Process controllers

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.

RoHS · IO-Link · Modbus

AC 115 … 230 V	**DC** 18 … 30 V	**mA, V**	**4**	**2**	**mA, V**	**16 bit**	**RS232/485**	**IP65**	**Tara**
Supply voltage		2 inputs	4 switching outputs	Relay output	Analog output	Resolution analog output	RS232 / RS485 interface	High protection level	Tare function

DIN 96x48	**8 LCDs**	**ProG**	(touch)	(glove)
DIN front bezel	LCD touch display	Menu-driven programming	Touch display	Operation with gloves

Innovative

- 2 separate freely scalable analog inputs ±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 ±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.

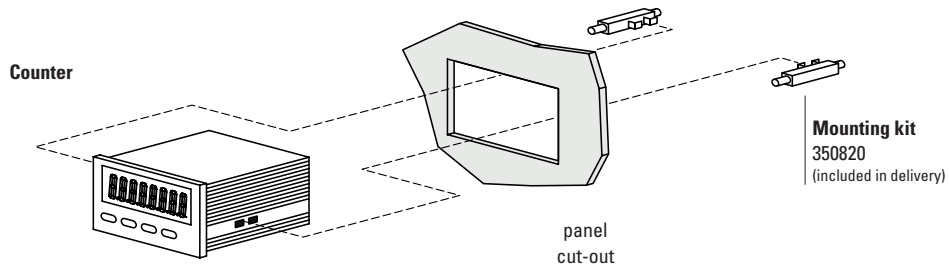Colour change of the display to green, yellow or red.

Process controllers

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

Order code

6.573T.01X.X0X.001
 a b c d e

a *Relay outputs*
0 = 2 relay outputs
2 = without output

b *Supply voltage*
3 = 18 ... 30 V DC
E = 18 ... 30 V DC + 115 ... 230 V AC

c *Further options*
0 = none

d *Electrical outputs*
0 = none
1 = RS232, 4 switching outputs
2 = RS232, 4 switching outputs, 16 Bit analog output
3 = RS485, 4 switching outputs
4 = RS485, 4 switching outputs, 16 Bit analog output

e *Option IO-Link*
(without IO-Link, omit the last 3 digits)
001 = IO-Link

Delivery specification	Stock types
· Display 573T	6.573T.012.301
· Gasket	6.573T.012.302
· Mounting kit	6.573T.010.302
· Manual German/English	6.573T.010.E02

Accessories / Mounting examples

Counter

Mounting kit
350820
(included in delivery)

panel
cut-out

		Type / size	Description		Order no.	
Mounting kit			1 kit consists of 2 latch hooks		350820	
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	G300005	–
Software for parameter setting OSxx			https://www.kuebler.com/de/docu-finder search box: OS1			

incl. in delivery

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

Technical data

General technical data

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

Electrical characteristics

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

Mechanical characteristics

Housing	ABS UL94–V-0
Weight	approx. 200 g
Protection	IP65 (front side) IP20 (rear side)
Terminals	max. 1.5 mm^2 / AWG16

Inputs

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

Outputs (option)

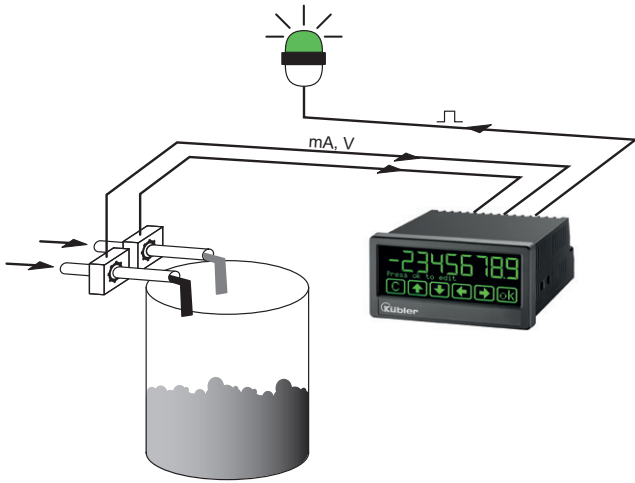|		
4 switching outputs		5 ... 30 V DC/200 mA (PNP)
	reaction time	< 1 ms
Interface		RS232 or RS485 Drivecom Protokoll / Modbus / Printer 9600 ... 38400 Baud
Analog output		-10 ... +10 V (max. 2 mA) or 0 ... 20 mA, 4 ... 20 mA (max. 270 Ω)
	resolution	16 bit (15 bit + sign)
	accuracy	±0.1 %
	reaction time	< 150 ms
Relay output		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

