

Strain-gauge controllers

LED strain-gauge controllers

For strain-gauge inputs (AC+DC)

Codix 566



The process controller Codix 566 with totalizer function displays measured values from all common strain-gauge inputs in high resolution. In addition it can monitor and control 2 limit values.

These fast displays set new standards when it comes to user friendliness. Their easy-to-read 14-segment LED display, easy-to-understand running help texts and a practical quick-start guide eliminate the need to wade through time-consuming full instruction manuals.

With optional analog output.



DC 10 ... 30 V Power supply	AC 100 ... 240 V Power supply	A.Z* 6 LEDs 14-segment LED display	Prog Menu-driven programming	mV Display linearization	Tara Tare function	Σ Totalizer function	Strain-gauge input	min / max Min / Max value detection	2 2 limit values	AC/DC Galvanic isolation
15 bit Resolution	-20° + 65° Temperature range	DIN 96 x 48 DIN front bezel	Installation in mosaic systems	Operation with gloves	mA, V Analog output optional					

User-friendly

- Practical quick-start guide for setting the parameters and operating the device.
- Help text as running text.
- Easy-to-read 14-segment LED, 6-digit display, 14 mm high.
- Simple programming via 4 keys on the front.
- One front key as well as 2 additional inputs can be programmed for specific applications.
- Customer-specific characteristic (linearization) curve via 12 control points for all measurement signal inputs.
- MIN/MAX memory function, individually resettable.

Powerful

- Sampling rate of 10 readings per second.
- Application-specific characteristic curves via 12 measurement points.
- Manual totalizer function for totalizing the measured values. Can be reset separately.
- 2 relay outputs (changeover contacts) for limit monitoring with hysteresis and ON/OFF delay function for current measured or totalizer values.
- Analog output for the current measured value, MIN-value, MAX-value or totalizer value.
- Auxiliary sensor power supply 10 V DC / 30 mA for powering 350 Ω bridges.
- Inputs and outputs galvanically isolated.
- Digital filter (first-order) for smoothing display fluctuation with unstable input signals.
- Tare function.

Order code

6.566.010.X0X
a b c d

- a** Input type
6 = Strain-gauge inputs ¹⁾
- b** Outputs
0 = relays ¹⁾
- c** Power supply
0 = 100 ... 240 V AC, ±10 % ¹⁾
3 = 10 ... 30 V DC ¹⁾
- d** Further outputs (optional)
0 = none ¹⁾
9 = analog output ¹⁾ (only for DC version)

- Delivery specification:**
- Process device
 - Mounting clip
 - Gasket
 - Instruction manual, multilingual
 - 1 sheet of self-adhesive symbols
 - Quick-start guide

Practical quick-start guide for setting the parameters and operating the device. The guide can be affixed directly to the front of the unit and can be removed and re-applied as required.



1) Stock types.

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Accessories		Order no.
Mounting frame with cut-out 92 x 45 [3.62 x 1.77]	Dimensions in mm [inch] for snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 96 x 48 [3.74 x 1.89]	grey G300005

Suitable gaskets as well as further accessories can be found in the accessories section or in the accessories area of our website at: www.kuebler.com/accessories.

Technical data

General technical data	
Display	6-digit, 14 segment LED
Digit height	14 mm [0.55"]
Display range	-199999 ... 999999, with leading zero blanking
Data retention	> 10 years, EEPROM
Operation	5 keys
Operating temperature	-20°C ... +65°C [-4°F ... +149°F] (non-condensing)
Storage temperature	-25°C ... +75°C [-13°F ... +167°F]
Relative humidity (non-condensing)	R.H. 93 % at +40°C [+104°F]
Altitude	up to 2000 m [6562']

Electrical characteristics	
Power supply	AC supply 100 ... 240 V AC / max. 9 VA 50 / 60 Hz, tolerance ±10 % ext. fuse protection: T 0.1 A
	DC supply 10 ... 30 V DC / max. 3.8 W with galvanic isolation and reverse polarity protection ext. fuse protection: T 0.4 A
Mains hum suppression	50 Hz or 60 Hz programmable
Sensor power supply	AC supply 24 V DC ±15 %, 30 mA 10 V DC ±1 %, 30 mA
	DC supply 10 V DC ±1 %, 30 mA
EMC standard	EN 55011 class B EN 61000-6-2, EN 61000-6-3 with shielded signal and control cables
Device safety	designed to EN 61010 part 1 protection class 2 (front side) application area pollution level 2 overvoltage category II
UL approval	file E128604

Mechanical characteristics	
Housing	Panel mount housing to DIN 43700 RAL 7021
Dimensions	96 x 48 x 102 mm [3.78 x 1.89 x 4.02"]
Panel cut-out	92 +0.8 x 45 +0.6 mm [3.62 +0.032 x 1.77 +0.024"]
Installation depth	approx. 92 mm [3.62"] incl. terminals
Weight	with analog output approx. 180 g [6.34 oz] 200 g [7.06 oz]
Protection	IP65 (front side)
Housing material	Polycarbonate UL94 V-2
Vibration resistance acc. to EN 60068-2-6	10 - 55 Hz / 1 mm / XYZ 30 min in each direction
Shock resistance acc. to EN 60068-2-27	100 G / 2 ms / XYZ 3 times in each direction
	acc. to EN 60068-2-29 10 G / 6 ms / XYZ 2000 times in each direction
Connections	
Power supply and outputs	Plug-in screw terminal, 8-pin, RM 5.00, core ø max. 2.5 mm² [AWG 13]
Signal and control inputs	Plug-in screw terminal, 9-pin, RM 3.50, core ø max. 1.5 mm² [AWG 15]

