1. Front view



- Key 'LE' (Left): 1. exit menu
- Key 'UP' (Up): 1. enter into fast access' 2. next parameter
- Key 'SQ' (Enter): 1. enter into 'configuration menu' 2. validate parameter

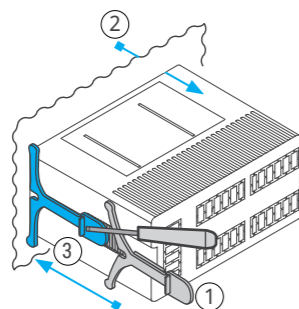
2. Dimensions and panel cut-out 'mm' (in.)



3. Panel mount

How to install the meter in a panel

1. Remove the 2 blue fixation tabs from each side of the unit.
2. Insert instrument from the front of the panel into panel cut out.
3. Re-attached the 2 blue fixation tabs by sliding each one along its rail on each side and push until the tabs are tight onto the panel. If needed use a fat screwdriver to push the tabs strongly to the end.



5. How to order

Series	Options	Customization
K-RD48-LP	-NBT (no front keypad) -65 (front IP65) - (empty)	-XXXX (customer customisation under request) - (empty)

6. Connections

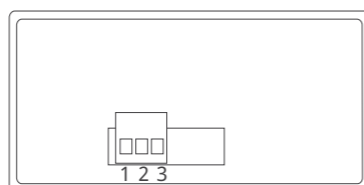


Table 1 | INPUT signal connections

INPUT signal	Input terminals			Connections
	1	2	3	
4/20 mA active	mA+ (in)	not connected	mA- (out)	

7. How to operate the menu

Key 'SQ' (Enter) - press the 'SQ' (Enter) key for 1 second to access the 'configuration menu'. Inside the menu, the 'SQ' (Enter) key functions as a 'ENTER' key. It selects and accesses the menu option currently displayed. At menus with numerical value entries, it validates the number displayed.

Key 'UP' (Up) - the 'UP' (Up) key gives access to the 'fast access' menu. Inside the menus, it moves vertically through the different menu options. At menus with numerical value entries, it modifies the digit selected by increasing its value to 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

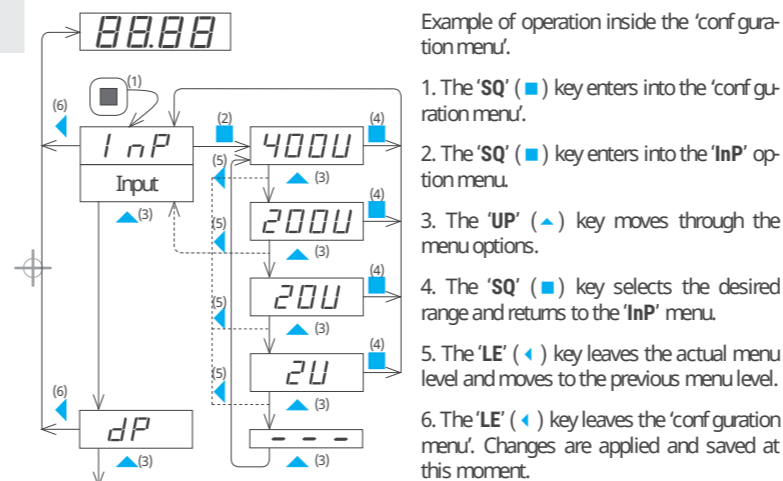
Key 'LE' (Left) - inside the menus, the 'LE' (Left) key functions as the 'ESCAPE' key. It leaves the selected menu, and eventually, will leave the whole menu. When leaving the 'configuration menu' with the 'LE' (Left) key, the changed parameters are activated. At menus with numerical value entries, the 'LE' (Left) key allows to select the active digit. To modify the value of the selected digit use the 'UP' (Up) key.

Menu 'Rollback'

After 30 seconds without interaction from the operator, the instrument will rollback and leave the 'configuration menu' or the 'fast access' menu. All changes will be discarded.

Example

The menu example indicated below is for information purposes only, and may not match the actual menu of the instrument.



8. Additional documentation

Quick installation guide www.kreuzer-elektro.de/de/programmieranleitungen



Configuration example 1

Example of a PLC powering a pressure transmitter, and receiving a 4/20 mA signal proportional to the pressure, from 0 to 16 Bar.

The loop powered meter can be directly inserted into the existing current loop that connects the pressure transmitter and the PLC.

