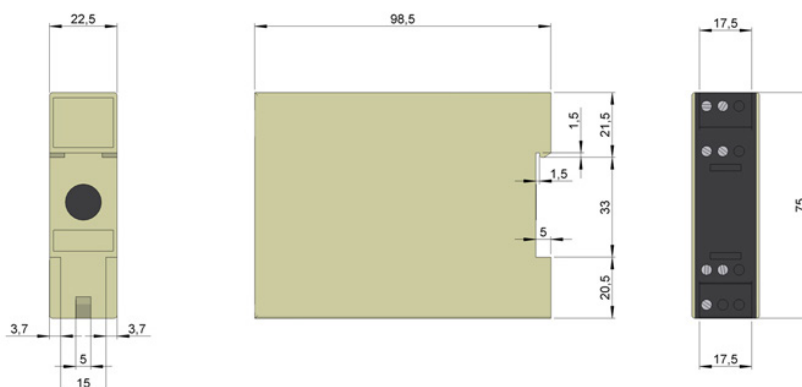




90.8600

ELECTRONIC DISCRIMINATOR FOR ENCODERS

- A/B signal discriminator
- Opto-Isolated Push-Pull (HTL) Inputs
- Output Push-Pull (HTL)
- Low consumption 70mA (without load)
- Power supply 10..24v
- Protection class IP20
- Rapid assembly on a DIN rail



MECHANICAL SPECIFICATIONS

Input channels	A/B
Input signal type	Push-Pull
Input signal level	10..24v
Frequency	200 Khz
Passive filter	250 Khz
Phase displacement of input signal	90 ° ±25%
Output channels	A/B
Output signal type	Push-Pull
Output signal level	10..24v
Intensity of the outgoing load	30 mA per channel
Power supply	10..24v
Intern consumption	70 mA without load
Encoder power supply output	10..24v
Connection type	Pitch of the connection strip screw 5,08
Max. conductor sections	Max 2,5 mm ²
Protection against dust and splashes	IP20
Relative humidity	85%
Operating temperature range	-10°C to +70°C
Assembly	DIN Rail in 50022
Weight	100 g
Housing	Grey polycarbonate UL94

90.8600

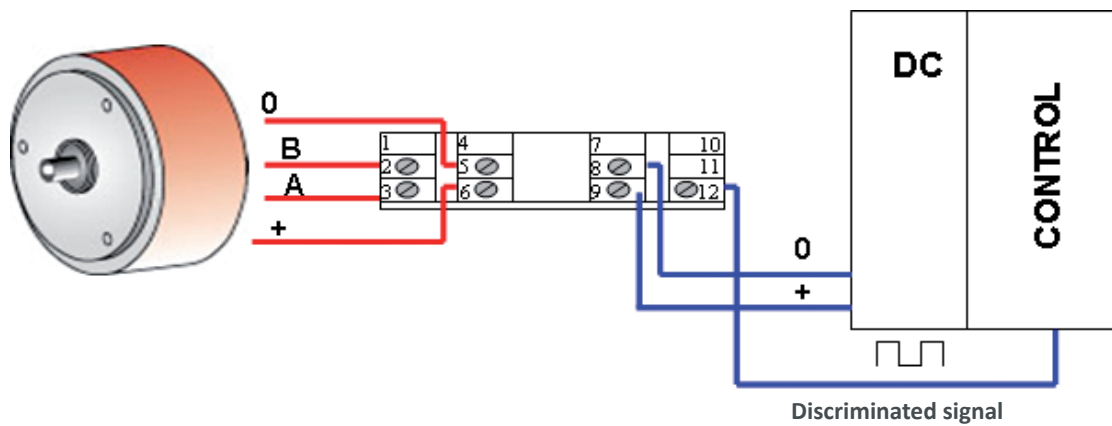
ELECTRONIC DISCRIMINATOR FOR ENCODERS

MODULE DESCRIPTION

This digital discriminator takes advantage of the two encoder A and B channels, in order to refuse the possible noise or rebounds of the encoder. According to the direction in which the encoder turns, the discriminator captures one of the two signals (A or B), which will be the main signal and the other one will be the validation signal. In this manner, there will always be a margin of

90 degrees in order to absorb and eliminate all of the rebounds and noises that may appear on the main signal. In this manner, if the encoder turns in one direction, the output signal will be A, and if it turns in the other direction, the output signal will be B.

