



# INSTRUMENTS CATALOGUE



2019

# Index

<b>Power Supplies .....</b>	<b>4</b>
ASW1 1A switching power supply .....	4
ASW3 3A switching power supply .....	5
ASW5 5A switching power supply .....	6
<b>Encoder .....</b>	<b>7</b>
Incremental and absolute encoders .....	7
<b>Direct current drive and motor boards .....</b>	<b>8</b>
MT4 24Vdc / 6A motor drive .....	8
MT5 170Vdc / 5A motor drive .....	9
<b>Counter, electronic pulse counter and pieces counter with relay outputs .....</b>	<b>10</b>
KC36 Universal pulse counter .....	10
KC36.1 Universal pulse counter .....	11
<b>Electronic engine brakes .....</b>	<b>12</b>
MFR15 Braking module 15 HP .....	12
<b>Frequency meters, tachometer viewers and speed viewers with relay or analogue outputs .....</b>	<b>13</b>
KC32 Parameter viewer .....	13
KS103 Parameter viewer .....	14
KS103.1 1 set frequency meter .....	15
KS103.2 Frequency meter 2 sequential sets .....	16
KS103.3 2 window set frequency meter .....	17
KS103.4 Frequency meter 4 sequential sets .....	18
KS103.5 Frequency meter with 0-10V analogue output .....	19
KS103.6 Frequency meter with 0-10V analogue output .....	20
<b>Operator panels .....</b>	<b>21</b>
OP20 Operator panel .....	21
OP60 Operator panel .....	22
OP70 Serial operator panel .....	23
OPT4 4,3" touch-screen panel .....	24
KS300A.35 Serial viewer .....	25
<b>PLC .....</b>	<b>26</b>
RP50 PLC module 5 IN+5 relay OUT+1 analogue IN+1 analogue OUT .....	26
RP100 PLC module with analogou 10 IN+10 OUT+2 OUT .....	27
RP170 Multifunction PLC .....	28
<b>Automatic positioners .....</b>	<b>29</b>
KS108 Single-quota positioner .....	29



KS201 Single-quota positioner .....	30
KS201.1 Single-quota positioner .....	31
KS202 Double-quota positioner .....	32
RP80 Single-quota positioner .....	33
 <b>Relay interface cards .....</b>	<b>34</b>
MI80 8 inputs module 24Vdc/15mA .....	34
MR40 Interface module with 4 relays 24Vdc/10A .....	35
MR80 Interface module with 8 relays 24Vdc/10A .....	36
TKC80 8 relay module for 24Vdc/16A signals .....	37
TKC80-12 8 relay module for 12Vdc/16A signals .....	38
 <b>Timers and digital clocks .....</b>	<b>39</b>
KS107.1 4 times pause - work timer .....	39
KT32.4 Multiscale timer with residual time .....	40
KT35 Multiscale timer .....	41
KT35.4 Multiscale timer with residual time .....	42
KT37 Double timer .....	43
KT38 4 times Pause - Work timer or 1 time Timer .....	44
KS300B.2 Digital timer .....	45
 <b>Analog inputs viewers, digital potentiometer reader with relay output and digital ammeters .....</b>	<b>46</b>
KM31 Potentiometer controller with set .....	46
KM32 Analog controller with set .....	47
KS101 Analog signal viewer .....	48
KS101.2 Analog signal viewer with 2 thresholds .....	49
KS101.3 Analog signal viewer with 2 thresholds .....	50
KS101.5 Ammeter with 2 sets .....	51
KS101.7 Analog input viewer with serial output .....	52
KS101.8 Potentiometer viewer .....	53
KS101.9 12-bit potentiometer viewer .....	54
KS101.10 12-bit potentiometer viewer with thresholds .....	55
KS102 Digital potentiometer .....	56
 <b>Encoder position viewers, simple positioners and electronic meters with relay outputs .....</b>	<b>57</b>
KS105 Quota viewer .....	57
KS105.1 1 quota controller .....	58
KS105.2 2 quotas controller .....	59
KS105.3 Line driver encoder viewer with thresholds .....	60
KS105.9 Position controller with 4-20mA OUT .....	61

**1A switching power supply**

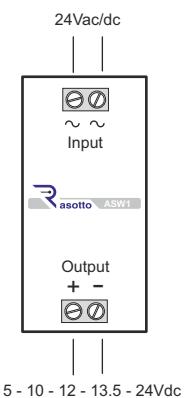

Compact series of Switching AC / DC power supplies powered by low voltage. They have been designed and manufactured in compliance with current safety regulations and meet the standards for industrial and civil use. They find application in all fields of industrial and civil automation where there is a need for a stable DC supply even with variable loads. These power supplies comply with the 93/68-EEC low voltage directive and are protected against short circuits and overloads in the event of abnormal operation. The main fields of application are: power supply of control circuits for electrical panels, power supply of small drives, stabilized power supply for small DC motors.

- 1) It is advisable to mount a disconnection or protection system from the power supply to the power supply line.
- 2) The module must be protected on the input circuit with external 2A fuse.
- 3) The maximum rated current is guaranteed up to an ambient temperature of 50 °C.
- 4) If the load current is above the power supply's shown value, the power supply will bring its output to "zero".
- 5) The negative (-) terminal must not be connected to ground if an alternate input terminal is also connected to ground.

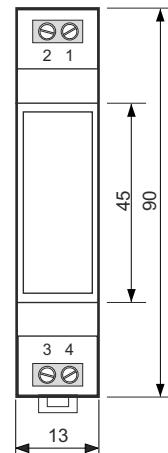
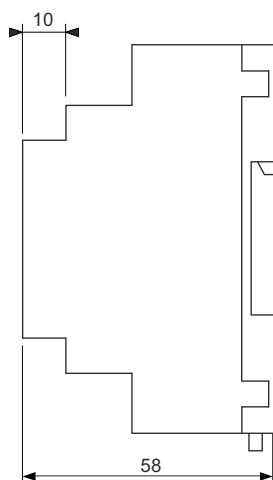
### Technical features

Power supply	24Vac/dc +/- 10%
Output voltage	Fixed 24V - 13.5V - 12V - 10V - 5Vdc
Max supplied current	1A.
Short circuit protection	Electronic
Overload protection	Electronic
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container	1 Module
Protection degree	IP20

### Electrical connections



### Dimensions



*3A switching power supply*


Compact series of switching type AC / DC power supplies powered by low voltage. They have been designed and manufactured in compliance with current safety regulations and meet the industrial and civil use standards.

They find application in all fields of industrial and civil automation where there is the need for a stable DC supply even with variable loads.

These power supplies comply with the 93/68-EEC low voltage directive and are protected against short circuits and overloads with red LED signaling in case of abnormal operation.

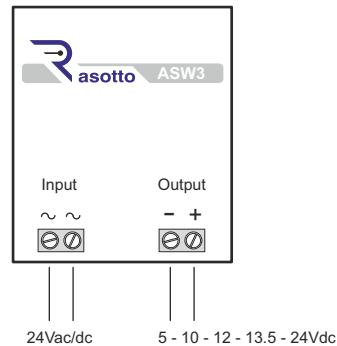
The main fields of application are: power supply for electrical panels control circuits, small drives power supply, small DC engines stabilized power supply.

- 1) It is advisable to mount a disconnection or protection system from the power supply to the power supply line.
- 2) The module must be protected on the input circuit with external 4A fuse.
- 3) The maximum rated current is guaranteed up to an ambient temperature of 50 °C.
- 4) If the load current is above the power supply's shown value, the power supply will bring its output to "zero".
- 5) The negative (-) terminal must not be connected to ground if an alternate input terminal is also connected to ground.

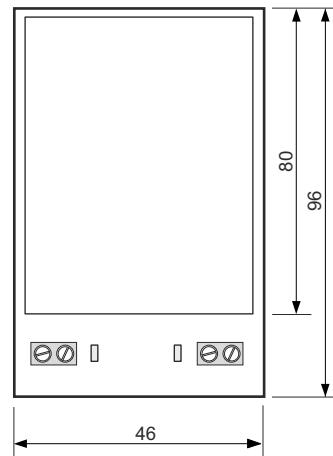
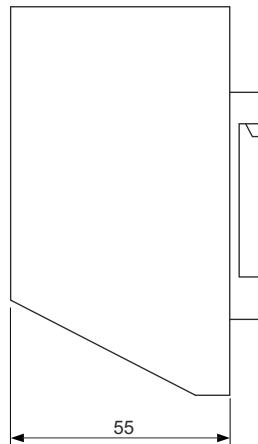
### Technical features

Power supply	24 - 32Vac +/- 10%
Output voltage	Fix 5 - 10 - 12 - 13.5 - 24Vdc or adjustable from 5 to 30Vdc
Max supplied current	3A
Short circuit protection	Electronic
Overload protection	Electronic
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container	Aluminum
Protection degree	IP20

### Electrical connections



### Dimensions



*5A switching power supply*


Compact series of switching type AC / DC power supplies powered by low voltage. They have been designed and manufactured in compliance with current safety regulations and meet the industrial and civil use standards.

They find application in all fields of industrial and civil automation where there is the need for a stable DC supply even with variable loads.

These power supplies comply with the 93/68-EEC low voltage directive and are protected against short circuits and overloads with red LED signaling in case of abnormal operation.

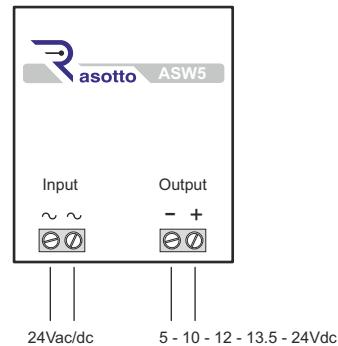
The main fields of application are: power supply for electrical panels control circuits, small drives power supply, small DC engines stabilized power supply.

- 1) It is advisable to mount a disconnection or protection system from the power supply to the power supply line.
- 2) The module must be protected on the input circuit with external 4A fuse.
- 3) The maximum rated current is guaranteed up to an ambient temperature of 50 °C.
- 4) If the load current is above the power supply's shown value, the power supply will bring its output to "zero".
- 5) The negative (-) terminal must not be connected to ground if an alternate input terminal is also connected to ground.

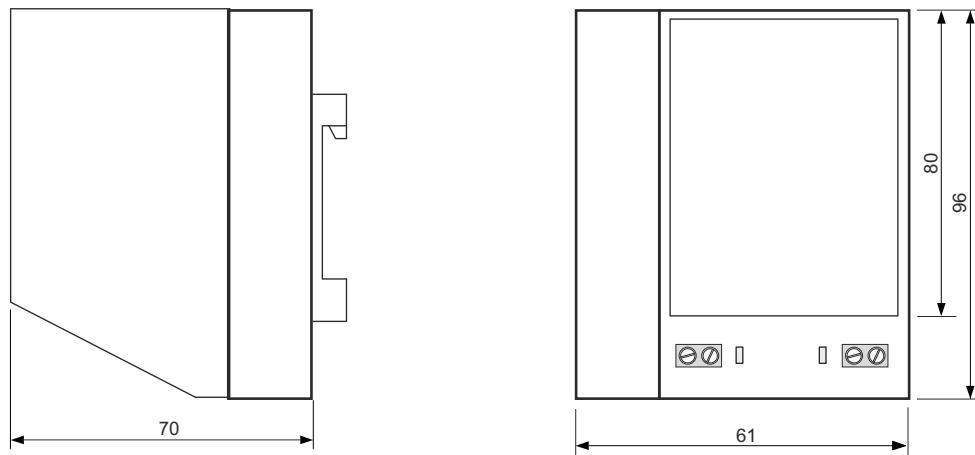
### Technical features

Power supply	24 - 32Vac +/- 10%
Output voltage	Fix 5 - 10 - 12 - 13.5 - 24Vdc or adjustable from 5 to 30Vdc
Max supplied current	5A
Short circuit protection	Electronic
Overload protection	Electronic
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container	Aluminum
Protection degree	IP20

### Electrical connections



### Dimensions



*Incremental and absolute encoders*


Wide range of high quality incremental and absolute encoders for industrial automation.

They find application in all systems and automatic machines where position, measurement, speed and frequency control is required.

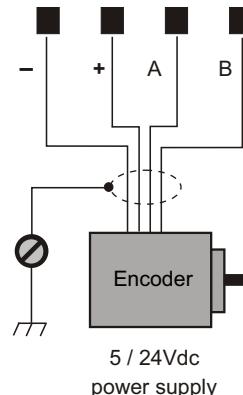
These encoders are interfaced with positioners, frequency meters, PLCs, etc. and differ from each other based on the construction characteristics and the number of pulses per revolution.

In the range you can find absolute encoders, incremental encoders, decimal and centesimal magnetic bands, elastic couplings of various sizes and diameters.

### Technical features

Power supply	5 - 24Vdc according to electronics
Absorption	Max 80mA according to electronics
Input load	20mA for every channel
Operating frequency	Max 160KHz
Wiring	2 m cable or connector
Signaling	Green - red LED
Operation conditions	Da -20 a +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container size	D= 40mm - D= 54mm
Protection degree	IP50

### Electrical connections



### Applications

Weighing control systems  
Positioning control systems  
Speed control systems  
Length control systems





Module for small size DC motor control with braking circuit and built-in feedback.

The driving signal can be of four types:

- 1) potentiometer signal with only one rotation direction
- 2) potentiometer signal with 2 rotation directions
- 3) 0-10Vdc analog signal with only one rotation direction
- 4) +/- 10Vdc analogue signal with 2 rotation directions.

The motor speed proportionally follows the applied signal value.

The module is equipped with a torque control system that allows a good operation stability even if there is a variable load.

The feedback signal can be provided by armature or external tachometer.

The electronic base is mounted on a robust aluminum profile for vertical or horizontal applications. DIN rail mounting is also available on request.

**IMPORTANT:** it is recommended to pay close attention when connecting the terminal blocks observing to

1. carry out any operation only with the system switched off, therefore in the voltage absence;

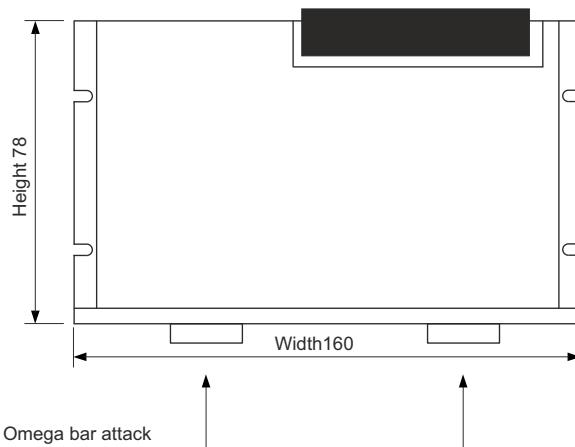
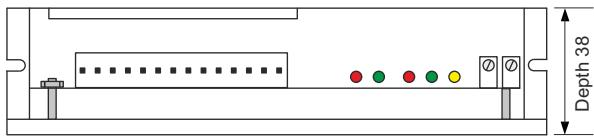
2. do not invert the connections between the terminals. Otherwise the module will be irreparably damaged.

Please note that the manufacturer is not responsible for the guarantee in case of damages due to incorrect connections.

### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	Max 6A
Analog input	0-10Vdc or +/- 10Vdc
Potentiometer input	10K Ω
Output	0 - +/-24Vdc
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	On panel or DIN bar (on request)
Container	On aluminum profile
Protection degree	IP20

### Dimensions



170Vdc / 5A motor drive



The MT5 board is a two-quadrant drive suitable for driving DC servomotors, up to a 850VA power. The converter works in armature feedback incorporated in the card itself and by a torque control that allows excellent operation stability when the load changes.

Remarkable advantage is the possibility of connecting the board directly to the 230Vac power supply network without using a transformer. All piloting inputs, both digital and analog, are perfectly opto-isolated ensuring immunity to connected devices.

The driving signal can come from a potentiometer, powered by the board itself, or from a 0-10Vdc analogue signal. The motor speed proportionally follows the applied signal value. The converter also integrates short-circuit protection, overcurrent protection and thermal protection with visual block signaling and with a output relay activation. The converter is mounted on a robust aluminum profile for vertical or horizontal applications. DIN rail mounting is also available on request.

**IMPORTANT:** it is recommended to pay close attention when connecting the terminal blocks observing to

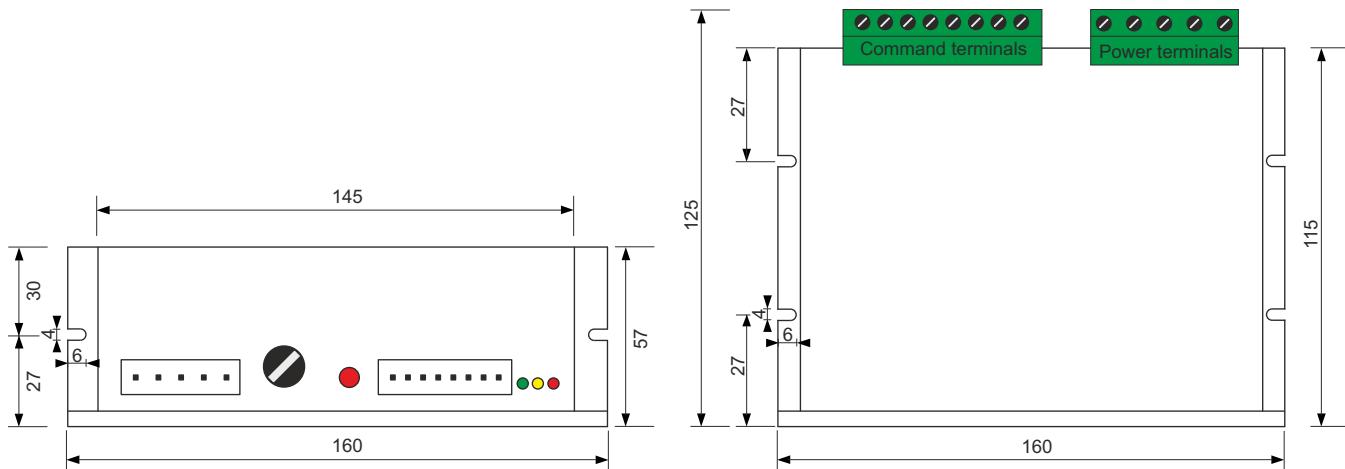
1. carry out any operation only with the system switched off, therefore in the voltage absence;
2. do not invert the connections between the terminals. Otherwise the module will be irreparably damaged.

Please note that the manufacturer is not responsible for the guarantee in case of damages due to incorrect connections.

### Technical features

Power supply	min 205Vac - max 250Vac
Absorption	Max 4.9A continuous, 5A for 1 second, up to 20A for 200ms
Analog input	0-10Vdc optoisolated
Potentiometer input	5 - 10 KΩ
Output	0 - 170Vdc
Operation conditions	0.. +70°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	On panel or DIN bar (on request)
Container	On aluminum profile
Protection degree	IP20

### Dimensions




*Universal pulse counter*

Increment-decrement counter suitable for slow counting from mechanical contacts or fast transducers such as proximity, photocontrollers, monodirectional encoders.

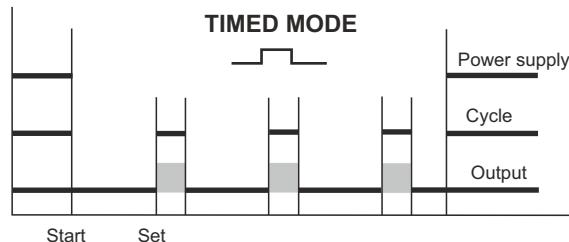
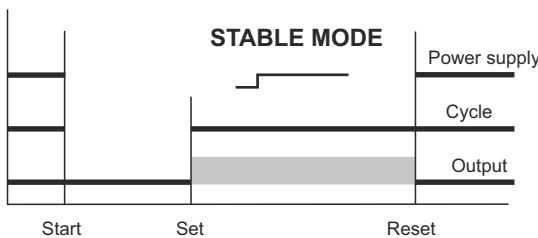
Incremental operation: the count starts from zero and counts up to the Set value, enabling the output that remains active until the reset command.

Decreasing operation: the count starts from the preset value up to zero enabling the output that remains active until the reset command.

The output can also work in two different ways: active at the end of the count up to the reset, or timed with automatic reset delayed.

The outputs status is signaled by LEDs placed on the instrument front.  
Input power is supplied by the instrument.

