## Setpoint generator/ Time based process adjuster **CODIX** 533



## **CODIX** 533 – the new setpoint compact class for process and automation technology

The set-point generator/adjuster **CODIX** 533 triggers a standard signal or a freely programmable signal sequence from 0 ... 12 V or from 0 ... 24 mA

The set-point generator/adjuster **CODIX** 533 is a real innovation opening up new application potentials in process technology and automation.



DIN front



4 LEDs







IP value





Supply Menu text voltage programming

Temperaturerange

### Innovative:

- Function of a digital time controller with analogue output.
- Manual functions with direct input or stepped incremental output of the setpoint.
- 4-digit 8 mm high top-quality LED display
- Physical variables output in the form of 0 to 12 V or 0 to 24 mA analogue signals.
- Units of display can be freely programmed and displayed – no conversion of the specified output value required.
- High accuracy of < 0.1% of the final value.



## **Cost-saving and compact:**

- Ideal for simulation runs without the need for expensive, time-consuming running-in of processes.
- · Processes become more cost-effective
- DIN 48 x 24 mm panel-mount housing with installation depth of only 59 mm.

## User-friendly:

- Simpler to run processes than with a PLC or process controller.
- Everything can be programmed easily by means of 2 keys and the text menu.
- Digital setting no additional DIP switches or potentiometers.
- Display allows simple monitoring of the specified setpoint output.
- Comfortable display form as direct digital value
- 3 functions integrated as standard in the CODIX 533, manual and time-based

## Technical data:

Supply	10 30 V DC, galvanically isolated with	
voltage:	integrated protection against incorrect polarity	
Power consumption:	max. 1W	
Display:	4-digit display, red 7-segment LEDs;	
	height 8 mm [0.35"]	
Data backup:	EEPROM	
Housing:	housing for control panel 48 x 24 mm [1.89 x 0.945"]	
	accord. to DIN 43 700; RAL 7021, dark grey	
Protection:	IP65 (front)	
Operating temperature:	-20 +65 °C [-4 +149 °F]	
Storage temperature:	-25 +85 °C [-13 +185 °F]	
Conformity:	conforms to CE requirements acc. to the	
	EC directive 89/36/EEC	
EMC:	interference emissions EN 55011 class B	
	interference resistance EN61000-6-2	

Test voltages:	EN 61010-1, degree of soiling 2
	and overvoltage category 2
Test voltage:	500 V, 50 Hz, 1 min.
Current output:	0 24 mA, increment 10 μA
	load 20 mA up to $\leq$ 500 0hm,
	> 20 mA up to≤ 400 0hm
Voltage output:	0 12 V, increment 10 mV
	$load \ge 2 kOhm$
Control input	High: 4 30 V DC
Hold (high active):	Low: 0 2 V DC
Accuracy:	< 0.1 % of the terminal value $\pm 0.01$ %/K
Weight:	approx. 50 g [1.764 oz.]
Connections:	screw terminal, pitch 5.08 mm, 7 poles

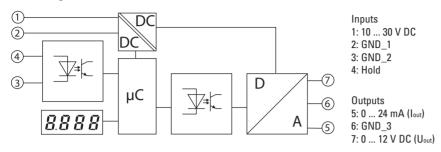
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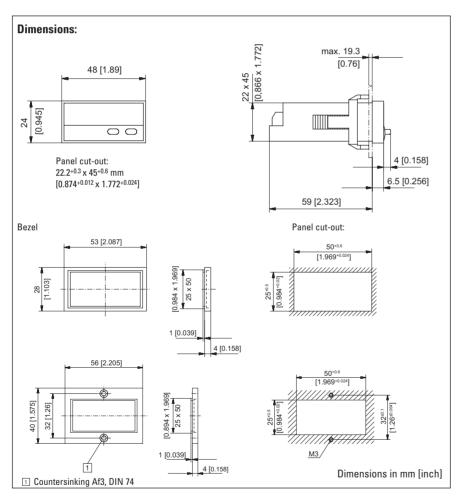
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### Block diagram:

