### VD4 LQ

# PANEL DIGITAL READOUT ABSOLUTE/RELATIVE DISPLAY INPUT BY POTENTIOMETER

Digital readouts series VD4 LQ can be coupled to linear and rotary potentiometers with resistive value ranging between 1 and 20 Kohm. The value of the displayed magnitude can be adjusted between –9999 and 9999. In case of values beneath –999 the minus sign is indicated by a dot placed on the right side of the less significative digit.

The default display mode is absolute. The absolute/relative display mode can be enabled by the menu SETUP (selecting mode: REL).

### OPERATING DESCRIPTION

At power on the instrument displays the software version identification for one second: **P-XX**-, where XX is the number of the loaded software; afterwards the displays switches to the *main display page*.

### SET VALUE LOADING (for mode selection: REL)

Press the key **F** for one second to switch from the main display page to the *set value loading*; the display will show the flashing message **LOAD**. Press the **DOWN ARROW** key to load the set value; any other key cancels the operation.

This operation sets the display value at the LOAD value entered in the SETUP menu, thus switching to the relative display mode. The relative mode is kept even in case of instrument switching off.

### SWITCHING BACK TO THE ABSOLUTE DISPLAY MODE (For selection mode: REL only)

From the main display page, press the key **F** for three seconds: the display will show: **SET.** 

Switching back to the main display resets the display ranges set in the starting adjusting, thus the obtained reading is *absolute*. The operation cannot be cancelled.

Press the key **F** five-folds to switch back to the main display page.

#### **KEYS FUNCTION**

**DOWN ARROW** decreases the value increases the value

**F** stores the value and quits the setting

## TECHNICAL SPECIFICATIONS: Supply

Power consumption

Display type
Data and preset storing
Display range
Decimal digits
Operating temperature
Panel cut off

Transducer supply voltage provided by the instrument

Input specifications
A/D conversion

Front case protection degree

24 Vac or 115/230 Vac ±10% 50/60 Hz 12/24Vdc ±10%\* (see the supply label) 4 VA max (version 24/115/230 Vac) 2.5 Watt (version 12Vdc)

5 Watt (version 24Vdc)
4-digit 7-segment LED display 12.7 mm high

on FLASH memory

-9999 / 9999 settable: 0, 1,2 or 3 0 ÷ 45 °C 91 x 44 mm 5Vdc 5mA max

resolution 4000 steps, accuracy 0.2% full scale range 140 per sec.

**IP54** 

\*Remark: In case of direct current supply the negative pole of the supply voltage (terminal 1) is connected to O Vdc of the input circuit (terminal 7).

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### SETUP PHASE

The SETUP phase is accessed by the following key sequence: press the key F for 3 seconds and, when the display shows: SET, enter the following access key: UP ARROW, F, UP ARROW, UP ARROW, F. If the access key is not entered within 10 seconds the instrument switches back to the main display page. The SETUP menu includes the following items, which can be scrolled down by the key F:

Default: 0 / 4000 tAr (Adjusting) Default: 0 (Decimal digits) n.dEC Default: AbS (Absolute/relative display mode) AbS/rEL Default: 0 (LOAD value\*\*) LOAD

### ADJUSTING PHASE

The adjusting phase allows to set the min. and max. values that must be displayed according to the respective positions of the input potentiometer.

Press one of the ARROW KEYS when the display shows TAR; the message LO (zero adjusting) will be shown. Now it is necessary to position the potentiometer at the stroke starting point and set the wished value by means of the ARROW KEYS, then confirm the setting by the key F.

Following the display will show Hi (max value adjusting): place the potentiometer at the stroke ending and set the wished value by means of the ARROW KEYS, then confirm the value by the key F and switch to the next setting.

In case the adjusting operation fails, the display will show Er.tA (adjusting error). In this case it is advisable to check that the value set as max, is greater than the min.setting, and that connections are correct. In case the values previously entered as preselections exceed the adjusting limit values, the preselection value is replaced with the min adusting value.

### **DECIMAL DIGITS SETTING**

When the display shows n.dEC (number of decimal digits) press the DOWN ARROW key sequentially to scroll 0, 1, 2, 3 decimal digit. Press the key F to store the choice.

### ABSOLUTE/RELATIVE DISPLAY MODE

When the display shows AbS (absolute mode) press the DOWN ARROW key to switch to rEL (relative mode) and vice-versa. Press the key F to store the choice.

### LOAD (for display mode rEL only)

It is the value at which the display value is set after the LOAD setting operation.

When the display shows LOAD press the ARROW KEYS to set the value and the key F to confirm it. Settable values: -9999 to 9999.

<sup>\*\*</sup>In case of relative display mode only

