LABOR – ASTER

INDUSTRIAL AUTOMATION

Certyfikat nr QS/14/07

AC 083
QMS

ADJUSTABLE SEPARATOR TYPE S2Us-W

- **Rail housing 12,5mm width**
- **Input and output signal set using code switches 0÷20mA, 4÷20mA, 0÷10V, 2÷10V**
- **Ability to supply the input 4÷25mA loop with two-wire transmitter**
- **Full galvanic insulation of circuits: input, output and power supply**

APPLICATION:

Separator **S2Us-W** acts as universal separator with user-adjustable standards of input and output signals. Settings of input and output standards 0÷20mA, 4÷20mA, 0÷10V, 2÷10V are performed using two code-switches: P1, P2 placed inside the housing. A two-position switch is located on the input side and a three-position switch is located on the output side. The separator can function as a power supply-separator for two-wire converters controlling separator input (terminals 1, 3).

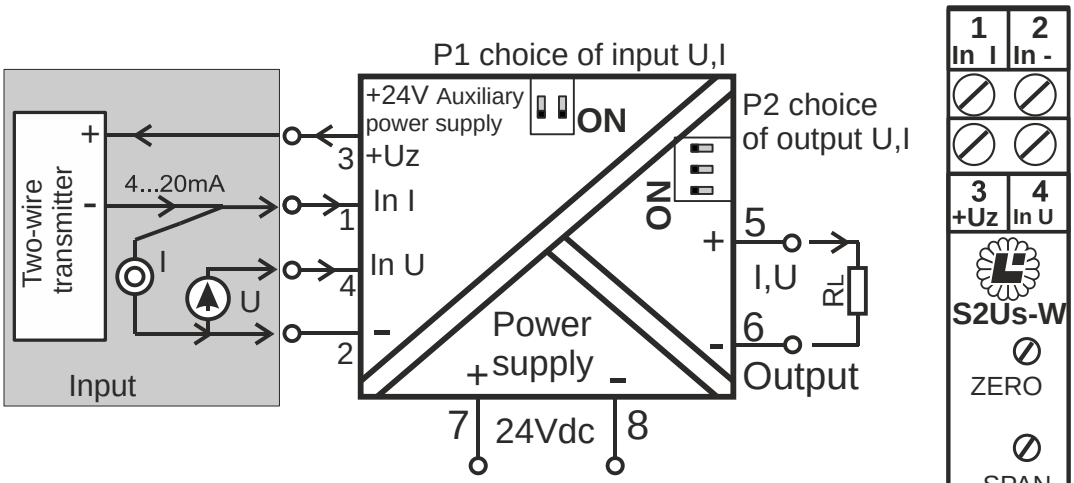
A typical application of the separator is a galvanic separation of measurement circuits installed on the object from the central unit. This reduces the impact of object interference on drivers, controllers and recorders, and ensures the safety of these devices isolating their inputs from hazards resulting from cooperation with distant signal sources (lightning, power energy, radio frequency interference, potential differences between the object and central unit). Replacement of any input signal into any output signal makes it easy to fit devices working in various standards.

Setting standards (TABELE 1):

- The input and output standard settings are made by setting the code switch levers (one set of switches on the input terminal side and one set of switches on the output terminal side) according to Table 1.
- Calibration of the beginning of the "zero" range and of the "Span" range increase is made within ±8% of the potentiometers available through the holes in the faceplate.
- On request, other input and output signals can be set.

BASIC TECHNICAL PARAMETERS:

Input signal	-	freely set standard 0÷20mA, 4÷20mA, 0÷10V, 2÷10V (or another agreed with the manufacturer)
Input resistance:	-	Input current - 50Ω
	-	Input voltage - ≥100kΩ
Input loop supply current loop 4...20mA Uz	-	24V dc
Output signal	-	freely set standard or another agreed with the manufacturer
Load resistance	-	current outputs max 750Ω
	-	voltage outputs ≥4kΩ
Supply voltage	-	21...28V dc / 60mA
Class	-	0,15%
Nonlinearity	-	±0,05%
Temperature drift	-	±0,015 % / ºC
Voltage, current or Robc changes error	-	±0,02%
Galvanic insulation	-	mutual between input, output and power supply
Insulation test voltage	-	2kV, 50Hz or equivalent
Time constant	-	0,2s or other after agreement
Rail housing:	-	width - 12.5 mm height - 99 mm depth - 114,5 mm
Protection level	-	IP40
mounting	-	on TS35 rail
Operating conditions:		
ambient temperature	-	-5...+55°C
ambient atmosphere	-	dust and corrosive gases free
Safety requirements	-	PN-EN 61010-1:2002
EMC requirements	-	PN-EN 61000-6-1 PN-EN 61000-6-3



Description of connection terminals

TABLE 1: Setting of code switches for selected input and output standards

Input range	Connector	Output range	Connector	Switch position				
				P1		P2		
				1	2	1	2	3
0...20mA	+1, -2	0...20mA	+5, -6	OFF	OFF	OFF	ON	OFF
0...20mA	+1, -2	4...20mA	+5, -6	ON	OFF	OFF	ON	OFF
0...20mA	+1, -2	0...10V	+5, -6	OFF	OFF	ON	OFF	ON
0...20mA	+1, -2	2...10V	+5, -6	ON	OFF	ON	OFF	ON
4...20mA	+1, -2	0...20mA	+5, -6	OFF	ON	OFF	ON	OFF
4...20mA	+1, -2	4...20mA	+5, -6	OFF	OFF	OFF	ON	OFF
4...20mA	+1, -2	0...10V	+5, -6	OFF	ON	ON	OFF	ON
4...20mA	+1, -2	2...10V	+5, -6	OFF	OFF	ON	OFF	ON
0...10V	+4, -2	0...20mA	+5, -6	OFF	OFF	OFF	ON	OFF
0...10V	+4, -2	4...20mA	+5, -6	ON	OFF	OFF	ON	OFF
0...10V	+4, -2	0...10V	+5, -6	OFF	OFF	ON	OFF	ON
0...10V	+4, -2	2...10V	+5, -6	ON	OFF	ON	OFF	ON
2...10V	+4, -2	0...20mA	+5, -6	OFF	ON	OFF	ON	OFF
2...10V	+4, -2	4...20mA	+5, -6	OFF	OFF	OFF	ON	OFF
2...10V	+4, -2	0...10V	+5, -6	OFF	ON	ON	OFF	ON
2...10V	+4, -2	2...10V	+5, -6	OFF	OFF	ON	OFF	ON
Two-wire converter	+3, -1	0...20mA	+5, -6	OFF	ON	OFF	ON	OFF
Two-wire converter	+3, -1	4...20mA	+5, -6	OFF	OFF	OFF	ON	OFF
Two-wire converter	+3, -1	0...10V	+5, -6	OFF	ON	ON	OFF	ON
Two-wire converter	+3, -1	2...10V	+5, -6	OFF	OFF	ON	OFF	ON

HOW TO ORDER: Adjustable separator with signalling type S2Us-W

Production and distribution: **LABOR – ASTER**
04 – 218 Warszawa ul. Czechowicka 19
tel. +48 22 610 71 80, +48 22 610 89 45, fax. +48 22 610 89 48.
e-mail: biuro@labor-automatyka.pl labor@labor-automatyka.pl ; **http://** www.labor-automatyka.pl
 Version 3/2017