Assembly / Revision	Device / 1.1
Bitrate	COM3
Port classe	Type A

Approvals

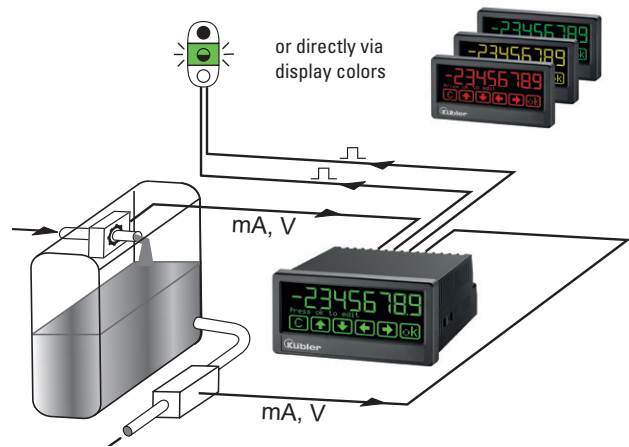|	
CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU
UKCA compliant in accordance with	
EMC Regulations	S.I. 2016/1091
RoHS Regulations	S.I. 2012/3032
Low Voltage Regulations	S.I. 2016/1101

Process controllers

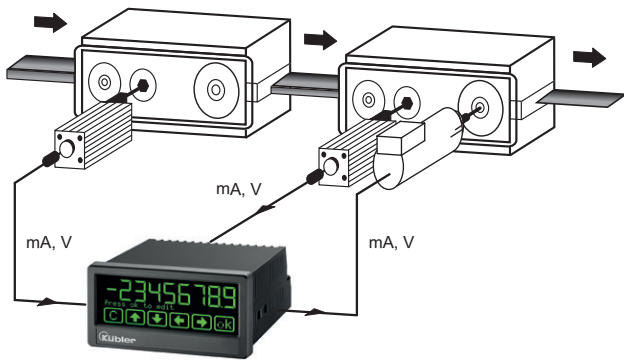| LCD touch process controllers	2 standard signal inputs + analog and switching outputs	573T

Application examples

Monitoring of mixing ratios and display of flow rate

or directly via display colors

Level monitoring and adjustment, display of inflow and outflow
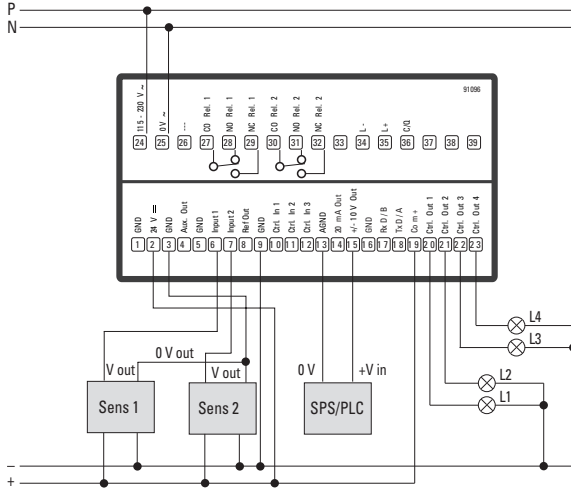

Material stretching, as well as monitoring of synchronous operation, with display of individual speeds

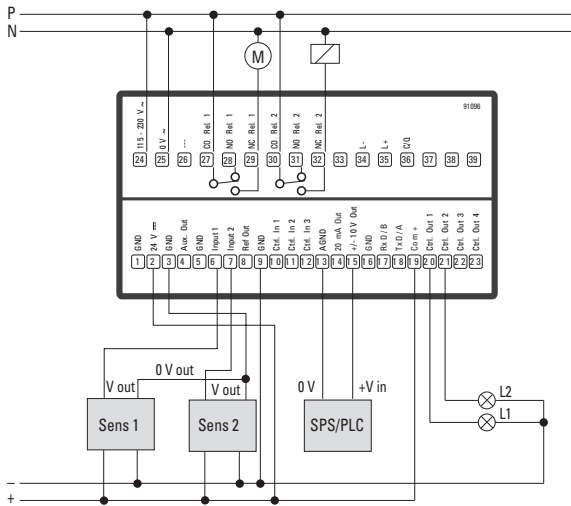| LCD touch process controllers	2 standard signal inputs + analog and switching outputs	573T

