Technical data sheet

Microcompact analogue/analogue splitter

Identification

Type	LCON AASP DFDT 806211-01
Part No.	817019

Product version

Hardware revision	1.3
Software version	1.3
Datasheet version	05

Use/Application/Properties

Description	The input and output configurations can be parameterized with the software independent of each other via a USB adapter.

Input

Measurement input	0–10 V, 0–20 mA, 4–20 mA
Galvanic isolation I/O	4-way isolation
Step response (10–90%)	4 ms–500 ms (adjustable by means of filter stage 1–5, default: filter stage 4 = 80 ms)
Input resistance	500 kΩ @ 0–10 V 100 Ω @ 0–20 mA 100 Ω @ 4–20 mA
Zero /Span	Freely adjustable

Output

Output signal	0–10 V, 0–20 mA, 4–20 mA
Max. load impedance at I-output	400 Ω @ 0–20 mA 400 Ω @ 4–20 mA
Max. load impedance at U-output	>2 kΩ @ 0–10 V
Limitation for exceeding measurement range	Yes, switchable

Lütze Transportation GmbH
Postfach 12 24 (PLZ 71366) • Bruckwiesenstraße 17-19 • D-71384 Weinstadt
Tel. +49 (0)7151 6053-545
www.luetze-transportation.com • sales.transportation@luetze.de

Max. modulation range/output signal/ output current	10.5 V @ 0–10 V 21 mA @ 0–20 mA 21 mA @ 4–20 mA
Residual ripple	<20 mV_{eff}

Technical data

Rated voltage U_N	DC 24 V
Operation voltage range	16.8–30 V
Rated current	13 mA
Status indication LED	Green LED
Input/output protection	Overvoltage DC 30 V, short circuit-proof output
Accuracy	0.1 % FSR
Linearity error	±0.1 % FSR
Configuration	via DIP switch (see instruction leaflet) Software Lütze Config Tool Connection via USB service cable
Temperature error	<150 ppm FSR
Data storage	Flash
Insulation voltage input / output	2.5 kV_{eff}
Insulation voltage output 1 / output 2	2.0 kV_{eff}
Connection type	Spring terminal: 0.14 – 1.5 mm²
Storage temperature range	-40 °C … +85 °C

General

Dimensions (w × h × d)	6.2 mm × 90.0 mm × 115.5 mm
Weight/unit	0.6 kg
Housing material	PA 6.6 (UL 94 V-0)
Mounting	DIN rail mountable TS35 (EN 60715)
Installation position	As desired

Environmental service conditions

Operating temperature class	OT4: -40 °C … +70 °C
Switch-on extended Operating temperature class	ST1: OTx + 15 °C
Degree of protection	IP20

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	435 fit
Failure rate at +45 °C	2298502 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.

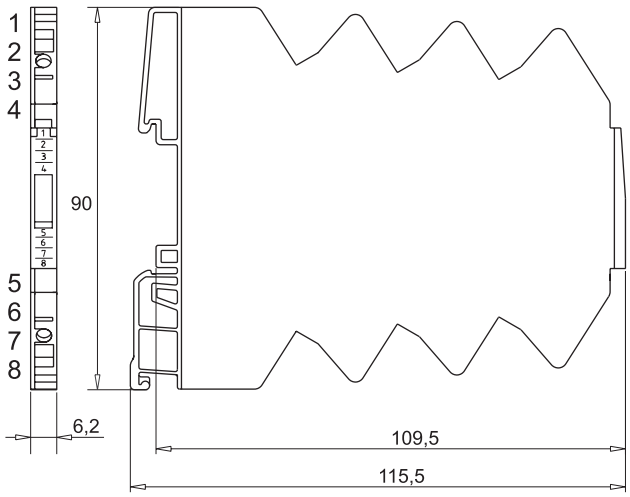
Standards/Certifications

Standards	**EN 50155:2007:** Railway applications – Rolling stock – Electronic equipment **EN 50155:2021:** Railway applications – Rolling stock – Electronic equipment – only testing according to chapter 13.3 Withstand voltage test: routine test with 1 s test duration **EN 50121-3-2:2016:** Railway applications – Electromagnetic compatibility – Part 3-2: Rolling stock – Apparatus **EN 50124-1:2017:** Railway applications – Insulation coordination – Part 1: Basic requirements – Clearances and creepage distances for all electrical and electronic equipment **EN 61373:1999:** Railway applications – Rolling stock equipment – Shock and vibration tests **EN 61373:2010:** Railway applications – Rolling stock equipment – Shock and vibration tests **EN 45545-2:2020:** Railway applications – Fire protection on railway vehicles – Part 2: Requirements for fire behaviour of materials and components

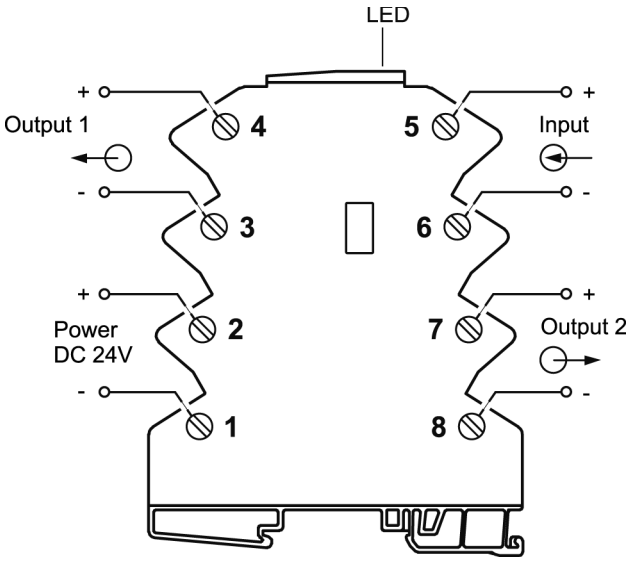
Notes and Comments

Note	For the parameterisation you need the USB service cable, LCON ZB USB, part number 815900 and the Lütze Config Tool software To program parameterizable devices, you need the software "LCON ZB USB Driver", which is available free of charge in the download area. The current versions can be found in the download area of the respective product page on the LÜTZE website.

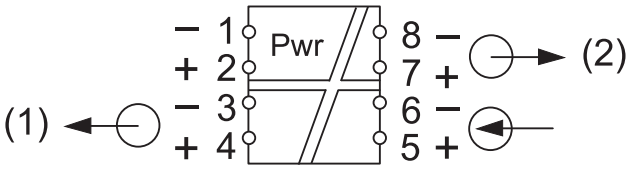
Dimensions



PIN assignment



PIN assignment



Range adjustment

S1 ● → Switch On												
Range	1	2		3	4		5	6		7		8
0 – 10V	●			●			●					
0 – 20mA		●			●			●				
4 – 20mA	●	●		●	●		●	●				
	Input			Output 1			Output 2					
Filter Off												
Filter On										●		
Output Limitation Off												
Output Limitation On												●

See instruction leaflet for details