

# Process controllers

**LCD touch process controllers**    **2 standard signal inputs + analog and switching outputs**    **573T**



The process controller 573T with 2 analog inputs can be used in both single channel mode as well as in dual channel. In dual channel mode, all arithmetic operations are available for displaying the sum total, difference, ratio or the product. Inputs and outputs can be scaled separately.

Can be used as a simple process signal converter, process controller (ON/OFF controller) or for complex measuring tasks, where the relationship between two values, one to the other, must be monitored, calculated or further processed in a higher-level controller.



<b>AC</b> 115...230 V Supply voltage	<b>DC</b> 18 ... 30 V Supply voltage	<b>mA, V</b> 2 inputs	<b>4</b> 4 switching outputs	<b>2</b> Relay output	<b>mA, V</b> Analog output	<b>16 bit</b> Resolution analog output	<b>RS232/RS485</b> RS232 / RS485 interface	<b>IP65</b> High protection level	<b>Tara</b> Tare function	<b>DIN 96x48</b> DIN front bezel	
<b>123...</b> 8 LCDs LCD touch display	<b>Prog</b> Menu-driven programming	<b>Touch</b> Touch display	<b>Glove</b> Operation with gloves								

### Innovative

- 2 separate freely scalable analog inputs  $\pm 10$  V and 0/4 ... 20 mA, resolution 16 bit.
- Tare function – the unit can be set to 0 for any input voltage.
- Programmable linearization: with up to 24 control points, input via key-pad or via the teach-in function.
- Averaging measurement over 2 to 16 measuring cycles, for use with serious fluctuations of the input signals.
- Easy to program - the desired display value is simply keyed-in for a specific input signal.
- Fast 1 ms sampling rate per channel alternating.
- Serial interface RS232 or RS485 for reading data in and out.
- Total sum counter for single and total values – time-controlled or manually controlled.
- Optional IO-Link input/output interface with Device 1.1 protocol.

### Compact and multifunctional

- Up to 3 display values in one device, display 1, display 2 + display calculated based on 1 and 2.
- AC and DC supply voltage in one device.
- Simple menu-driven programming via touch display, as well as tare or teach-in key.
- Can be used as a simple process signal converter, process controller (ON/OFF controller) or for complex measuring tasks where the relationship between two values, one to the other, must be monitored, calculated or further processed in a higher-level controller.
- Mathematical operation of the measured values of inputs 1 and 2. The result can also if required be multiplied, divided or added to an offset value, in order to obtain the desired display value.
- Analog output 0/4 ... 20 mA or  $\pm 10$  V.
- 4 fast PNP switching outputs (reaction time < 1 ms), with switching hysteresis, step or tracking preset.
- Programmable display refresh time.

### Multifunctional display

Large-scale 4-digit display over the whole display surface.

2-line display modes for the simultaneous display of 2 separate measured or calculated values.

Colour change of the display to green, yellow or red.



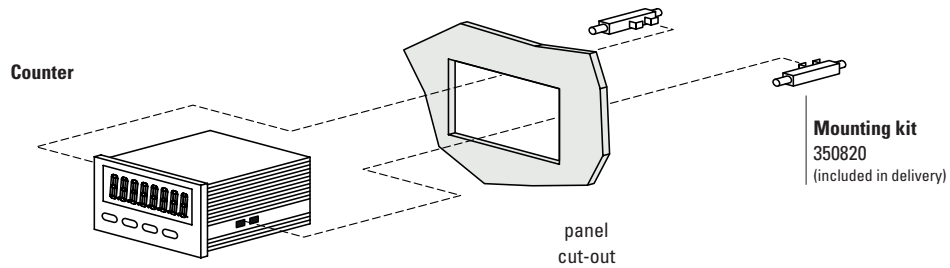
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**Order code**      **6.573T . 01 X . X 0 X . 001**

