Technical data sheet

Interface Technology · LCIS analogue/analogue converter

Input: 0–10 V / 0–20 mA / 4–20 mA
Output: 0–10 V / 0–20 mA / 4–20 mA
Insulation: 2.5 kV, 3-way isolation

Identification

Type	LCIS-WAA-1539-62-PI
Part No.	751539.0000

Product version

Hardware revision	1.1
Software version	1.2
Datasheet version	03

Input

Input signal	0–10 V, 0–20 mA, 4–20 mA, adjustable via DIP switch S1
Galvanic isolation I/O	3-way isolation
Zero /Span	Production comparison
Input resistance	>330 kΩ @ 0–10 V, <100 Ω @ 0–20 mA, 4–20 mA

Output

Output signal	0–10 V, 0–20 mA, 4–20 mA adjustable via switch
Output voltage limit	Min 0 V Max. 10.8 V for all output ranges with nominal upper limit 10 V
Output current limit	Min. 0 mA for all output ranges with nominal lower limit 0 mA Min. 3.6 mA or all output ranges 4 – 20 mA Max. 21.6 mA for all output ranges with nominal upper limit 20 mA
Max. load impedance at I-output	500 Ω @ 0–20 mA, 4–20 mA
Min. load impedance at U-output	2 kΩ @ 0–10 V
Load deviation	At U-output max. 5 mV @ 2 kΩ
Output voltage	<16 V @ 0–20 mA, 4–20 mA

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SYSTEMATIC TECHNOLOGY

Output current	Max. 5 mA @ 0–10 V
Residual ripple	<20 mV_{eff}

Operating data

Accuracy	0.1 % FSR @ 23 °C
Linearity error	0.05 % FSR
Rise time (10-90%)	6 ms
Build-up time (Accuracy 1%)	17 ms
Temperature coefficient	<150 ppm / K FSR
Critical frequency	30 Hz @ 3 dB

General

Rated voltage U_N	AC/DC 24 V
Current Consumption	22 mA
Status indication	LED green
Input/output protection	Overvoltage, current input with PTC fuse, short circuit-proof output
Insulation voltage input / output	2.5 kV_{eff}
Housing material	PA 6.6 (UL 94 V-0, NFF I2, F2)
Color of the housing	RAL 7012 Basalt grey
Mounting	DIN rail mountable TS35 (EN 60715)
Degree of protection	IP20
Installation position	Any
Connection type	Push-In Single wire 0.25 mm² – 2.5 mm² / AWG 24–14 Fine stranded wire with ferrule 0.25 mm² – 1.5 mm² / AWG 24–16
Strip length	8 mm
Dimensions (w × h × d)	6.2 mm × 93.0 mm × 73.0 mm
Weight/unit	0.03 kg
PU (units)	1

General ambient conditions

Operation temperature range	-25 °C … +60 °C
Storage temperature range	-40 °C … +80 °C
Relative air humidity	20 – 90 % RH, not condensing
Vibration resistance	0.7 g acc. to EN 60068-2-6

Failure Rate Prediction (MTBF)

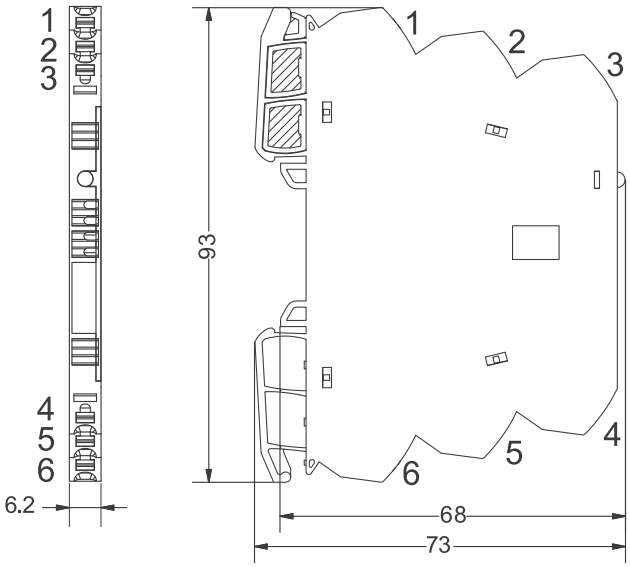
Standards	Electronic components – Reliability – Reference conditions for failure rates and stress models for conversion: EN/IEC 61709 Failure Rates of Components – Expected values: SN 29500
Failure rate at +45 °C	531 fit
Failure rate at +45 °C	1881921 h

	1 fit equals one failure per 10^9 component hours
	The indicated temperature is the mean component ambient temperature.
Comments	The results are valid under following conditions: Automotive environment or industrial areas without extreme dust levels and harmful substances. Continuous operation 8760 h per year.

