

Strain-gauge controllers

LED strain-gauge controllers

For strain-gauge inputs (AC+DC)

Codix 566

new



The process controller Codix 566 with totaliser 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.

NEW: with optional analogue output



DC 10 ... 30 V	AC 90 ... 260 V	A.Z* 6 LEDs	Prog	mV	Tara	Σ	Strain-gauge input	min / max	2	AC/DC
Power supply		14-segment LED display	Menu-driven programming	Display linearization	Tare function	Totaliser function		Min / Max value detection	2 limit values	Galvanic isolation
15 bit	-20° + 65°	DIN 96 x 48	000000	000000	Operation with gloves	mA, V				
Resolution	Temperature range	DIN front bezel	Installation in mosaic systems			Analogue 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 totaliser function for totalising 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 totaliser values
- Analogue 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 = 90 ... 260 V AC ¹⁾
3 = 10 ... 30 V DC ¹⁾

d Further outputs (optional)
0 = none ¹⁾
9 = analogue 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

Strain-gauge controllers

LED strain-gauge controllers For strain-gauge inputs (AC+DC) Codix 566

Accessories		Order-No.
Mounting frame with cut-out 92 x 45 mm	for snap-on mounting on 35 mm top-hat DIN rail, for counters 96 x 48 mm	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.

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

Electrical characteristics		
Power supply	AC supply	90 ... 260 V AC / max. 9 VA 50 / 60 Hz 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	Emitted interference	EN 55011 class B
	Immunity to interference	EN 61000-6-2 with shielded signal and control cables
Device safety	Designed to Protection class	EN 61010 part 1 2
	Application area	Pollution level 2

Mechanical characteristics	
Housing	Panel mount housing to DIN 43700, RAL 7021
Dimensions	96 x 48 x 102 mm
Panel cut-out	92 +0.8 x 45 +0.6 mm
Installation depth	approx. 92 mm incl. terminals
Weight	approx. 180 g 200 g with analogue output
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 100G / XYZ 3 times in each direction
	acc. to EN 60068-2-29 10G / 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 mm ²
Signal and control inputs	Plug-in screw terminal, 9-pin, RM 3.50, core ø max. 1.5 mm ²

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

Strain-gauge 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}

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

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

Strain-gauge controllers

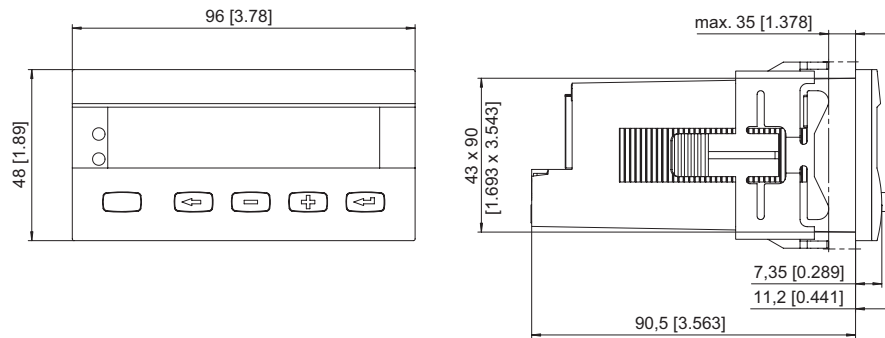
LED strain-gauge controllers

For strain-gauge inputs (AC+DC)

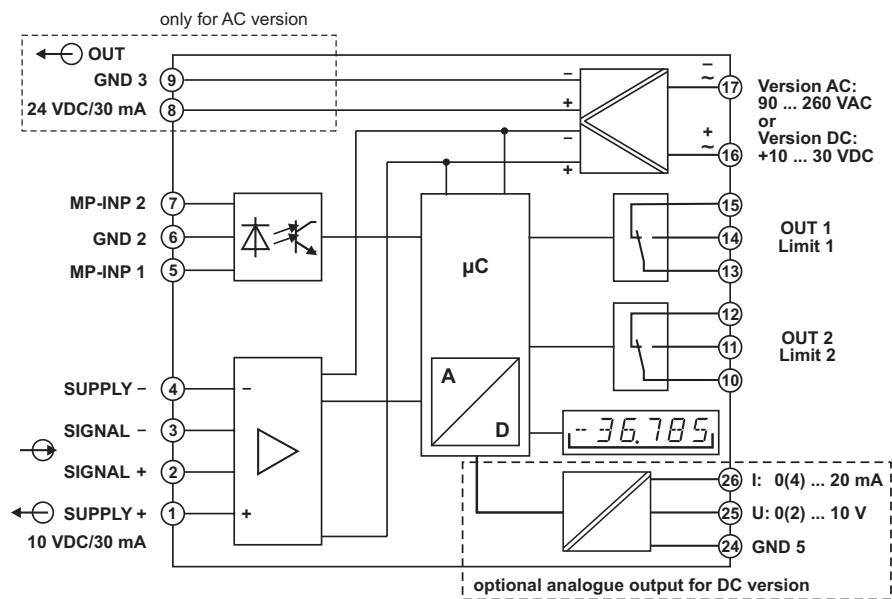
Codix 566

Dimensions

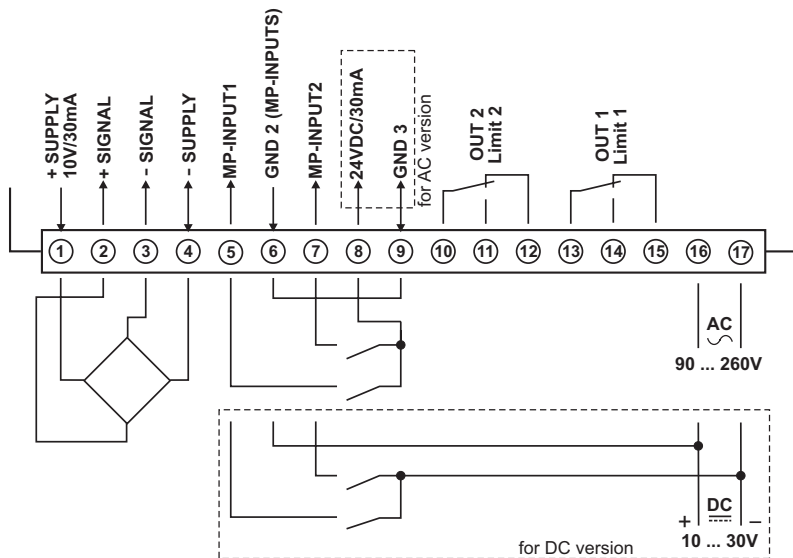
Panel cut-out
92 mm ^{+0.8} x 45 mm ^{+0.6}



Block diagram



Terminal assignment



Rear side view

