PROGRAMMABLE SETPOINT DETECTORS

DS(C)v10I-IC / DAS(C)v10I-IC
DS(C)v20I-IC / DAS(C)v20I-IC

ARDETEM **SFERE**

Features

- **Universal power supply:**
  20 to 250 Vac and 20 to 250 Vdc
- **Input:**
  Sensor of type NPN, PNP, logic, NAMUR, contact and alternating up to 500V (on input 1 only).
- **Sensor supply**
- **Relay outputs** (R): 2 change-over relays (8A/250 VAC on resistive load).

Sensor break detection (input NAMUR) and self-diagnosis.
Isolation between input/outputs/supply.
Mode simulation allowing to validate the configuration or the installation.
Programming either with the micro-console or by the PC software SlimSET via a standard USB / µUSB cable.

Functions

- Frequency measurement (from 0.01Hz to 130KHz) depending on the sensor type (DS(C)vxx/DAS(C)vxx I and IC).
- Counting up to 2 000 000 000 with saving of the counters (version DS(C)vxx/DAS(C)vxx IC).
- Calculation between channels (sum, substraction, average) (version DS(C)v20xx/DAS(C)v20xx).
- Detection of the rotation direction on encoder in phase quadrature (DS(C)v20xx/DAS(C)v20xx).
- Integration function (DS(C)vxxIC/DAS(C)vxxIC).
- Possibility to programme the 2nd input with function logic input (DS(C)v20xx/DAS(C)v20xx).
- 2 relays, independently programmable as alarm (setpoint) or pulses.

Configuration

Easy programming with a micro-console or by the PC software SlimSET (via a standard USB / µUSB cable).

Programming with the Micro-console

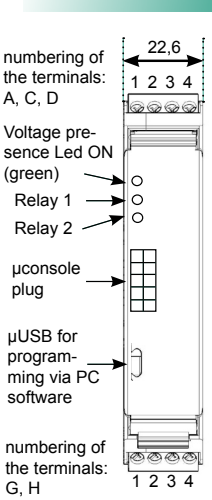
The graphical rear-lit LCD with tactile keyboard allows to visualise the following information:
- the value of the measure with its unit,
- the product tag name,
- the status of the relay outputs.

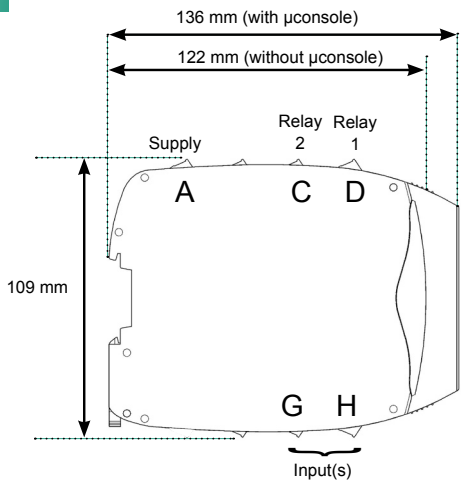
- Scrolling messages for programming help in various languages
- Passcode protected programming
- Programmable keys for direct access

Programming by PC: SlimSET

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





Coding

		ARDETEM REFERENCE		SFERE REFERENCE	
		with display	**without display**	**with display**	**without display**
1 input	**frequency**	DSCv10I	DSv10I	DASCv10I	DASv10I
	frequency + counting	DSCv10IC	DSv10IC	DASCv10IC	DASv10IC
2 inputs	**frequency**	DSCv20I	DSv20I	DASCv20I	DASv20I
	frequency + counting	DSCv20IC	DSv20IC	DASCv20IC	DASv20IC

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Features

Input(s)