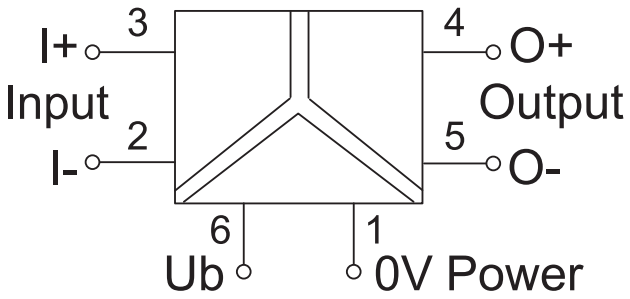
Certifications/Standards

Conformity	CE UKCA
Certifications	cULus (E135145) DNV (TAA000024Y)
Standards	EN 60947-1 EN 60947-5-1 EN 61000-6-2 EN 61000-6-4 UL 508 DNV-CG-0339

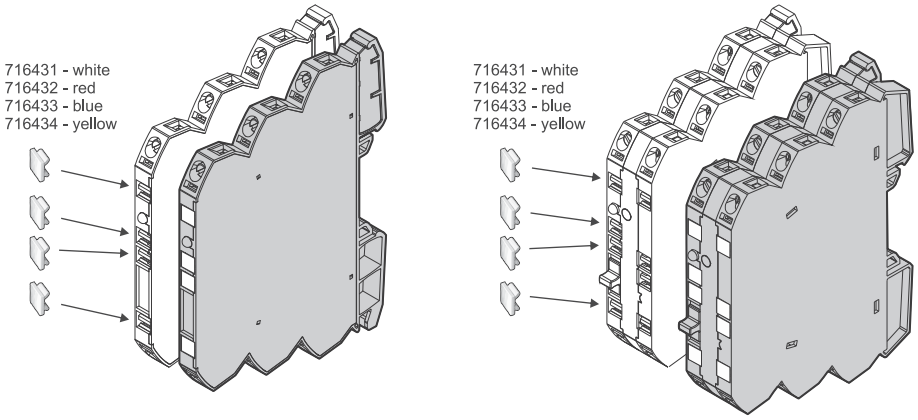
Dimensions



PIN assignment

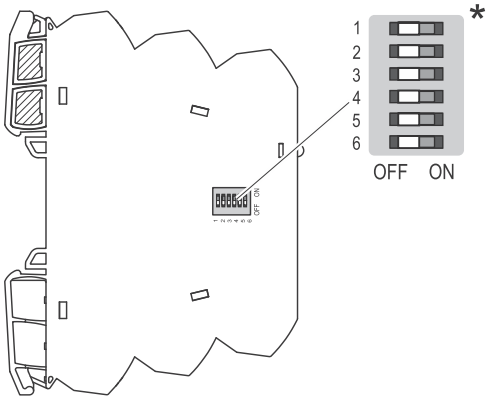


Use



Use

DE ***HINWEIS:*** Die Schalter dürfen während des Betriebs nicht umgeschaltet werden. Der Wandler benötigt einen Neustart.
EN ***NOTICE:*** *The switches must not be switched during operation. The converter requires a restart.*
FR ***AVIS:*** *Les interrupteurs ne doivent pas être actionnés pendant le fonctionnement. Le convertisseur nécessite un redémarrage.*



* **DE:** Auslieferungszustand (Werkseinstellung): 0-Einstellung/ alle Schalter sind auf OFF gestellt.

* **EN:** *Delivery state (factory setting): 0 setting/ all switches are set to OFF.*

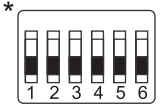
* **FR:** *État à la livraison (réglage d'usine) : réglage 0/ tous les interrupteurs sont sur OFF.*

Range adjustment

S1	Input			
●→Switch On	1	2	3	4
0–10V*	●			
0–20mA		●		
4–20mA	●	●		

S1	Output	
●→Switch On	5	6
0–10V*	●	
0–20mA		●
4–20mA	●	●

*



ON
OFF

Default (1-6 = OFF)