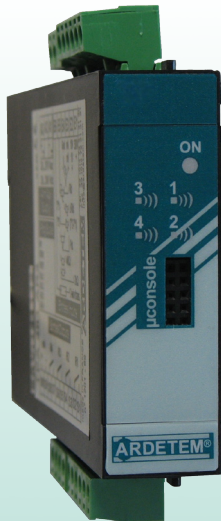


PROGRAMMABLE SETPOINT DETECTORS

DS10/DS10F



Features

- **Universal power supply:**
20 to 270 Vac and 20 to 300 Vdc
- **Universal input:**
 $\pm 100\text{mV}$, $\pm 1\text{V}$, $\pm 10\text{V}$, $\pm 300\text{V}$, $\pm 20\text{mA}$, Pt100 3 fils, Ni 100, $\Delta\text{Pt}100$, thermocouple, resistance and potentiometer.
Average response time: 150ms in standard version or 20ms max. in fast version (F)
- Supply for 2-wire sensor
- **Outputs:**
2 inverting relays
(8A/250 VAC on resistive load).

DSC10/DSC10F



Configuration

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

Programming with the Micro-console

The series DS accepts 2 types of μ consoles:

- The old generation with 4 electroluminescent alphanumerical green digits
- The new generation with graphical rear-lit LCD

The LCD allows visualising 4 pieces of information:

- the value of the measure,
- the unit of the displayed measure,
- the marking name of the product,
- the status of the relay outputs.

This μ console with LCD also allows the display of this information either vertically or horizontally, according to the sense in which the converter is mounted.

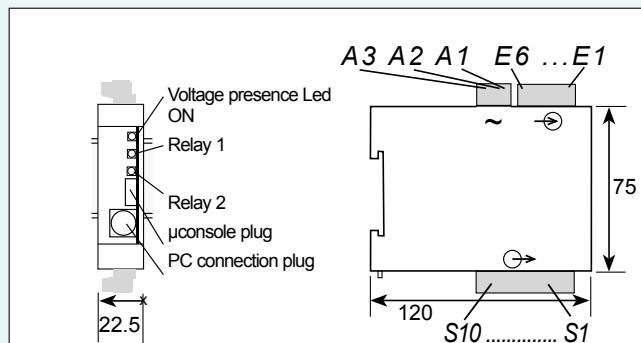
Programming by PC: SUPERVISION

Programming software (Window 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.

♦ CE according to IEC 61000-6-4, IEC 61000-6-2 (in 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



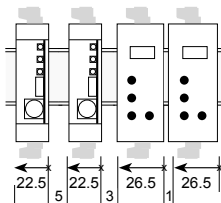
Coding

Type	DS	C	10	F
				fast version
				with micro console

Order example : For a setpoint detector without console, with a fast response time, request reference: **DS 10 F**.

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 μ console: 26.5x80x130 mm

To allow the inserting of the μ console: mount the instruments vertically (on horizontal DIN rail), leaving a 5 mm space between each.

Operating T° : -10° to 50°C

Storage T° : -20 to 70°C

Features

Inputs

Types of inputs	Measure range adjustable from:		Permanent overload	Intrinsic error	Console resolution	Input impedance
mA	-22 to +22mA with $\sqrt{\text{ }}$ ♣		± 100mA	< ±0.05% of the MR	10 μA	Max. drop 0.9V
mV♣	-110 to +110mV with $\sqrt{\text{ }}$ ♣		± 1V		10 μV	≥ 1MΩ
V	- 1.1 to +1.1V with $\sqrt{\text{ }}$ ♣		± 50V		1 mV	
	-11 to +11V with $\sqrt{\text{ }}$ ♣		± 600V		1 mV	
	-330 to +330V with $\sqrt{\text{ }}$ ♣				10mV	
Thermocouples ♣ Standard IEC 581	°C	°F	-	♦(2) ≤±0.1% of the MR	0.1°C / 0.1°F	≥ 1 MΩ
J	-160/1200	-256/2192				
K	-270/1370	-454/2498				
B	200/1820	392/3308				
R	-50/1770	-58/3218				
S	-50/1770	-58/3218				
T	-270/410	-454/770				
E	-120/1000	-184/1832				
N	0/1300	-32/2372				
L	-150/910	-238/1670				
W	1000/2300	1832/4172				
W3	0/2480	32/4496				
WRE5	0/2300	32/4172				
Sensor Pt100Ω (1)♣ 3 wire, Stand. IEC 751 (DIN 43760)	°C	°F	-	≤±0.1% of the MR	0.1°C / 0.1°F	Current 250μA
Sensor Ni 100 3 wire (1)♣	-60/260	-76/500	-			
Differential measures from 2 sensors Pt100Ω 2 wire Standard IEC 751 ♣**	-200/270	-328/518	-			
Resistive sensors	Calibers 0-440 Ω and 0-2.2 kΩ ♣ (0-8.8 kΩ optional)		-	≤±0.1% of the MR (0.5% for 0-2KΩ)	-	-
Potentiometer	from 100Ω to 10 kΩ ♣		-			
Supply for 2-wire sensor	24 Vdc ±15% with protection from short-circuits. 25 mA max.					
Special linearisation programming up to 20 points	On input: mV, V, mA. Resistive sensors and potentiometer					