- **Sensor type**: npn, pnp, logic, namur, contact, alternating
  - Logic: voltage up to 18V
    Low level ≤1.2V
    High level ≥ 2.1V
  - Npn or contact: U max.: 15V, I max.: 4mA
  - Pnp: U max.: 20V, I max.: 2mA
  - Namur:
    Input resistance: 1KΩ to the GND
    Low level ≤1.2mA
    High level ≥ 2.1mA
  - Alternating (input E1 only):
    AC (L) from 2V to 250 Veff.
    AC (H) from 10V to 500 Veff.
    Input resistance: 1.2MΩ
- Sensor supply:
  18V±10%/20mA, or 8.5V ±0.5V/20mA if 1 of the 2 inputs is in namur
- Frequency measurement:
  from 0.01Hz to 130 KHz depending on the type of sensor
  - accuracy 0.015% with gate = 100ms
    0,1% in alternating input
  - scale factor programmable
  - special linearisation in 10 points (x and y).
- Integrator: on 1, 60 or 3600 seconds with programmable coefficient and unit.
- Counting: from -2 Giga to +2 Giga with programmable coefficient and unit.
- Sum, substraction, average of the 2 input values and detection of the rotation direction on signals in phase quadrature.

Outputs

Types of OUTPUTS	Features
2 change-over relays	2 setpoints per relay configurable over the whole MR. Hysteresis programmable from 0 to 100%. Time delay programmable from 0 to 999.9 sec. (8A/250 VAC on resistive load)

Others

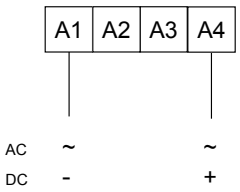
Power supply: *20 to 250 Vac and 20 to 250Vdc*
Power consumption: 2.8 W max. 6 VA max.
Dielectric hold: 3 kV-50Hz-1min.
Operating temperature: -20 to +60°C
Storage temperature: -20 to +70°C
Installation: Pollution degree 2 / voltage surge III in AC input (H) and voltage surge II for other inputs.
Protection: housing / terminals: IP 20
Removable terminal blocks for screwed connections (2.5 mm², flexible or rigid)
Weight: 290g (with packaging)
Self-extinguishing case of black UL 94VO PA66.
Mounting in cabinet: latching on symmetrical DIN rail.

Compliance with standards:
Electrical safety ..... EN 61010-1
ATEX 2014/34/UE (area 2)..... EN 60079-0, EN 60079-15
Directive EMC 2014/30/UE ..... EN 61326-1

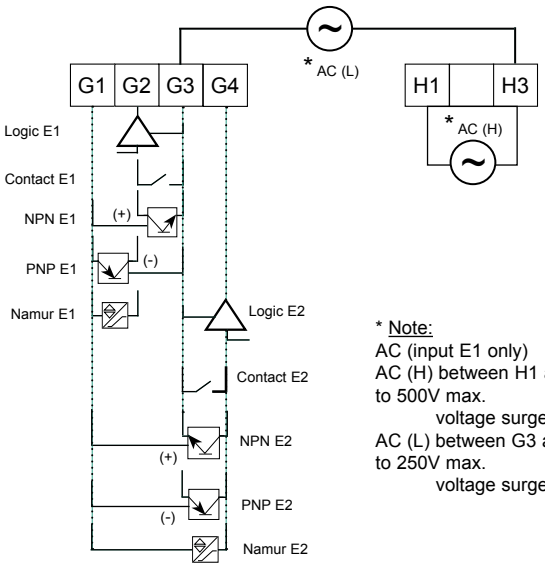
Marking:
CE
Ex II 3 G Ex nA IIC T4 Gc

Wiring

Supply

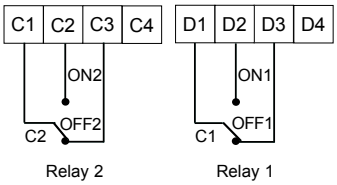


Inputs



* Note:
AC (input E1 only)
AC (H) between H1 and H3 from 10V to 500V max.
voltage surge category III
AC (L) between G3 and H3 from 2V to 250V max.
voltage surge category II

Relay outputs



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