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|--|--|--|--|
| <p><b>a</b> <i>Relay outputs</i><br/>0 = 2 relay outputs<br/>2 = without output</p> <p><b>b</b> <i>Supply voltage</i><br/>3 = 18 ... 30 V DC<br/>E = 18 ... 30 V DC + 115 ... 230 V AC</p> <p><b>c</b> <i>Further options</i><br/>0 = none</p> | <p><b>d</b> <i>Electrical outputs</i><br/>0 = none<br/>1 = RS232, 4 switching outputs<br/>2 = RS232, 4 switching outputs, 16 Bit analog output<br/>3 = RS485, 4 switching outputs<br/>4 = RS485, 4 switching outputs, 16 Bit analog output</p> <p><b>e</b> <i>Option IO-Link</i><br/>(without IO-Link, omit the last 3 digits)<br/>001 = IO-Link</p> | <p><i>Delivery specification</i></p> <ul style="list-style-type: none"> <li>· Display 573T</li> <li>· Gasket</li> <li>· Mounting kit</li> <li>· Manual German/English</li> </ul> | <p><i>Stock types</i></p> <ul style="list-style-type: none"> <li>6.573T.012.301</li> <li>6.573T.012.302</li> <li>6.573T.010.302</li> <li>6.573T.010.E02</li> </ul> |
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## Accessories / Mounting examples



		Type / size	Description		Order no.	
<b>Mounting kit</b>			1 kit consists of 2 latch hooks		<b>350820</b>	
<b>Mounting frame</b>		<b>cut-out</b> 92 x 45 mm [3.62 x 1.77"]	for snap-on mounting on 35 mm [1.38"] top-hat DIN rail	grey	<b>G300005</b>	–
<b>Software for parameter setting OSxx</b>			<a href="https://www.kuebler.com/de/docu-finder">https://www.kuebler.com/de/docu-finder</a> search box: OS1			

incl. in delivery

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### Technical data

General technical data	
<b>Display</b>	LCD touch display, 13 mm high 8 decades + sign, 3-color
<b>Operating temperature</b>	-20 °C ... +60 °C [-4°F ... +140°F] (non-condensing)
<b>Storage temperature</b>	-25 °C ... +70 °C [-13°F ... +158°F]
<b>Altitude</b>	up to 2000 m [6562']

Electrical characteristics	
<b>Supply voltage</b>	18 ... 30 V DC, with reverse polarity protection (rated voltage 24 V DC) 115 ... 230 V AC, 50/60 Hz (option)
<b>Current consumption DC</b>	100 mA, without load
<b>Power consumption AC</b>	approx. 3 VA, without load
<b>Auxiliary power supply (for encoder)</b>	
AC supply	24 V DC ±15 %, 150 mA (up to +45 °C) 80 mA (from +46 °C)
DC supply	U <sub>B</sub> - 1 V, 250 mA
<b>Reference output</b>	
output voltage	10 V DC
accuracy	±0,1 %
load	max. 10 mA / ≥ 1 kOhm
<b>EMC standards</b>	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61326-3-2
<b>Device safety</b>	designed to EN 61010 part 1 protection class 2 application area pollution level 2

Mechanical characteristics	
<b>Housing</b>	ABS UL94-V-0
<b>Weight</b>	approx. 200 g
<b>Protection</b>	IP65 (front side) IP20 (rear side)
<b>Terminals</b>	max. 1.5 mm <sup>2</sup> / AWG16

Inputs	
<b>2 analog inputs</b>	0 ... 20 mA, 4 ... 20 mA -10 ... +10 V
input resistance current	R <sub>i</sub> = 120 Ohm
input resistance voltage	R <sub>i</sub> = 50 kOhm
measuring time per channel	min. 1 ms (programmable)
resolution	16 bit (15 bit + sign)
accuracy	±0.1 % ±1 digit
<b>3 control inputs (Cnt 1 - 3)</b>	PNP
input frequency	max. 10 kHz
input level	HTL: Low 0 ... 3 V / High 9 ... 30 V
load	max. 2 mA / R <sub>i</sub> > 15 kΩ / 470 pF

