

## Technical data sheet

### Interface Technology · LCIS analog/analog converter

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**Input: 16 selectable ranges**

**Output: 0–10 V / 0–20 mA / 4–20 mA**

**Insulation: 2.5 kV, 3-way isolation**



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#### Identification

Type	LCIS-WUAA-1516-175-PI
Part No.	<a href="#">751516.0000</a>

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#### Product version

Hardware revision	1.0
Software version	1.2
Datasheet version	02

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#### Input

Input signal	0–60, 0–100, 0–300, 0–500 mV adjustable via DIP switch S1 0–1, 0–2, 0–5, 0–10, 0–20, 2–10 V adjustable via DIP switch S1 0–5, 0–10, 0–20, 4–20, $\pm 5$ , $\pm 20$ mA adjustable via DIP switch S1
Galvanic isolation I/O	3-way isolation
Zero /Span	Production comparison
Input resistance	$>330 \text{ k}\Omega$ @ mV, V, $<100 \text{ }\Omega$ @ mA

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#### 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	$500 \text{ }\Omega$ @ 0–20 mA, 4–20 mA
Min. load impedance at U-output	$2 \text{ k}\Omega$ @ 0–10 V

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#### United Kingdom: LÜTZE Ltd.

Unit 3, Sandy Hill Park  
Sandy Way, Amington • GB-Tamworth, Staffs B77 4DU  
Tel. +44 (0)1827 31333-0 • Fax +44 (0)1827 31333-2  
[www.lutze.com](http://www.lutze.com) • [sales.gb@lutze.co.uk](mailto:sales.gb@lutze.co.uk)

#### Germany: Friedrich Lütze GmbH

Postfach 12 24 (PLZ 71366) • Bruckwiesenstraße 17-19 • D-71384 Weinstadt  
Tel. +49 (0)7151 6053-0 • Fax +49 (0)7151 6053-277(-288)  
[www.luetze.de](http://www.luetze.de) • [info@luetze.de](mailto:info@luetze.de)

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Load deviation	at U-output max. 5 mV @ 2 kΩ
Output voltage	<18 V @ 0–20 mA, 4–20 mA
Output current	Max. 5 mA @ 0–10 V
Residual ripple	<20 mV <sub>eff</sub>

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#### Operating data

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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

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#### General

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Rated voltage U <sub>N</sub>	AC/DC 24 V
Current Consumption	19 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 <sub>eff</sub>
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 mm <sup>2</sup> – 2.5 mm <sup>2</sup> / AWG 24–14 Fine stranded wire with ferrule 0.25 mm <sup>2</sup> – 1.5 mm <sup>2</sup> / AWG 24–16
Strip length	8 mm
Dimensions (w × h × d)	17.5 mm × 93.0 mm × 73.0 mm
Weight/unit	0.059 kg
PU (units)	1

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#### General ambient conditions

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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

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#### Failure Rate Prediction (MTBF)

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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
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## Technical data sheet

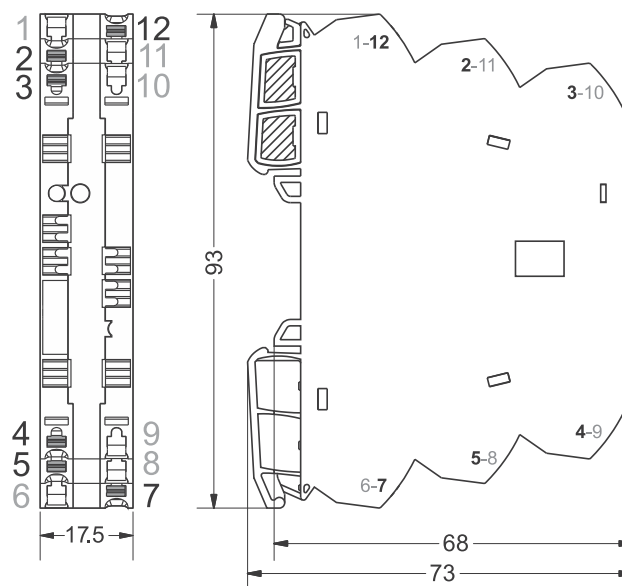
### Interface Technology · LCIS analog/analog converter

Failure rate at +45 °C	681 fit
Failure rate at +45 °C	1468511 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