CONNECTION DIAGRAM



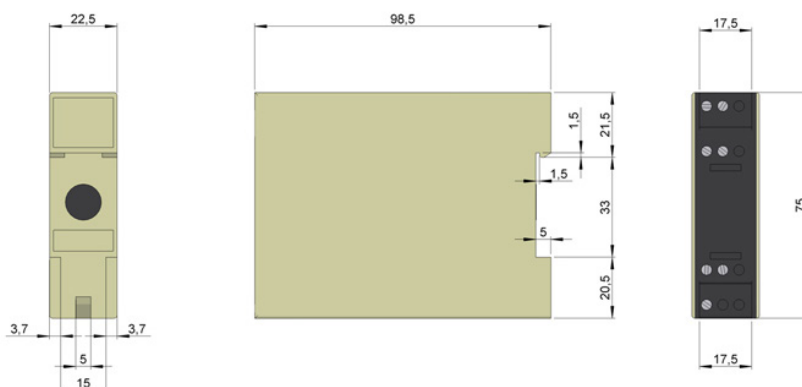
NC	1	NC	7
Input channel B encoder	2	0 V	8
Input channel A encoder	3	Power supply Encoder +V	9
NC	4	NC	10
0 V Encoder	5	NC	11
Power supply Encoder +V	6	Anti-dither output signal	12



90.8601

DIRECTION DETECTOR MODULE FOR ENCODERS

- Rotational direction discriminator
- Input A and B Push-pull (HTL) opto-isolated
- Output A, B and direction Push-pull (HTL)
- Low consumption 70mA (without load)
- Power supply 10..24v
- Protection class IP20
- Rapid assembly on a DIN rail



MECHANICAL SPECIFICATIONS

Input channels	A/B
Input signal type	Push-Pull
Input signal level	10..24v
Frequency	200 KHz
Passive filter	250 KHz
Phase displacement of input signal	90 ° ±25%
Output channels	A/B/Direction
Output signal type	Push-Pull
Output signal level	10..24v
Output load intensity	30 mA per channel
Power supply	10..24v
Intern consumption	70 mA without load
Encoder power supply output	10..24v
Connection type	Pitch of the connection strip screw 5,08
Max. conductor sections	Max 2,5mm ²
Protection against dust and splashes	IP20
Relative humidity	85%
Operating temperature range	-10°C to +70°C
Assembly	DIN Rail in 50022
Weight	100 g
Housing	Grey polycarbonate UL94

90.8601

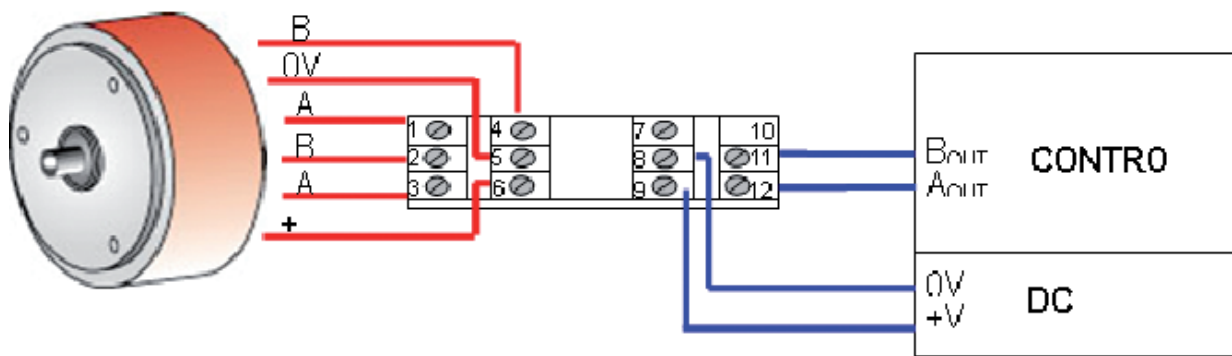
DIRECTION DETECTOR MODULE FOR ENCODERS

MODULE DESCRIPTION

Especially designed module for applications where automatic up/down inputs are lacking. The digital direction detector takes advantage of the two channels of encoder A and B for generating a DIR output signal. According to the direction in which the encoder turns, channel A will advance by 90° to B or vice versa. In the first case, the DIR output will be a 0. In the second case, where chan-

nel B advances on channel A, the DIR output will be a 1. Apart from the DIR output, the A and B input signals are digitalised and regenerated at the Aout and Bout respectively. The output driver for the three signals (Aout, Bout and DIR) is a 10-24V Push-Pull.