Control inputs MPI 1 / MPI 2	
Quantity	2 optocouplers
Function	programmable
Switching levels	LOW < 2 V
	HIGH > 4 V (max. 30 V)
Pulse length	> 100 ms

Measuring signal inputs	
Sampling rate	10 readings/sec
Input resistance	1 MΩ
Max. measuring signal range	approx. ±35 mV
Max. voltage	±10 V

Sensitivity ranges: 3.3 – 3.0 – 2.0 mV / V	
Resolution	±15 bit
Measuring accuracy at 23°C (% of range)	typ. 0.05 % / max. ≤ 0.1 %
Temperature drift	< 100 ppm/K _{Ambient}

Sensitivity ranges: 1.5 – 1.0 mV / V	
Resolution	±14 bit
Measuring accuracy at 23°C (% of range)	typ. 0.1 % / max. ≤ 0.2 %
Temperature drift	< 100 ppm/K _{Ambient}

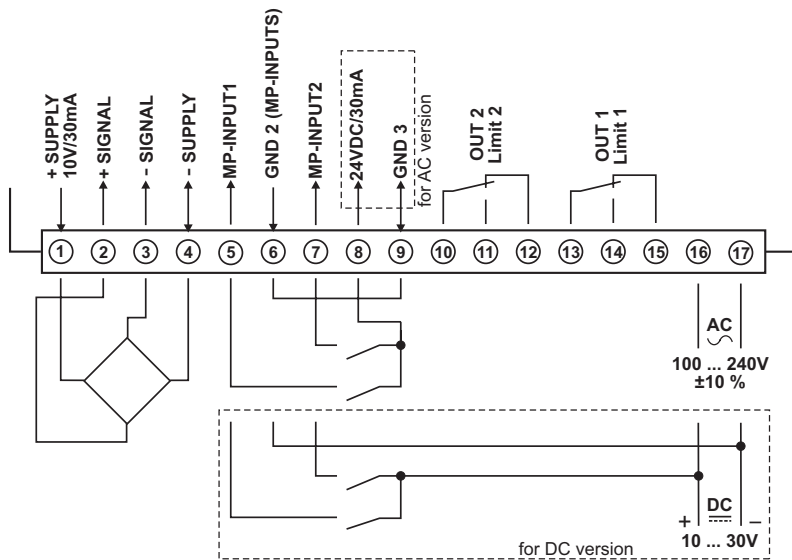
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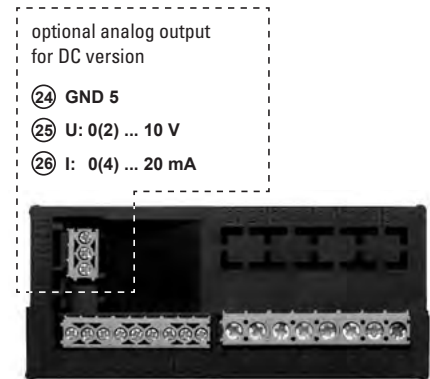
Analog output (optional - only for DC version)	
Output ranges	0 (4) ... 20 mA / 0 (2) ... 10 V
Load	current output $\leq 500 \Omega$ voltage output $\geq 2000 \Omega$
Resolution	15 bit
Update time (basic device measuring rate)	100 ms
Temperature drift	$\leq 100 \text{ ppm/K}_{\text{Ambient}}$
Accuracy	$\pm 0.1 \%$ of the output range high value
Output ripple	$\leq 10 \text{ mV}$
Isolation voltage	500 V AC for 1 minute or 1 kV DC for 1 second

Alarm outputs	
Relays	changeover contacts
Switching voltage	max. 250 V AC / 125 V DC min. 5 V AC / 5 V DC
Switching current	max. 5 A AC / 5 A DC min. 10 mA DC
Switching capacity	max. 1250 VA / 150 W
Pull-in time	approx. 10 ms

Terminal assignment



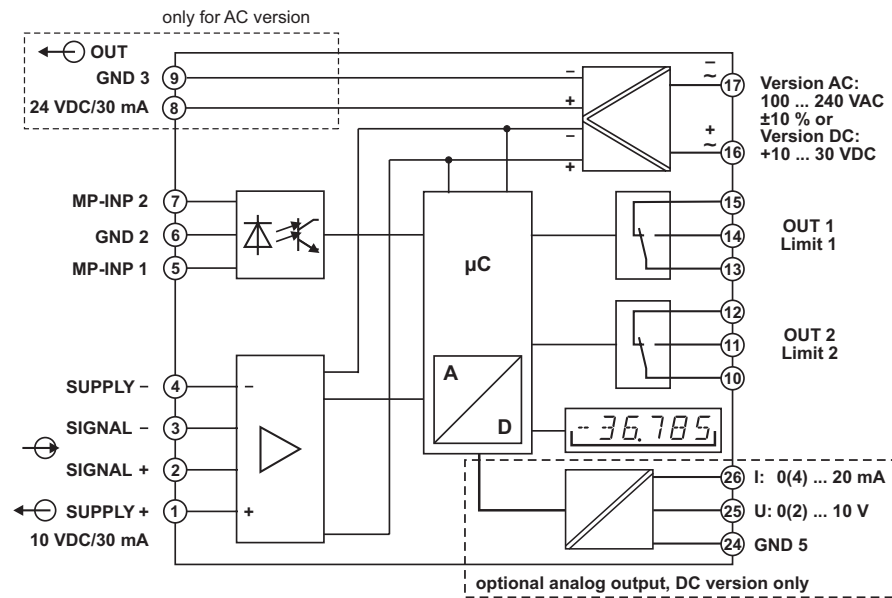
Rear side view



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Block diagram



Dimensions

Dimensions in mm [inch]