Just open the loop and connect the LP4 meter in series, as indicated below

Place anywhere between the pressure transmitter and the PLC, to provide your local operator and maintenance personnel with instant information about the actual pressure value.

To scale the reading in 'BAR' units, access the 'configuration menu' (press 'SQ' for 1 second).

At the 'Scaling' ('ScAL') section:

- at 'Decimal point' ('dP') select the decimal point position with 2 decimals 'XX.xx'
- at 'Display low' ('d.Lo') configure '0.00'
- at 'Display high' ('d.hi') configure '16.00'

Validate changes and exit the 'configuration menu'. At this moment, the instrument is scaled to read in 'BAR' units.

To troubleshoot the instrument, it is interesting to set the 'measure function' to 'on'.

- at the 'Key 'UP' (fast access)' ('k.uP') section, select the 'Measure function' ('MEAS') and set to 'on'.

Validate changes and exit the 'configuration menu'. At this moment, press the front key 'UP' (Up) to read the input value in milliamperes. This information may be useful when troubleshooting the instrument, as it will provide the value of the input value directly in milliamperes, with no need to insert an additional handheld milliammeter into the loop.

To prevent non authorized configuration changes, consider to enable the 'password' function.

At the 'Tools' ('tooL') section:

- at the 'Password' ('PASS') section, enter a 4 digit value.

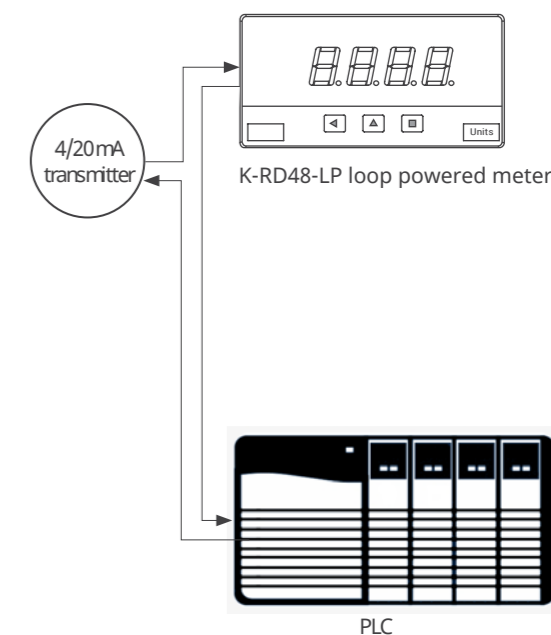
Validate changes and exit the 'configuration menu'. At this moment, when pressing the front key 'SQ' (Enter) to enter into the 'configuration menu', the instrument will request the password to enable access to the 'configuration menu'.

If you are unsure about the actual configuration, you may want to restart the unit with default factory configuration values.

At the 'Tools' ('tooL') section:

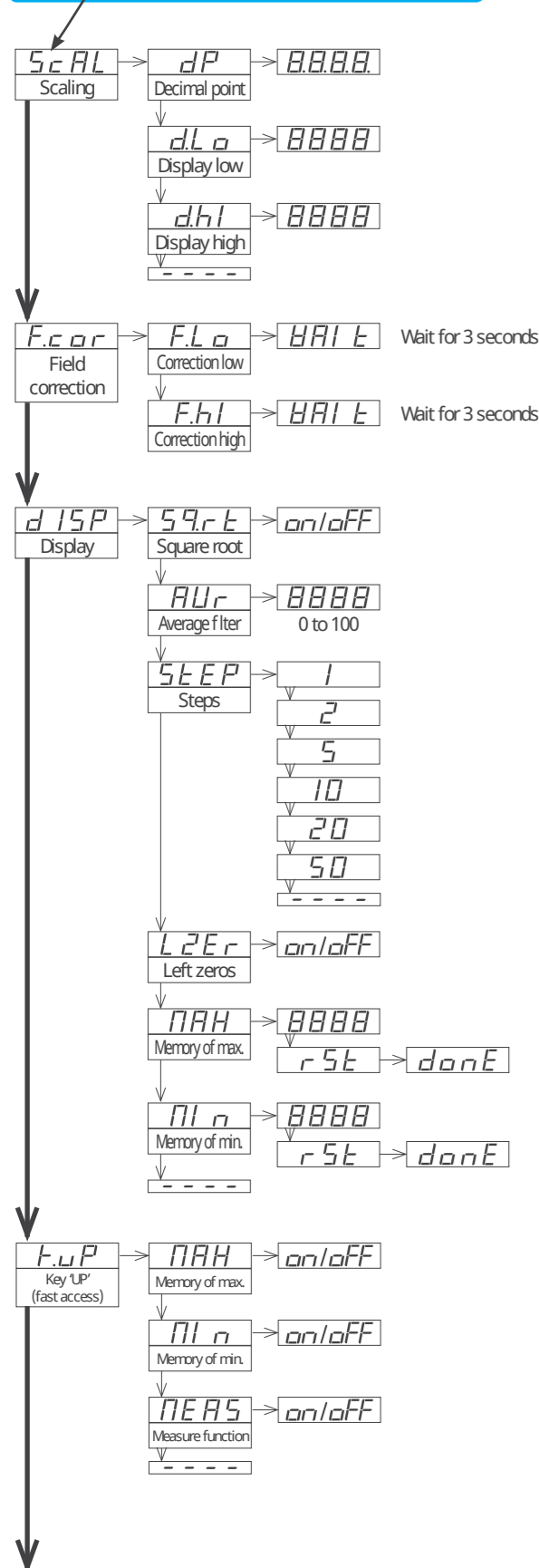
- at the 'Factory reset' ('FACT') section, select 'YES'.

