

PROGRAMMABLE SETPOINT DETECTORS

DSv10 without display

DSCv10 with display

Features



- **Universal power supply:**
20 to 250 Vac and
20 to 250 Vdc
- **Universal input:**
 $\pm 100\text{mV}$, $\pm 1\text{V}$, $\pm 10\text{V}$, $\pm 270\text{V}$,
 $\pm 20\text{mA}$,
Pt100, Ni 100 (2, 3 or 4
wire), Δ Pt100 thermocouple,
resistance and potentiometer.
- **Response time**
average: 150ms
(15ms version F)
- **Supply for 2-wire sensor**

Relay outputs (R):
2 change-over relays (8A/
250 VAC on resistive load).

*Sensor break detection and
self-diagnosis.*

*Isolation input / 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 / μ USB cable.*

Configuration

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

Programming with the Micro-console

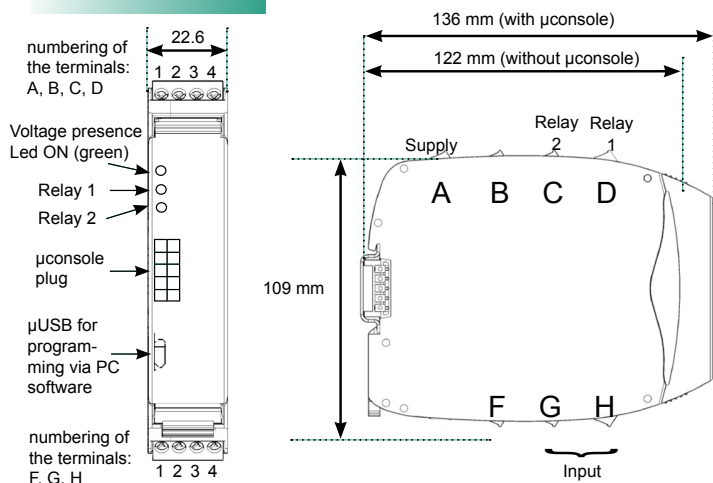
The graphical rear-lit LCD with tactile keyboard allows to visualise 3 pieces of information:

- the value of the measure and its unit,
- the product tag name,
- the status of the relay outputs.
- Scrolling message 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 the configurations as files which can be consulted, modified, duplicated or loaded into the instruments.
The edition and printing of files with or without having a setpoint detector connected.

Dimensions



Features

Supply: 20 to 250 Vac and 20 to 250Vdc

Power draw: 2.8 W max. 8 VA max.

Dielectric withstanding: 3.0 kV-50Hz-1min.

Operating temperature: -20 to +60°C

Storage temperature: -20 to +70°C

Installation: Pollution degree 2 / voltage surge II

Protection: case / 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 switchbox: latching on symmetrical DIN rail.

Compliance with standards:

Directive LV 2014/35/UE EN 61010-1

Standard for UL electrical safety UL 61010-1

..... CSA C22.2 NO.61010-1-12

Directive ATEX 2014/34/UE area 2 EN 60079-0

..... EN 60079-15

Directive EMC 2014/30/UE EN 61326-1

Marking:



II 3 G Ex nA IIC T4 Gc



Process
Control
Equipment
E482453

Coding

Type	DSv 10	without display
OR		
Type	DSCv 10	with display

Available options:

FAST VERSION

DSv 10 F

DSCv 10 F

- Standard programming cable USB type A male to μ USB type B male: reference C1- μ USB