- (1) Line resistance <25 Ω
(2) Or 30 μ V typical (60 μ V Max.)
 $\blacklozenge$ CJC efficiency: ±0.03°C/°C ±0.5°C from -5°C to +55°C
MR Measure range
** Line resistance <10 Ω and R. max. 400 Ω
 $\sqrt{\text{ }}$ Extraction of the square root

- $\blacktriangle$ A 12 μ A pulsed current allows the detection of line or sensor rupture.
 $\blacklozenge$ Cut off: The display of the console remains at down scale for an input signal < to the cut off value, programmable from 0% to 100% of the input scale.
Thermic drift <150ppm /°C

Outputs

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

Response time of the relay outputs:

• Standard version:
Average response time = 150ms
Max. response time = 215ms

• Fast version (F):

Programmable cycle time	Max. response time of the relays	Rejection
2 ms	20 ms	-
20.0 ms	55 ms	50 Hz
100 ms	215 ms	50 Hz / 60Hz

The response times are guaranteed 10 min. after setting the converter on tension and 30 sec. after a saving of the programming, an end of measure overrange, or a sensor rupture.

For the inputs with 2 measures (Tc, Pt100, ni 100 and potentiometer) the 2nd measure is performed every minute. During that measure the max. response time on the relays will increase by 5 ms, 20 ms or 100 ms according to the programmed cycle time value (2ms, 20 ms, 100 ms).
In case the sensor rupture detection is being used (mV and t° inputs), add 2 ms to the response time of the outputs.

The Δ Pt100 input is available only with a cycle time of 100 ms. The maximum response time is then 430 ms.

Power supply

Operating range: 20 to 270 Vac and 20 to 300 Vdc

Power draw: 2.5 w max. 4 VA max.
Dielectric withstanding: 2 kV-50Hz-1min.

Galvanic partition:

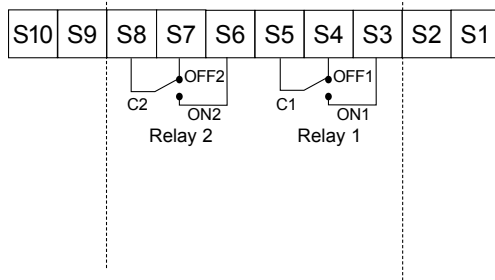
2kV-50Hz-1min. between supply, input, relay outputs

Wiring

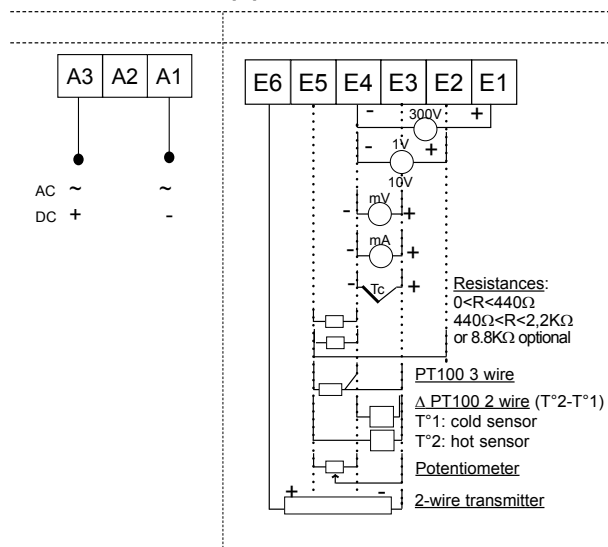
Lower connector

Outputs of the DS 10

2 relay outputs



Upper connectors



your representative



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