DSSTech

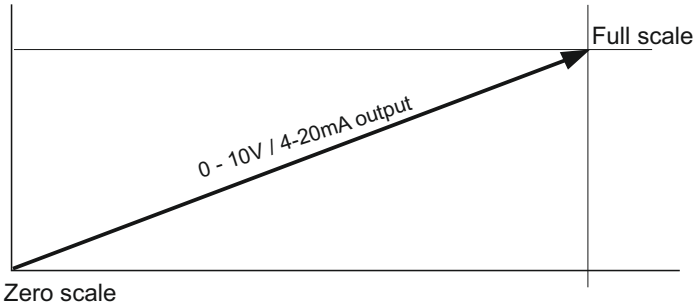
KS102

Idee e prodotti italiani

Digital potentiometer

Microprocessor instrument, it replaces and improves the traditional rotary or linear potentiometer providing a voltage (0-10Vdc) or a current (4-20mA) output.
Continuously adjustable by means of the 2 arrow keys on the front panel or via the 2 inputs on the removable terminal board, it displays at the same time the supplied value to the analogue output.
Its natural location is as an interface in variable speed systems such as inverters or motor drives. The following values can be modified in the instrument: full scale, zero scale, decimal point and variation sensitivity of the analog output signal.
It is also possible to change or calibrate the analog output signal.
The parameters are distinguished by alphanumeric abbreviations that help in programming.

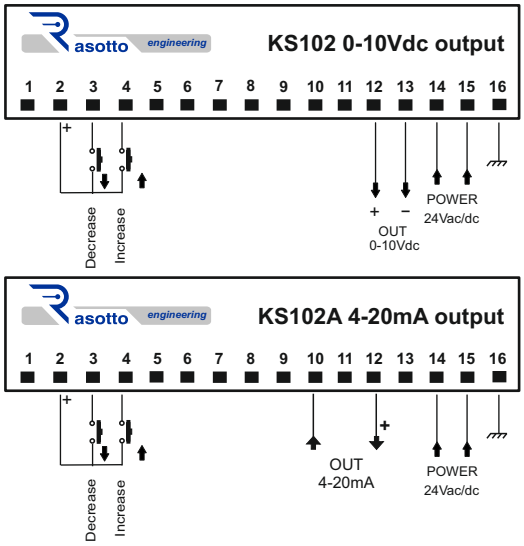
Operating mode



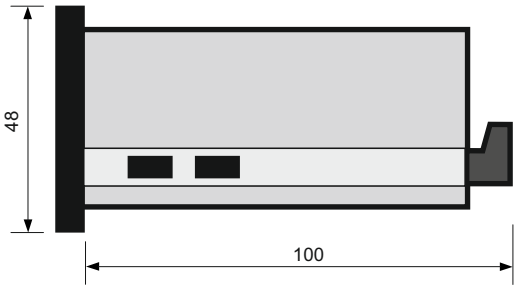
Technical features

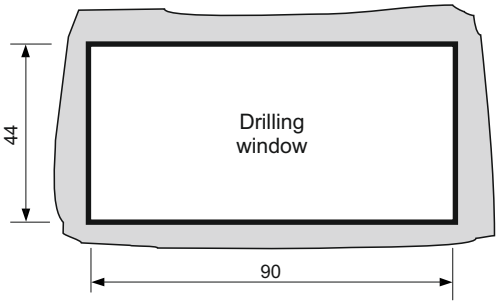
Power supply	24Vac/dc +/- 10%
Absorption	4 VA
Display	6 digits H= 13mm
Output signal	0 - 10Vdc
Resolution	+/- 1 digit on 1024 f.s.
A/D conversion	10 Bit
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	recessed mounting
Container	Black ABS
Protection degree	IP30

Electrical connections



Dimensions





ICIM UNI EN ISO 9001:2015 SISTEMA DI GESTIONE CERTIFICATO N°3143

ACCREDIA ENTE DI ACCREDITAMENTO N°IT-28601

asotto engineering

DSSTech Srl
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Capitale sociale: 10.000,00 Euro i.v.

OPERATION CYCLE

On power-up, after displaying the product name and the firmware version, the instrument displays the supplied voltage to the analogue output.

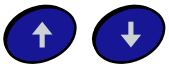
With the keys  or with the inputs from terminal block 1 and 2 the analogue output signal is changed.

Pressing the keys  at the same time, it brings the analog value to the programmed zero scale value.

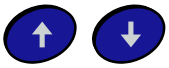
The variation range is between the Zero Scale and the Full scale values set in programming.