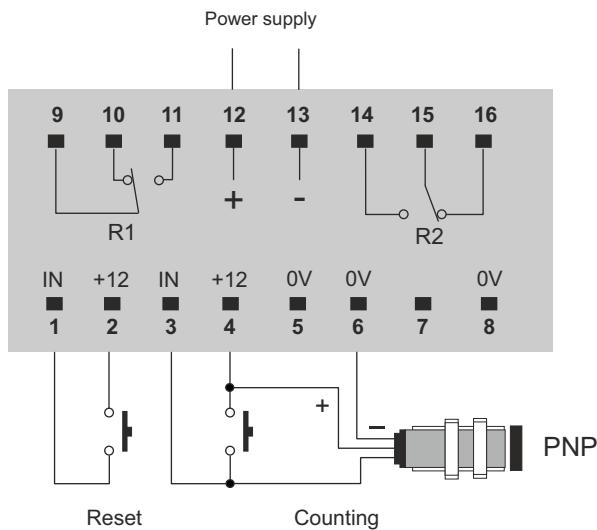
### Operating modes



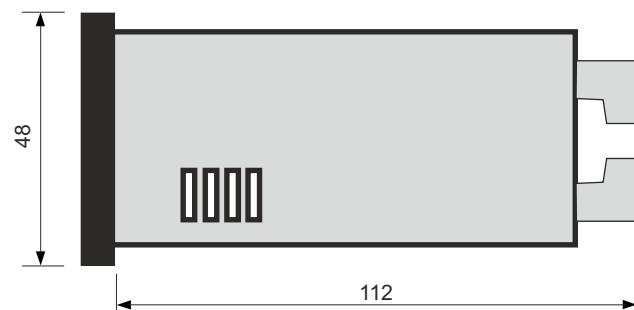
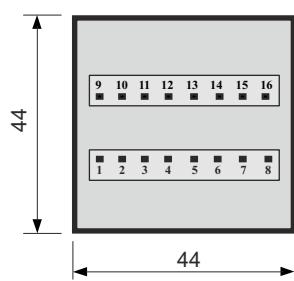
### Technical features

Power supply	24Vdc or 24/110/230Vac +/- 10%
Absorption	2,5 VA
Input	Impulsive PNP
Output	Relay
Memory	Eeprom
Count speed	1 KHz
Counting	0 - 9999 full scale
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
Front protection degree	IP65

### Electrical connections



### Dimensions





### *Universal pulse counter*

Very versatile increment-decrement counter suitable for slow counting from mechanical contacts or fast transducers such as proximity, photocontrollers, monodirectional encoders.

If the instrument is programmed to operate incrementally, it starts from zero and counts up to the Set value, enabling the output that remains active until the reset command.

If the instrument is programmed to operate in decrement, it starts to decrease from the preset value to zero, enabling the output that remains active until the reset command.

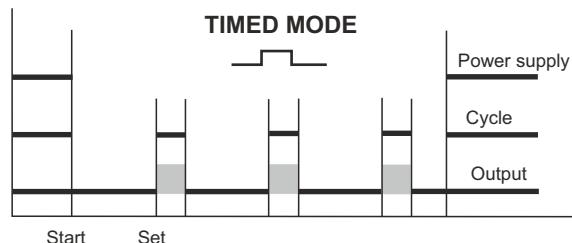
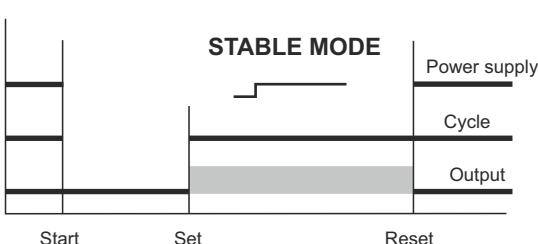
The output can also operate in two different ways: active at the end of the count up to the reset, or timed with automatic reset in time.

The outputs status is signaled by LEDs placed on the instrument front.

Input power is supplied by the instrument itself.

This tool differs from the standard models because of the adding of an inhibit time for a different counting type.

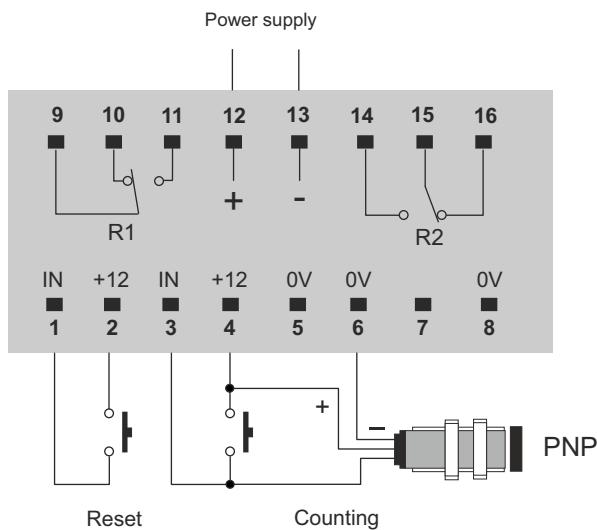
### Operating modes



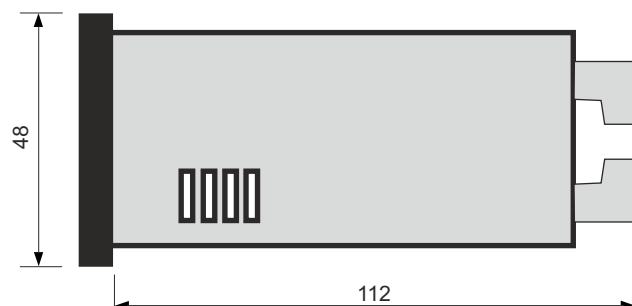
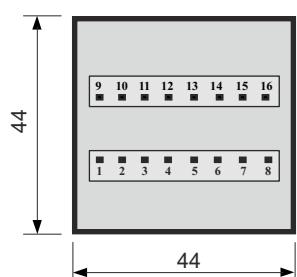
### Technical features

Power supply	24Vdc o 24/110/230Vac +/- 10%
Absorption	2,5 VA
Input	Impulsive PNP
Outputs	Relay
Memory	Eeprom
Count speed	1 KHz
Counting	0 - 9999 full scale
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
Conatiner	Black ABS
Front protection degree	IP65

### Electrical connections



### Dimensions



### DSSTech Srl

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.

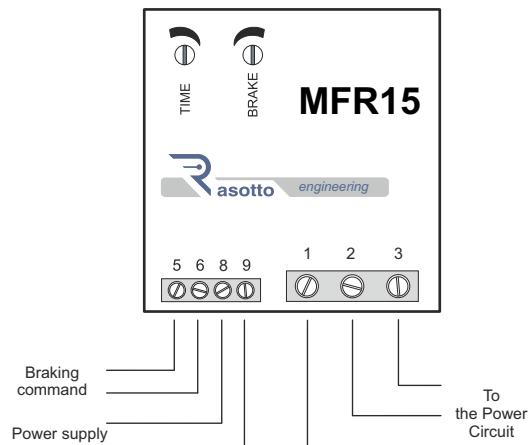
*Braking module 15 HP*


Electronic braking device for three-phase asynchronous motors with direct start or with star-delta starting, 1-speed or 2-speed motors.  
 The module has the possibility to set the intensity and the braking time, using two trimmers.  
 Braking is visible on the front panel by means of the red LED and normal operation by means of the green LED.  
 Quick mounting on DIN rail.  
 The system has dual motor control: regulated braking and power circuit release at the end of the time.

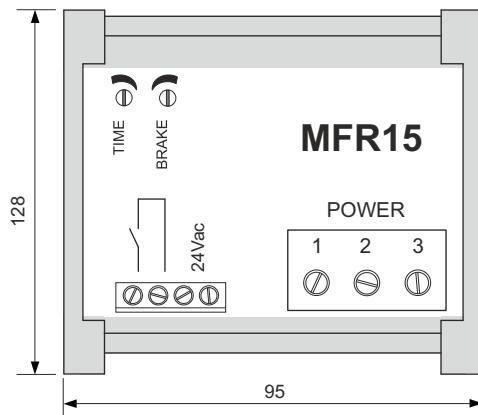
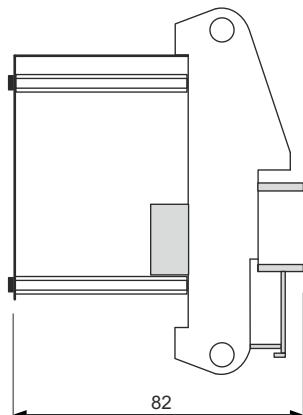
### Technical features

Command Power supply	24V or 110Vac on request
Command Absorption	2VA
Braking voltage	220 / 380Vac
Max load power	15HP 380Vac
Operation conditions	0..+55°C / 20..90% R.U. without condensation
Storage conditions	-25..+80°C / 20..90% R.U. without condensation
Mounting	Guida DIN secondo EN 50022
Container	DIN bar container
Protection degree	IP20

### Electrical connections



### Dimensions





Frequency meter with input pulses multiplication coefficient, allows the reading of the displayed data and converts it to the parameter or quantity to be controlled: m / 1' - rpm - liters / h ecc.

Input pulses are supplied by a proximity sensor or magnetic sensor or by a one-way encoder.

This type of instrument has been designed to work also with very slow counting frequencies keeping in memory, by setting an appropriate scan value, the counting pulse until the next pulse arrives.

The instrument input accepts only PNP signals.

Data and parameters are stored on EEPROM.

The transducer power supply is supplied by the instrument.

**IMPORTANT:** it is recommended to pay close attention when connecting the terminal blocks observing to:

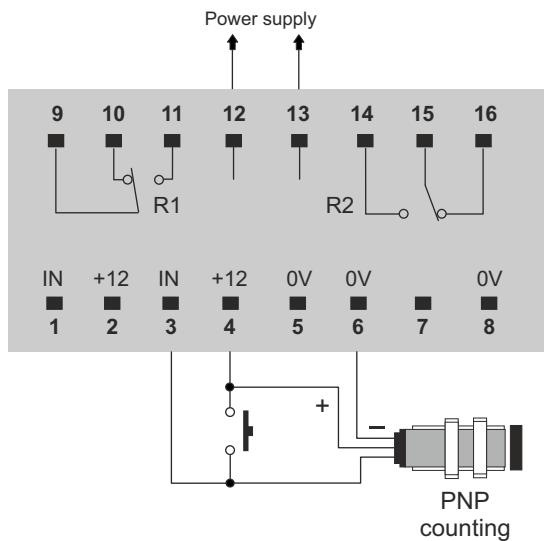
1. carry out any intervention only with the system switched off, then in the absence of voltage;
2. do not invert the connections between the power supply terminals with the I / O terminals otherwise the instrument will be irreparably damaged.

Please note that the manufacturer is not responsible for the guarantee in case of damages due to incorrect connections.

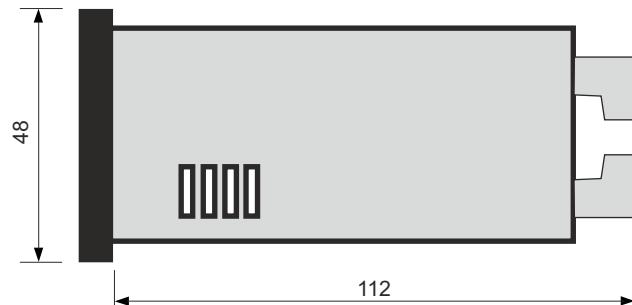
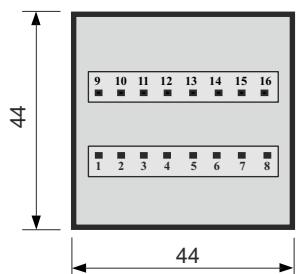
### Technical features

Power supply	24Vdc 24 - 110 - 230Vac +/- 10%
Absorption	2,5 VA
Counting	Impulsive PNP
Memory	Eeprom
Count speed	10 KHz
Reading	0 - 9999 full-scale
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	IP65

### Electrical connections



### Dimensions



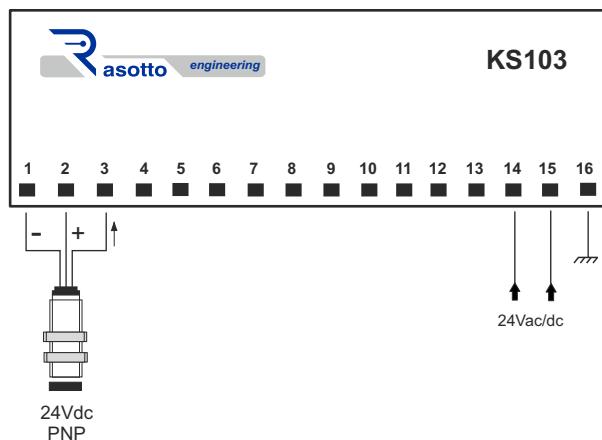


Parameter viewer with multiplication coefficient of input pulses, it converts the displayed data to the desired size: m/min, rpm, liters/hour - etc.  
 Data and parameters are stored on EEPROM.  
 The sensor is powered by the instrument with a stabilized voltage of 24Vdc.  
 The instrument is suitable for interfacing only with single-signal transducers such as photocontrollers, proximity, mechanical contacts, etc.

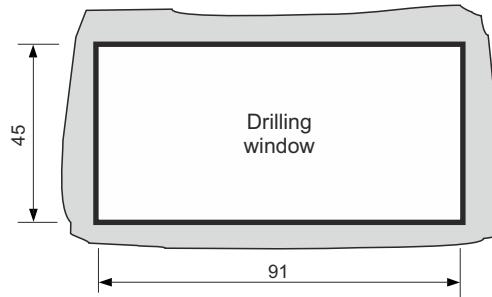
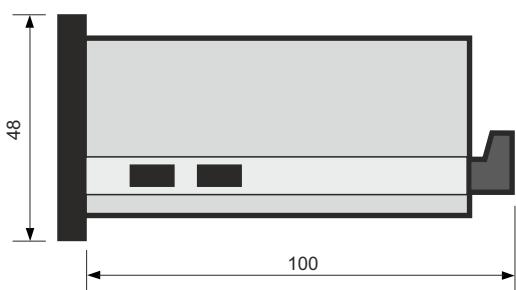
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	6 VA nominal
Display	6 digits H= 13mm
Full scale max value	999999
Resolution	+/- 1 digit on f.s.
Count frequency	1 KHz
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



1 set frequency meter



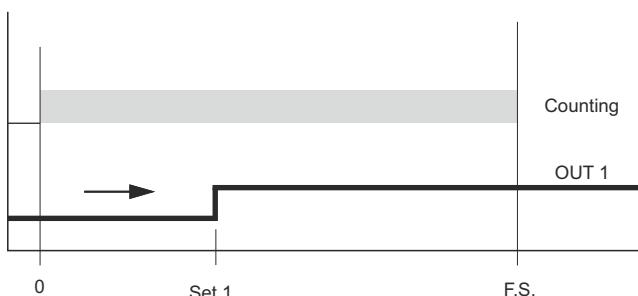
Frequency meter with 1 settable threshold and input pulses multiplication coefficient to adapt the transducer to the system measurement unit.

The transducer is powered by the instrument and data and parameters storage is performed on EEPROM.

The threshold setting is performed from the keypad by entering a password-protected programming environment.

The threshold intervention and therefore of the relative output takes place sequentially when the set value is exceeded.

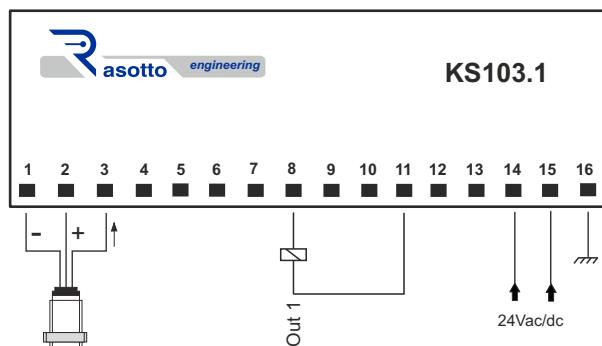
### Operating mode



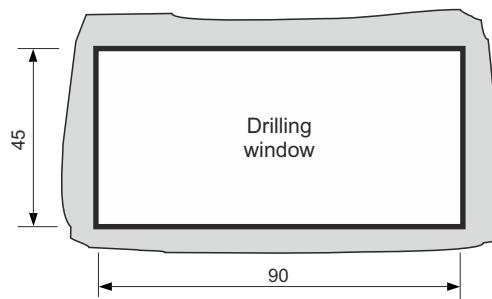
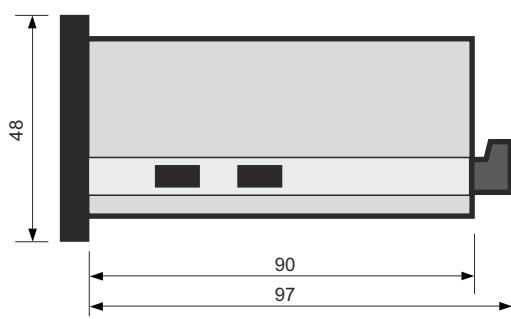
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Full scale max value	99.999
Resolution	+/- 1 digit on f.s.
Count frequency	1 KHz
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

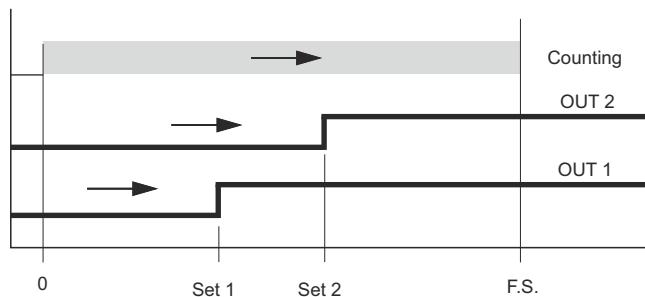


### Dimensions





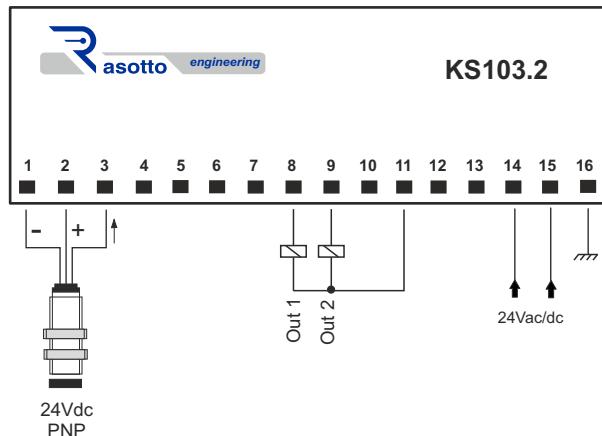
### Operating mode



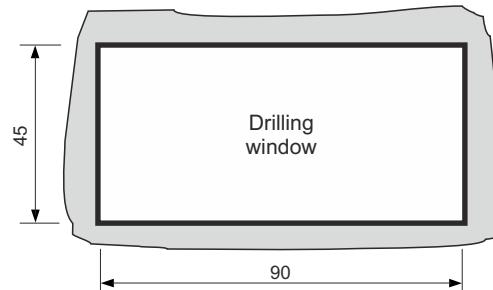
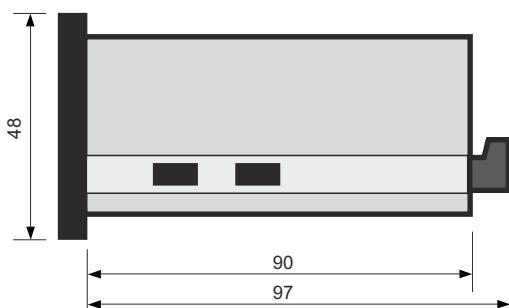
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Full scale max value	99.999
Resolution	+/- 1 digit on f.s.
Count frequency	1 KHz
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



**2 window set frequency meter**


Frequency meter with 2 settable thresholds and input pulses multiplication coefficient to adapt the transducer to the system measurement unit.

The transducer is powered by the instrument and data and parameter storage is performed on EEPROM.

The two thresholds and parameters setting is carried out via the keyboard by entering the programming environment.

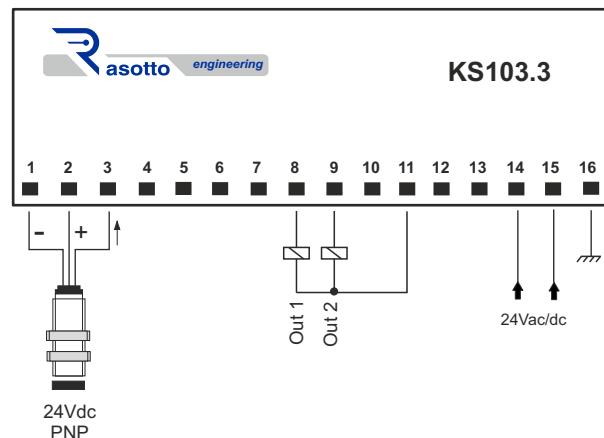
Outputs 1 and 3 are activated if the displayed frequency exceeds the SET1 threshold value and are deactivated if it is lower than the SET1 value.

Outputs 2 and 4 are activated if the displayed frequency is lower than the SET2 threshold and deactivated if the displayed frequency is higher than the SET2 threshold. If the instrument is switched off, the cycle must be repeated.

