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Datasheet

Level Converter

SISP

Voltage / current (UI) converter with wide range power supply



Features

- Limit frequency 1 kHz
- Supply voltage range 9 - 36 V DC
- Simple voltage supply
- Universally applicable

Short description

The UI converter with wide-range power supply is suitable for converting the voltage signal of a torque transducer into a current signal. The configurations listed in the following table are possible.
Further, the SISP allows the passage of a control circuit with optical indication via an LED.

As housing form, a DIN rail housing or a rectangular aluminum housing for wall mounting is optionally used.
The connections are screw terminals.
The aluminum housing also offers strain relief via the standard cable glands.

Technical Specifications

Supply voltage:	9 V - 36 V DC
Supply about connected sensor:	12 V max. 300 mA
Control circuit for sensor control:	5 V - 28 V
Zero point adjustable via trimmer from outside:	± 200 mV
Working temperature range:	5 °C - 45 °C
Burden max.:	500 Ω
Nonlinearity:	< 0,1 %
Hysteresis:	< 0,1 %
Stability zero point:	< 0,1 %
Compensated temperature range:	< 0,01 % / K
Temperature error zero point:	< 0,01 % / K

Circuit Variants

Input	Output
± 5 V	0 ... 20 mA (Input OV = Output 10 mA)
± 5 V	4 ... 20 mA (Input OV = Output 12 mA)
± 10 V	0 ... 20 mA (Input OV = Output 10 mA)
± 10 V	4 ... 20 mA (Input OV = Output 12 mA)
5 V	0 ... 20 mA (Input OV = Output 0 mA)
5 V	4... 20 mA (Input OV = Output 4 mA)
10 V	0 ... 20 mA (Input OV = Output 0 mA)
10 V	4 ... 20 mA (Input OV = Output 4 mA)

Others	• Connections via screw terminals • Fair entrance via solder bridges selectable • Selectable output via soldering jumper
Housing optional	Aluminum body type A115
Combinorm housing for 35-mm mounting rails	Can also be used as a wall housing
Dimensions: 22.5 x 75 x 110.8 mm	Dimensions: 175 x 80 x 57 mm
Protection class IP40	Protection class: IP66
	Color Ral 7001

Pin configuration

① + 12 Volt (OUT) ② GND2 (OUT) ③ + Control (IN)	⑦ + Control (OUT) ⑧ + Measuring input (IN) ⑨ - Measuring input (IN)
④ + Supply (9V-36V) ⑤ - Supply/ GND ⑥ - Control (IN)	⑩ - Control (OUT) ⑪ + Measuring output(OUT) ⑫ - Measuring output (OUT)

Ordering Code

SISP.-	X.	X.	X.			
				Output	1	0mA-20mA
					2	4mA-20mA
				Input	1	±5V
					2	±10V
					3	+5V
					4	+10V
				Case	1	Hutschiene
					2	Aluminium Case

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Tolerances SISP

All values are based on zero point at 25 ° C, warm experimental setup and deviated measuring devices.

In the case of linearity, the greatest deviation - the final value (range and not actual value!) - setpoint
At zero point: difference between zero point at 25 ° C and 45 ° C or 5 ° C - final value
(Range and not actual value!)

Limit frequency approx. 1 kHz;
Signal rise 10-90%: 120 µs;
Signal dropout time 90-10%: 590 µs

Configuration	Non-linearity < 0,1%	Zeropoint < 0,1 %	Linearity in depend of temperature < 0,1%	Zeropointdrift in depend of temperatur < 0,02 %
± 5V (0mA-20mA/0V=10mA)	full scale: 20mA (-10mA) **20µA**	full scale: 20mA (-10mA) **20µA**	full scale: 20mA (-10mA) 10mA* 0,01% = 1 µA/°k 1µA/°k*(45°C-25°C)20°k= **20µA**	full scale: 20 mA (-10mA) 10mA* 0,02% = 2µA/°k 2µA/°k*(45°C-25°C)20°k= **40µA**
± 5V (4mA-20mA/0V=12mA	full scale: 16mA(-8mA) **8µA**	full scale: 16mA(-8mA) **8µA**	full scale: 16mA(-8mA) 8mA*0,01%=1,6µA/°k 1,6µA/°k*(45°C-25°C) 20°k= **16µA**	full scale: 16mA(-8mA) 8mA*0,02%=1,6µA/°k 1,6µA/°k*(45°C-25°C) 20°k= **32µA**
± 10V (0mA-20mA/0V=10mA)	full scale: 20mA(-10mA) **20µA**	full scale: 20mA(-10mA) **20µA**	**20µA**	**40µA**
± 10V (4mA-20mA/0V=12mA)	full scale: 16mA(-8mA) **8µA**	full scale: 16mA(-8mA) **8µA**	**16µA**	**32µA**
+ 5V (0mA-20mA/0V=0mA)	full scale: 20mA **20µA**	full scale: 20mA 20µA	**40µA**	**80µA**
+ 5V (4mA-20mA/0V=4mA)	full scale: 16mA **16µA**	full scale: 16mA 16µA	**32µA**	**64µA**
+ 10V (0mA-20mA/0V=0mA)	full scale: 20mA **20µA**	full scale: 20mA 20µA	**40µA**	**80µA**
+10V (4mA-20mA/0V=4mA)	full scale: 16mA **16µA**	full scale: 16mA **16µA**	**32µA**	**64µA**

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