

LED process controllers For standard signal inputs (AC+DC) **Codix 565**



The process controller Codix 565 with totalizer function displays V and mA standard signal 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 Supply voltage | AC 100 ... 240 V Supply voltage | A.Z* LEDs 14-segment LED display | Prog Menu-driven programming | mA, V Display linearization | Tara Tare function | Σ Totalizer function | mA, V Input | min / max Min / Max value detection | 2 2 limit values | AC/DC Galvanic isolation |
| 15 bit Resolution | -20°...+65°C Temperature range | DIN 96x48 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 display, 6 digits 14 mm [0.55] 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.
- Time-controlled 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 supply voltage 15 V DC / 25 mA, also for 2-wire transmitters.
- Inputs and outputs galvanically isolated .
- Digital filter (first-order) for smoothing display fluctuation with unstable input signals.
- Tare function.

Order code

6.56 **a** 5 . 0 1 0 . **b** **c** X 0 **d** X

- a** Input type
5 = standard signal input
- b** Outputs
0 = relays
- c** Supply voltage
0 = 100 ... 240 V AC, ± 10%
3 = 10 ... 30 V DC
- d** Further outputs (optional)
0 = none
9 = analog output
(only for DC version)

Delivery specification:

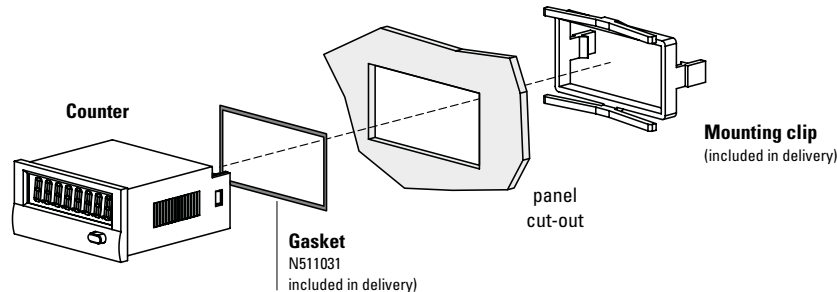
- Process device
- Mounting clip
- Gasket
- Instruction manual, multilingual
- 1 sheet of self-adhesive symbols
- Quick-start guide


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.



LED process controllers **For standard signal inputs (AC+DC)** **Codix 565**

Accessories / Mounting examples



| | | Type / size | Description | | Order no. |
|-----------------------|--|--|---|------|-------------------------|
| Gasket counter | | | 96 x 49 mm [3.78 x 1.93"] | | 6.0000.1183.1102 |
| Mounting frame |  | cut-out 92 x 45 mm [3.62 x 1.77"] | for snap-on mounting on 35 mm [1.38"] top-hat DIN rail | grey | 6.0000.F100.0001 |
| | | | | | incl. in delivery |

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 | 93 % (non-condensing) |
| Altitude | up to 2000 m [6562'] |

| Electrical characteristics | | |
|------------------------------|---|--|
| Supply voltage | 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 supply voltage | AC supply | 24 V DC ±15 %, 30 mA 15 V DC ± 1 %, 25 mA |
| | DC supply | 15 V DC ± 1 %, 25 mA |
| Device safety | designed to protection class application area overvoltage category | EN 61010 part 1 2 (front side) pollution level 2 II |

| 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 | approx. 180 g [6.34 oz] with analog output 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 | 100G / 2 ms / XYZ 3 times in each direction |
| | acc. to EN 60068-2-29 10G / 6 ms / XYZ 2000 times in each direction |
| Connections supply voltage and outputs | Plug-in screw terminal, 8-pin, RM 5.00, core ø max. 2.5 mm² [AWG 13] |
| Connections signal and control inputs | Plug-in screw terminal, 9-pin, RM 3.50, core ø max. 1.5 mm² [AWG 15] |

Process controllers

LED process controllers For standard signal inputs (AC+DC) Codix 565

| Measuring signal inputs | |
|--|--------------------------------|
| Sampling rate | 10 readings/sec |
| Voltage input | |
| Input signal | 0 ... 10 V, 2 ... 10 V, ± 10 V |
| Measuring range | -10.5 ... +10.5 V |
| Resolution | < 0.4 mV (±15 bit) |
| Measuring accuracy at 23 °C [73°F] (% of range) | typ. 0.02 % / max. ≤ 0.05 % |
| Temperature drift | < 100 ppm/K _{Ambient} |
| Input resistance | 1 MΩ |
| Max. voltage | ± 30 V |
| Current input | |
| Input signal | 0 ... 20 mA, 4 ... 20 mA |
| Measuring range | -0.5 ... 21 mA |
| Resolution | 1 μA (> 14 bit) |
| Measuring accuracy at 23 °C [73°F] (% of range) | typ. 0.02 % / max. ≤ 0.05 % |
| Temperature drift | < 100 ppm/K _{Ambient} |
| Input resistance | 22 Ω + PTC 25 Ω |
| Voltage drop | approx. 1.8 V at 20 mA |
| Max. current | 60 mA |