Connection example

Analog input, analog output, switching outputs

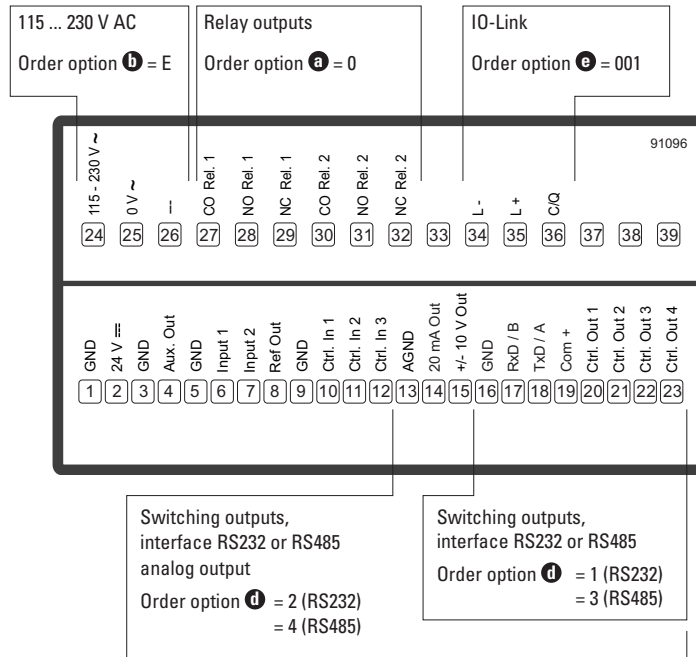Analog input, switching outputs, interface RS232

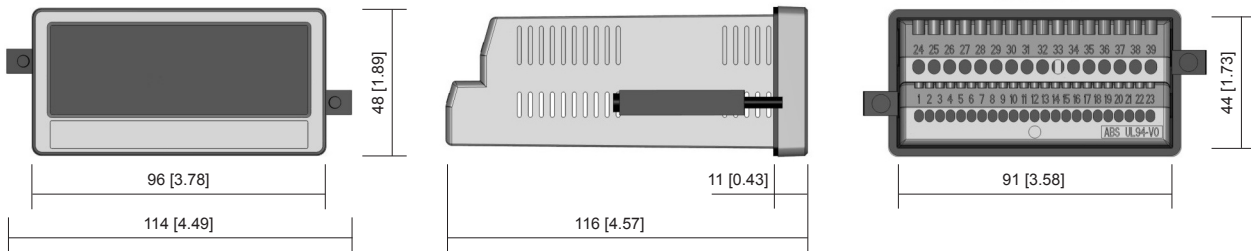Analog input, analog output, load output (relay), switching outputs

Process controllers

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

Terminal assignment

115 ... 230 V AC
Order option **b** = E

Relay outputs
Order option **a** = 0

IO-Link
Order option **e** = 001

91096

Terminal	Label
24	115 - 230 V ~
25	0 V ~
26	—
27	CO Rel. 1
28	NO Rel. 1
29	NC Rel. 1
30	CO Rel. 2
31	NO Rel. 2
32	NC Rel. 2
33	
34	L -
35	L +
36	C/Q
37	
38	
39	

Terminal	Label
1	GND
2	24 V ⎓
3	GND
4	Aux. Out
5	GND
6	Input 1
7	Input 2
8	Ref Out
9	GND
10	Ctrl. In 1
11	Ctrl. In 2
12	Ctrl. In 3
13	AGND
14	20 mA Out
15	+/- 10 V Out
16	GND
17	RxD / B
18	TxD / A
19	Com +
20	Ctrl. Out 1
21	Ctrl. Out 2
22	Ctrl. Out 3
23	Ctrl. Out 4

Switching outputs,
interface RS232 or RS485
analog output
Order option **d** = 2 (RS232)
= 4 (RS485)

Switching outputs,
interface RS232 or RS485
Order option **d** = 1 (RS232)
= 3 (RS485)

Dimensions

Dimensions in mm [inch]

48 [1.89]
96 [3.78]
114 [4.49]

11 [0.43]
116 [4.57]

44 [1.73]
91 [3.58]
ABS UL94-V0

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