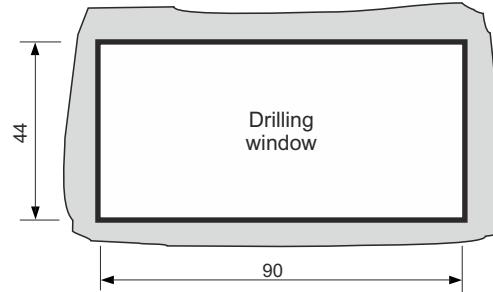
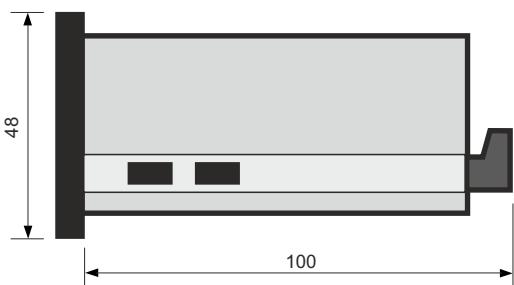
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Full scale max value	99.999
Resolution	+/- 1 digit on f.s.
Count frequency	1 KHz
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

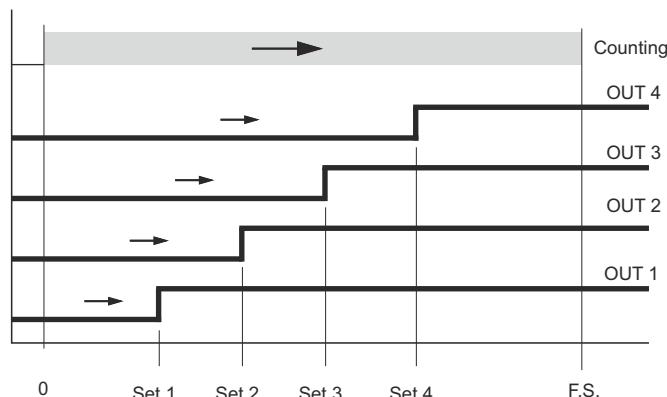


### Dimensions





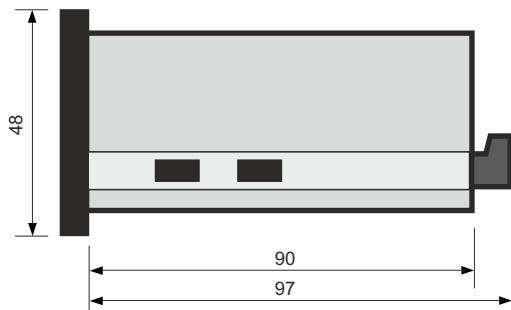
### Operating mode



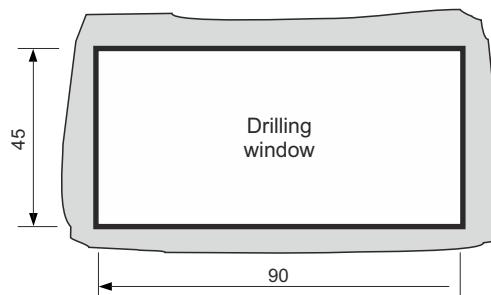
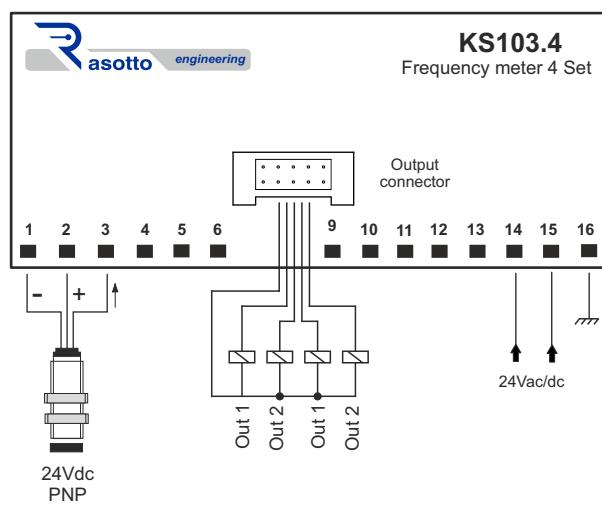
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Full scale max value	999999
Resolution	+/- 1 digit on f.s.
Count frequency	5,5 KHz
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

### Dimensions



### Electrical connections





### *Frequency meter with 0-10V analogue output*

Frequency meter with proportional 0-10V analog output and input pulses multiplication coefficient to adapt the transducer to the system measurement unit.

The transducer is powered by the instrument and data and parameters storage is performed on EEPROM.

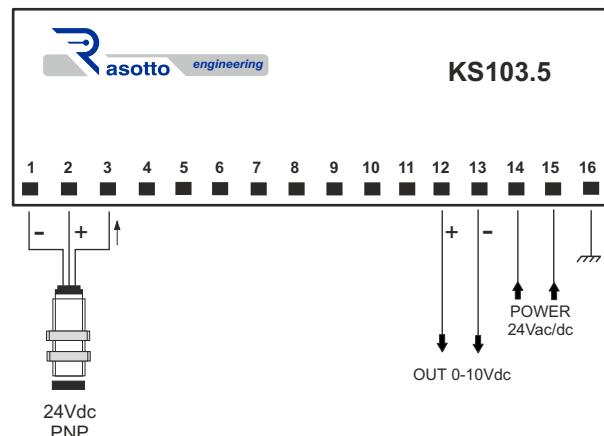
The analogue output and parameters setting is performed with the keyboard entering in the programming mode.

The 0-10V analogue output proportionally follows the instrument displayed value following the two limit values selected during the programming phase. Using the keypad you set the value at which the analog output generates 0Vdc and the value at which the analogue output generates +10Vdc; for all intermediate values the analogue output proportionally follows the displayed value.

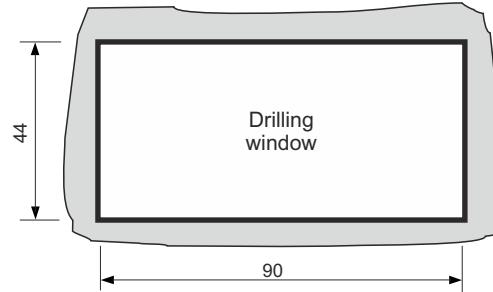
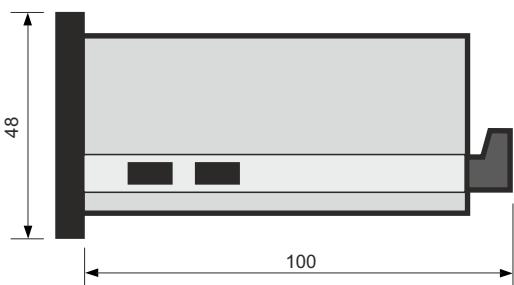
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Full scale max value	99.999
Resolution	+/- 1 digit on f.s.
Count frequency	1 KHz
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



*Frequency meter with 0-10V analogue output*

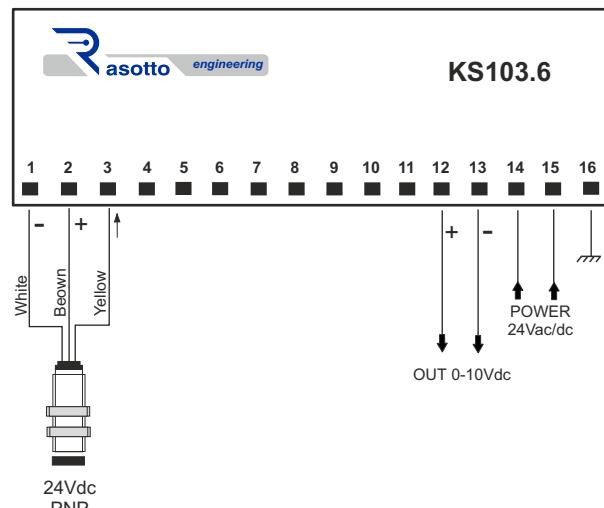


Frequency meter with proportional 0-10V analog output and multiplication coefficient of input pulses to adapt the transducer to the system measurement unit. The transducer is powered by the instrument and data and parameters storage is performed on EEPROM. The analogue output and parameters are set via the keyboard by entering the programming mode. The 0-10V analogue output proportionally follows the value that is displayed by the instrument and is fed back according to the reading performed by the transducer.

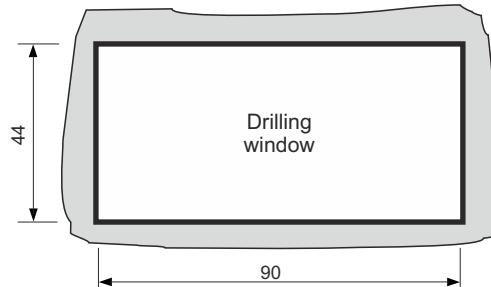
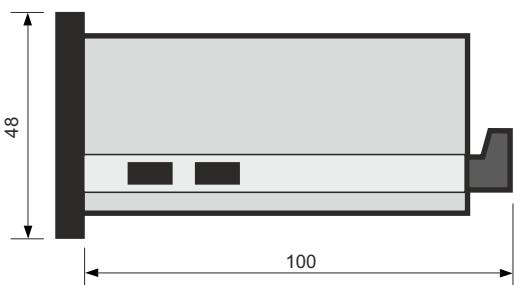
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Full scale max value	99.999
Resolution	+/- 1 digit on f.s.
Count frequency	1 KHz
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



**Operator panel**


Operator panel realized with interface function with RP series microprocessor systems.

The front is in silver anodised aluminum with hidden fixing screws, the keypad is golden to be used in environments with high humidity.

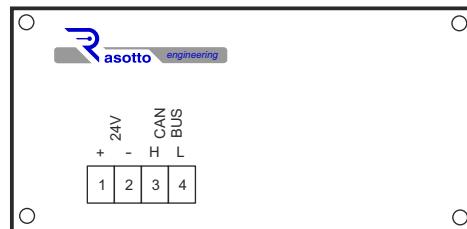
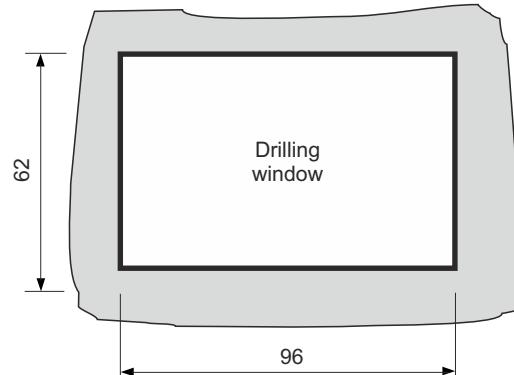
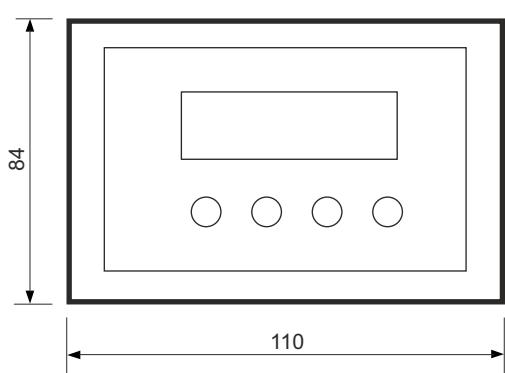
This operator panel has a powerful microprocessor with memory and two RS-485 and Can-BUS serial ports.

The software is protected by customizable passwords for security against tampering.

This panel can mount an expansion card with I / O thus becoming a complete controller for small automatic systems.

**Technical features**
**Electrical connections**

Power supply	24Vdc +/- 5%
Absorption	Max 60mA
Display	LCD 16 x 1 row or 2 rows
Keyboard	4 golden keys
Wiring	Serial RS-485 / CAN-BUS
Memory	Eeprom
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	panel
Container	In anodised aluminum
Protection degree	IP65 Front panel


**Dimensions**


*Operator panel*


Operator panel realized with interface function with RP series microprocessor systems.

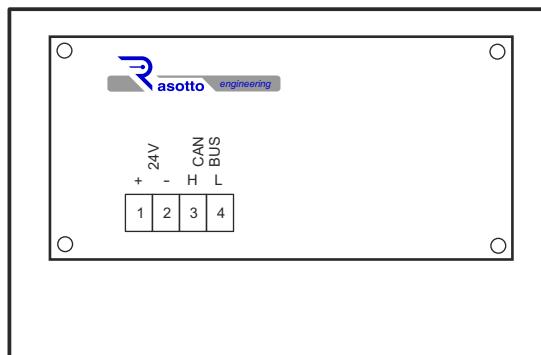
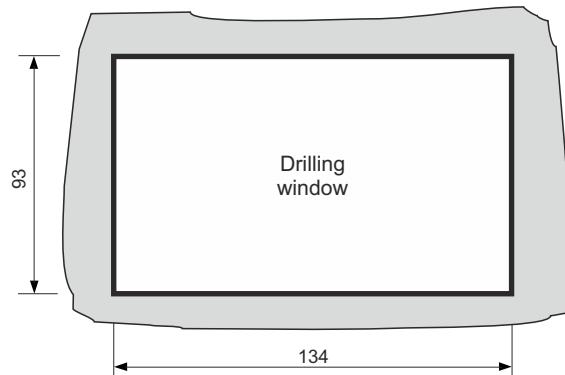
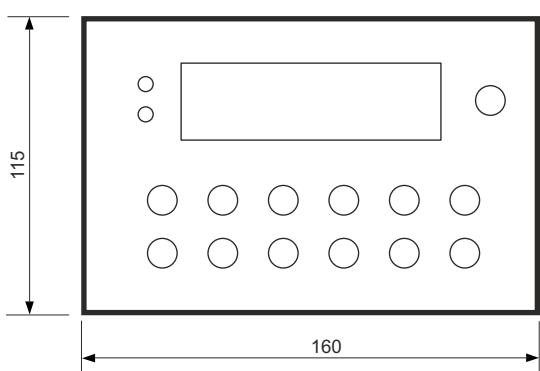
The front is in silver anodised aluminum with hidden fixing screws, the keypad is golden to be used in environments with high humidity.

This operator panel has a powerful microprocessor with memory and two RS-485 and Can-BUS serial ports.

The software is protected by customizable passwords for security against tampering.

**Technical features**

Power supply	24Vdc +/- 5%
Absorption	Max 100mA
Display	LCD 20 x 4 blue rows
Keyboard	13 golden keys
Wiring	Serial RS-485 / CAN-BUS
Memory	Eeprom
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	panel
Container	In anodised aluminum
Protection degree	IP65 Front panel

**Electrical connections**

**Dimensions**


**Serial operator panel**


Intelligent panel with interface function between the operator and the system. The front is in silver anodised aluminum with concealed fixing screws, the keyboard is golden to be used in harsh environments.

The operator panel has a powerful microprocessor with flash memory and two serial ports: RS-485 and CAN-BUS.

The software system is protected by customizable passwords for greater security against tampering.

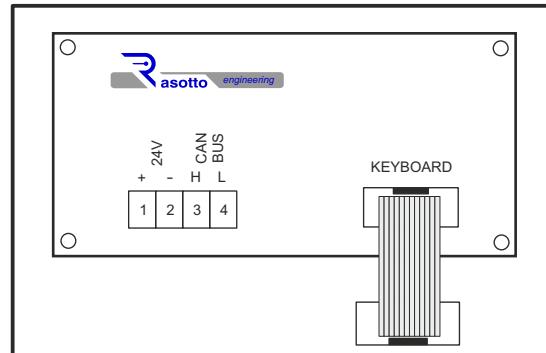
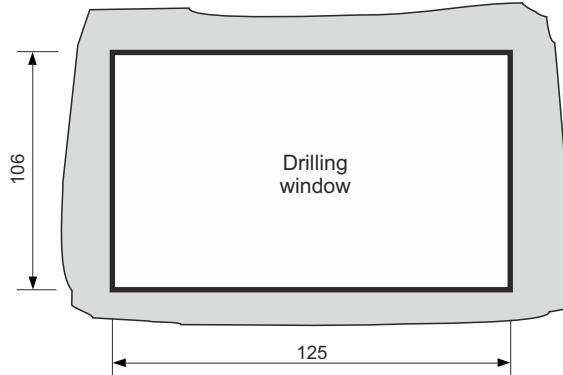
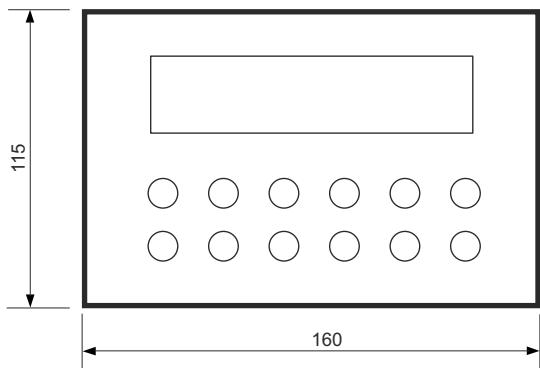
By assigning keys appropriate commands, you can dialogue with the system by checking from the panel each machine part.

This panel finds application in automatic machines, in remote control systems, in remote diagnostics, in home automation systems, in temperatures, brightness and humidity readings, etc.

The display is green or blue with 2 lines and with large characters for remote viewing.

**Technical features**

Power supply	24Vdc +/- 5%
Absorption	Max 100mA
Display	LCD 20 x 2 lines large characters
Keyboard	12 golden keys
Wiring	Serial CAN-BUS
Memory	Eeprom
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	panel
Container	In anodised aluminum
Protection degree	IP55

**Electrical connections**

**Dimensions**


*4,3" touch-screen panel*


OPT4 control panel with touch screen and 4,3" color screen.

**IMPORTANT**

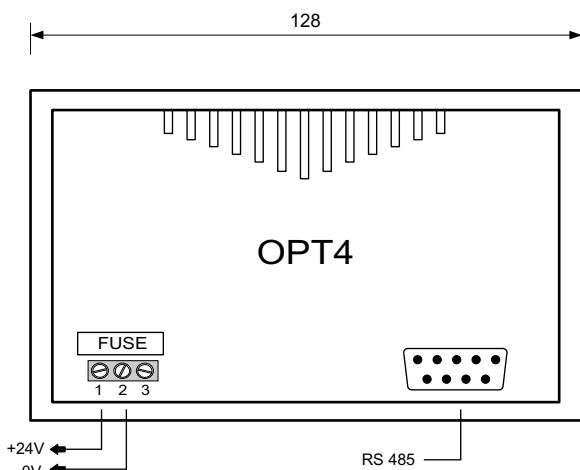
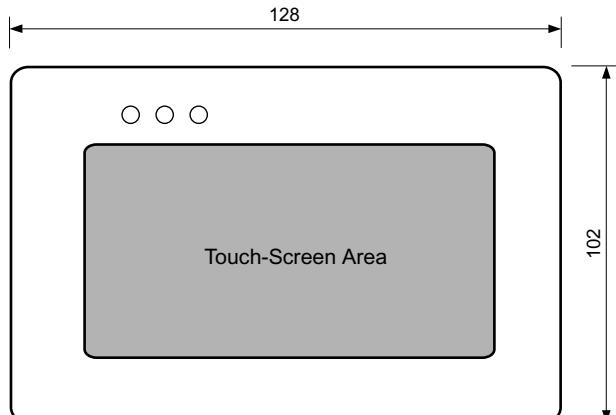
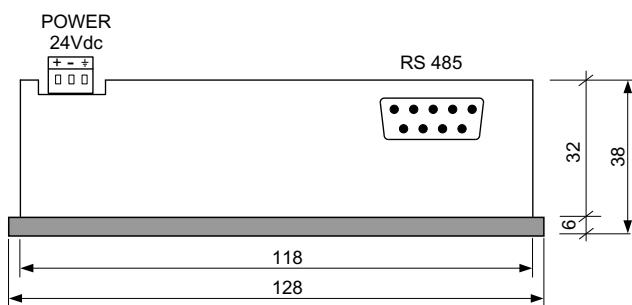
It is recommended to:

- 1) carry out any operation only with the system switched off, therefore in the absence of voltage
- 2) do not invert the connections between the power supply terminals n.1 and 2 (24Vdc).

Please note that the manufacturer is not responsible for the warranty in the event of the module being burned due to incorrect connections.

**Technical features**

Power supply	24Vdc +/- 20%
Absorption	400mA
Screen	4,3" 16,7M colors
Flash memory	128 MB
Serial system	RS-485
Resolution	480 x 272
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	panel
Container size	128 x 102 x 32 mm
Protection degree	IP65 Front panel

**Electrical connections**

**Dimensions**

**DSSTech Srl**

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

 E-mail: [info@dsstech.it](mailto:info@dsstech.it)

 WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.



Microprocessor module designed to perform remote displays of electrical quantities using an RS-485 serial port.

The signal coming from a measuring instrument is remotely retransmitted and displayed on the high visibility module.

This tool is suitable for viewing at a great distance values such as: n. of parts, temperatures ° C, speed RPM, analogue signals V/A, positions, lengths, etc.