Technical Parameters programming

To enter programming press the button  the message **PASS** is displayed, press 

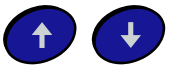
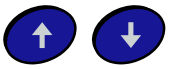
and using the keys  insert the password **569** , confirm with the key  and will be displayed **dP**

dP represents the decimal point. To change the decimal point position, press the key 

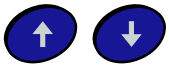
and using the keys  place the decimal point in the desired position.

As soon as a key is released, the set DP value will flash; to continue programming press the key 

and it will be displayed **Fsc** representing the maximum value (full scale value).

To change the value of the full scale press the key  and use the keys  to enter the desired full scale value. As soon as a key is released, the set full scale value will flash; to continue with the programming press the key  and it will be displayed **0Sc** representing the minimum value (zero scale value). To change the zero scale value, press the key  and use the keys  to enter the desired value. As soon as a key is released, the set zero scale value will flash.

To continue with the programming press the key  and it will be displayed **SEnS** representing the variation sensitivity of the analog output signal. To change the sensitivity value, press the key 

and using the keys  enter the desired value. As soon as a key is released, you will see the set value flashing; to continue programming, press the button  and you will return to the programming beginning, ie **dP** . If you wish to end programming, wait for the display to stop flashing.

Technical Parameters Description

dP Decimal point : decimal point that can be positioned in the six digits of the display.

Fsc Full scale: maximum value shown on the display corresponding to analogue output + 10Vdc or 20mA (min -9999 max 9999).

0Sc Zero Scale: minimum value shown on the display corresponding to analogue output 0Vdc or 4mA (min -9999 max 9999).

SEnS Sensitivity: 0-10Vdc analog output variation sensitivity. 1 corresponds to a step of 0.01V, 100 to a step of 1V. Variation sensitivity of the 4-20mA analogue output. 1 corresponds to a step of 0.02mA, 100 to a 2mA step.

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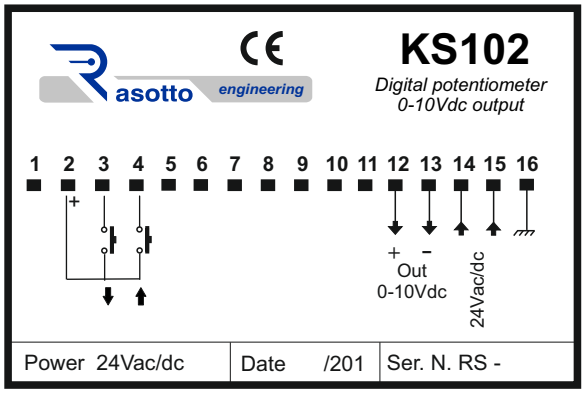
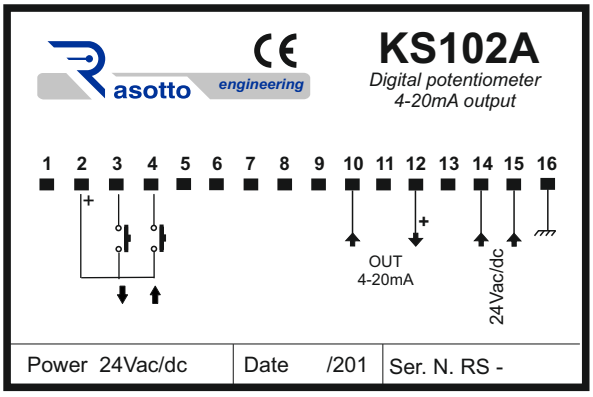
0-10Vdc or 4-20mA analog signals calibration

To enter programming press the F key; the message PASS appears, press and using the keys enter the password, 105 confirm with the key and it will be displayed tArOSc tAr0Sc represents the 4mA or 0Vdc calibration value. To change the value press the key ; on the display will appear the default value 196 calibrated in laboratory and automatically the analog output will go to 4mA or 0Vdc. If you want to recalibrate the value use the keys at every increase or decrease of 1 unit will have a variation of about 0.02mA or 0.01V. If you wish to continue with the calibration of 20mA or 10Vdc, press the key and it will be displayed tArFSc which represents the 20mA or 10Vdc value calibration. To change the calibration, press the button and on the display will appear the default value 1000 calibrated in the laboratory; in automatic the analogue output will go to 20mA or 10Vdc. If you want to recalibrate the value use the keys ; at every increase or decrease of 1 unit there will be a variation of about 0.02mA or 0.01V. As soon as a key is released, the set value will flash. To continue programming, press the key and you will return to the beginning of the programming ie tAr0Sc . If you want to end the programming wait for the display to stop flashing.

<u>ATTENTION:</u> this procedure allows to change the analogue output signal, for example it is possible to set 0-20mA / 0-10mA / 4-20mA / 4-10mA / 0-5V / 1-10V / 0-10V. Or any other value you want to get.

Labels





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