

Equipments complying the electromagnetic compatibility prescriptions based on the 89/366/EEC directive.



Reference norms:

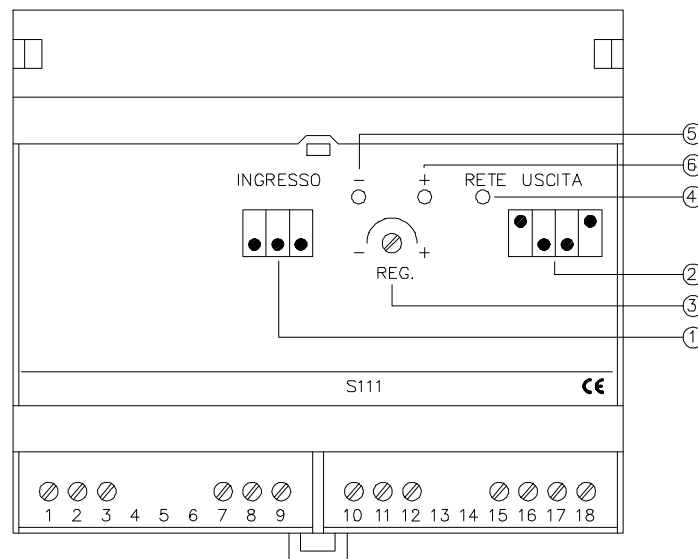
EN 50081-2 Industry environment emission norm

EN 50082-2 Industry environment immunity norm

S111 is a frequency/current converter made by digital technology, to allow a wide-range full-scale and input frequency programming starting from very low frequencies without ripple's problem on output. S111 has optoisolated inputs that allows the connection with lot kinds of sensors : reed, NPN (2 or 3 wires connection), PNP, NAMUR, 24Vdc pulses, photoelectric sensors and Hall effect sensors. Three DIP-switches on front panel allow to select 8 different full-scale ranges, and a precision potentiometer 20 rounds allows to control finely full-scale in the selected range. Four DIP-switches allows to select the output you want:

- current 4 - 20 mA (both active and passive)
- current 0 - 20 mA (both active and passive)
- voltage 1 - 5 Vdc (voltage 2 - 10 Vdc available on request)
- voltage 0 - 5 Vdc (voltage 0 - 10 Vdc available on request)

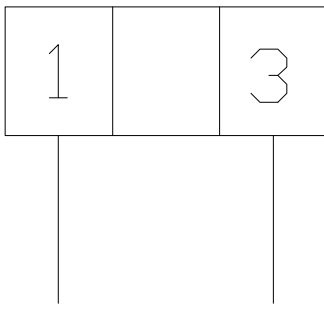
Box is made in autoextinguishing and sockproof ABS, to be fasten on 35 mm guide (DIN 6277), or to be fasten by screw .



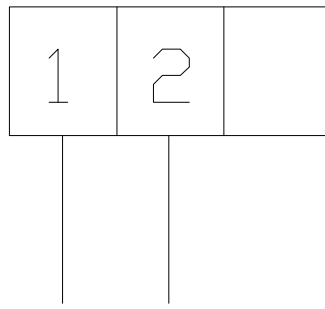
- 1) DIP-switch "INGRESSO" : selection of frequency input range
- 2) DIP-switch "USCITA" : selection of output.
- 3) Potentiometer "REG." : fine regulation of full-scale.
- 4) green LED "RETE" : warning powered instrument.
- 5) red LED "-" : warning input frequency lower than 3% full-scale.
- 6) red LED "+" : warning input frequency upper than 90% full-scale.

CONNECTIONS

- POWER SUPPLY



220Vac

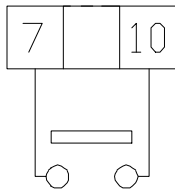


110Vac

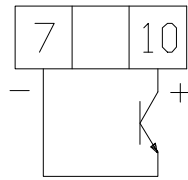
- INPUTS

Input's connections:

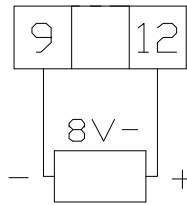
Reed



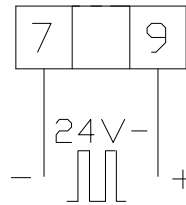
NPN (2 wires)