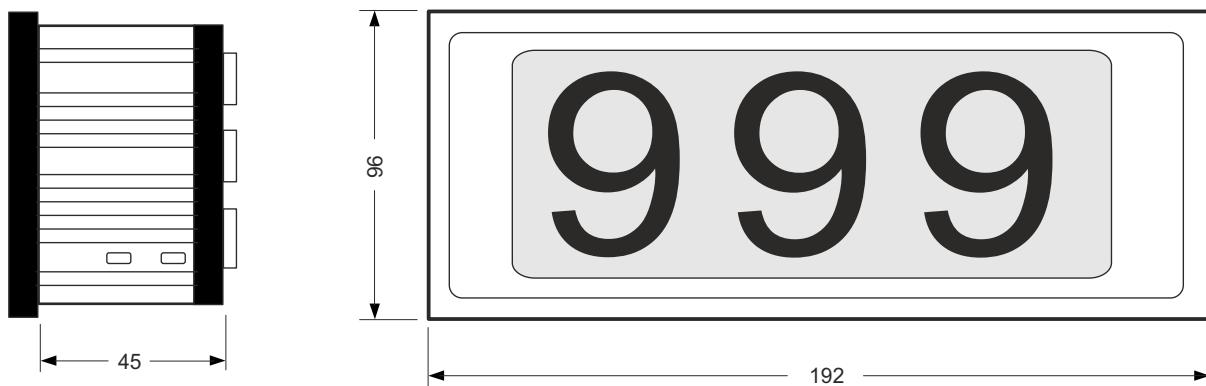
### Technical features

Power supply	24Vac +/- 10%
Absorption	90 mA
Full scale value	999
Digits height	70 mm
Serial communication	RS-485
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	Panel
Container	Aluminum container
Protection degree	IP 60

### Electrical connections



### Dimensions



*PLC module 5 IN + 5 relay OUT + 1 anal. IN + 1 anal. OUT*

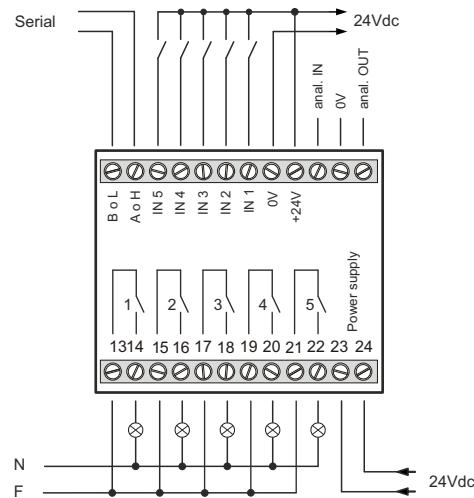

Compact micro-PLC module suitable for the automation of small operating machines.

It has fast inputs for encoders, digital inputs for ON-OFF commands, analog input, outputs with on-board power relay, one 0-10V analogue output, one RS-485 serial port or CAN-BUS, LED operating diagnostics on front.

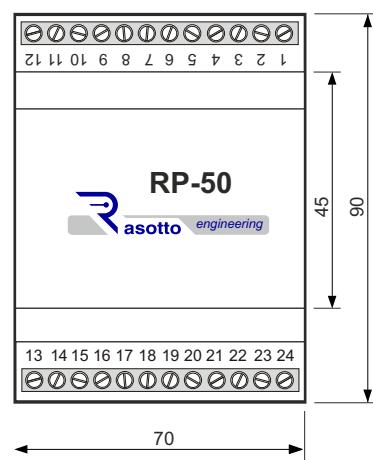
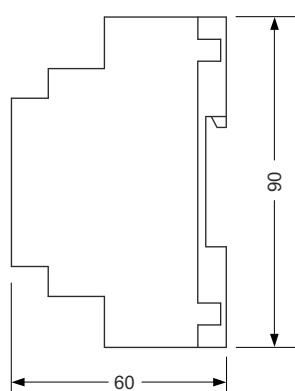
### Technical features

Power supply	24Vdc or 24Vac +/- 10%
Absorption	Max 130mA
Optoisolated inputs	N. 15 digital
Analog inputs	0-10 Vdc / 0-24 Vdc
Digital outputs	5 relays
Analog outputs	N.1 0-10 Vdc
Contact flow rate	Max 16A/250V resistive load
Wiring	Serial RS485 or CAN-BUS
Memory	Eeprom
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container size	4 modules H 53mm
Protection degree	IP20

### Electrical connections



### Dimensions



Analog. 10 IN + 10 OUT + 2 OUT



Compact mini-PLC module for small automatic machines control.

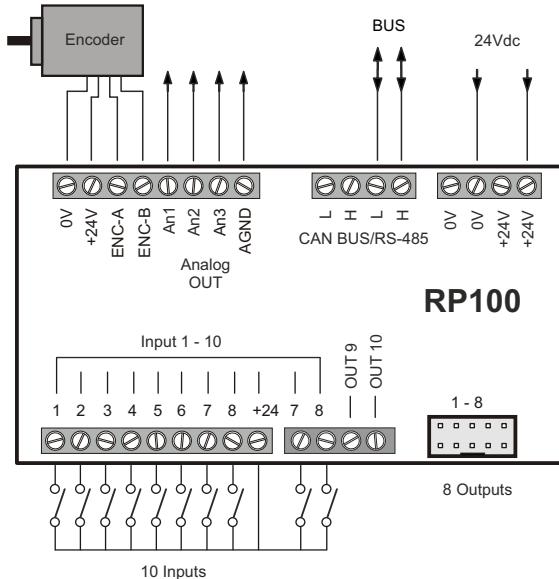
It has good processing speed, 10 digital inputs, 10 digital outputs, 1 encoder position control, 2 +/- 10Vdc analog outputs, 2 RS-485/Can-BUS serial ports, lithium battery date clock, operation diagnostics using front LED rows, connection sockets for operator panels.

With the integrated RP + OP system, the electrical wiring system in automatic machines and in complex control systems is simplified, reducing the cables number and optimizing working times.

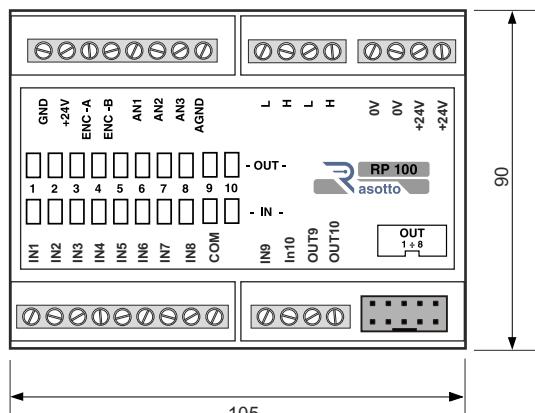
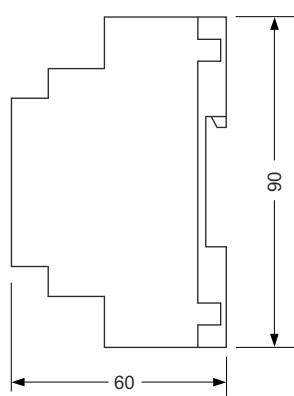
### Technical features

Power supply	24Vdc +/- 10%
Absorption	Max 200mA nominal
Digital inputs	N. 10 isolated 24Vdc
Fast inputs	N.2 for incremental encoder
Digital outputs	N. 10 buffered 24Vdc
Analog outputs	N. 3 with +/- 10Vdc
Wiring	RS485 serial or CAN-BUS
Memory	Eeprom
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container size	6 modules
Protection degree	IP20

### Electrical connections



### Dimensions





Compact PLC module with high technical performance.

It has processing power, control speed, 16 digital inputs, 20 analog-digital outputs, 2 encoder position controls, 2 0-10V analog inputs, 4 +/-10Vdc analog outputs, 2 RS485 and Can-BUS serial ports, date clock with lithium battery, operation diagnostics using front LED, connection sockets for the operator panels.

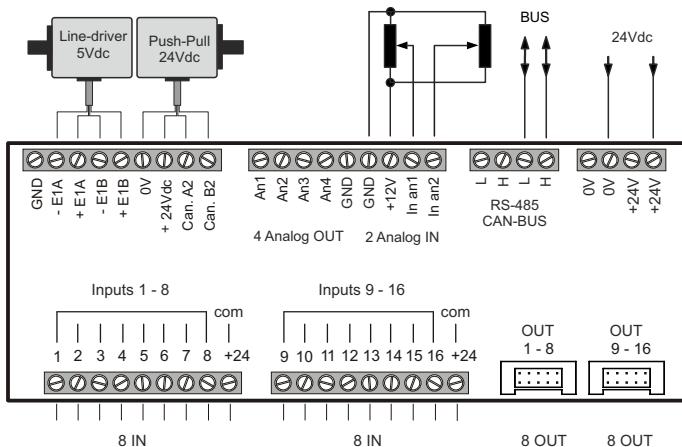
With the integrated RP + OP system, the electrical wiring system in automatic machines and in complex control systems is simplified, reducing the cables number and optimizing working times.

By connecting several modules to each other via the serial bus port, you can automate large machines or systems, connecting everything to intelligent systems, PCs, PLCs, alphanumeric keyboards or touch-pans.

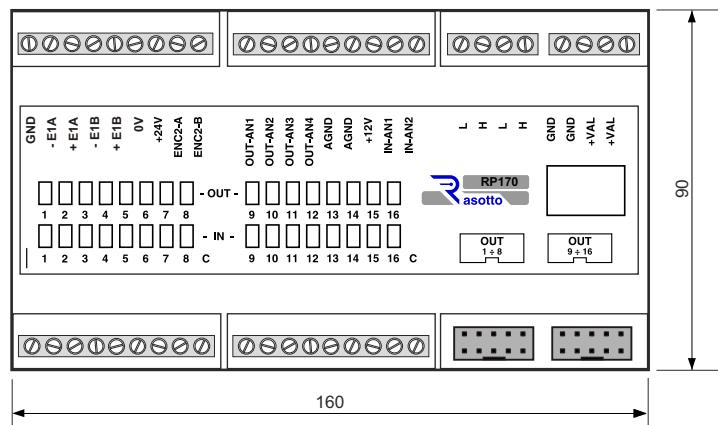
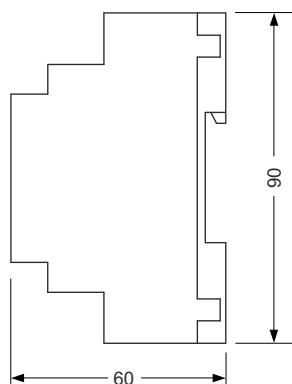
### Technical features

Power supply	24Vdc +/- 10%
Absorption	Max 200mA nominal
Digital inputs	N. 16 isolated 24Vdc
Analog inputs	N.2 from rotary or linear actuators
Digital outputs	N. 16 buffered 24Vdc
Analog outputs	N. 4 with +/- 10Vdc
Wiring	RS485 serial + CAN-BUS
Memory	Eeprom
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Mounting	DIN rail according to EN 50022
Container size	9 modules H 53mm
Protection degree	IP20

### Electrical connections



### Dimensions



*Single-quota positioner*

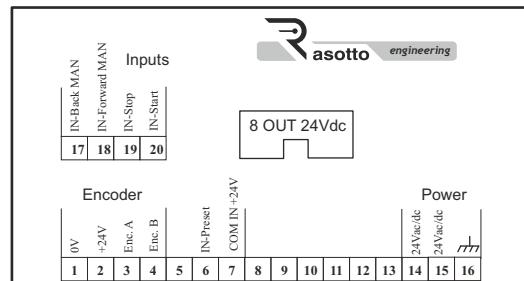

The KS108 is a single-quota positioner. The selection of the quota to be reached is made through the keypad setting (KEY F). When the start is pressed, the instrument automatically performs the quota by acting on the 4 relay outputs. By moving the axis in manual mode the instrument works as a meter and displays the encoder supplied value.

Using the Start and Stop commands the instrument works as an automatic positioner enabling the axis movement in relation to the set quota value and choosing the movement direction itself, it compares the position in which it is located with the quota to be reached and enables the relative relay outputs following the set general parameters.

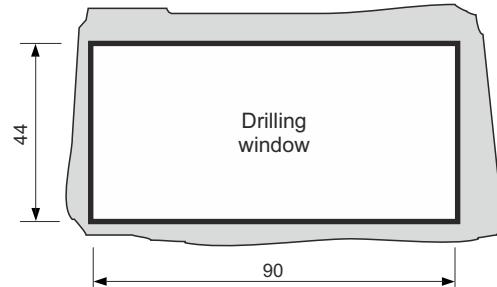
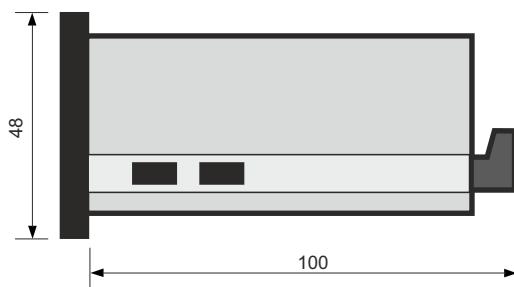
### Technical features

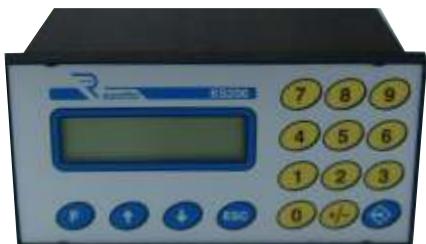
Power supply	24Vac / 24Vdc +/- 5%
Absorption	Max 4VA nominal
Display	6 red 7-segments displays H13mm
Keyboard	4 Mechanical keys
Microprocessor	16 Bit + Flash-Eeprom
Memory	Eeprom 256Kbit
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	recessed mounting
Container	Black ABS
Protection degree	IP20

### Electrical connections



### Dimensions



*Single-quota positioner*


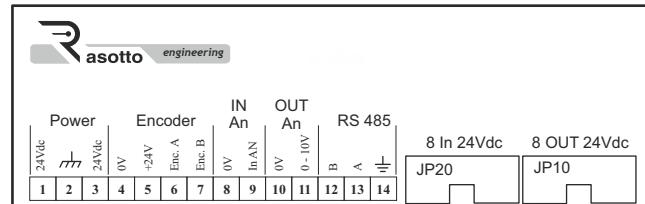
The KS201 is a single-quota positioner. The selection of the quota to be reached takes place via the keyboard setting (KEY F). When the start is pressed, the instrument automatically performs the quota by acting on the 4 relay outputs. By moving the axis in manual mode the instrument works as a meter and displays the value supplied by the encoder.

Using the Start and Stop command the instrument works as an automatic positioner enabling the axis movement in relation to the set altitude value and choosing the movement direction, compares the position in which it is located with the quota to be reached and enables the relative relay outputs following the general set parameters.

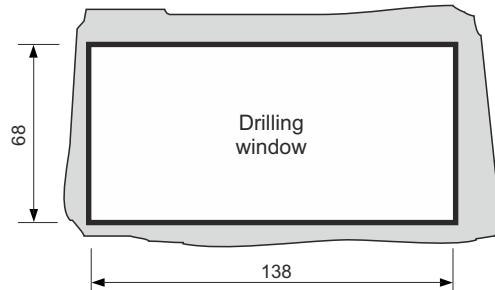
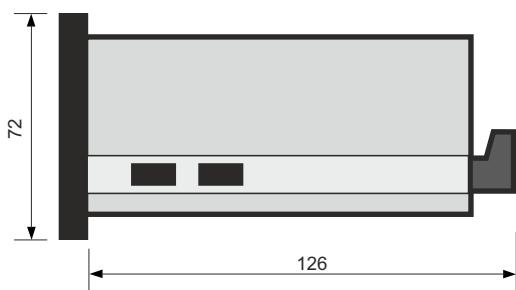
### Technical features

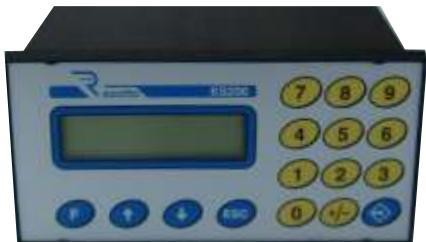
Power supply	19Vac / 24Vdc +/- 5%
Consumption	Max 10W nominal
Display	LCD 16 characters in 2 rows
Keyboard	16 Mechanical keys
Microprocessor	16 Bit + Flash-Eeprom
Memory	Eeprom 256Kbit
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	recessed mounting
Container	Black ABS
Protection degree	IP20

### Electrical connections



### Dimensions



*Single-quota positioner*


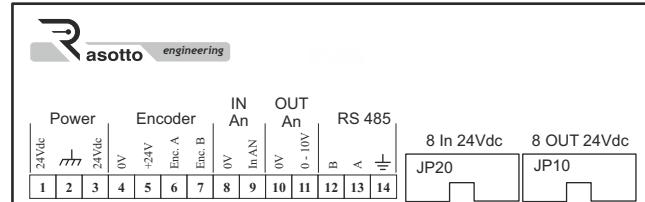
The KS201.1 is a single-quota positioner. The selection of the quota to be reached takes place via the keyboard setting (KEY F). When the start is pressed, the instrument automatically performs the quota by acting on the 4 relay outputs. By moving the axis in manual mode the instrument works as a meter and displays the value supplied by the encoder.

Using the Start and Stop command the instrument works as an automatic positioner enabling the axis movement in relation to the set altitude value and choosing the movement direction, compares the position in which it is located with the quota to be reached and enables the relative relay outputs following the general set parameters.

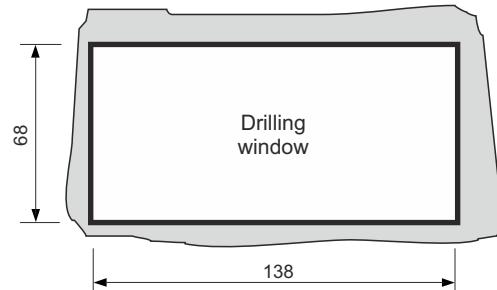
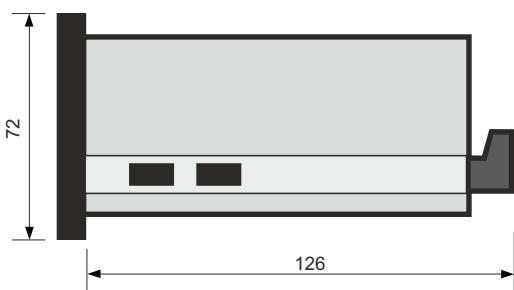
### Technical features

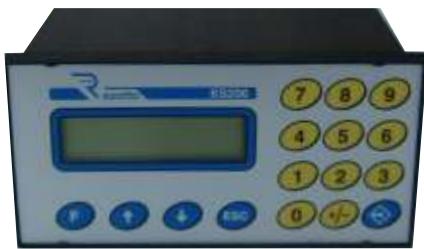
Power supply	19Vac / 24Vdc +/- 5%
Consumption	Max 10W nominal
Display	LCD 16 characters in 2 rows
Keyboard	16 Mechanical keys
Microprocessor	16 Bit + Flash-Eeprom
Memory	Eeprom 256Kbit
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	recessed mounting
Container	Black ABS
Protection degree	IP20

### Electrical connections



### Dimensions



*Double-quota positioner*


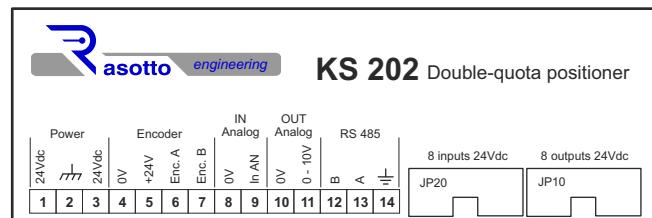
The KS202 is a double-quota positioner. The quota selection to be reached is made via 2 independent inputs. When the corresponding input is pressed, the instrument automatically performs the quota by acting on the 4 outputs. By moving the axis in manual mode the instrument will work as a meter and will display the value supplied by the encoder.

Using the Start1, Start2 and Stop commands the instrument will work as a positioner enabling the axis movement in relation to the set quota value and choosing the movement direction, it will compare the current position with the quota to be reached and it will enable the relative outputs following the set general parameters.

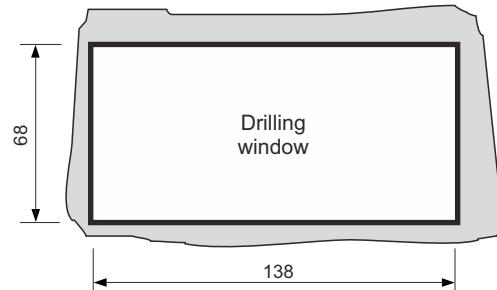
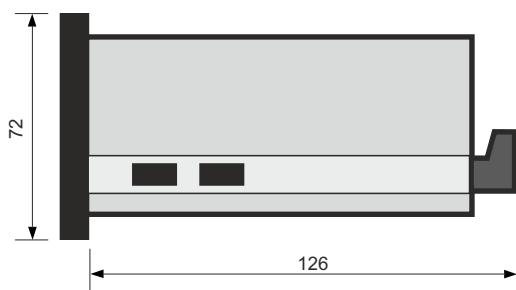
### Technical features

Power supply	19Vac / 24Vdc +/- 5%
Absorption	Max 300mA
Encoder	24dc Push-Pull
Memory	permanent Eeprom
System accuracy	+/- 1 unit
Count speed	25kHz
Input signals	8 IN 24Vdc
Output signals	8 relays 24Vdc
Operation temperature	0-50°C
Black polycarbonate box	IP55
Dimensions	72 x 144 x 105 mm

### Electrical connections



### Dimensions



*Single-quota positioner*


The RP 80 module is a bidirectional single-quota positioner.

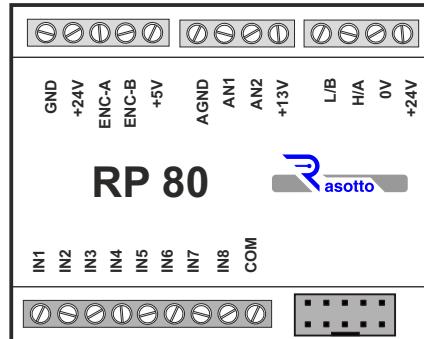
By setting a quota it automatically executes it by acting on the 4 outputs. If the axis is moved manually, the instrument works as a meter and displays the encoder supplied value.