- CJC terminal (option): reference B1CSF-4

Features

Inputs

Types of INPUTS	Measure range adjustable from:		Permanent overload	Intrinsic error	Input impedance
mA(1)	-2 to +22mA (U) ----- -22 to +22mA (B)		±100mA	< ±0.1% of the MR for inputs of the type (U) < ±0.05% of the MR for inputs of the type (B) (4)	Max. drop 0.9V
mV(1)	-10 to +110mV (U) ----- -110 to +110mV (B)		±1V		≥ 1MΩ
V	-0.1 to +1.1V (U) ----- -1.1 to +1.1 V (B)		±50V		
	-1 to +11V (U) ----- -11 to +11V (B)				
	-30 to +300V (U) ----- -300 to +300V (B)		±300V		
Thermocouples(1) Standard IEC 581	°C	°F	-	<±0.1% of the MR or 30µV typical (60µV max.) (3)	≥ 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)(2)	°C	°F	-	<±0.1% of the MR	Current 250µA
Standard IEC 751 (DIN 43760)	-200/850	-328/1562	-		
Sensor Ni 100 (1)(2)	-60/260	-76/500	-		
Resistive sensors	Calibers 0-440 Ω(1)(2) and 0-10 kΩ		-	<±0.1% of the MR	Max. current 250µA
Potentiometer	from 100Ω to 10 kΩ		-		Max. voltage 100mV
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 sensor and potentiometer				
Extraction of the square root	On input mV, V or mA				

(1) Sensor break detection:
mA input (if down scale ≥ 3,5mA)
Other inputs: a 12µA pulsed current allows the detection of line or sensor break.

(2) Wiring possible in 2, 3 and 4 wire
Influence of the line resistance (0<Rl<<25Ω)
included in the announced intrinsic error.

(4) < ±0.1% of the MR (B) for the version F if acquisition time <100ms

(3) CJC efficiency (-20 to +60°C):
Internal CJC: ±2°C ±0.03°C/°C
CJC (option terminal): ±1°C
MR Measure range

Thermal drift <150ppm /°C

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)

Response time of the outputs:

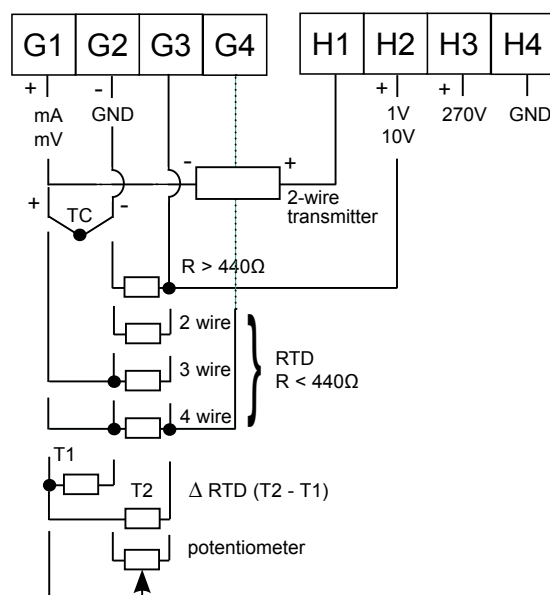
(for a variation from 10 to 90% of the input signal)
Average response time: 150 ms (15ms for the version F)
Add 10 ms for the response time on the relay outputs

Galvanic isolation:

3.0kV-50Hz-1min. between Supply, Input and Relay output.

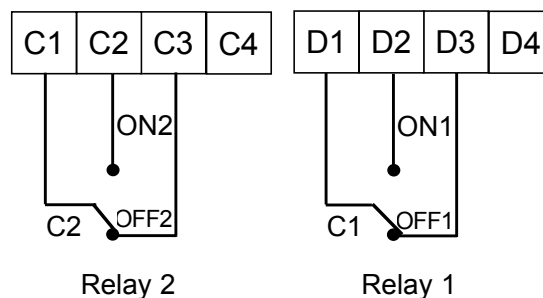
Connectings

Inputs

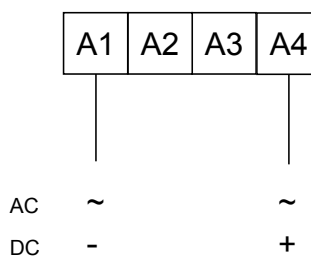


Outputs

Relay outputs



Supply



your representative



RCS Lyon 444-429-476 - Printed in France.

e-mail : info@ardetem.com
http : <http://www.ardetem.com>

Route de Brindas
Parc d'activité d'Arbora N°2
69510 SOUCIEU EN JARREST
- FRANCE -

Tél. : 33 (0)4 72 31 31 30
Fax. : 33 (0)4 72 31 31 31