

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-0539-62-S
Part No.	750539.0000

Product version

Hardware revision	1.0
Software version	1.1
Datasheet version	02

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 k Ω @ 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 for 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 k Ω @ 0–10 V
Load deviation	at U-output max. 5 mV @ 2 k Ω
Output voltage	<16 V @ 0–20 mA, 4–20 mA
Output current	Max. 5 mA @ 0–10 V
Residual ripple	<20 mV _{eff}

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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	24 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	Screwed terminal Single wire 0.25 mm ² – 2.5 mm ² / AWG 24–14 Fine stranded wire with ferrule 0.25 mm ² – 1.5 mm ² / AWG 24–16
Strip length	6 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.

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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
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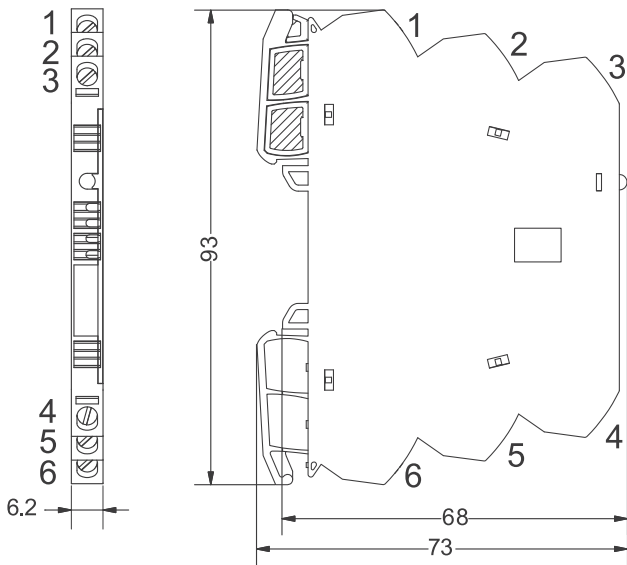
Approvals/Standards

Conformity	CE UKCA
Approvals	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

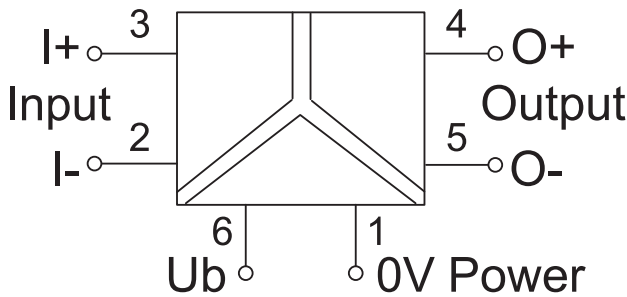
Explanation

Switch position	Delivery status: 0 (OFF)
Range adjustment	*Range is set if all switches are OFF.

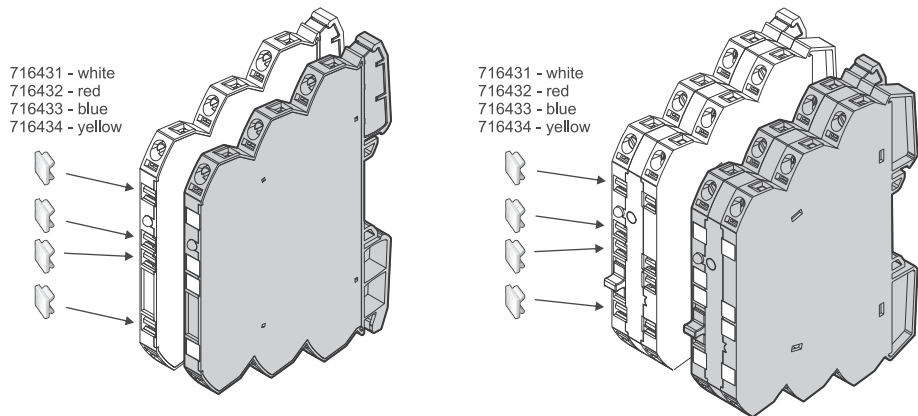
Dimensions



PIN assignment

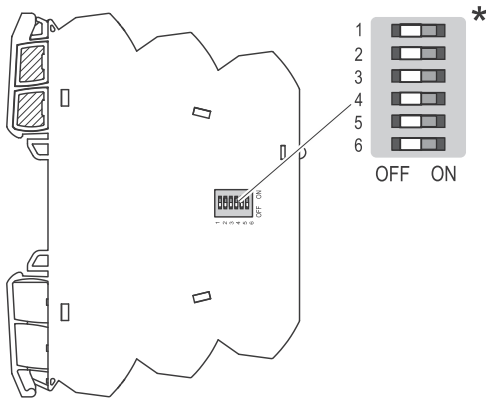


Use



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	● ●