If the Start and Stop commands are used, the instrument works as a positioner, enabling the axis movement in relation to the set quota value and choosing the movement direction itself; it also compares the position in which it is located with the quota to be reached and enables the related outputs.

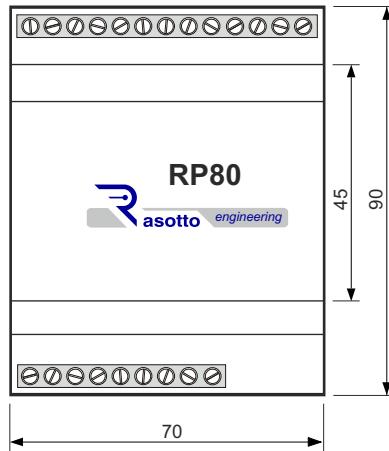
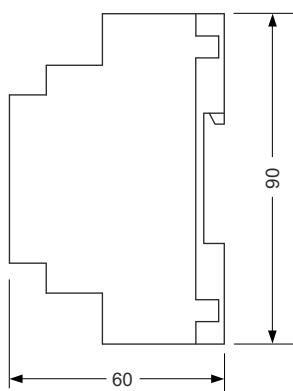
### Technical features

Power supply	24Vdc +/- 5%
Absorption	Max 150mA
Encoder power supply	24dc Push-Pull
Memory	permanent Eeprom
System accuracy	+/- 1 unit
Count speed	2kHz
Inputs	n.8 digital 24Vdc
Relay outputs	n.8 24Vdc
Operation temperature	0-50°C
Mounting	DIN rail EN 50022
Dimensions	4 modules

### Electrical connections



### Dimensions



*8 inputs module 24Vdc / 15mA*


Passive interface module with 8 inputs for connection of electronic instruments, PLC and various interfaces.

The module receives the digital input signals, it filters them and makes them compatible at the output, in a multi-pole flat connector.

Each signal is displayed by a red LED.

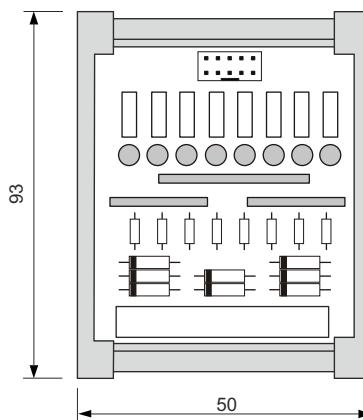
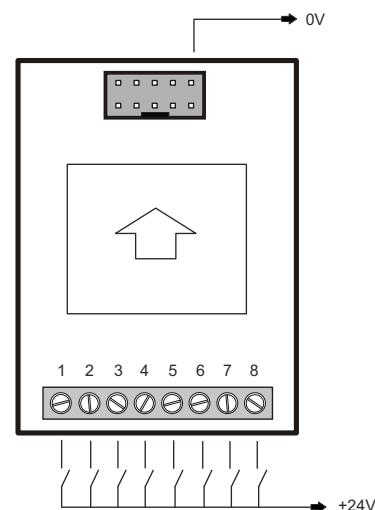
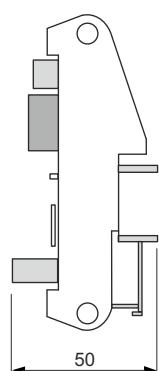
This system is used in equipment of different origins where there is the need for an electrical connection between them.

### Electrical connections

#### Technical features

Power supply	24Vac +/- 10%
Absorption	max 80mA.
Inputs	N.8 digital
Load for every channel	about 15mA
Wiring	Terminal block + 10-pole cable
Signaling	N.8 red LEDs
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail EN 50022
Container	DIN bar container
Protection degree	IP20

#### Dimensions



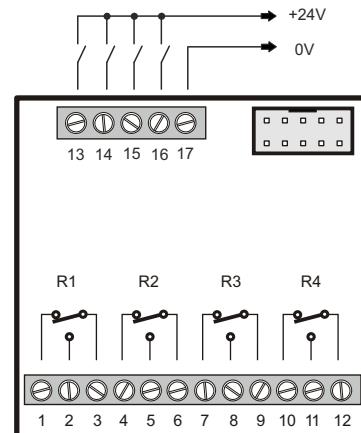
*Interface module with 4 relays 24Vdc / 10A*


Passive relay interface module that receives commands from electronic equipment such as PLCs, industrial PCs, control modules, etc. and controls inductive and resistive loads of small power such as solenoid valves, contactors, small servomotors, lamps, resistors, etc.  
This type of module has a series of screw terminals that makes it universal and a multi-pin flat connector for quick connections.

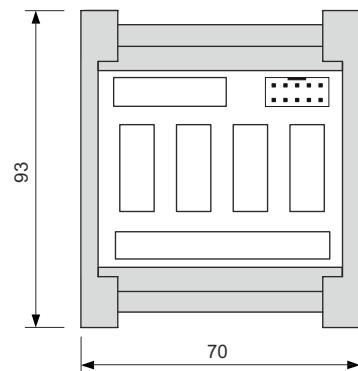
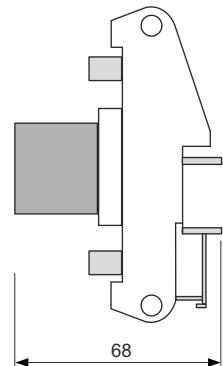
### Electrical connections

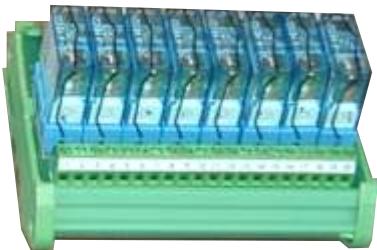
#### Technical features

Power supply	24Vdc +/- 10%
Absorption	Max 150mA
Inputs	N.4 digital
Contact range	Max 10A / 250V resistive load
Wiring	Terminal block + 10-pole cable
Signaling	N.4 red LEDs active signal
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail EN 50022
Container	DIN bar container
Protection degree	IP20



#### Dimensions



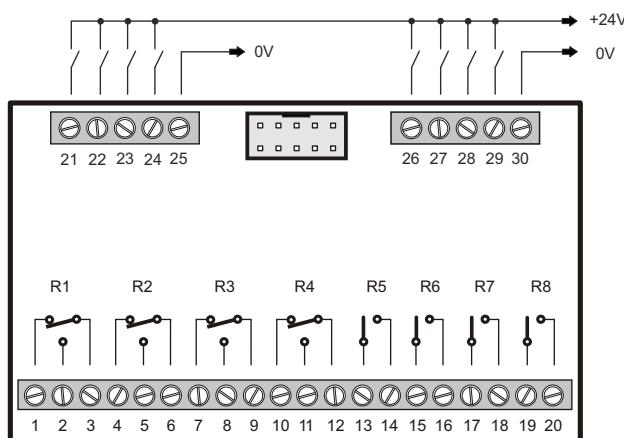
*Interface module with 8 relays 24Vdc / 10A*


Passive relay interface module that receives digital commands from various electronic devices such as PLCs, industrial PCs, control modules, etc. and controls inductive and resistive loads of small power such as solenoid valves, contactors, small servomotors, lamps, resistors, etc. This type of module has a series of screw terminals that makes it universal and a multi-pin flat connector for quick connection with the whole range of our controllers and instruments.

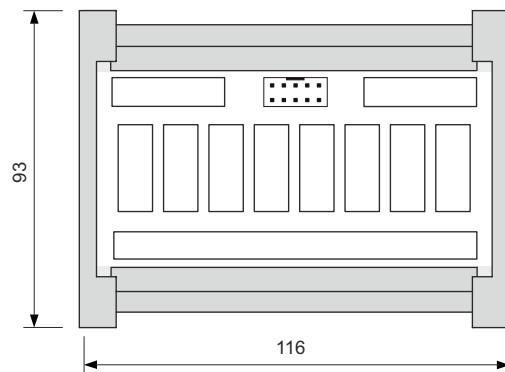
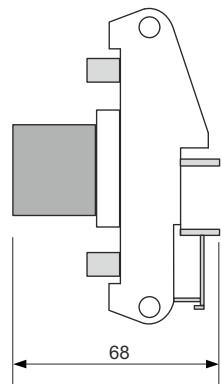
### Technical features

Power supply	24Vdc +/- 10%
Absorption	Max 300mA
Inputs	N.8 digital
Contacts range	Max 10A / 250V resistive load
Wiring	Terminal block + 10-pole cable
Signaling	N.8 red LEDs
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	DIN rail EN 50022
Container	DIN bar container
Protection degree	IP20

### Electrical connections



### Dimensions




*8 relay module for 24Vdc / 16A signals*

Passive operator module with interface function to power. Equipped with 8 16A relays, it is suitable for driving small loads such as motors, shutters, lamps, medium-power contactors coils, etc. On the front, 8 red LEDs show the individual relays status. The relay coils are individually supplied via the terminal block or with a 10-pole flat cable. This type of module is suitable to be housed in junction boxes or general panels.

**IMPORTANT**

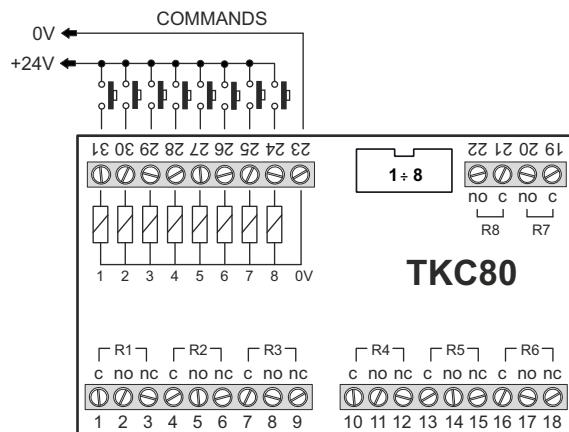
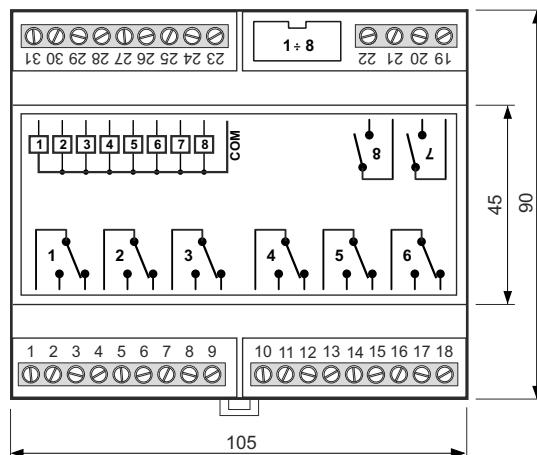
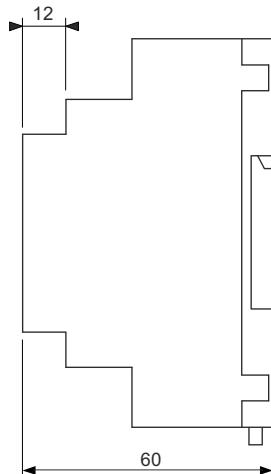
*It is recommended to:*

- 1) carry out any operation only if the system is switched off, therefore in the absence of voltage
- 2) do not invert the connections between the 24Vdc power supply terminals and the power terminals; otherwise the module will be irreparably damaged.

*Please note that the manufacturer is not responsible for the warranty in case of module burning due to incorrect connections.*

**Technical features**

Power supply	24Vdc +/- 10%
Max Absorption	150mA
Contact range	Max 16A / 250V resistive load
Signal display	Red internal leds
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	Guida DIN - EN 50022
Container size	6 modules
Protection degree	IP20

**Electrical connections**

**Dimensions**


*8 relay module for 12Vdc / 16A signals*


Passive operator module with interface function to power. Equipped with 8 16A relays, it is suitable for driving small loads such as motors, shutters, lamps, medium-power contactors coils, etc. On the front, 8 red LEDs show the individual relays status. The relay coils are individually supplied via the terminal block or with a 10-pole flat cable. This type of module is suitable to be housed in junction boxes or general panels.

**IMPORTANT**

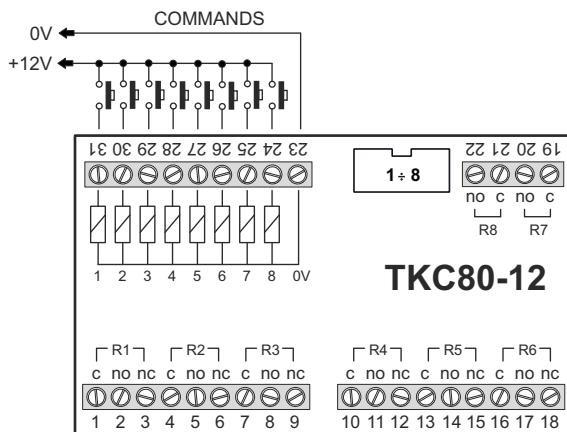
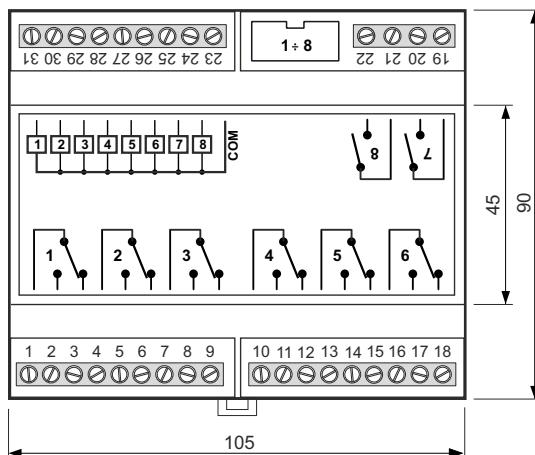
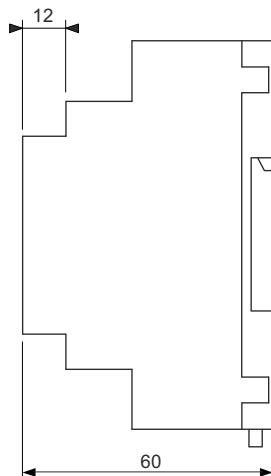
*It is recommended to:*

- 1) carry out any operation only if the system is switched off, therefore in the absence of voltage
- 2) do not invert the connections between the 24Vdc power supply terminals and the power terminals; otherwise the module will be irreparably damaged.

*Please note that the manufacturer is not responsible for the warranty in case of module burning due to incorrect connections.*

**Technical features**

Power supply	12Vdc +/- 10%
Max Absorption	300mA
Contact range	Max 16A / 250V resistive load
Signal display	Red internal leds
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	Guida DIN - EN 50022
Container size	6 modules
Protection degree	IP20

**Electrical connections**

**Dimensions**

**DSSTech Srl**

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.

*4 times pause - work timer*

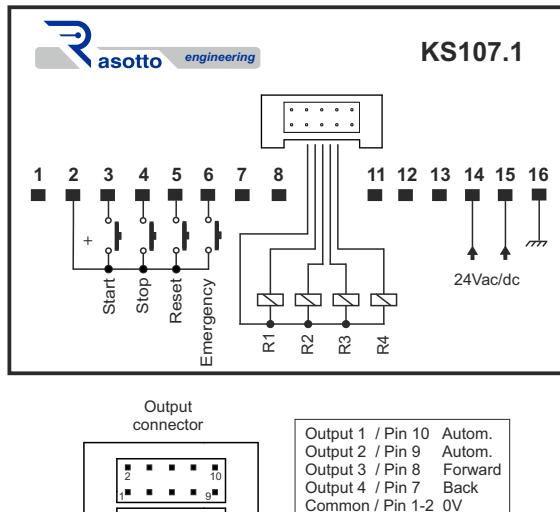

4-time pause-work timer: time1, time2, stop time and total time.  
At the START cycle the output 1 and the output 2 are activated and remain active until the total cycle time set has elapsed.

At the START cycle output 3 is also activated and remains active until the "t.1" time expires; "t.stop" time is loaded and outputs 3 and 4 are deactivated. At the end of the "t. Stop" time the output 4 is activated and remains active for the whole "t.2" time. Then the "t. Stop" time is repeated and successively so is the "t.1" time. These operations are repeated cyclically until the end of the set total cycle time.

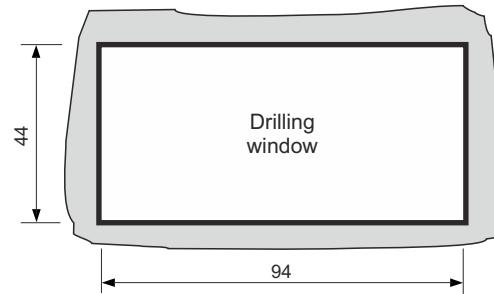
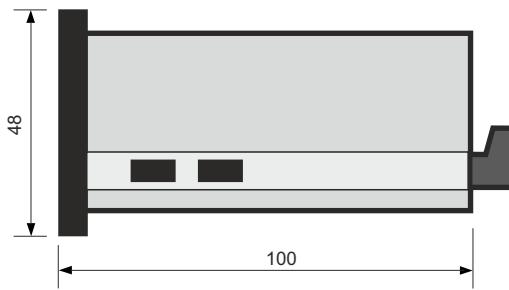
### Technical features

Power supply	24Vac/dc +/- 10%
Absorption	4 VA nominal
Display	6 digits H= 13mm
Counting times basis	Minutes - Seconds
Max settable time	6000 minutes or 6000 seconds
Min settable time	1 minute or 1 second
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





### Multiscale timer with residual time

Preset timer with in cents, seconds, minutes, hours scales.

The counting takes place in decreasing manner, after closing the start, from the preset value to zero.

The instantaneous output follows the start command status.

The timed output is enabled at the count end and remains active until the start command is opened or when the reset is pressed.

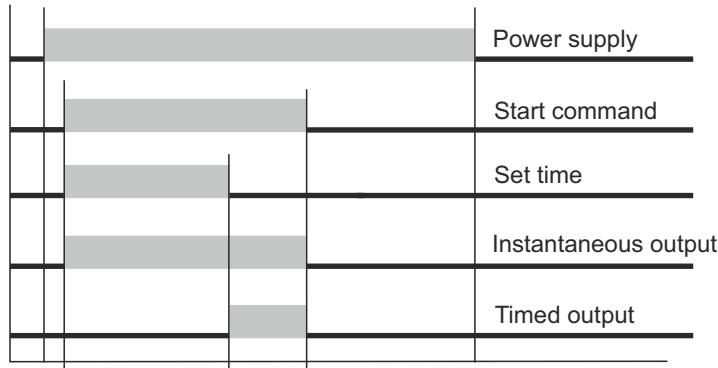
During operation, the cycle can be interrupted by opening the start and subsequently reset, or start again with a new start from the stopped time.

In case of power off or power failure, the time that remains from the cycle end is stored.

Data and parameters are stored on EEPROM automatically.

The keys are disabled during the work cycle; to enter programming, put the instrument in stop mode.

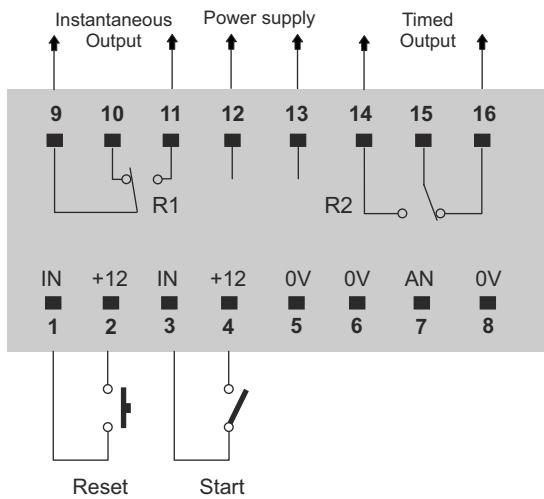
#### Operating mode



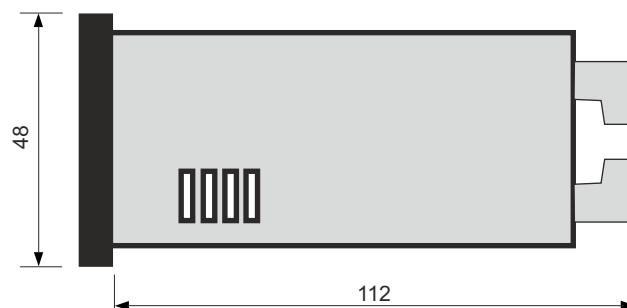
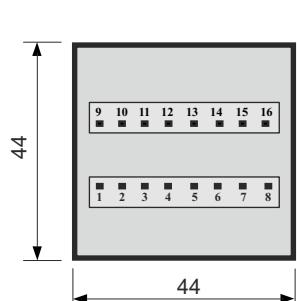
#### Technical features

Power supply	24 - 110 - 230Vac +/- 10%
Absorption	Max 2,5VA
Display	H= 7mm red
Memory	EEProm
Min time	1/100 of Sec.
Max time	99 hours and 59 minutes
Relay range	10A / 250Vac AC1
Container size	48 x 48 x 112mm
Container	Black ABS
Operation conditions	0.. +55°C / 20..90% R.U. without condensation

#### Electrical connections



#### Dimensions



**Multiscale timer**


Preset timer with cents, seconds, minutes, hours scales.

