

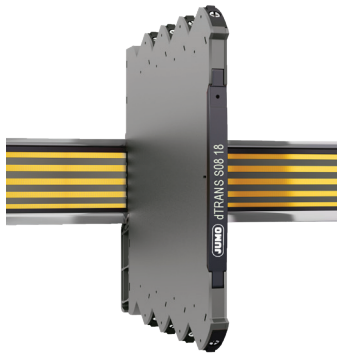
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Data Sheet 707218



JUMO dTRANS S08 18 Bipolar signal converter/splitter

707218

- Conversion of voltage and current bipolar process signals to uni-/bipolar signals
- Multiple signal ranges are selectable via DIP-switches
- Splitter function: 1 signal in and 2 signals out
- Excellent accuracy, better than 0.05 % of selected range and high output load stability



Application

- The 707218 is an isolating converter and splitter which can be used for signal conversion of standard bipolar analog process signals into two individual unipolar analog signals.
- The unit offers 4-port isolation and provides surge suppression and protects control systems from transients and noise.
- The 707218 also eliminates ground loops and can be used for measuring floating signals.
- Mounting of the 707218 can be in Safe area or in Zone 2 and Cl. 1 Div 2 area and is approved for marine applications.
- The analog output can be easily configured and programmed to be bipolar in the ranges ± 10 mA and ± 20 mA (*special setup).

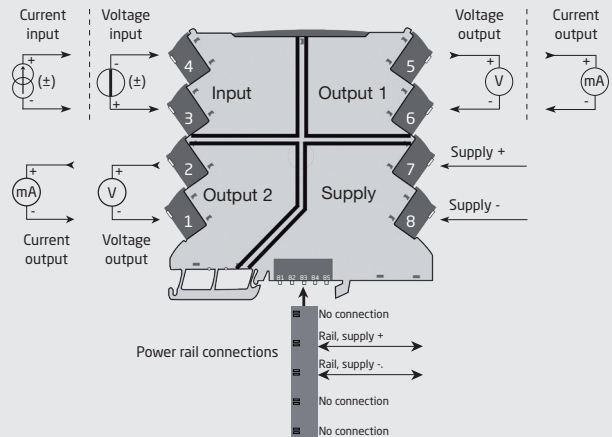
Technical characteristics

- Flexible 24 VDC ($\pm 30\%$) supply via power rail or connectors.
- Excellent conversion accuracy, better than 0.05% of selected range.
- A green front LED indicates operation status for the device.
- All terminals are protected against overvoltage and polarity error.
- Meeting the NAMUR NE21 recommendations, the 707218 ensures top measurement performance in harsh EMC environments.
- High galvanic isolation of 2.5 kVAC.
- Fast input to output response time < 7 ms / > 100 Hz – 10 Hz bandwidth damping possible via DIP-switch.
- Excellent signal/noise ratio > 60 dB.

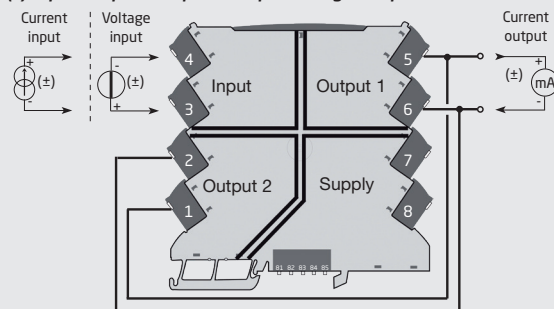
Mounting / installation / programming

- Easy configuration of factory calibrated measurement ranges via DIP-switches.
- A very low power consumption allows DIN rail mounting without the need for any air gap.
- Wide temperature operation range: $-25...+70^{\circ}\text{C}$.

Applications



(* Bipolar Input to bipolar output wiring set-up:



Safe Area or Zone 2 & Cl. 1, Div. 2, gr. A-D

Order

Type	Product name	Description	Part no./TN (order code)
707218	JUMO dTRANS S08 18	Bipolar signal converter/ splitter	00697488

Environmental Conditions

Operating temperature	-25°C to +70°C
Storage temperature.....	-40°C to +85°C
Calibration temperature.....	20...28°C
Relative humidity	< 95% RH (non-cond.)
Protection degree	IP20
Installation in.....	Pollution degree 2 & measurement / overvoltage cat. II

Mechanical specifications

Dimensions (HxWxD)	113 x 6.1 x 115 mm
Weight approx	70 g
DIN rail type.....	DIN EN 60715/35 mm
Wire size.....	0.13 x 2.5 mm ² / AWG 26...12 stranded wire
Screw terminal torque.....	0.5 Nm

Common specifications

Supply

Supply voltage	16.8...31.2 VDC
Max. required power.....	1.20 W
Max. power dissipation	0.43 W

Isolation voltage

Isolation voltage, test / working	2.5 kVAC / 300 VAC (reinforced)
Zone 2 / Div. 2	250 VAC

Response time

Response time (0...90%, 100...10%).....	< 7 ms or < 44 ms
MTBF, acc. to IEC 61709 (SN29500)	> 187 years
Signal / noise ratio	Min. 60 dB (0...100 kHz)
Programming	DIP-switches
Cut-off frequency (3 dB)	> 100 Hz or 10 Hz (selectable via DIP-switch)
Accuracy.....	< ±0.05% of span
Temperature coefficient	< ±0.01% of span / °C
EMC immunity influence.....	< ±0.5% of span
Extended EMC immunity: NAMUR NE21, A criterion, burst.....	< ±1% of span

Input specifications

Current input

Measurement range	-23...+23 mA
Programmable measurement ranges	± 10 and ± 20 mA
Input voltage drop.....	< 1 VDC @ 23 mA

Voltage input

Measurement range	-11.5...+11.5 V
Programmable ranges	±5 and ±10 V
Input resistance	≥ 1 MΩ

Output specifications

Current output

Signal range	0...23 mA
Programmable signal ranges.....	0 / 4...20 mA
Bipolar wiring and programming set-up.....	±10 and ± 20 mA
Load (@ current output)	≤ 300 Ω per channel
Load stability.....	≤ 0.002% of span / 100 Ω
Current limit	≤ 28 mA

Voltage output

Signal range	0...10 VDC
Programmable signal ranges.....	0/1...5 and 0/2...10 V
Load (@ voltage output).....	≥ 10 kΩ

of span..... = of the presently selected
range

I.S. / Ex marking

ATEX	II 3 G Ex nA IIC T4 Gc
IECEX	Ex nA IIC T4 Gc

Observed authority requirements

EMC.....	2014/30/EU
LVD.....	2014/35/EU
RoHS.....	2011/65/EU

Approvals

ATEX 2014/34/EU	DEKRA 18ATEX0007 X
IECEX	DEK 18.0006 X
DNV-GL Marine	DNVGL-CG-0339
UL.....	E201387