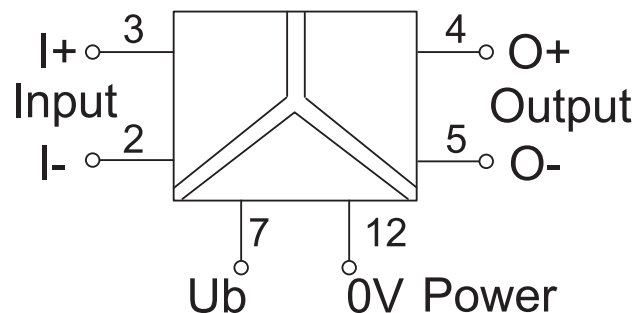
### Certifications/Standards

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



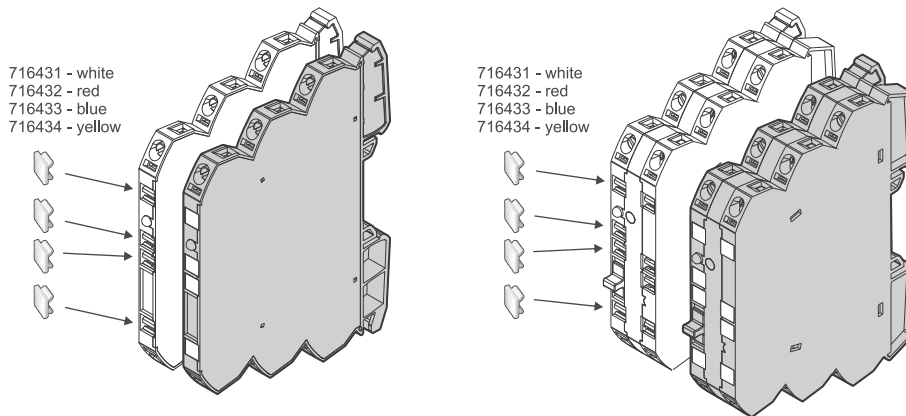
### PIN assignment



# Technical data sheet

## Interface Technology · LCIS analog/analog converter

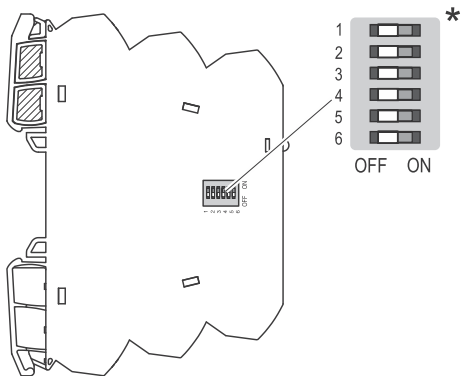
### Use



### Use

#### DE DIP-Schalterstellungen EN DIP switch positions FR Positions des interrupteurs DIP

**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.  
**Je nach Art des Wandlers ist dann bereits ein bestimmter Bereich voreingestellt.**

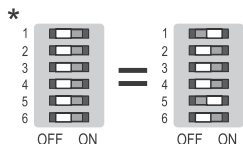
\* EN: Delivery state (factory setting): 0 setting/ all switches are set to OFF.  
**Depending on the type of transducer, a certain range is then already preset.**

\* FR: État à la livraison (réglage d'usine) : réglage 0/ tous les interrupteurs sont sur OFF.  
**Selon le type de transducteur, une certaine plage est alors déjà prédéfinie.**

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 751510.0000  
 751518.0000  
 751519.0000  
 750518.0000  
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S1	Input	1	2	3	4
●→Switch On					
0- 10V*		●			
0-20mA		●			
4-20mA		●	●		

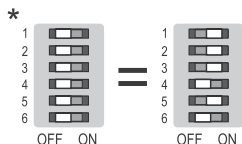
S1	Output	5	6
●→Switch On			
0- 10V*		●	
0-20mA		●	
4-20mA		●	●



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 750517.0000  
 751516.0000  
 751517.0000

S1	Input	1	2	3	4
●→Switch On					
0- 60 mV		●			
0- 100 mV		●			
0- 300 mV		●			
0- 500 mV		●	●		
0- 1 V		●	●		
0- 2 V		●	●		
0- 5 V		●	●	●	
0- 10 V*		●	●	●	
2- 10 V		●	●	●	●
0- 20 V		●	●	●	●
0- 5 mA		●	●	●	●
0- 10 mA		●	●	●	●
± 5 mA		●	●	●	●
± 20 mA		●	●	●	●
0- 20 mA		●	●	●	●
4- 20 mA		●	●	●	●

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



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 751512.0000

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

S1	Output	5	6
●→Switch On			
0- 50 Hz*		●	
0- 100 Hz		●	
0- 1000 Hz		●	●
0- 10000 Hz		●	●



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### Range adjustment

S1 ●→Switch On	Input			
	1	2	3	4
0-60 mV				
0-100 mV	●			
0-300 mV		●		
0-500 mV	●	●		
0-1 V			●	
0-2 V		●		
0-5 V		●	●	
0-10 V*	●	●	●	
2-10 V				●
0-20 V	●			●
0-5 mA		●		●
0-10 mA	●	●		●
±5 mA			●	●
±20 mA	●		●	●
0-20 mA		●	●	●
4-20 mA	●	●	●	

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