The counting takes place in decreasing manner, after closing the start, from the preset value to zero.

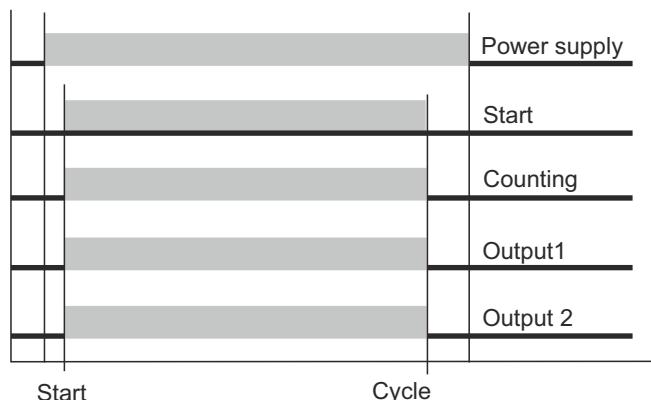
The timed output is enabled at the count end and remains active until the reset command or a new cycle restart.

During operation, the cycle can be interrupted by opening the start and subsequently reset, or start again with a new start from the stopped time.

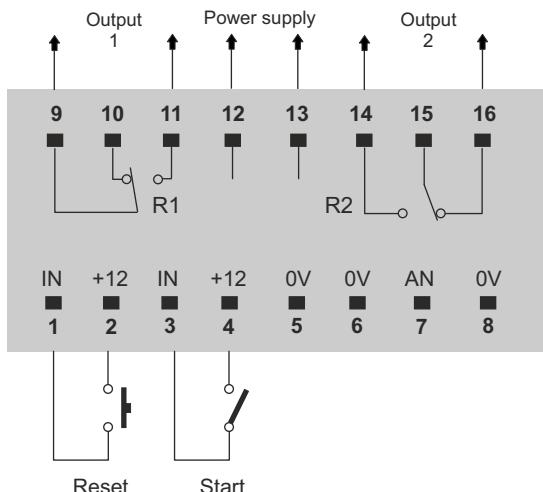
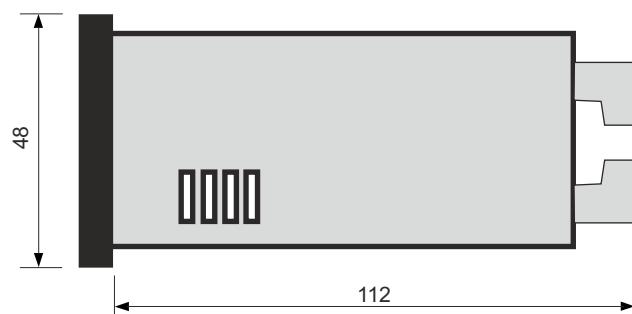
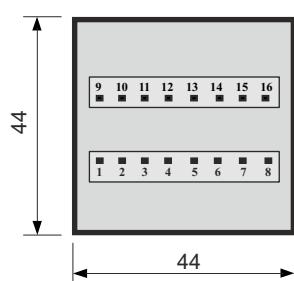
In case of power off or power failure, the time that remains from the cycle end is stored.

Data and parameters are stored on EEPROM automatically.

The keys are disabled during the work cycle; to enter programming, put the instrument in stop mode.

**Operating mode**

**Technical features**

Power supply	24 - 110 - 230Vac +/- 10%
Absorption	Max 2,5VA
Display	H= 7mm red
Memory	EEprom
Min time	1/100 of Sec.
Max time	99 hours and 59 minutes
Portata relè	10A / 250Vac AC1
Container size	48 x 48 x 112mm
Container	Black ABS
Operation conditions	0.. +55°C / 20..90% R.U. without condensation

**Electrical connections**

**Dimensions**

**DSSTech Srl**

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.



### Multiscale timer with residual time

Preset timer with cents, seconds, minutes, hours scales.

The counting takes place in decreasing manner, after closing the start, from the preset value to zero, remaining active for 2 sec.

The instantaneous output is enabled at start and remains active until it is switched off.

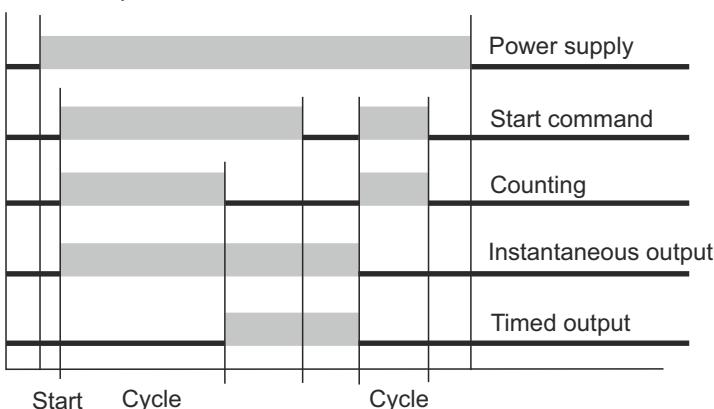
The timed output is enabled at the count end and remains active until the reset command or a new cycle restart.

During operation, the cycle can be interrupted by opening the start and subsequently reset, or start again with a new start from the stopped time.

In case of power off or power failure, the time that remains from the cycle end is stored.

Data and parameters are stored on EEPROM automatically.

The keys are disabled during the work cycle; to enter programming, put the instrument in stop mode.

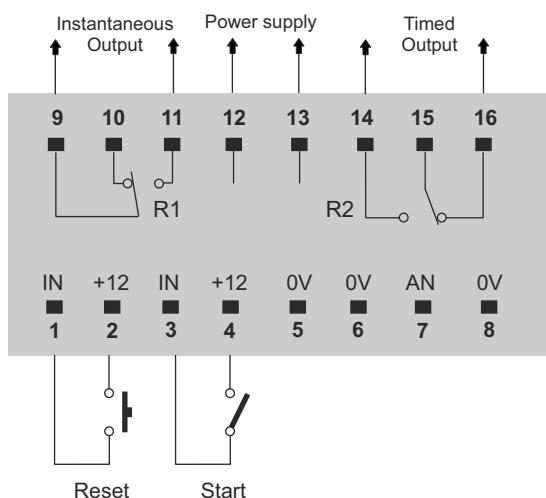


### Operating mode

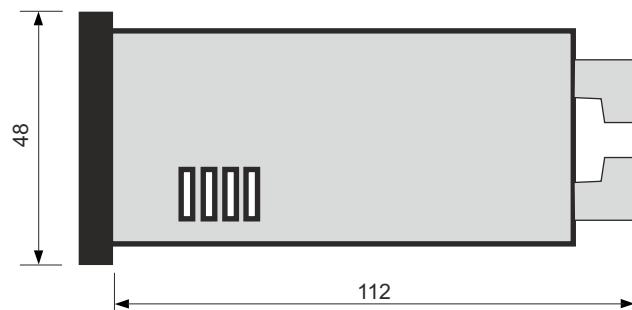
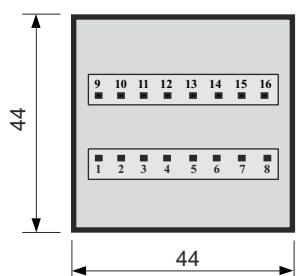
### Technical features

Power supply	24 - 110 - 230Vac +/- 10%
Absorption	Max 2,5VA
Display	H= 7mm red
Memory	EEprom
Min time	1/100 of Sec.
Max time	99 hours and 59 minutes
Relay range	10A / 250Vac AC1
Container size	48 x 48 x 112mm
Container	Black ABS
Operation conditions	0.. +55°C / 20..90% R.U. without condensation

### Electrical connections



### Dimensions



### DSSTech Srl

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.



### Double timer

Double single-scale preselection timer with separate relay outputs.  
The counting takes place in decreasing manner starting, after the start closing, from the T1 time preset value to zero; the T2 time is loaded from the memory and then decreased to zero.

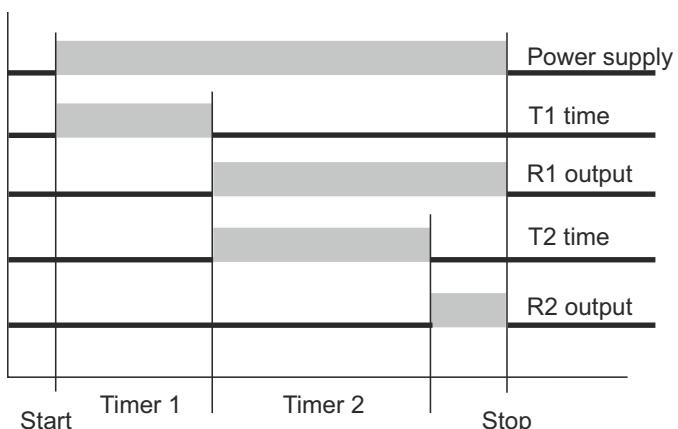
The R1 relay is enabled at the end of the T1 time and remains active for the entire T2 time. At the end of the T2 time, R2 relay is enabled.

The cycle is interrupted by the start opening and eventually reset, or restarts from the interrupted point enabling the start again.

In case of power off or power failure, the time that remains from the cycle end is stored.

Data and parameters are stored automatically on EEPROM memory.

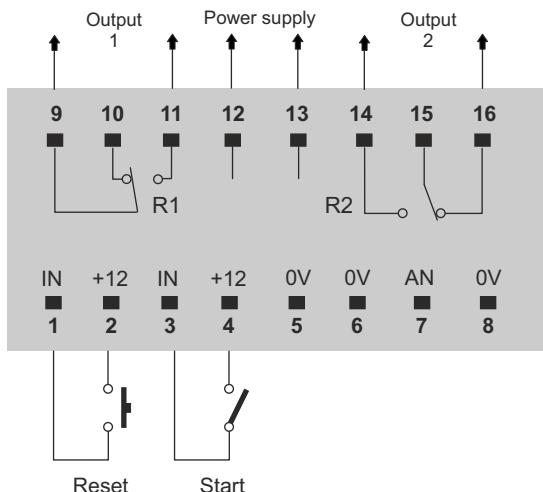
### Operating mode



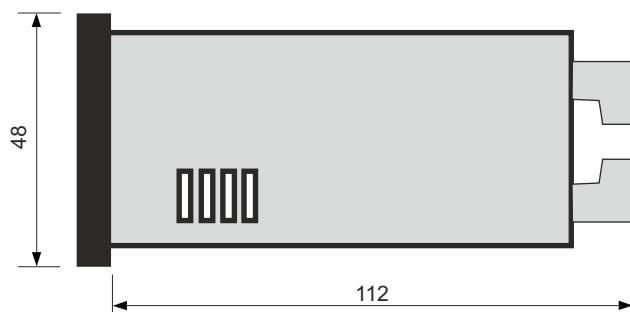
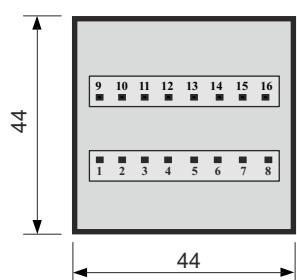
### Technical features

Power supply	24 - 110 - 230Vac +/- 10%
Absorption	Max 2,5VA
Display	H= 7mm red
Memory	EEPROM
Min time	1 Minute
Max time	99 Minutes
Relay range	10A / 250Vac AC1
Container size	48 x 48 x 112mm
Container	Black ABS
Operation conditions	0.. +55°C / 20..90% R.U. without condensation

### Electrical connections



### Dimensions



### DSSTech Srl

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.



### Operating mode

#### TIMER IN 4 TIMES PAUSE-WORK MODE

This mode consists of time1, time 2, stop time and total time.

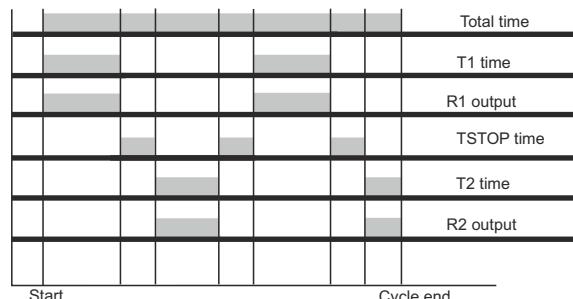
When the start is closed, output 1 is activated and remains active until the "t 1" time expires at which the "t stop" time is loaded; outputs 1 and 2 are deactivated. When the "t stop" time expires, output 2 is activated and remains active for the entire "t 2" time. Then the "t stop" time is repeated, then the "t 1" time and the cycle is repeated cyclically until the end of the set total time. At the end of this time the instrument stops and stays there until a new start command.

During operation, the cycle can be interrupted by opening the start command and reset with the reset command.

#### TIMER IN 1 TIME MODE

This mode is composed only of time1.

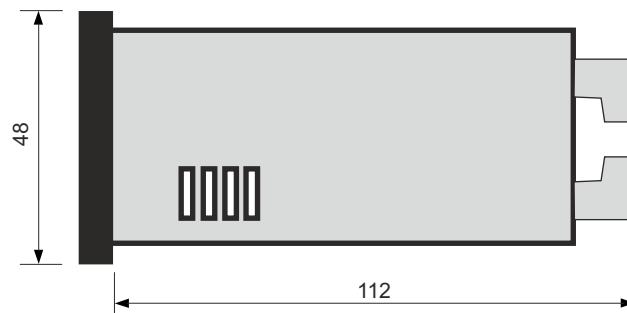
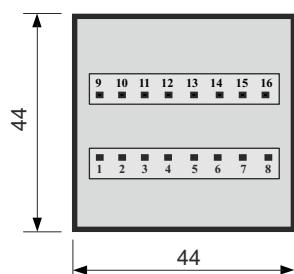
When the start is pressed, output 1 is activated and remains active until the set "t 1" time expires. During operation, the cycle can be interrupted and reset with the reset command.



### Technical features

Power supply	24 - 110 - 230Vac +/- 10%
Absorption	Max 2,5VA
Display	4 displays H= 7mm red
Memory	EEProm
Min time	1 Sec. or 1 Min.
Max time	9999 Sec. or 9999 Min.
Relay range	10A / 250Vac AC1
Container size	48 x 48 x 112mm
Container	Black ABS
Operation conditions	0.. +55°C / 20..90% R.U. without condensation

### Dimensions



### DSSTech Srl

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy

Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F. N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.





Microprocessor module with pre-selection timer functions.  
Use the arrow keys to set a time in minutes displayed on the large-scale display with full scale 99.  
At Start command the time, starting from the set value, begins to decrease up to zero enabling a relay.  
Start and Stop commands can be taken remotely.

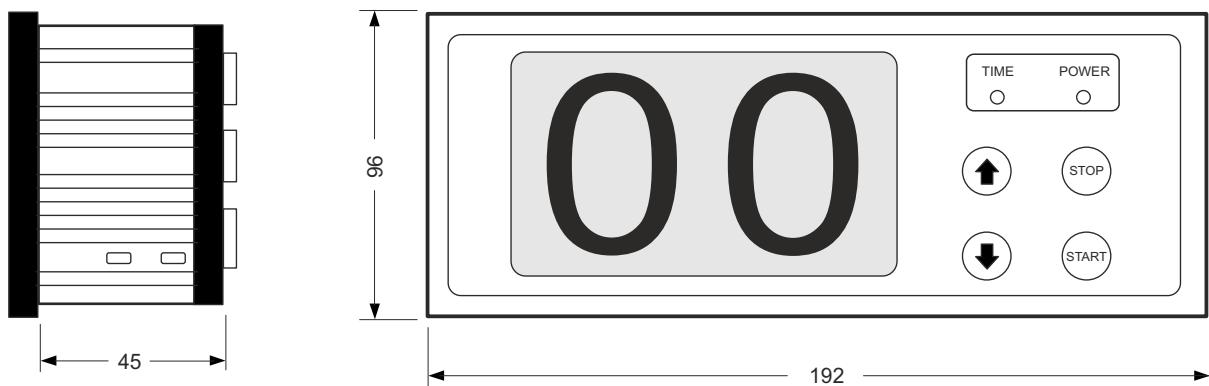
### Technical features

Power supply	24Vac +/- 10%
Absorption	60 mA
Max settable time	99 minutes to decrease
Commands	Start - Stop
Digits height	70 mm
Setting	Scrolling arrow keys
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	Panel
Container	Aluminum container
Protection degree	IP 60

### Electrical connections



### Dimensions





### Potentiometer controller with set

Multi-function microprocessor controller for analogue signal readings, has the possibility of presetting a threshold with relative output within a pre-established intervention window.

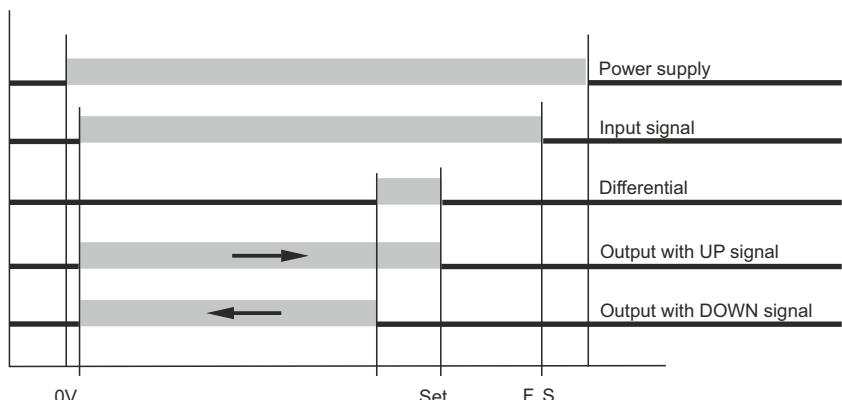
The input can be interfaced with a potentiometer and thus create an economic position control.

The maximum reading range on the display goes from zero to the maximum value of 9990.

The main parameters are: the zero scale, the full scale, the threshold value, the differential, the refresh time between two readings and the decimal point.

The output relay tripping threshold is shown by the LED on the instrument's front. Data and parameter storage is automatically performed on EEPROM.

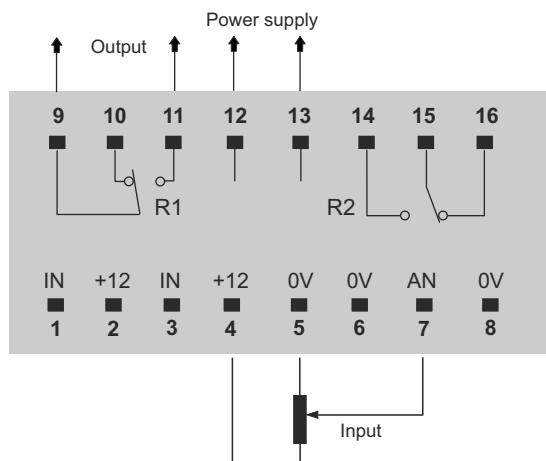
#### Operating mode



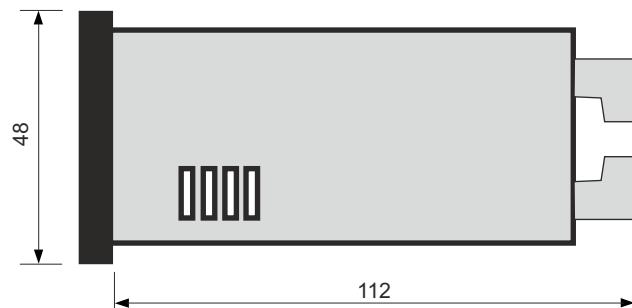
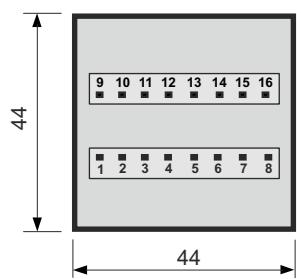
#### Technical features

Power supply	24-110-230Vac +/- 10%
Absorption	2,5 VA
Input	5 kOhm potentiometer
Output	Relay
Memory	Eeprom
10 bit A/D conversion	Resolution +/- 1 bit on 1024 f.c.
Full scale value	9990
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
Front protection degree	IP65

#### Electrical connections



#### Dimensions





### Analog controller with set

Microprocessor controller for analogue signals.

The instrument has the possibility of presetting a threshold with its output within a pre-established intervention window.

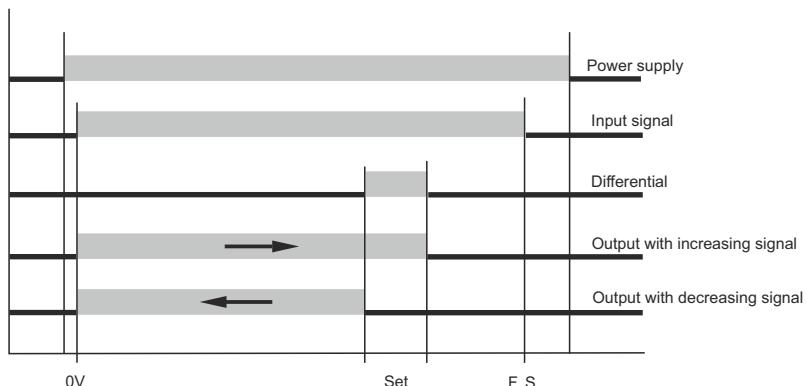
The input is suitable for 0-10Vdc analog signals and the maximum reading range on the display goes from zero to the maximum full scale value (9990).