| 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 |

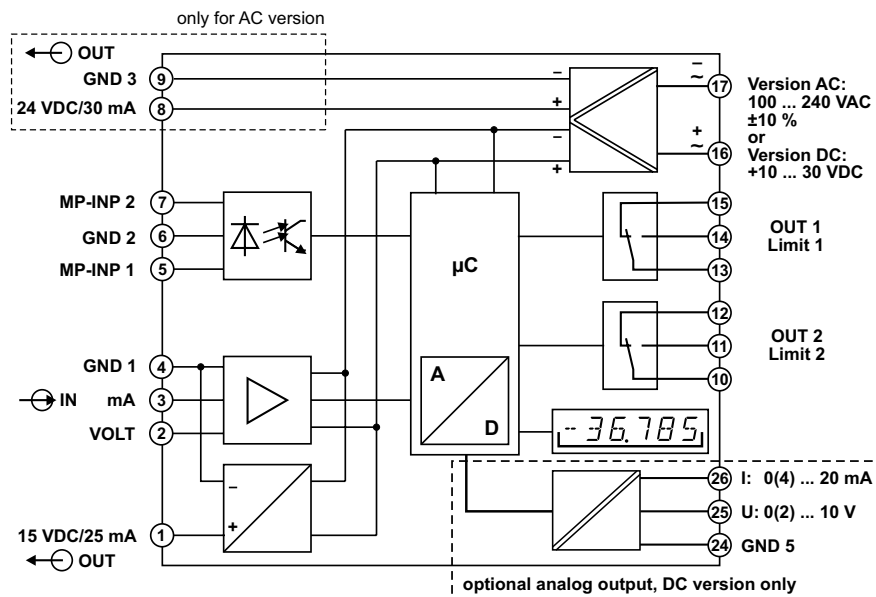
| Analog output (optional - only for DC version) | |
|--|---|
| Output ranges | 0 (4) ... 20 mA / 0 (2) ... 10 V |
| Load | current output ≤ 500 Ω voltage output ≥ 2000 Ω |
| Resolution | 15 bit |
| Update time (basic device measuring rate) | 100 ms |
| Temperature drift | ≤ 100 ppm/K _{Ambient} |
| 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 |

| 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 |

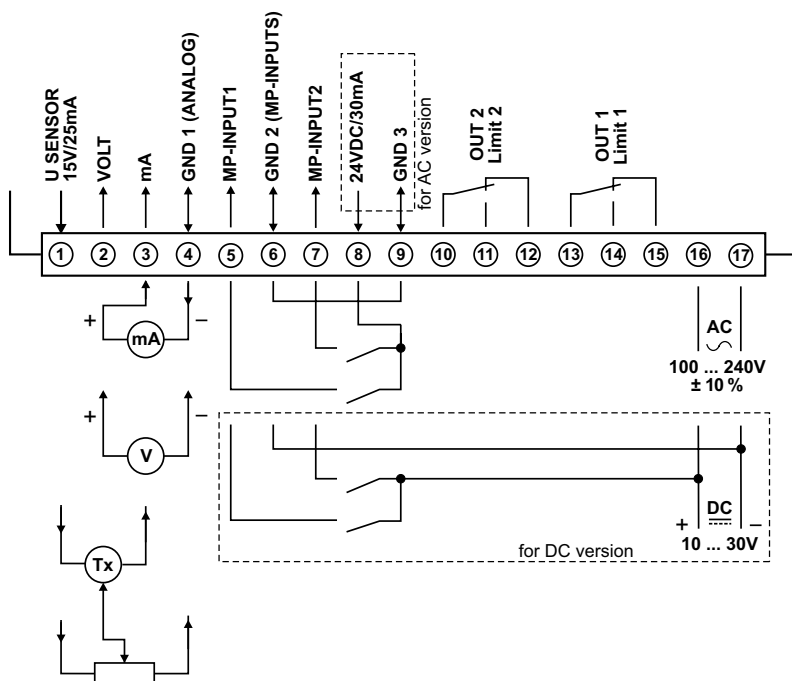
| Approvals | |
|---------------------------------|------------------|
| UL compliant in accordance with | File no. E128604 |
| CE compliant in accordance with | |
| EMC Directive | 2014/30/EU |
| RoHS Directive | 2011/65/EU |
| Low Voltage Directive | 2014/35/EU |

LED process controllers For standard signal inputs (AC+DC) **Codix 565**

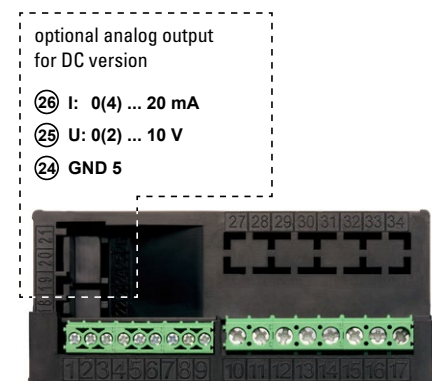
Block diagram



Terminal assignment



Rear side view



LED process controllers **For standard signal inputs (AC+DC)** **Codix 565**

Dimensions

Dimensions in mm [inch]