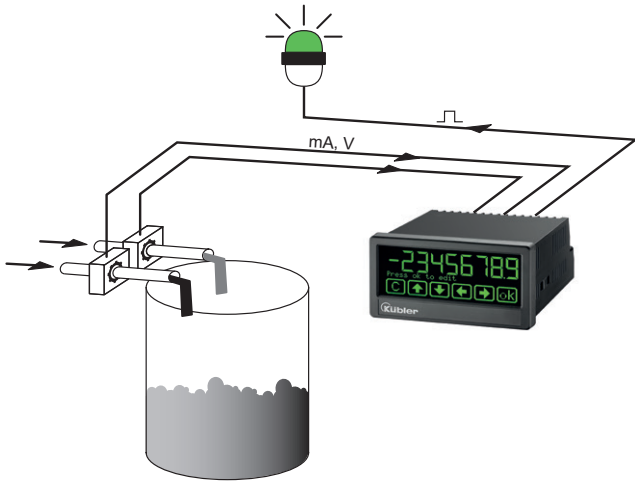
Outputs (option)	
<b>4 switching outputs</b>	5 ... 30 V DC/200 mA (PNP)
reaction time	< 1 ms
<b>Interface</b>	RS232 or RS485 Drivecom Protokoll / Modbus / Printer 9600 ... 38400 Baud
<b>Analog output</b>	-10 ... +10 V (max. 2 mA) or 0 ... 20 mA, 4 ... 20 mA (max. 270 Ω)
resolution	16 bit (15 bit + sign)
accuracy	±0.1 %
reaction time	< 150 ms
<b>Relay output</b>	2 changeover contacts (potential free) max. 250 V AC / 3 A / 750 VA max. 150 V DC / 2 A / 50 W
reaction time	< 20 ms

Interface characteristics IO-Link	
<b>Assembly / Revision</b>	Device / 1.1
<b>Bitrate</b>	COM3
<b>Port classe</b>	Type A

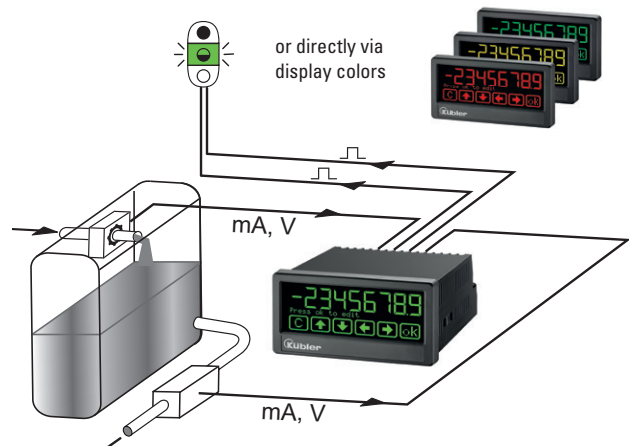
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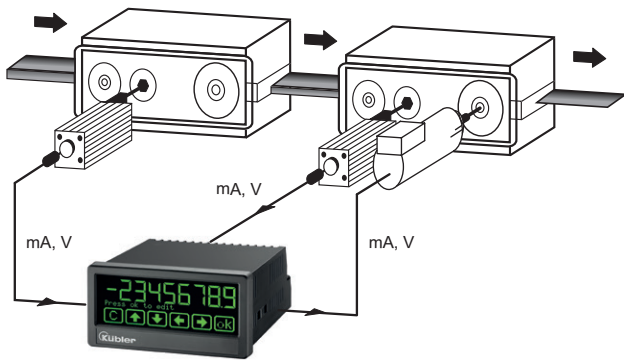
## Application examples



Monitoring of mixing ratios and display of flow rate



Level monitoring and adjustment, display of inflow and outflow



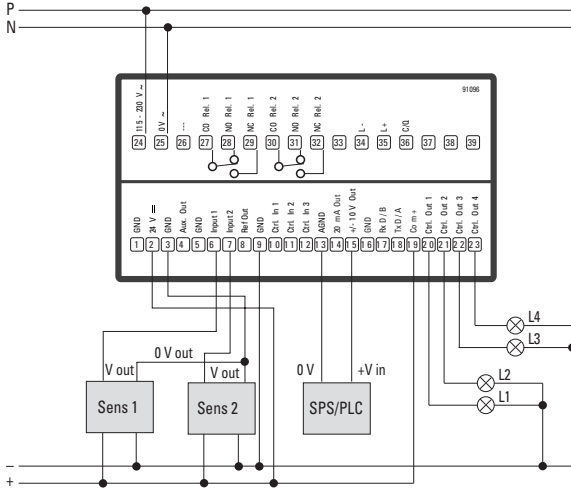
Material stretching, as well as monitoring of synchronous operation, with display of individual speeds