The parameters managed by the instrument are: the zero scale, the full scale, the threshold value, the differential, the refresh time between two readings and the decimal point.

The output relay enabling is displayed on the front panel LED.

Storing data and parameters is done automatically on EEPROM after each setting and at the end of the display flashing.

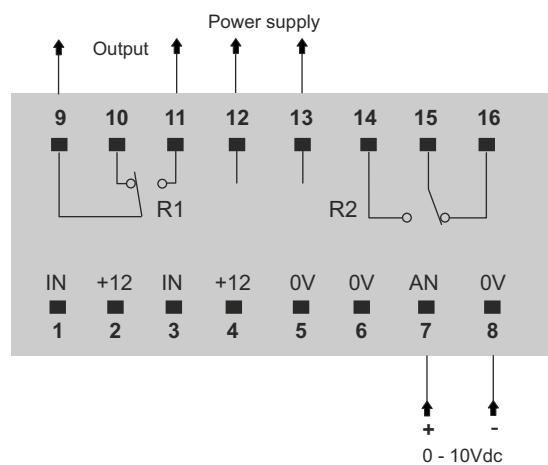
### Operating mode



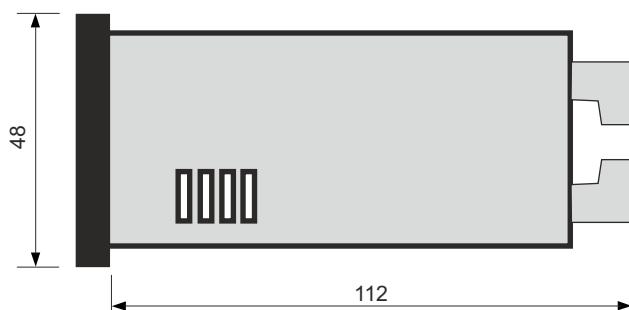
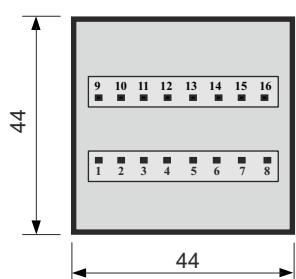
### Technical features

Power supply	24- 110 - 230Vac +/- 10%
Absorption	2,5 VA
Input	Analog 0 - 10Vdc
Output	Relay
Memory	Eeprom
10 bit A/D conversion	Resolution +/- 1 bit on 1024
Full scale value	9990
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
Front protection degree	IP65

### Electrical connections



### Dimensions





Series of analog-digital instruments with correction coefficient automatic calculation setting the full scale value.

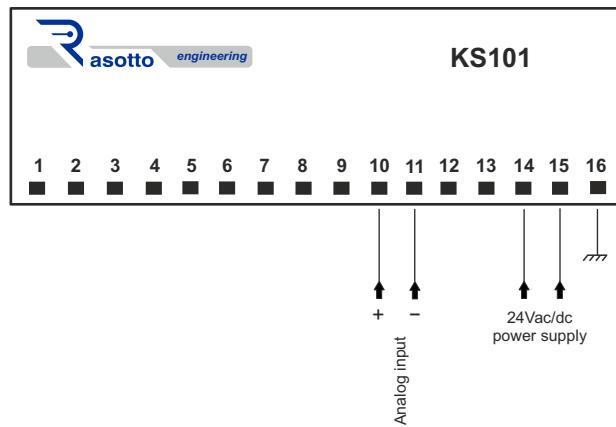
The main features of this instrument are the zero scale setting in any input signal value, the free full scale value setting associated to the maximum input value, 10Vdc, the decimal point and the reading refresh rate setting.

The set data storing is automatically carried out on the internal memory, at the end of the digits flashing.

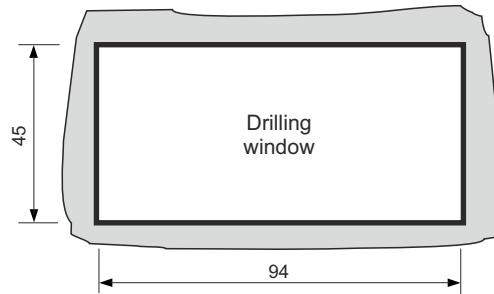
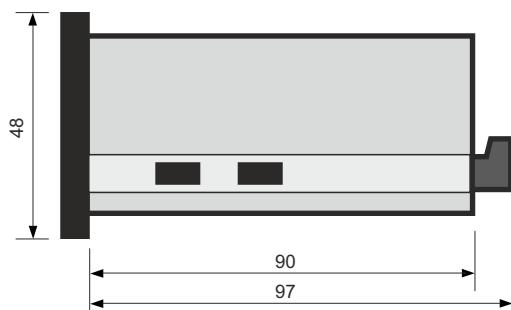
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	6 VA nominal
Display	6 digits H= 13mm
Max full scale value	99.999
Resolution	+/- 1 digit on 1024 f.s.
A/D resolution	10 Bit = 1024 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Differential value	0 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 96 x 90mm
Protection degree	IP30

### Electrical connections



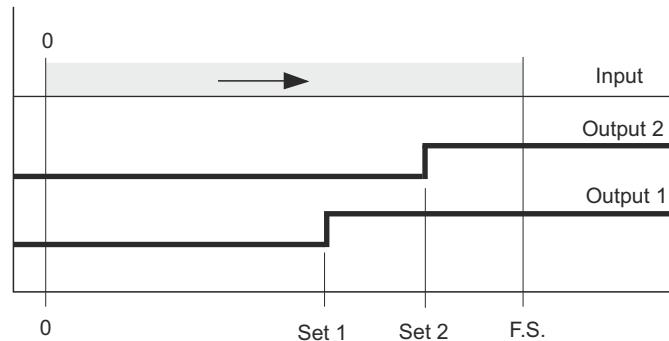
### Dimensions



*Analog signal viewer with 2 thresholds*


Microprocessor instrument with analog input and automatic correction coefficient calculation by setting the full scale value and zero scale value. The main features of the instrument are the decimal point setting, the zero setting, the full scale value free setting associated with the input signal maximum value and the 2 thresholds setting with the relative outputs enabling. The set data storing is carried out at the end of the digits flashing

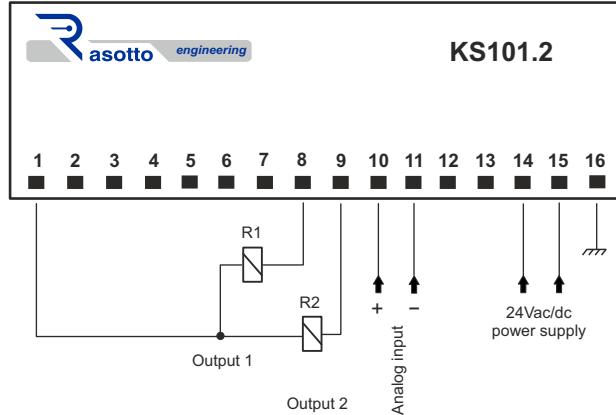
### Operating mode



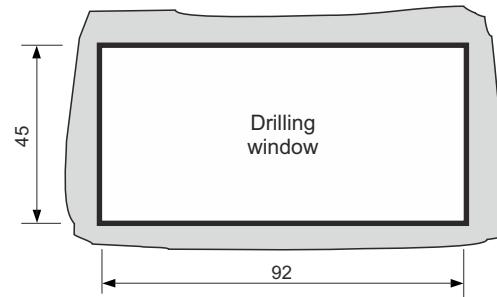
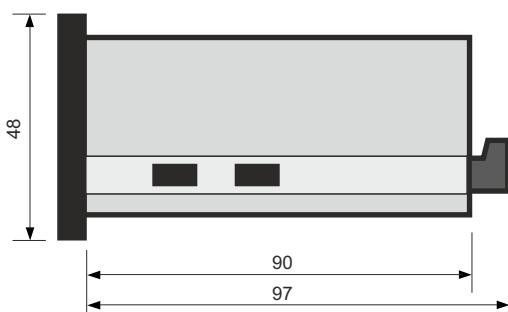
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	6 VA nominal
Display	6 digits H= 13mm
Max full scale value	999999
Resolution	+/- 1 digit on 1024 f.s.
A/D conversion	10 Bit = 1024 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Differential value	0 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 97 x 90mm
Protection degree	IP30

### Electrical connections



### Dimensions



*Analog signal viewer with 2 thresholds*


Microprocessor instrument with analog input and correction coefficient automatic calculation by setting the full scale value and zero scale value. The main features of the instrument are the decimal point setting, the zero setting, the full scale value free setting associated with the input signal maximum value and the 2 thresholds setting with the output relay enabling. The set data storage is carried out at the end of the digits flashing.

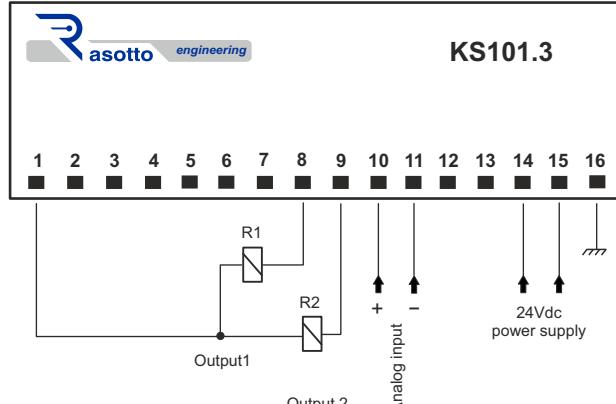
### Operating mode



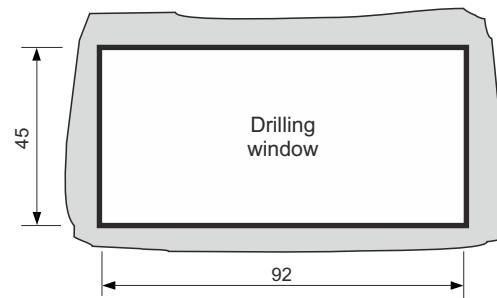
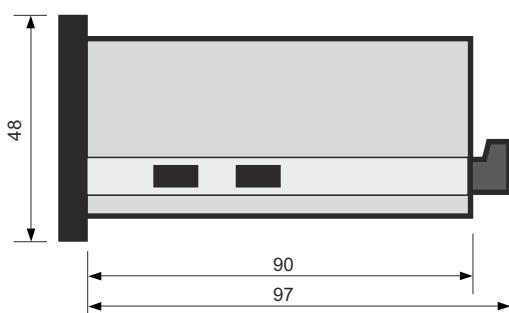
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	6 VA nominal
Display	6 digits H= 13mm
Full scale max value	999999
Resolution	+/- 1 digit on 1024 f.s.
A/D conversion	10 Bit = 1024 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Differential value	0 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 97 x 90mm
Protection degree	IP30

### Electrical connections



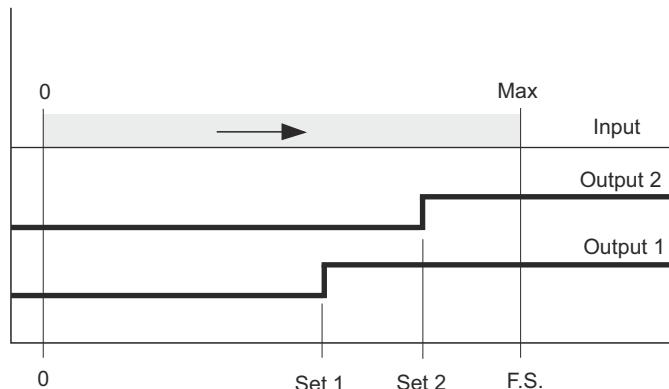
### Dimensions



*Ammeter with 2 sets*


Microprocessor instrument with input from A.T. and correction coefficient automatic calculation by setting the full scale value.  
The instrument main features are the decimal point setting, the zero setting, the full scale value setting associated with the input signal maximum value, the 2 sets setting with the relative outputs enabling.  
The set data storing is carried out automatically on Eeprom at the end of the digits flashing.

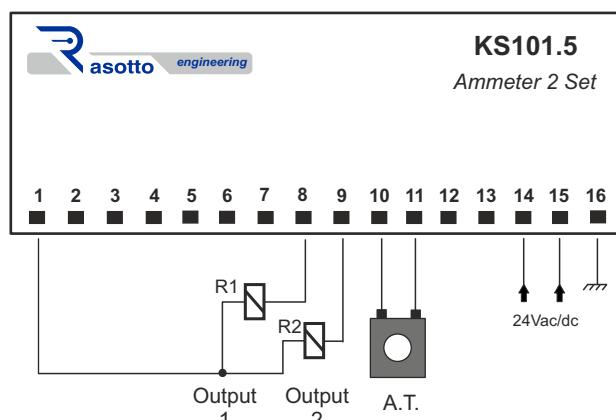
### Operating mode



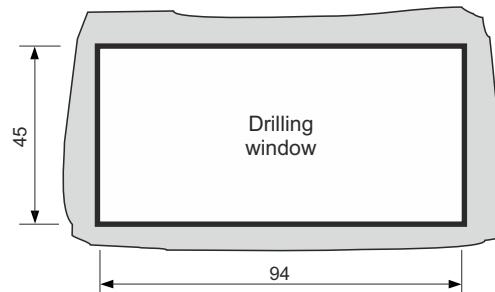
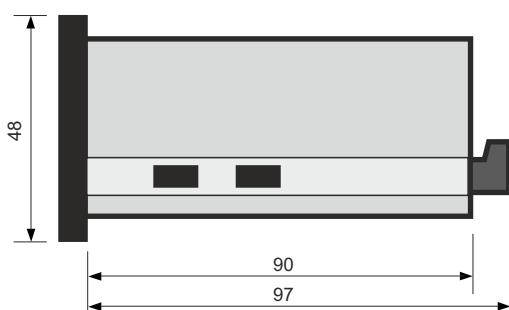
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	2 VA nominal
Display	6 digits H= 13mm
Input signal	A.T.
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



*Analog input viewer with serial output*


Series of analog-digital instruments with correction coefficient automatic calculation by setting the full scale and zero scale values.

RS 485 serial output for remote data viewing.

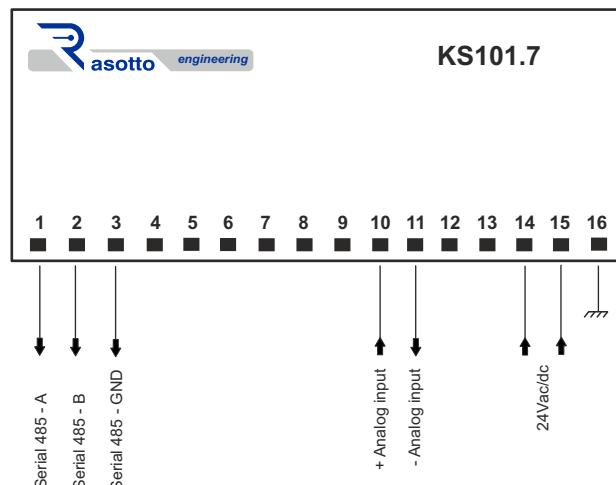
The main features of this instrument are the zero scale setting corresponding to the input signal minimum value, the full scale value free setting associated with the input signal maximum value, the decimal point and the refreshments frequency reading setting.

The set data storing is automatically carried out on the internal memory, at the end of the digits flashing.

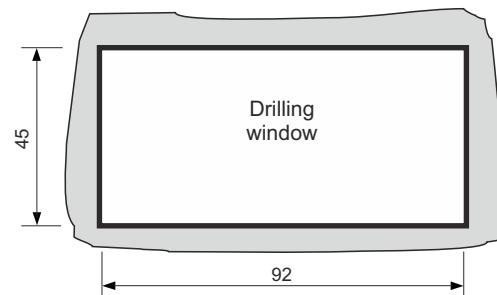
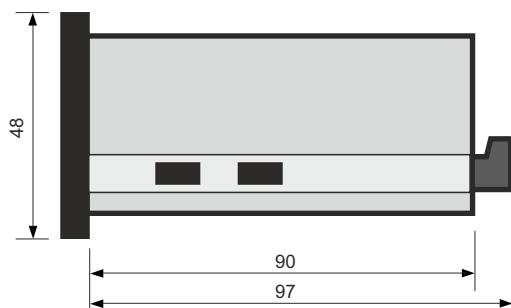
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	6 VA nominal
Display	6 digits H= 13mm
Full scale max value	999999
Resolution	+/- 1 digit on 1024 f.s.
A/D conversion	10 Bit = 1024 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 97 x 90mm
Protection degree	IP30

### Electrical connections



### Dimensions





Series of analog-digital instruments with correction coefficient automatic calculation through the calibration of 2 points.

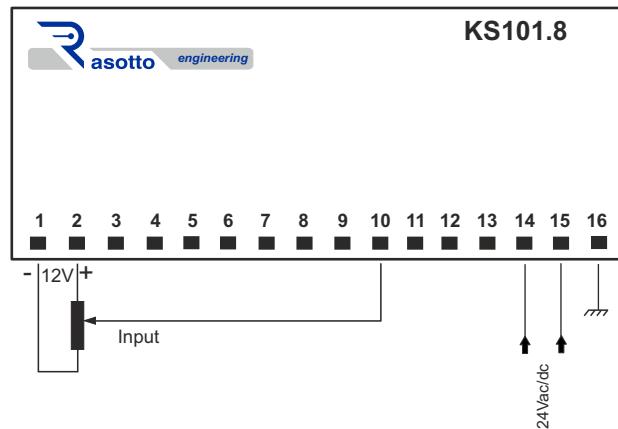
The main features of this instrument are the zero scale setting corresponding to the input signal minimum value, the full scale value free setting associated with the input signal maximum value, the decimal point setting and the reading refreshments frequency.

The set data storage is automatically carried out on the internal memory, at the end of the digits flashing.

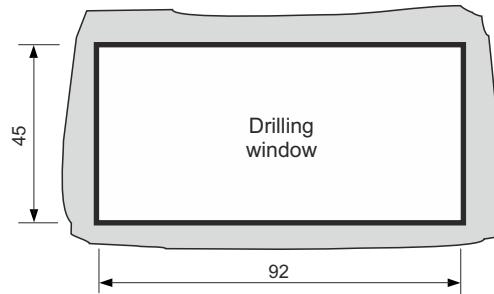
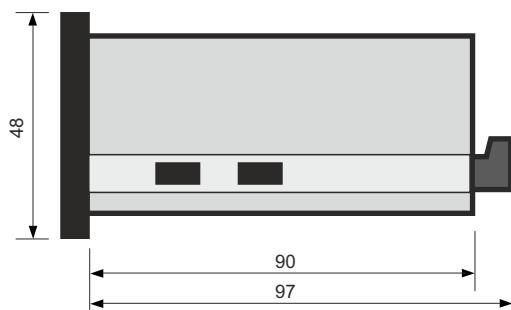
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	24Vdc 150mA
Display	6 digits H= 13mm
Full scale max value	9999
Resolution	+/- 1 digit on 4096 f.s.
A/D conversion	12 Bit = 4096 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 97 x 90mm
Protection degree	IP30

### Electrical connections



### Dimensions





Instrument with 12 bit A/D converter used for measuring potentiometric inputs.

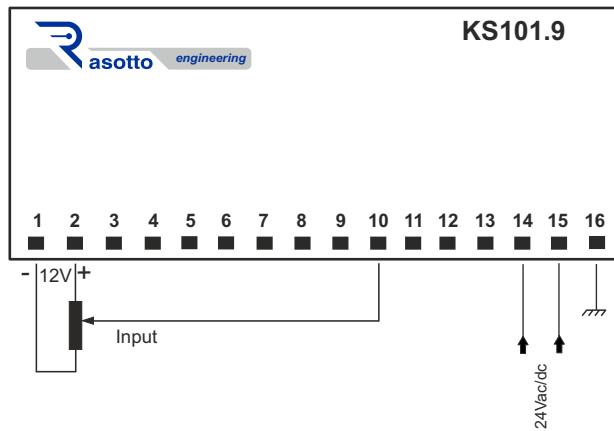
The tool offers the following functions:

- 6-digit displaying
- setting any reading with any input value
- potentiometer calibration from 2 to 6 points
- readings refresh rate configuration
- decimal point setting up to 5 points
- negative values selection
- averages number choice for more stable readings
- data protection under password

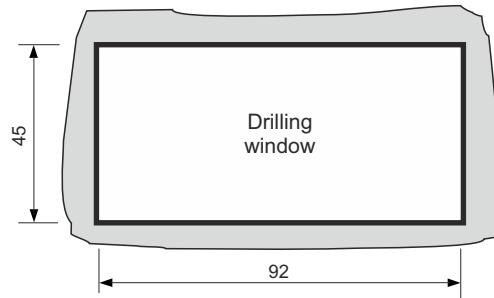
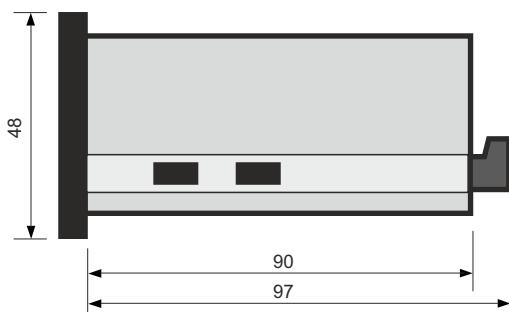
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	24Vdc 150mA
Display	6 digits H= 13mm
Full scale max value	9999
Resolution	+/- 1 digit on 4096 f.s.
A/D conversion	12 Bit = 4096 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 97 x 90mm
Protection degree	IP30

### Electrical connections



### Dimensions



12-bit potentiometer viewer with thresholds



Instrument with 12 bit A/D converter used for measuring potentiometric inputs.

