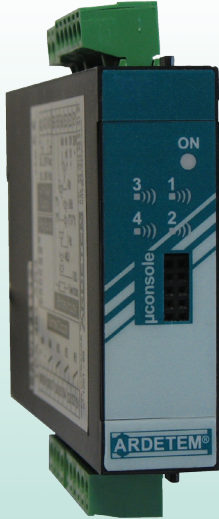# FREQUENCY INPUT SETPOINT DETECTORS

DS 10I

DS C10I

Features

• **Universal power supply:**

20 to 270 Vac and 20 to 300 Vdc

• **Frequency measure input:**

Possibility of connection (without external components) to npn, pnp, logic, namur, contact, AC to 500 V type sensors.

• **Outputs**:

2 inverting relays
(8A/250 VAC on resistive load).

Configuration

Easy programming on front face with a micro-console or with the PC software SUPERVision.

Programming with the Micro-console

The series DS accepts 2 types of µconsoles:
• the old generation with 4 alphanumerical electroluminescent green digits,
• the new generation with graphical rear-lit LCD.
The LCD allows visualising 4 pieces of information:
  - the measure value,
  - the unit of the displayed measure,
  - the product marking name,
  - the status of the relay outputs.
This µconsole with LCD also allows displaying this information either vertically or horizontally, according to the sense in which the converter is mounted.
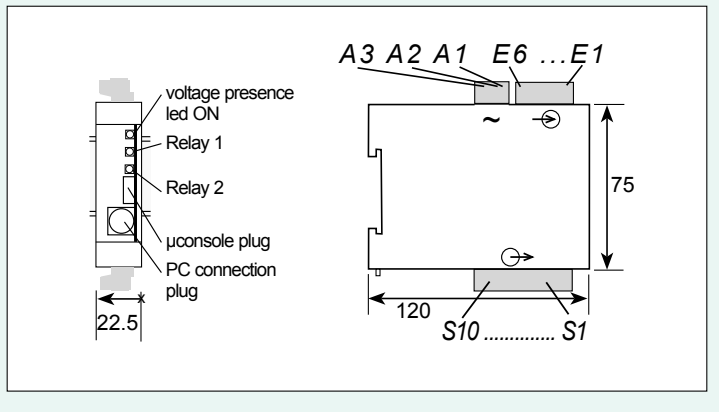
Programming by PC: SUPERVision

Programming software (Windows environment) allowing:
- the storage of configurations as files which can be consulted, modified, duplicated or loaded into the converters,
- the edition and printing of files with or without having a converter connected.

Dimensions

Self-extinguishing case of black UL 94VO ABS.
Mounting in switchbox: latching on symmetrical DIN rail.
Rack version: consult.
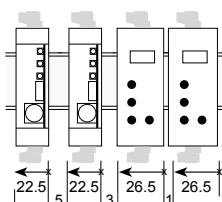
Dimensions: 22.5x75x120 mm
with µconsole: 26.5x80x130 mm
To allow the inserting of the µconsole, mount the instruments vertically (on horizontal DIN rail) leaving a 5mm space between each.
Operating T°: -10° to 50°C
Storage T°: -20 to 70°C

22.5   5   22.5   3   26.5   1   26.5

♦ CE according to IEC 61000-6-4, IEC 61000-6-2 (industrial environment).

♦ Disturbance immunity according to the standard
IEC 61000-6-2 (IEC 61000-4-3 level 3, IEC 61000-4-4 level 4, IEC 61000-4-6 level 3)

Dimensions

voltage presence led ON
Relay 1
Relay 2
µconsole plug
PC connection plug

22.5

A3 A2 A1 E6 …E1

~   ⊖

75

120

S10 .... S1

Coding

Type	DS C 10 i

**with micro console**

Power supply:

20 to 270 VAC and 20 to 300 Vdc

Power draw   : 3 W max. 4 VA max.
Dielectric withstanding : 2 kV-50Hz-1min.

*Order example: For a setpoint detector without console : **DS 10I***

Features

Frequency measure input

- **Type of sensor**: npn, pnp, logic, namur, contact, alternating.
- Logic: voltage up to 18V
  Low level $\leq$ 1.2 V
  High level $\geq$ 2.1 V
- Npn or contact:
  Input resistance 4.7KΩ to the +18 Vdc
- Pnp:
  Input resistance 10 KΩ to the GND
- Namur:
  Supply 8.4 V (10 mA max.)
  Input resistance: 1 KΩ to the GND
  Low level $\leq$ 1.2 mA
  High level $\geq$ 2.1 mA
- Alternating:
  Signal can range from 5 to 500 Veff.
  Input resistance: 1 MΩ

- **Measurable frequency** from 0.01 Hz to 130 KHz according to the sensor type.
- **Accuracy:** 0.025% of the measure
- **Scale factor** programmable
- **Enlarging effect**
- **Linearisation**:
- Linear input or special linearisation in 41 points (in x and in y)
- Cut off programmable
- **Filtering:**
  Programmable analog filter: allows to suppress any parasite noises.
  Digital filtering, coefficient and action range programmable allows stabilising the display in case of unsteady input.
- **Sampling time**:
  1 measure window + 1 signal period
  Measure window: 100 ms
  - Programming of the minimum measurable frequency
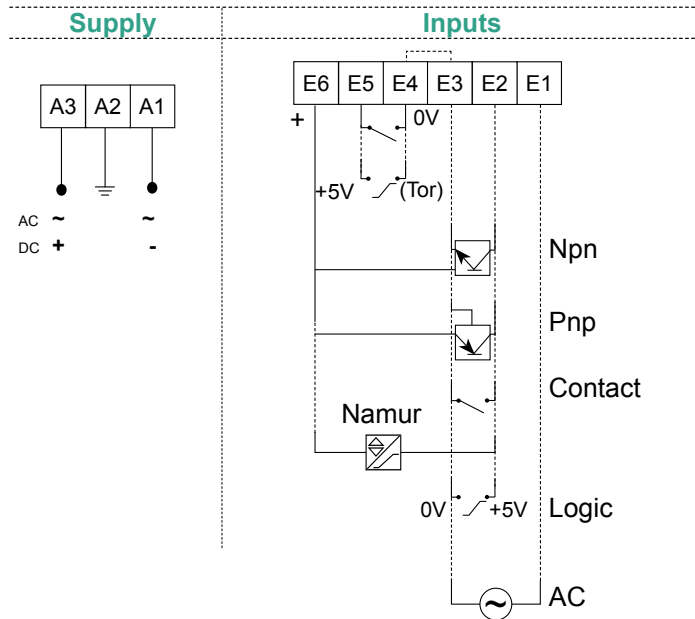
Outputs

Types of OUTPUTS	Features
2 inverting relays	2 setpoints per relay, configurable over the whole MR. Hysteresis programmable from 0 to 100%. Time delay programmable from 0 to 25 sec. (8A/250VAC on resistive load)

Galvanic partition:

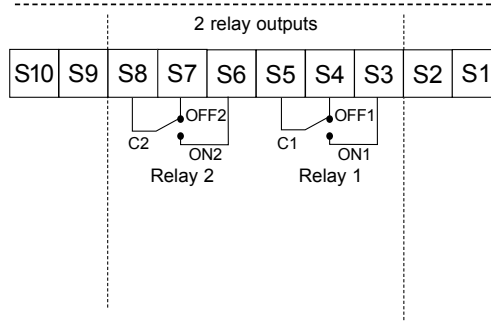2kV-50Hz-1min.between supply, input, relay outputs

Connectings

Upper connectors

Supply   **Inputs**

Lower connector

Outputs of the DS 10I

2 relay outputs

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