



LABOR – ASTER

INDUSTRIAL AUTOMATION



AC 083
QMS

FREQUENCY DUPLICATOR

- two outputs type F-S2-L2p
- three outputs type F-S2-L3p
- four outputs type F-S2-L4p

- Full separation between input, output and power supply circuits
- Bistate output type OC

APPLICATION

Converter **F-S2-L2p** is designed to be duplicator, repeater of frequency pulse strings. Pulses from the input are converted to two separated output pulses strings.

Converters **F-S2-L3p**, **F-S2-L4p** duplicate the input pulses from the input respectively to three or four bistate outputs. Bistate output signals are 0/24V or potential-free outputs type OC according to the order.

Typical application of the converter is cooperation with::

- angular-impulse road transducers,
- proximity sensors,
- vibration sensors,
- turbine and vortex type flowmeters,
- flowmeters with pulse output signal.

After agreement the input circuit can be adjusted to small or high amplitudes of the input signals.

BASIC TECHNICAL PARAMETERS

Input pulses:

NAMUR standard sensors	-	1.2/2.1mA; 8.2V
other three-wire sensors	-	sensors supply max 18V / 25mA
potential-free contacts	-	8.2 V/ 1 k Ω
PNP, NPN (OC)	-	input 8.2V/1k Ω
voltage pulses	-	1mV...100V
current pulses	-	10 μ A...5A

Frequency band

1Hz...10kHz

Input resistance:

voltage input	-	100k Ω ($U \geq 50$ mV)
		10k Ω ($U < 50$ mV)
current input	-	50 Ω



Outputs

bistate 0/24V	-	Rload > 10k Ω
type OC	-	30V / 100 mA

Power supply

- 21...28Vdc, 80mA

Galvanic separation

- between all circuits

isolation test voltage - 2 kV

Rail housing

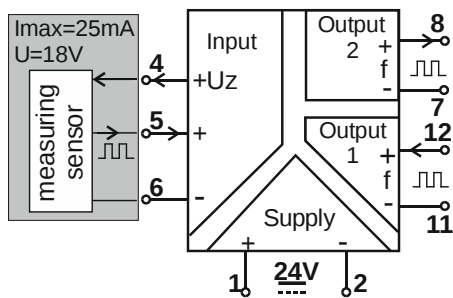
F-S2-L2p - Width : 25mm
Height : 79mm
Depth : 74mm

F-S2-L3p, F-S2-L4p - Width: 40mm
Height: 79mm
Depth: 74mm

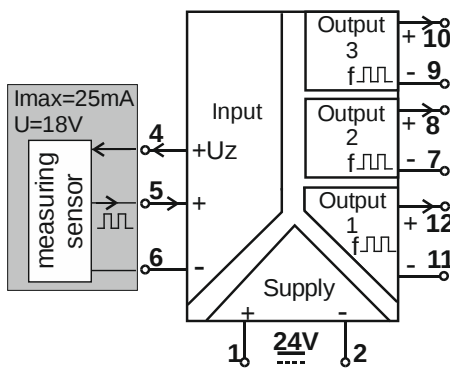
Mounting - Universal rail clamp

Working conditions:

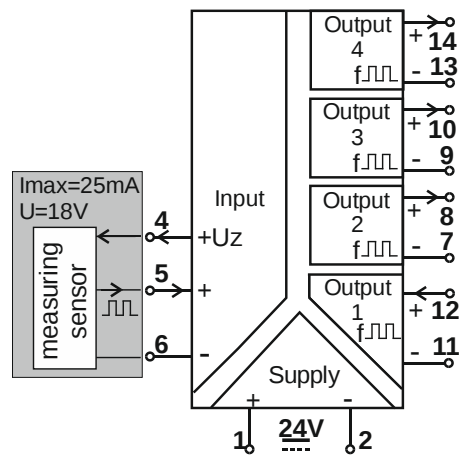
- Ambient temperature - storing: -30°C...+60°C
- Ambient temperature - working: -25°C...+60°C
- Relative humidity: max 90%, no water vapor condensation
- Ambient atmosphere: free from dust and aggressive fumes



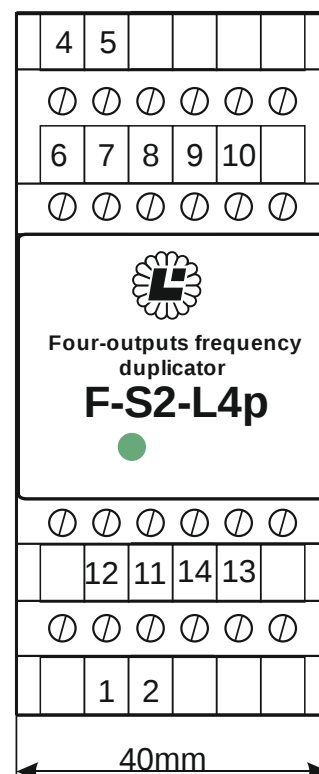
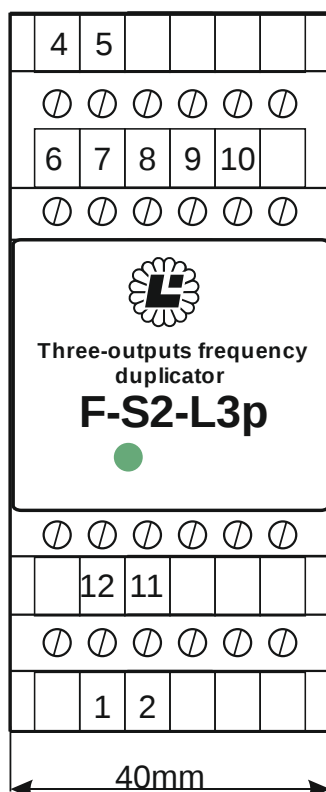
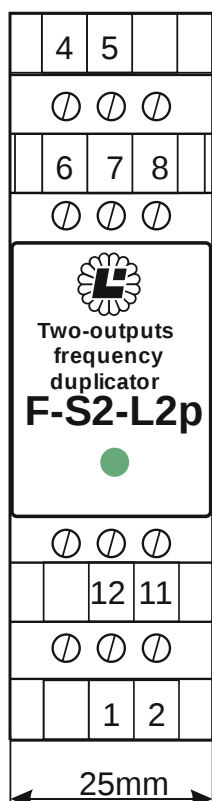
Two bistate outputs



Three bistate outputs



Four bistate outputs



Note: please describe in details frequency range, amplitude, shape of the input pulses (terminals 4-5-6) as well as amplitude of two, three or four output pulses string or declare them to be type OC. Typically OC outputs operates in phase with input signal (e.g. OC switch connector to terminals 4-5 of the converter – closed input switch gives closed OC outputs of the converter).

HOW TO ORDER F-S2-
version -L2p, -L3p, -L4p

Parameters of the input signal - shape, amplitude, frequency range (FLOWER , FUPPER) shall be given in description form or a drawing.

Specify type of outputs: voltage square wave (specify amplitude e.g. 0/24V) or type OC

Order example: frequency duplicator, two outputs type F-S2-L2p
supply 24Vdc, lower frequency 30Hz, upper frequency 1000Hz,
amplitude peak-peak of the input square wave 2V, both outputs 0/24V.

Production and distribution:

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

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