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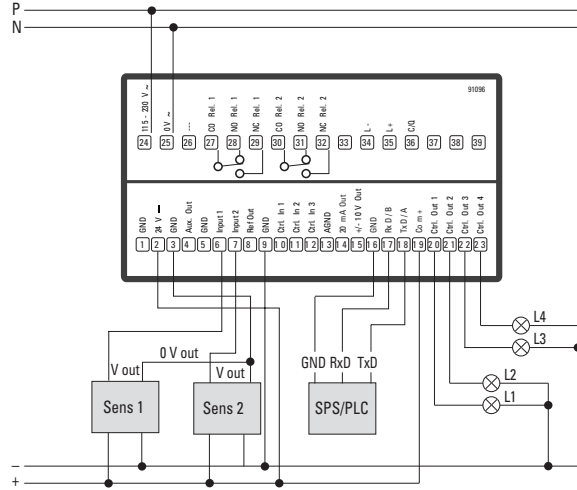
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### Connection example

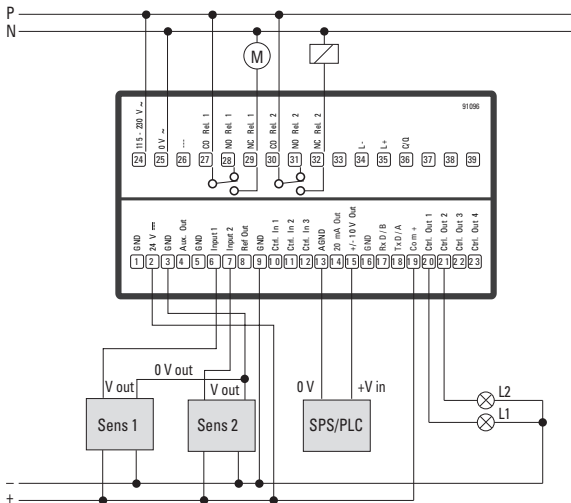
Analog input, analog output, switching outputs



Analog input, switching outputs, interface RS232

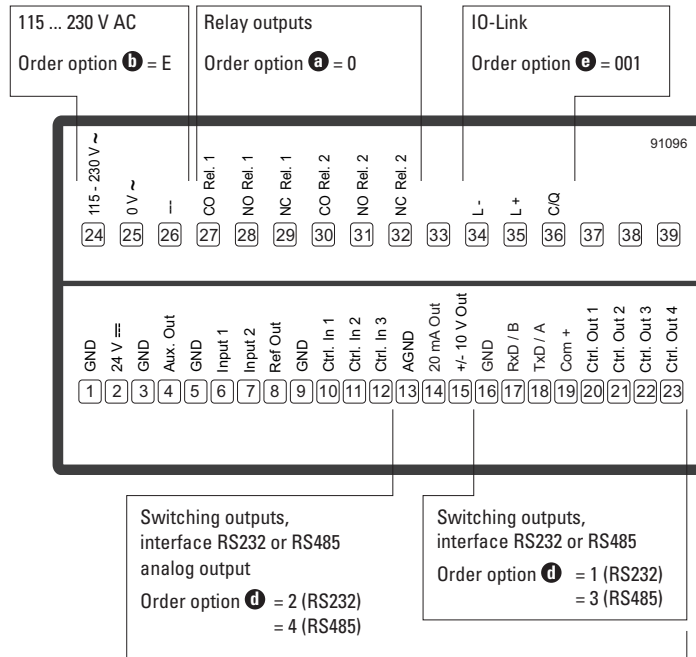


Analog input, analog output, load output (relay), switching outputs



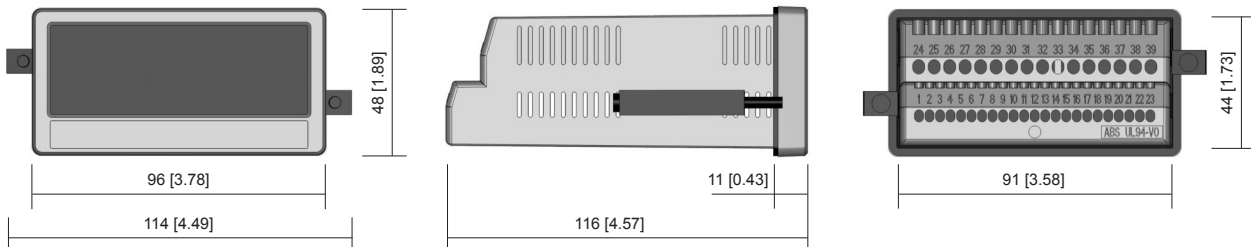
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### Terminal assignment



### Dimensions

Dimensions in mm [inch]



Panel cut-out  
92 x 45 mm [3.62 x 1.77"]