CONNECTION DIAGRAM



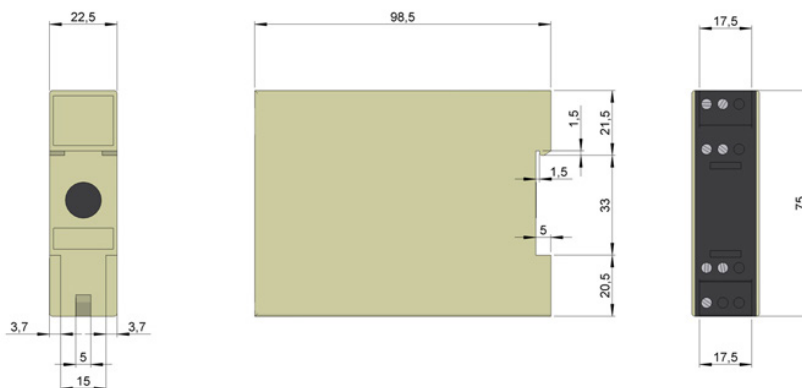
NC	1	Output DIR	7
Input channel B encoder	2	0 V	8
Input channel A encoder	3	Power supply Encoder +V	9
NC	4	NC	10
0 V Encoder	5	Output Bout	11
Power supply Encoder +V	6	Output Aout	12



90.8602

DIFFERENTIAL SIGNALS CONVERTOR FOR ENCODERS

- Differential signals convertor A/B
- A/-A and B/-B differential Push-Pull Input
- A/B Push-Pull Output
- Low consumption 70mA (without load)
- Power supply 10..24v
- Protection class IP20
- Rapid assembly on a DIN rail



MECHANICAL SPECIFICATIONS

Input channels	Differential A/B
Input signal type	Differential Push-Pull
Input signal level	10..24v
Frequency	200 KHz
Passive filter	250 KHz
Phase displacement of input signal	90 ° ±25%
Output channels	A/B/Direction
Output signal type	Push-Pull
Output signal level	10..24v
Output load intensity	30 mA per channel
Power supply	10..24v
Intern consumption	70 mA without load
Encoder power supply output	10..24v
Connection type	Pitch of the connection strip screw 5,08
Max. conductor sections	Max 2,5mm ²
Protection against dust and splashes	IP20
Relative humidity	85%
Operating temperature range	-10°C to +70°C
Assembly	DIN Rail in 50022
Weight	100 g
Housing	Grey polycarbonate UL94

90.8602

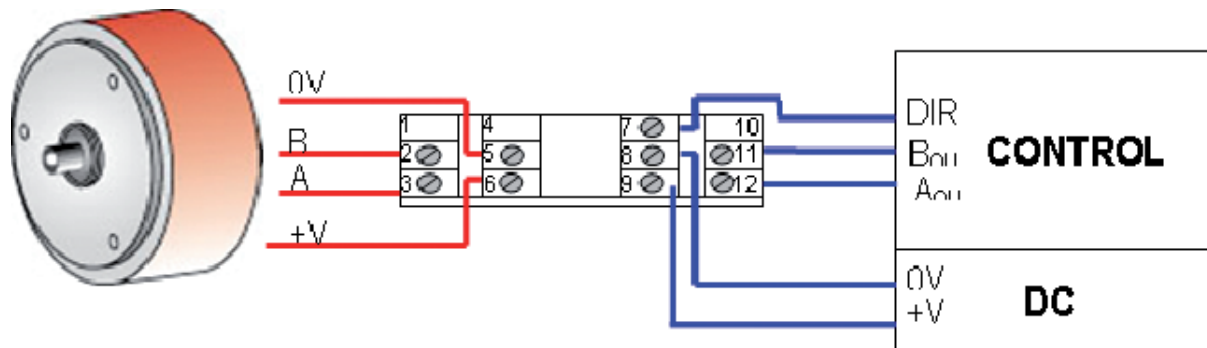
DIFFERENTIAL SIGNALS CONVERTOR FOR ENCODERS

MODULE DESCRIPTION

This converter takes advantage of the differential signals referring to each channel (A/An yB/Bn) of the encoder for generating two outputs, A and B. Each one of these outputs will be the result of the A-An and B-Bn operation respectively, modifying the negative levels to 0 volts. Furthermore, the inputs have a 259 KHz filter for high frequencies in order to absorb noise. The output driver for the two signals (Aout, Bout)

is a 10-24V Push-Pull. This system is very useful when you want to have quality signals (A,B) in environments with high electromagnetic interference and wiring distances, but at the same time you want to save on control inputs.

CONNECTION DIAGRAM



Input channels An Encoder	1	NC	7
Input channel B encoder	2	0 V	8
Input channel A encoder	3	Power supply Encoder +V (10/24 Vdc)	9
Input channels An Encoder	4	NC	10
0 V Encoder	5	Output signal Bout	11
Power supply Encoder +V	6	Output signal Aout	12