At this moment, the instrument is reset to default configuration values.



11. Configuration menu

Press 'SQ' (■) for 1 second to access the 'Configuration menu'.



12. Factory configuration

Scaling	
Decimal point	xxxx
Display low	0
Display high	9000
Display	
Square root	off
Average filter	0
Steps	1
Left zeros	off
Memory of maximum	-1999
Memory of minimum	9999
Key 'UP' (fast access)	
Memory of maximum	on
Memory of minimum	on
Measure function	on
Tools	
Input range	
Input low	4.00 [mA]
Input high	20.00 [mA]
Brightness	adaptive
Password	off (0000)

13. Regulations

This instrument conforms to the actual CE regulations. For a copy of the 'CE declaration of conformity' see section 8. Applicable regulations are:
Security regulations EN-61010-1 ('Fixed' equipment, 'Permanently connected'.)
Electromagnetic compatibility regulations EN-61326-1

Instrument conforms to CE rules and regulations.

According to directive 2012/19/EU, electronic equipment must be recycled in a selective and controlled way at the end of its useful life.

14. Configuration example 2

Example of a flow measurement and retransmission of the flow value to a remote location where no power is available. The system is made of a flowmeter sensor, a I3P isolated signal converter and an LP4 loop powered meter. Only the I3P isolated signal converter is powered (any power between 18 and 265 Vac/dc is accepted). The I3P isolated signal converter powers the flowmeter and the remote LP4 meter.

The flowmeter is installed in a pipe and provides 4/20mA signal proportional to the flow. The I3P powers the flowmeter and retransmits an active 4/20mA signal, isolated, to the LP4. Configure the LP4 to scale to the desired flow reading (for example, maximum 1500 l/hour at 20mA):

At the 'Scaling' ('ScAL') section:

- at 'Decimal point' ('dP') select the decimal point position with 0 decimals 'XXXX'
- at 'Display low' ('d.Lo') configure '0'
- at 'Display high' ('d.Hi') configure '1500'

If the flowmeter works based on differential pressure flow measurement, activate the 'square root' function of the reading.

At the 'Display' ('dISP') section:

- at 'Square root' ('Sq.rt') select 'on'

Validate changes and exit the 'configuration menu'. At this moment, the instrument is scaled to read in '1/hour' units.

To troubleshoot the instrument, it is interesting to set the 'measure function' to 'on'.

- at the 'Key 'UP' (fast access)' ('k.uP') section, select the 'Measure function' ('MEAS') and set to 'on'.

Validate changes and exit the 'configuration menu'. At this moment, press the front key 'UP' (▲) to read the input value in milliamperes. This information may be useful when troubleshooting the instrument, as it will provide the value of the input value directly in milliamperes, with no need to insert an additional handheld milliammeter into the loop.

To prevent non authorized configuration changes, consider to enable the 'password' function.

At the 'Tools' ('tool') section:

- at the 'Password' ('PASS') section, enter a 4 digit value.

Validate changes and exit the 'configuration menu'. At this moment, when pressing the front key 'SQ' (■) to enter into the 'configuration menu', the instrument will request the password to enable access to the 'configuration menu'.