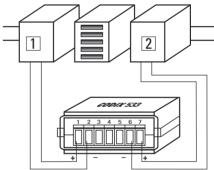




### **Terminal assignment:**

1 10 ... 30 VDC 5 0 ... 24 mA 2 GND 1 6 Analog GND 3 3 GND 2 7 0 ... 10 V DC

4 Hold



- 1 Power supply
- 2 Analogue input

## **Delivery includes:**

Digital display
Panel mounting clip

Bezel for clip mount,

panel cut-out 50 x 25 mm [1.969 x 0.984"]

Bezel for screw mount,

panel cut-out 50 x 25 mm [1.969 x 0.984"]

Seal

1 set of self-adhesive symbols

Multilingual operating instructions

Order code:

**CODIX 533**: 6.533.012.300

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## 3 operating modes programmable

### Manual direct input (Setp):

- Fast adjustment and manual approach to the desired setpoint value.
- Setpoint value can be specified directly during operation via the keys in V or mA
- Output of the value 3 seconds after the last key actuation

#### Manual ramping function (Man):

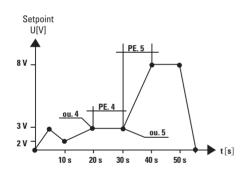
- Possibility of a stepped, incremental approach to the desired setpoint value using the keys on the front.
- Input of the minimum and maximum setpoint values and the increment by key actuation in the programming level.
- During operation the device starts with the minimum setpoint value the right key is used to increase the value by the amount

- of the increment; the left key decreases the value.
- The programmed maximum value cannot be exceeded.

### Automatic ramping function (Auto):

- Function of a digital time based controller with analogue output Setpoint values can be programmed and carried out for process sequences, either cyclic or time dependent: irrigating, dosing, lubricating, filling, venting, mixing
- With max. 20 current or voltage values
- Cyclically limited (time) or unlimited

### **Example of an automatic ramping function:**



Example with 8 points		
ou. 1	0 V	
PE 1	5 s	
ou.2	3 V	
PE 2	5 s	
ou. 3	2 V	
PE 3	10 s	
ou. 4	3 V	
PE 4	10 s	
ou. 5	3 V	
PE 5	10 s	
ou. 6	8 V	
PE 6	10 s	
ou. 7	8 V	
PE 7	10 s	
ou. 8	0 V	
PE 8	5 s	



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## Applications:

Applications:	Simple controller (fixed installations) in plant, machinery and equipment.	For use in setting up plant, machinery and equipment.		
	Time based or manual ramping up or ramping down of:	Manual (direct) input or time based/manual set-up (ramping up or ramping down) of:		
	Rotary speeds ( e.g. frequency inverters), flow rates, temperature, position, pressure, level, i.e. all physical variables that can be displayed via analogue signals)			
	Simple time-switch with analogue output			
	Starting and running-in or speed control of motors via setpoint specification	Calibration of fill levels and flow rates: the setpoint adjuster simulates the output signals of a level or flow sensor for configuring a PLC.		
	Control of simple time-dependent processes by means of an analogue signal, e.g. ramping control for locks and sluices, flow valves etc	Adjustment of temperature-dependent processes, without the need to heat up the plant. Plant commissioning: the setpoint adjuster can simulate various processes f or test purposes.		
Solution with various modes:	To do this 2 selectable operating modes are provided	To do this, the following operating modes are provided		
	- Manual ramping function - Automatic ramping function	- Manual direct input - Manual ramping function - Automatic ramping function		
Benefits:	Our Setpoint Adjuster can undertake this task as a stand- alone device, instead of having to use an expensive, complex, difficult-to-programme PLC. The user saves on costs and the job can be carried out quickly and flexibly — without specialised training being necessary.	The Setpoint Adjuster simulates the sensor signal, which detects the physical process, e.g. ramping up of temperature, filling of tanks. The expensive, time-consuming running-in of processes can be eliminated by using the Setpoint Adjuster to simulate the function.		
	The output signal can be displayed directly or can be scaled to any desired engineering unit. The user can see exactly what is happening at that particular moment in time.			
	An easy-to-programme controller with three selectable modes is	s available.		

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