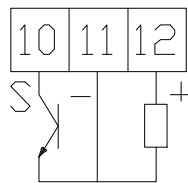
NAMUR



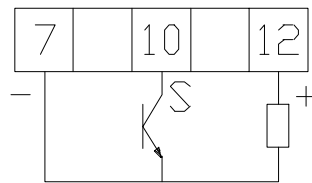
Pulses 24Vdc



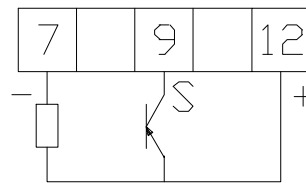
NPN (3 wires) 12V



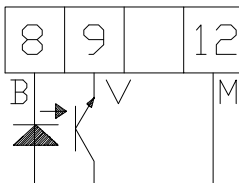
NPN (3 wires) 24V



PNP (3 wires) 24V

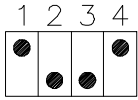


Photoelectric Sensor



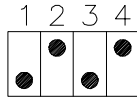
- OUTPUTS

Current 4-20mA

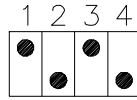


DIP-switches' "OUTPUT" prearrangement:

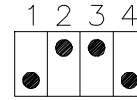
Current 0-20mA



Voltage 1-5Vdc

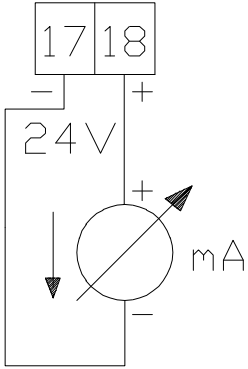


Voltage 0-5Vdc

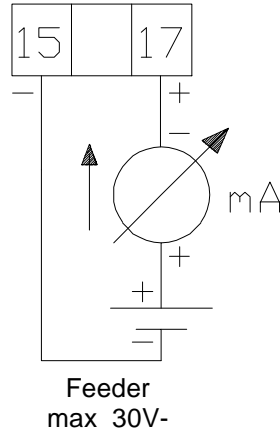


output wiring schematics:

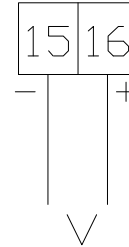
active current out



passive current out



Voltage output



SELECTION OF FREQUENCY RANGE AND FULL-SCALE CALIBRATION

This operation must be done only by an engineer , it is necessary to have a frequency generator .

IF YOU REQUIRES IT, EQUIPMENT CAN BE SOLD CALIBRATED YET WITH THE FULL-SCALE YOU WANT.

The 8 full-scale ranges are chosen by DIP-switches "INGRESSO" , as shown in the table below.

	from 80 Hz to 680 Hz		from 0,15 Hz to 1,25 Hz
	from 10 Hz to 80 Hz		from 0,04 Hz to 0,34 Hz
	from 2,5 Hz to 20 Hz		from 0,01 Hz to 0,085 Hz
	from 0,65 Hz to 5 Hz		from 0,0025 Hz to 0,022 Hz

Optional is possible to program equipment for a full-scale very low, till 1 pulse per 34 minutes.

HOW TO CALIBRATE:

- Put DIP-switches' triggers "INGRESSO" in position corresponding the range having necessary full-scale .
- Connect at equipment's input a frequency generator and control it for an output corresponding at half full-scale you want.
- Put DIP-switches' triggers "USCITA" in position corresponding output's type you want .

If you select an output in current, connect an amperometer 20mA capacity between clamps 17 and 18 (17 negative and 18 positive).

If you select an output in voltage, connect a voltmeter 5Vdc capacity between clamps 15 and 16 (15 negative and 16 positive).

- Regulate potentiometer on equipment's front panel till you will read the following value:
 - 12 mA if output is prearranged for 4 - 20 mA current
 - 10 mA if output is prearranged for 0 - 20 mA current
 - 3 Vdc if output is prearranged for 1 - 5 Vdc voltage
 - 2,5 Vdc if output is prearranged for 0 - 5 Vdc voltage

FEATURES

- Power : 110 - 220 Vac +/-10% 50/60 Hz
- Consumption : 3 VA
- Input : optoisolated for reed, open-collector NPN 2 and 3 wires, PNP, NAMUR, 24Vdc pulses, photoelectric sensors, Hall effect sensors
- Pulses' frequency : from 1 pulse per 2 minutes till 640 Hz
- Resolution : 0,4%
- Stability : +/- 0,005% / °C
- Temperature : 0° / +50°C
- Humidity : 90% at 40°C (not condensing)
- Size : 105 x 90 x 73 mm
- Weight : 450 g