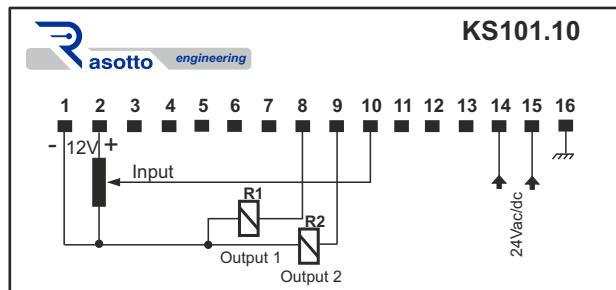
The tool offers the following functions:

- 6-digit displaying
- setting any reading with any input value
- potentiometer calibration from 2 to 6 points
- readings refresh rate configuration
- decimal point setting up to 5 points
- negative values selection
- averages number selection for more stable readings
- data protection with password
- relay outputs activation when the relative thresholds are exceeded

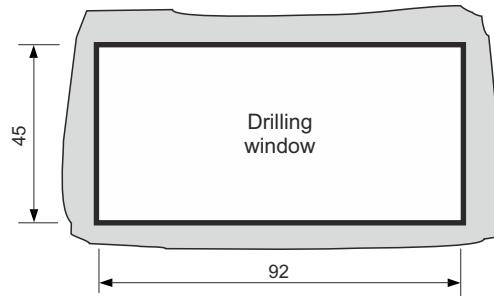
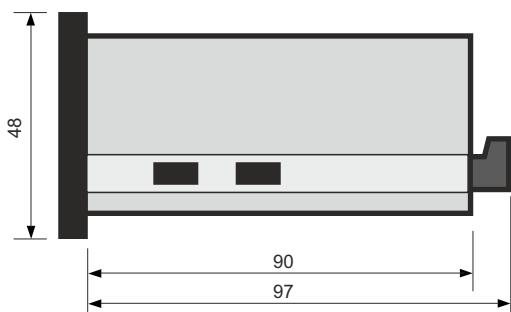
### Technical features

Power supply	24Vac/dc +/- 5%
Absorption	24Vdc 150mA
Display	6 digits H= 13mm
Full scale max value	9999
Resolution	+/- 1 digit on 4096 f.s.
A/D conversion	12 Bit = 4096 points
Full scale value	-999 ÷ 9999
Zero scale value	-999 ÷ 9999
Delay between 2 readings	0 ÷ 50
Negative values block	0 - 1
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	ABS 48 x 97 x 90mm
Protection degree	IP30

### Electrical connections



### Dimensions





### 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.

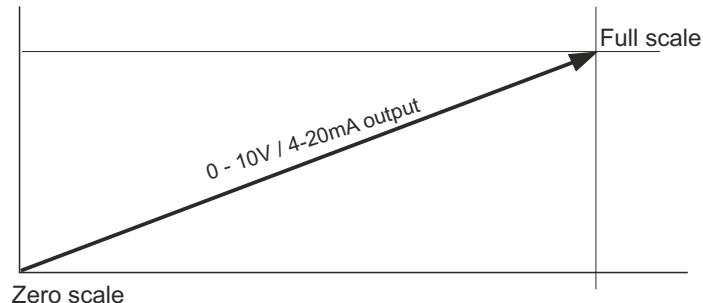
Continuously adjustable by means of the 2 arrow keys on the front panel or via the 2 inputs on the removable terminal board, it displays at the same time the supplied value to the analogue output.

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.

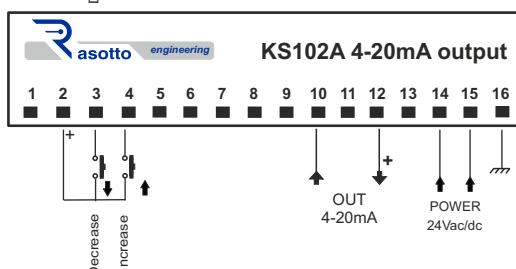
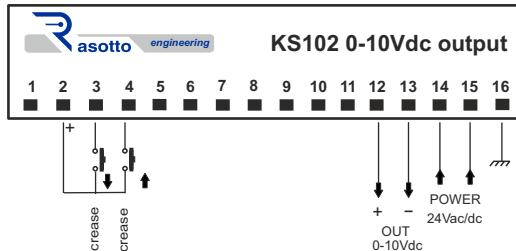
### Operating mode



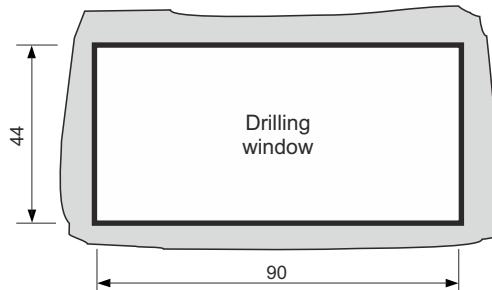
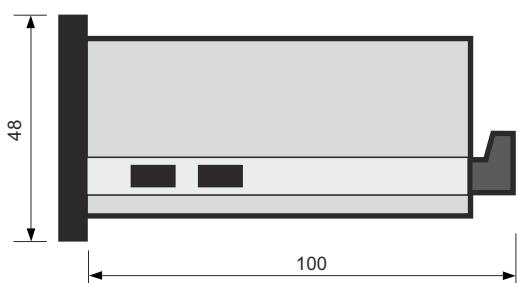
### Technical features

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





Quota viewer with encoder input.

With the pulse correction coefficient, the instrument adapts each encoder pulse to the desired measurement unit: m, cm, mm, °, etc.

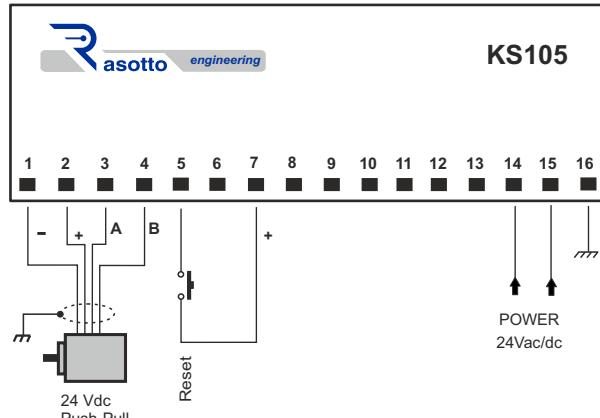
You can change the position absolute value, without making machine zero, setting a value from the keyboard and storing the new displayed position. The quota reset is made with external remote pulse (reset) or by pressing together the two arrow keys on the front.

The instrument is suitable for interfacing only with 2 out-of-phase signals transducers as an encoder; it is not suitable for single-signal transducers (photocontrollers, proximity, mechanical contacts). When switched off, the storing operation is made on eeprom without using buffer batteries.

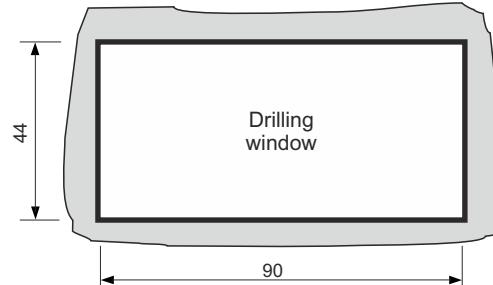
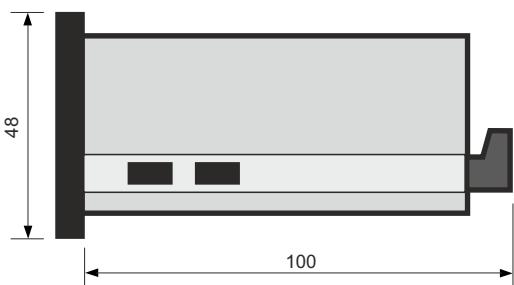
### Technical features

Power supply	24Vac/dc +/- 10%
Absorption	4 VA nominal
Display	6 digits H= 13mm
Full scale max value	from -99999 to 999999
Resolution	+/- 1 digit on f.s.
Count frequency	2100Hz on 4 fronts
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



*1 quota controller*

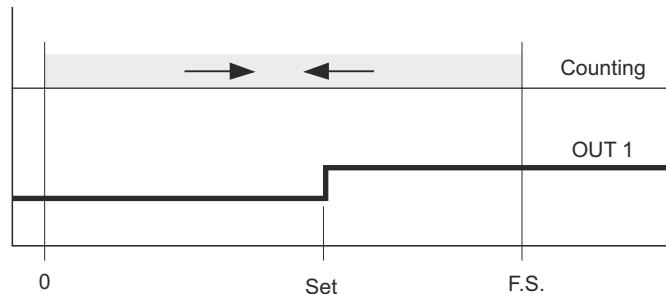

Digital position controller with incremental encoder input by means of its pulse correction coefficient, the instrument adapts each encoder pulse to the desired measurement unit.

An important function is the absolute position value change without performing machine zero: you can set the actual value with the keypad and store the new position with relative visualization.

The measurement can be reset from the terminal board with remote control or from the keypad by simultaneously pressing the two arrow keys on the front panel.

The instrument enables an output when the set value is reached.  
Data and parameters are stored on EEPROM.

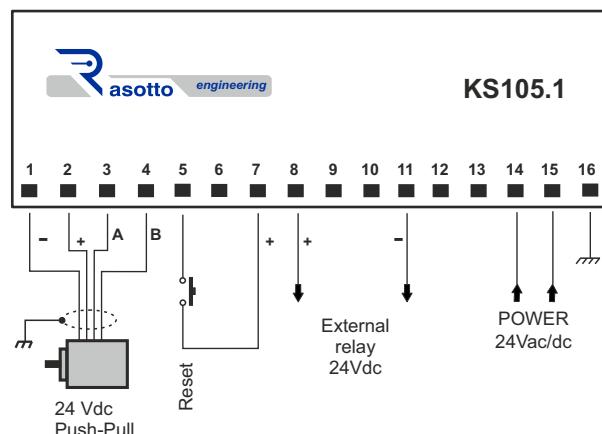
### Operating mode



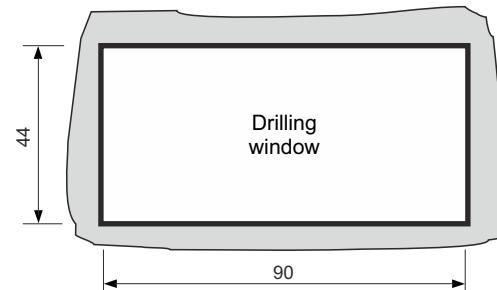
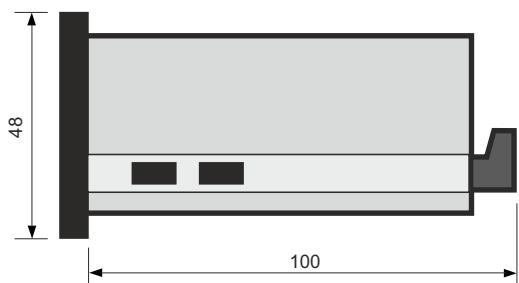
### Technical features

Power supply	24Vac/dc +/- 10%
Absorption	4 VA nominal
Display	6 digits H= 13mm
Full scale max value	from -99999 to 99999
Resolution	+/- 1 digit on f.s.
Count frequency	2100Hz on 4 fronts
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

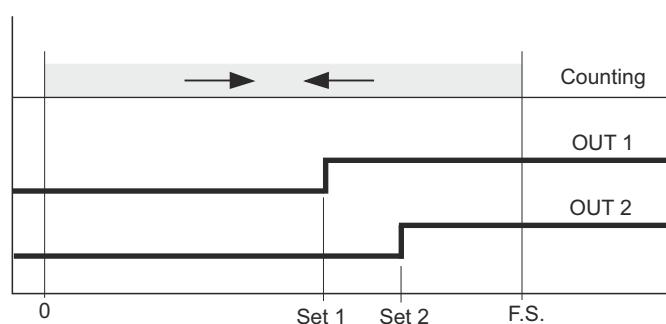


### Dimensions





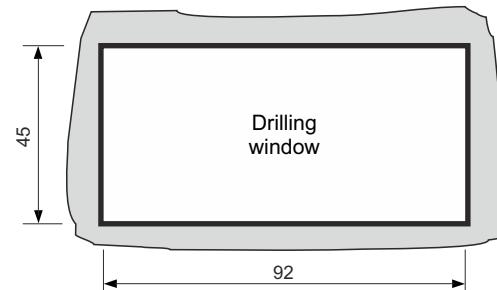
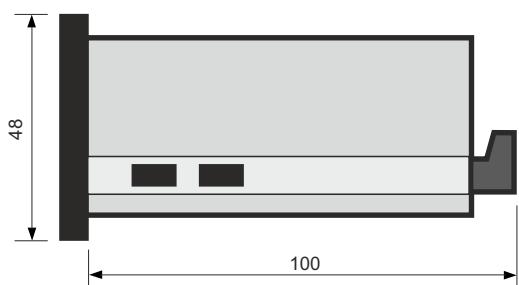
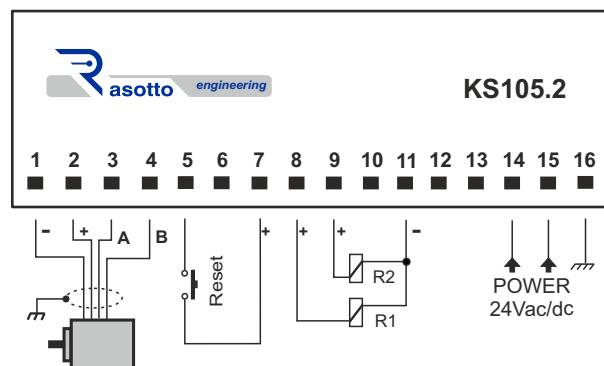
### Operating mode



### Technical features

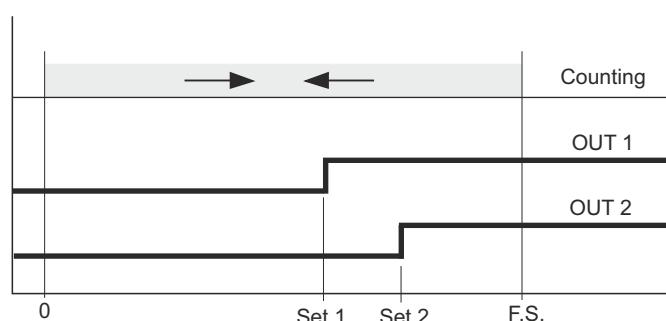
Power supply	24Vac/dc +/- 10%
Absorption	4 VA nominal
Display	6 digits H= 13mm
Full scale max value	from -9.999 to 99.999 f.s.
Resolution	+/- 1 digit on f.s.
Count frequency	2100Hz on 4 fronts
Operation conditions	0.. +55°C / 20..90% R.U. without condensation
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	recessed mounting
Container	Black ABS
Protection degree	IP30

### Electrical connections



*Line driver encoder viewer with thresholds*

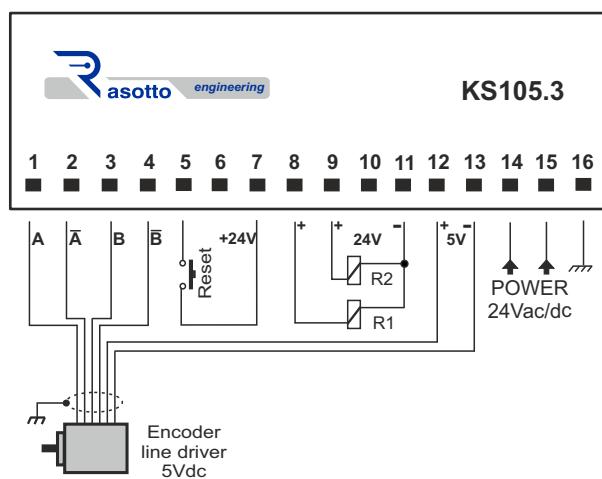

### Operating mode



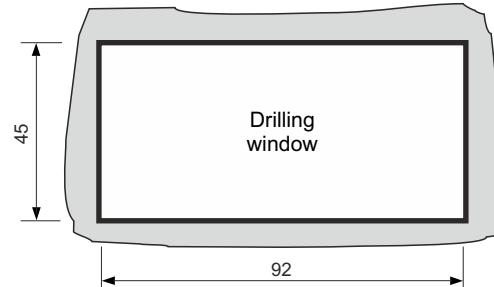
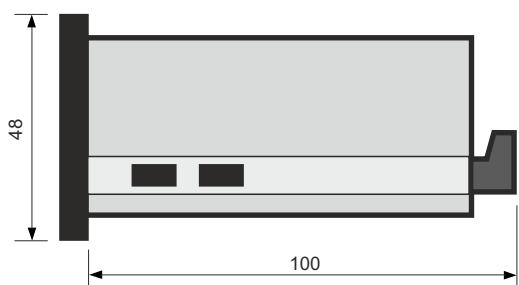
### Technical features

Power supply	24Vac/dc +/- 10%
Absorption	4 VA nominal
Display	6 digits H= 13mm
Full scale max value	from -9.999 to 99.999 f.s.
Resolution	+/- 1 digit on f.s.
Count frequency	2100Hz on 4 fronts
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



*Position controller with 4-20mA OUT*


The KS105.9 position viewer is an instrument that can automatically or manually control movements.

It supplies a 4 - 20mA output signal whose value is proportional to the displayed position value that is linked to a previously set full scale value. This instrument is equipped with opto-isolated inputs in PNP version.

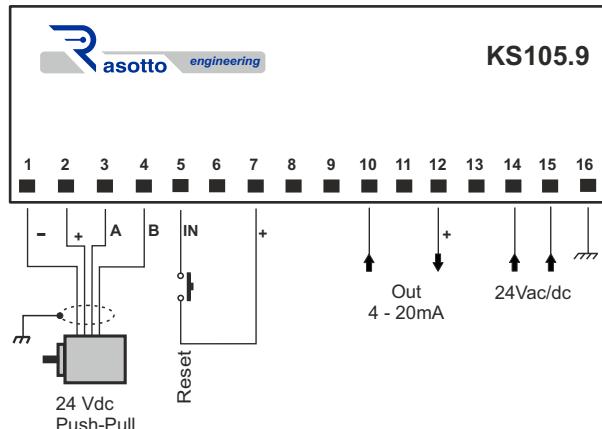
Data storage takes place on internal Eeprom memory.

The reading reset can be done by pressing together the arrow keys on the front panel or remotely after having brought the signal on the instrument terminal board as indicated on the connection diagram.

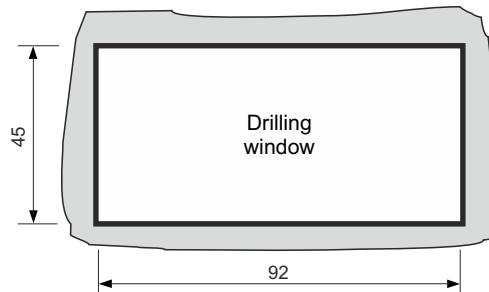
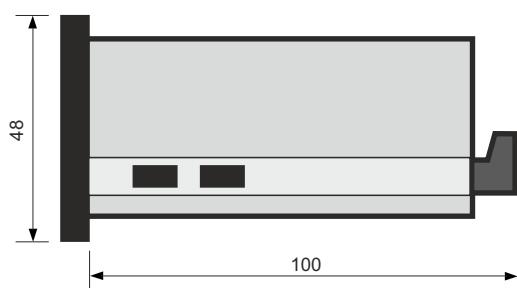
### Technical features

Power supply	24Vac/dc +/- 5 %
Absorption	6 VA nominal
Display	6 digits H= 13mm
Full scale max value	from -99999 to 99999 f.s.
Resolution	+/- 1 digit on f.s.
Count frequency	2100 Hz reading 4 fronts
Analog output	4 - 20mA
Storage conditions	-25.. +80°C / 20..90% R.U. without condensation
Mounting	recessed mounting
Container	Black ABS
Protection degree	IP30

### Electrical connections



### Dimensions





DSSTech



**DSSTech Srl**

Sede legale: via dell'Artigianato 3 - 36034 - Malo (VI) - Italy  
Tel. +390445637541

E-mail: [info@dsstech.it](mailto:info@dsstech.it)

WEB site: [www.dsstechautomation.com](http://www.dsstechautomation.com)

P.I., C.F., N. Reg. Imprese IT04118980244

Capitale sociale: 10.000,00 Euro i.v.