

LABOR – ASTER

INDUSTRIAL AUTOMATION



Certyfikat nr QS/14/07



AC 083
QMS

TWO-WIRE CIRCUIT SEPARATOR type S3A and S3A-2 one- or two-channel

- Full galvanic separation with converting:
 $4\div 20\text{mA} \Rightarrow$ output $4\div 20\text{mA}$ current loop control
- 1 channel – rail housing, 8.5 x 91 x 62mm,
- 2 channels – rail housing, 12.5 x 99 x 114.5mm

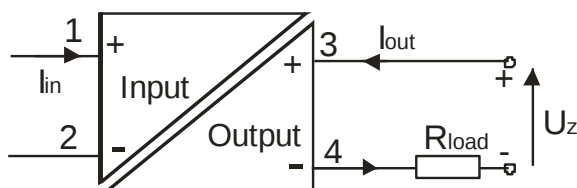
APPLICATION

Separators S3A and S3A-2 are designed for galvanic separation of input $4\div 20\text{mA}$ circuit from two-wire output $4\div 20\text{mA}$ circuit.

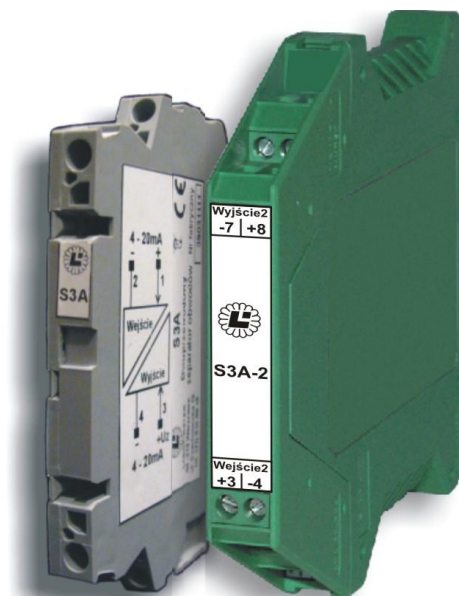
A typical application of the separators is galvanic separation of the circuits installed on the site (e.g. measurement transmitter, positioner with active $4\div 20\text{mA}$ output) from central part (controller, regulator, recorder, pointer, data acquisition system). Using of the separator allows to reduce the impact of object interferences on central part operation by eliminating the influence of different ground potentials between objects.

BASIC TECHNICAL PARAMETERS:

Input signal	- $4\div 20\text{mA}$
Input equivalent resistance	- 325Ω for 20mA for S3A-2 225Ω for 20mA for S3A
Voltage-drop on the input	- $6,5\text{ V}$ for 20mA for S3A-2 $4,5\text{ V}$ for 20mA for S3A
Output signal	- $4\div 20\text{mA}$ current loop supplied from external U_z voltage
Minimal voltage on the separator output terminals	- $7\div 34\text{ V}$
Load resistance	- max 850Ω for $U_z=24\text{V}$ $R_{\text{load}}=(U_z - 7\text{V})/20\text{mA}$ [k Ω]
Class	- 0.1 %
Nonlinearity	- $\pm 0.05\%$
Error due to load resistance changes	- $\pm 0.05\%$
Temperature drift	- $\pm 0.005\%/^{\circ}\text{C}$
Time constant	- 0.1sec or as agreed from range 0.05...1sec
Galvanic separation	- 2kV
Capacity between circuits	- < 10 pF
Housing	- IP20 on rail TS35
Operation conditions	- $-20\div 60^{\circ}\text{C}$; humidity $\leq 85\%$
Ambient atmosphere	- no dusts and aggressive gases



One-channel version in housing 8.5mm.

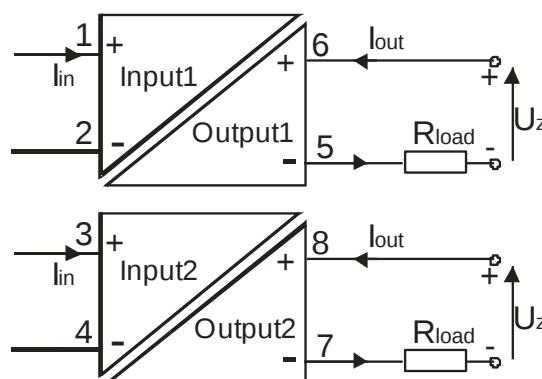


HOW TO ORDER:

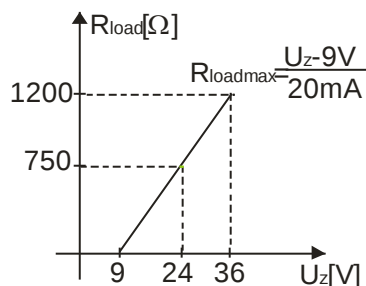
Separator in housing 8.5mm: type S3A

Separator in housing 12.5mm:

one-channel version: type S3A-2/1
two-channel version: type S3A-2/2



Two-channel version in housing 12.5mm.



Production and distribution:

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The manufacturer reserves the right to make changes to the product.

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