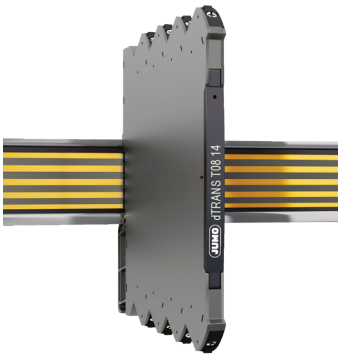
JUMO GmbH & Co. KG
Delivery address: Mackenrodtstraße 14
36039 Fulda, Germany
Postal address: 36035 Fulda, Germany
Phone: +49 661 6003-0
Fax: +49 661 6003-607
Email: mail@jumo.net
Internet: www.jumo.net

JUMO Instrument Co. Ltd.
JUMO House
Temple Bank, Riverway
Harlow, Essex CM 20 2DY, UK
Phone: +44 1279 63 55 33
Fax: +44 1279 62 50 29
Email: sales@jumo.co.uk
Internet: www.jumo.co.uk

JUMO Process Control, Inc.
6733 Myers Road
East Syracuse, NY 13057, USA
Phone: +1 315 437 5866
Fax: +1 315 437 5860
Email: info.us@jumo.net
Internet: www.jumousa.com



JUMO dTRANS T08 14
Universal transmitter

707114

– Input for RTD, TC, Ohm, potentiometer, mA and V
– Slimline housing of 6 mm
– 2-wire supply >15 V
– Output for current and voltage
– Can be supplied separately via connectors or installed on power rail profile (TN: 00697614)

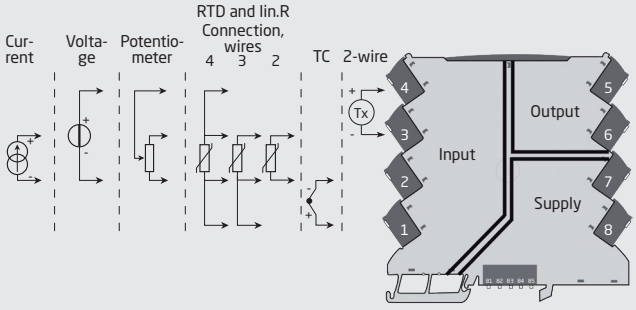
Application
- Linearized, electronic temperature measurement with RTD or TC sensor.
- Conversion of linear resistance variation to a standard analog current / voltage signal, i.e. from solenoids and butterfly valves or linear movements with attached potentiometer.
- Power supply and signal isolator for 2-wire transmitters.
- Process control with standard analog output.
- Galvanic separation of analog signals and measurement of floating signals.
- The device can be mounted in Safe area or in Zone 2 and Cl. 1 Div 2. area.

Advanced features
- When 707114 is used in combination with the Display/ programming front for dTRANS T08 14 (TN: 00697616) and Docking station for BD 08 14 (TN: 00697617), all operational parameters can be modified to suit any application.

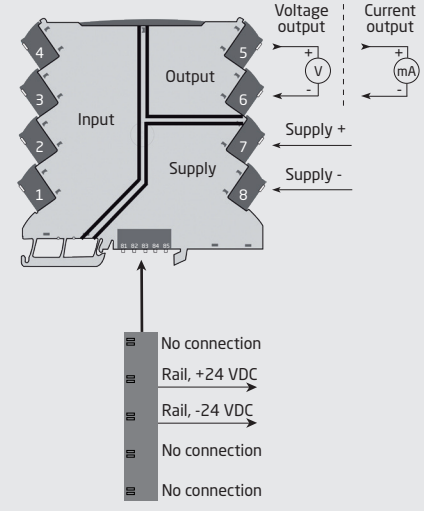
Technical characteristics
- A green / red front LED indicates normal operation and malfunction.
- 3-port 2.5 kVAC galvanic isolation.

Applications

Input signals:



Output signals and power supply:



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

Order

Type	Product name	Description	Part no./TN (order code)
707114	JUMO dTRANS T08 14	Universal transmitter	00697476

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 mm² / AWG 26...12 stranded wire
Screw terminal torque..... 0.5 Nm
Vibration ..... IEC 60068-2-6
2...25 Hz ..... ±1.6 mm
25...100 Hz ..... ±4 g

Common specifications

Supply

Supply voltage..... 16.8...31.2 VDC
Fuse..... 400 mA SB / 250 VAC
Max. required power..... 1.20 W
Internal power dissipation..... 0.4 W (typ.) / 0.65 W (max.)

Isolation voltage

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

Response time

Temperature input (0...90%, 100...10%)..... ≤ 1 s
mA / V input (0...90%, 100...10%) ..... ≤ 400 ms
Signal / noise ratio..... > 60 dB
Programming..... ConfigMate 4590
Accuracy..... Better than 0.1% of selected range
EMC immunity influence..... < ±0.5% of span
Extended EMC immunity: NAMUR
NE21, A criterion, burst..... < ±1% of span

Input specifications

RTD input

RTD type Pt10/20/50/100/200/250/300/Pt400/500/1000; Ni50/100/120/1000
Cable resistance per wire (max.)..... 50 Ω
Sensor current..... Nom. 0.2 mA
Effect of sensor cable resistance (3-/4-wire) .. < 0.002 Ω / Ω
Sensor error detection..... Yes
Short circuit detection..... < 15 Ω

Potentiometer input

Potentiometer min....max..... 10 Ω...100 kΩ

TC input

Thermocouple type..... B, E, J, K, L, N, R, S, T, U, W3, W5, LR
CJC via internally mounted sensor..... ±(2.0°C + 0.4°C * Δt)
Δt = ... Internal temp.-ambient temp.
Sensor error detection..... Yes
Sensor error current: When detecting / else... Nom. 2 µA / 0 µA

Current input

Measurement range ..... 0...23 mA
Programmable measurement ranges..... 0...20 and 4...20 mA
Input resistance ..... Nom. 20 Ω + PTC 50 Ω

Voltage input

Measurement range ..... 0...12 VDC
Programmable measurement ranges..... 0/0.2...1, 0/1...5, 0/2...10 VDC
Input resistance ..... Nom. 10 MΩ

2-wire transmitter supply ..... > 15 V / 20 mA

Output specifications

Current output

Signal range ..... 0...23 mA
Programmable signal ranges..... 0...20/4...20/20...0/20...4 mA
Load (@ current output) ..... ≤ 600 Ω
Load stability..... ≤ 0.01% of span / 100 Ω
Sensor error indication ..... 0 / 3.5 / 23 mA / none
NAMUR NE43 Upscale/Downscale..... 23 mA / 3.5 mA
Current limit ..... ≤ 28 mA

Voltage output

Signal range ..... 0...10 VDC
Programmable signal ranges..... 0/0.2...1; 0/1...5 ; 0/2...10; 1...0.2/0; 5...1/0; 10...2/0 V
Load (@ voltage output)..... ≥ 10 kΩ

of span..... = of the currently selected measurement 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

V1.00/EN/00698470 - 70711400T10Z001K000