LABOR – ASTER

INDUSTRIAL AUTOMATION

TWO-WIRE VOLTAGE CONVERTER TYPE U-S3

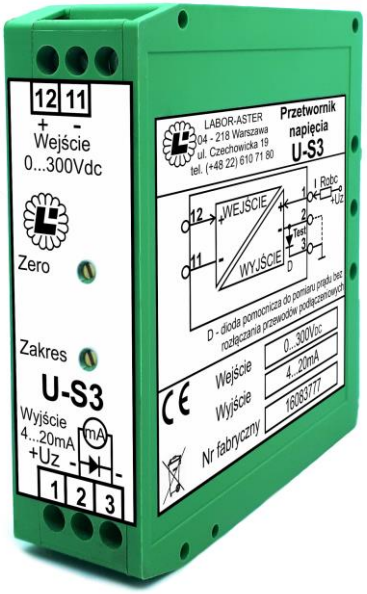
- **Measurement of current I≤5A AC/ DC and voltage U≤500V AC/DC**
- **Full galvanic separation of the circuits**

APPLICATION

The converter **U-S3** is designed to convert small increases of voltage or current AC and DC to current signal 4…20mA.

The user can calibrate the beginning and the span of the range by potentiometers (ZERO and SPAN) which are places on the front panel of the converter.

The user has the possibility to control the output current (without disconnecting the connection cables) by connecting the ammeter as in Fig.2b



BASIC TECHNICAL PARAMTERES

Input signal	voltage	-	ΔU_{min}=1mV, ΔU_{max}=500V
	current	-	ΔI_{min}=1μA,ΔI_{max}=5A ac/dc
Input resistance			
	voltage input	-	≥250kΩ for 10MΩ check U-S3-OK
	current input	-	50Ω
Output signal		-	current loop 4 ... 20mA powered by external voltage Uz
Supply voltage of the output circuit (Uz)		-	9...36V
Load resistance		-	max 1350Ω (Uz-9V)/20mA
Output current max		-	35mA
Class		-	0.2%
Nonlinearity		-	±0.03%
Temperature drift			
for ΔI≤3μA,ΔU≤3mV		-	0.02%/°C
for ΔI>3μA, ΔU>3mV		-	0.01%/°C
Time constant		-	0.2s (or according to the order from range 0.001...1s)
Galvanic separation		-	2kV, 50Hz between all circuits
Housing		-	rail 22,5mm IP40
Mounting		-	universal bar latch

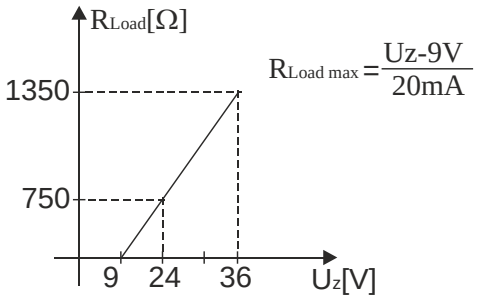


Fig.1 Method of determining the load resistance of a converter U-S3

HOW TO ORDER:

U-S3-__-__

L - rail housing
P - wall housing

Input range

Order example:

Current converter U-S3, input range 0...300Vdc
type **U-S3 – (0…300Vdc)**

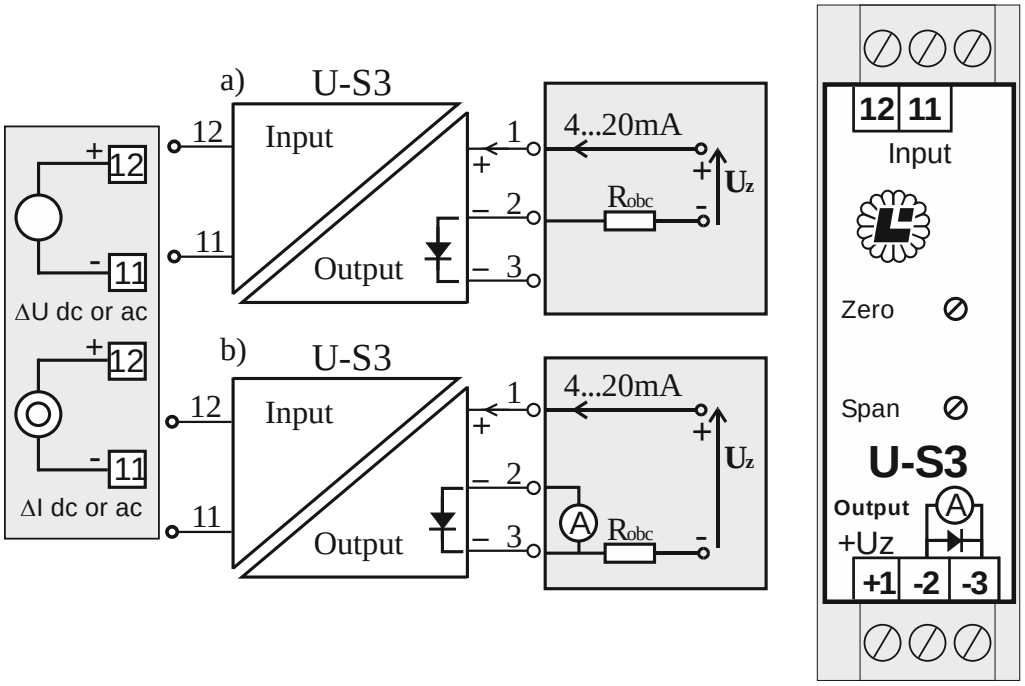


Fig.2 Functional diagram of the U-S3 converter and terminals description
a) connection of the converter without measuring the output current
b) connection of the converter with measuring the output current

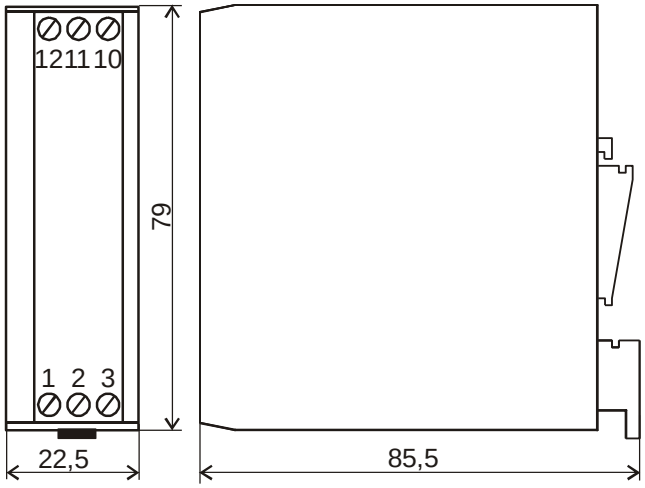


Fig.3 Dimensions of converter housing U-S3

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