

Intrinsically Safe Power supply and isolator ZS-30/1Ex for two-wire transmitters

- ✓ Universal power supply: 20...253 V AC/DC
- ✓ Full galvanic separation of circuits (IN-OUT, IN-SUPPLY, OUT-SUPPLY)
- ✓ Digital calibration of measurement chain IN-OUT
- ✓ Accuracy 0,1%
- ✓ IECEx Approval IECEx KDB 23.0003 [Ex ia Ma] I
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Application and function

The ZS-30/1Ex power supply and isolator is designed to supply **Intrinsically Safe** power to transmitters with a 4...20 mA signal in a two-wire transmission and to transform that signal through a galvanic separation circuit into one of the standard signals used in automatic control: 4...20mA, 0...20mA; 0...5mA; 0...10V, 0...5V, 1...5V, 2...10V. IN, OUT and SUPPLY circuits are **galvanic separated**.

Technical parameters

Input parameters

Supply voltage U_{IN} 22,5 V
Input signal I_{IN} 4 ÷ 20 mA

Output parameters

Output signal I_{OUT} , U_{OUT}	Load resistance R_o
4 ÷ 20 mA (standard version)	R_o 0 ÷ 500 Ω
0 ÷ 20 mA	R_o 0 ÷ 500 Ω
0 ÷ 5 mA	R_o 0 ÷ 2 k Ω
0 ÷ 5 V, 1 ÷ 5 V, 0 ÷ 10 V, 2 ÷ 10 V	R_o \geq 10 k Ω

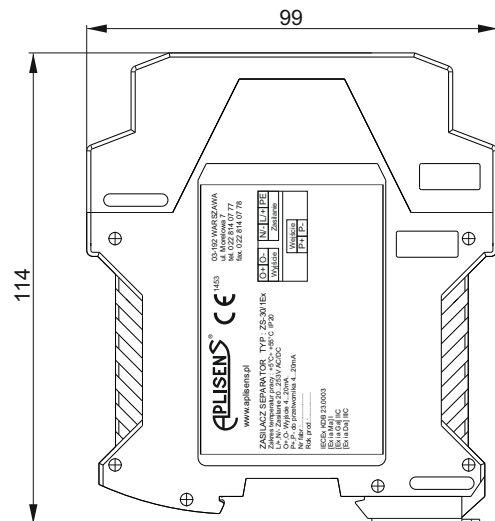
Supply parameters

Power supply 20...253 V AC/DC
Test voltage between circuits 1,5 kV, 50 Hz
Power consumption \leq 2 W
Supply current (starting) max. 0,6 A
(for U_{SUP} = 20 V DC)

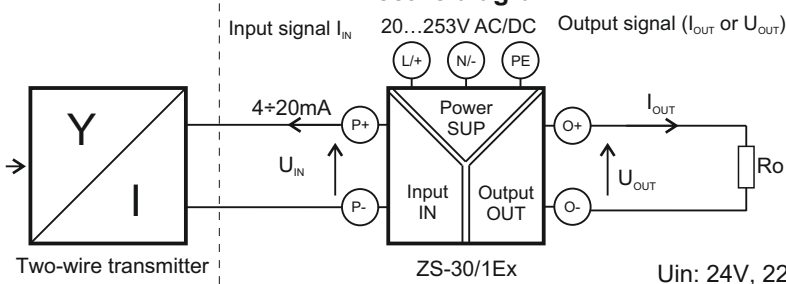
Metrological parameters

Accuracy \leq 0,1%
Effect of load resistance fluctuations \leq \pm 0,05%
Effect of temperature fluctuations \leq \pm 0,01% / $^{\circ}$ C

Ambient temperature 5...55 $^{\circ}$ C (-25...55 $^{\circ}$ C optional)
Ingress protection rating IP20
Weight < 0,15kg



Electric diagram



Ordering procedure

Standard version (I_{OUT} =4÷20 mA):
ZS-30/1Ex

Special version:
ZS-30/1Ex/ / /
↑ ↑ ↑
Output signal

U_{in} : 24V, 22V, 20V, 18V, 15V, 7.5V