

2-wire transmitter isolator

3186

- 1 or 2 channel 2-wire transmitter isolator
- Signal 1:1 functional range 3.5...23 mA
- Low channel voltage drop and fast response time
- Excellent accuracy
- Slimline 6 mm housing



Application

- 1:1 output loop powered isolator of 2-wire transmitter 4...20 mA signals.
- 3186 is an easy mounting DIN rail unit.
- A very competitive choice in terms of both price and technology for galvanic isolation of 2-wire transmitter signals.
- Provides surge suppression and protects control systems from transients and noise.
- 3186 eliminates ground loops and can be used for measuring floating signals.
- The device can be mounted in Safe area or in Zone 2 and Cl. 1 Div 2. area.

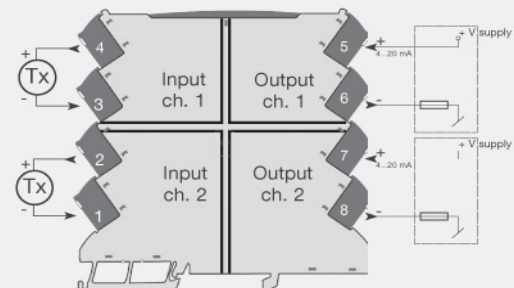
Technical characteristics

- 3186 is powered by the host loop voltage.
- Wide supply range from 6...35 V.
- Low input to output voltage drop typ. 2.5 V.
- Excellent conversion accuracy, better than 0.05% in the range 3.8...20.5 mA.
- Functional range is 3.5...23 mA which means that 3186 is NAMUR NE43 compliant.
- Inputs and outputs are floating and galvanically separated.
- High galvanic isolation of 2.5 kVAC.
- Fast response time < 5 ms.
- Excellent signal/noise ratio > 60 dB.

Mounting / installation / programming

- DIN rail mounting with up to 330 channels per meter.
- Temperature operation range is from -25...+70°C.

Connections



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

Order:

Type	Unit channels	
3186A	Single	1
	Double	2

Environmental Conditions

Specifications range.....	-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 voltage.....	6...35 VDC
Internal consumption, per channel.....	50 mW
Isolation voltage, test.....	2.5 kVAC
Isolation voltage, working.....	300 VAC/250 VAC (I.S.)
Signal / noise ratio.....	> 60 dB
Cut-off frequency (3 dB).....	100 Hz
Response time (0...90%, 100...10%).....	< 5 ms
EMC immunity influence.....	< ±0.5% of span
Extended EMC immunity: NAMUR NE 21, A criterion, burst.....	< ±1% of span

Input specifications

Available 2-wire transmitter (Tx) supply.....	3.5...32.5 V
Signal range, input to output.....	3.8...20.5 mA
Signal conversion.....	1:1
Functional range, current input.....	3.5...23 mA

Output specifications

Output loop current limitation, typ.....	24 mA
Current output overload, max.....	50 mA
*of span.....	= 4...20 mA

Approvals

EMC.....	EN 61326-1
LVD.....	EN 61010-1
ATEX.....	KEMA 10ATEX0147 X
IECEX.....	KEM 10.0068X
FM.....	3041043-C
GOST R.....	Yes
DNV Marine.....	Stand. f. Certific. No. 2.4
GL.....	V1-7-2
UL.....	UL 61010-1