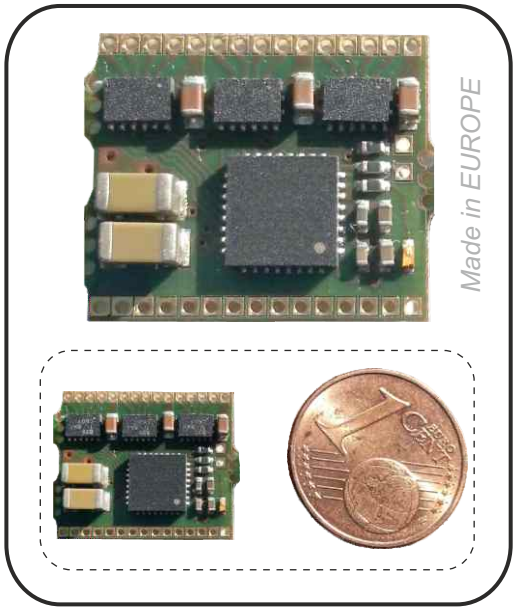
DATA SHEET

Universal Nano 01

Art.no. **72335**

With this module you can realise small scale models with a lot of special functions, complete lighting, flasher, indicator of direction, all-around lights, multiple motors, servos and sound. Dedicated inputs for feedback of position are implemented too, e.g. for detecting the endposition of a loading ramp or crane arm, to avoid mechanical destruction.
To minimize the need of input pins the module decodes serial data from the receiver.



Depending of the configuration there are availabe up to 6 DC motors, 12 short circuit proof power outputs , 9 logic level in- and outputs for driving small LEDs or detection of position. With a USB adapter, connected to a Windows PC, the settings can be made very comfortable in wide ranges.

TECHNICAL SPECIFICATIONS	
Dimensions	15 x 13,4 x 3 mm
Weight	0,9 gram
Power supply	3-10V DC (1-2S LIPO)
Current	the whole module delivers up to 3A
Supported serial protocols	SBUS 16 Kanal (FRSKY), Deltang (7,9,18 Kanal), SRXL Multiplex (12/16 Kanal)
Motor drivers	up to 6, 1A peak, 0,5A continuous current
Frequency motordrivers	100 HZ to 24 kHZ, each motor independently adjustable
Power outputs	short circuit proof, 1 A peak, 0,5 A continuous current
Logic level outputs	9, up to 12mA (LEDs)
Logic level inputs	9
Sound	beeper, 2 selectable sirens and horns

The status of configaration at delivery is documented on the following pages. As input signal, the Deltang serial protocol (not serial PPM) is selected.
Because of the small size and pins with a pitch of 1mm, a low power soldering iron with small smd head and experience in soldering is recommended.

— — — — — — — — — »»»

Alterations and errors excepted / Status January 2021 / Christian Reply©

SOL-EXPERT group
Abt. 1zu87modellbau.de
Geschäftsführer: Christian Repky

Mehlisstrasse 19
88255 Baindt
Tel.: 07502 - 941150

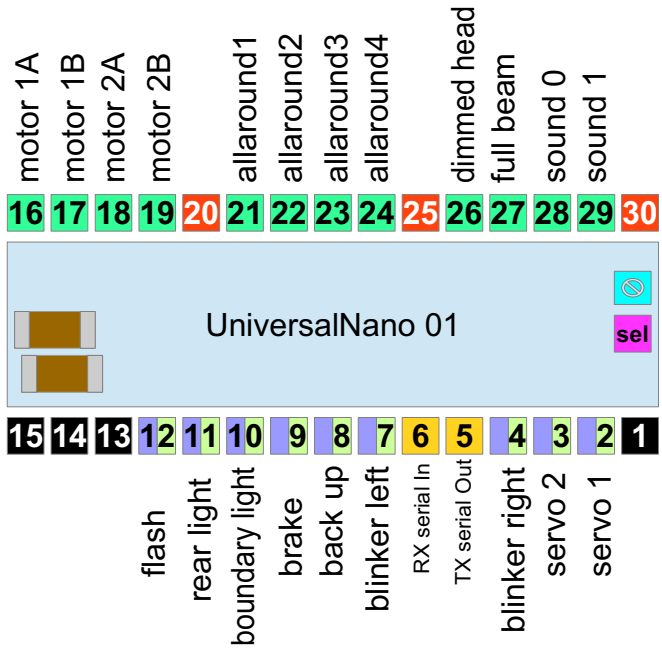
Fax: 07502 - 94115-99
info@sol-expert-group.de
www.sol-expert-group.de

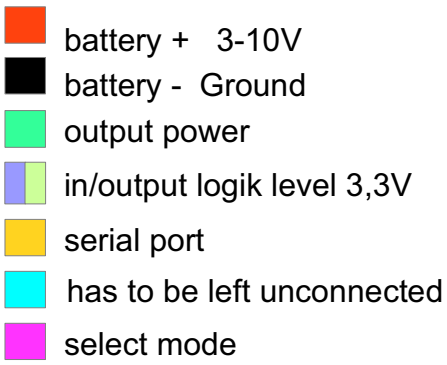
DATA SHEET

Universal Nano 01

Art.no. **72335**

CONFIGURATION AT DELIVERY





FUNCTION	PIN	CHANNEL	CONNECTION	COMMENT
Motor 1	16,17	1	1 A peak	Prop. for- , backward
Motor 2	18,19	3	1 A peak	Prop. for- , backward
Servo 1	2	2	PPM Output	
Servo 2	3	6	PPM Output	
All around 1	21	4		long right
All around 2	22	4		long right
All around 3	23	4		long right
All around 4	24	4		long right
Blinker right	4	4		short right
Blinker left	7	4		short left
Warning lights	4,7	4		long left
Back up light	8	1		Motor 1
Brake light	9	1		Motor 1
Boundary light	10	5		long left / right
Dimmed head light	27	5		long left / right
Full beam light	26	5		long left / right
Rear light	11	5		long left / right
Siren	28,29	5		short left
Horn	28,29	7		left
Beeper	28,29	1		Motor 1
Flash	12	5		short right

Alterations and errors excepted / Status January 2021 / Christian Reply©

SOL-EXPERT group
Abt. 1zu87modellbau.de
Geschäftsführer: Christian Repky

Mehlisstrasse 19
88255 Baindt
Tel.: 07502 - 941150

Fax: 07502 - 94115-99
info@sol-expert-group.de
www.sol-expert-group.de

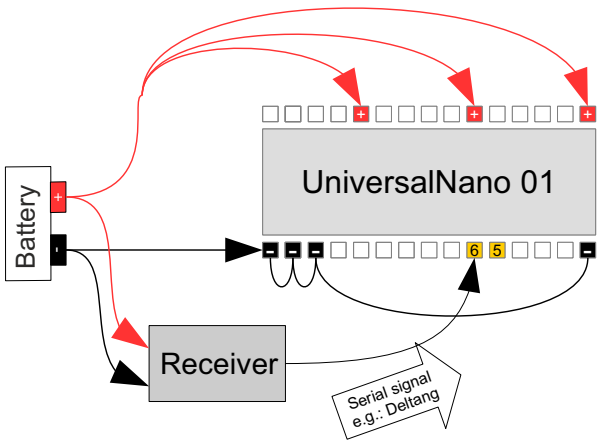
DATA SHEET

Universal Nano 01

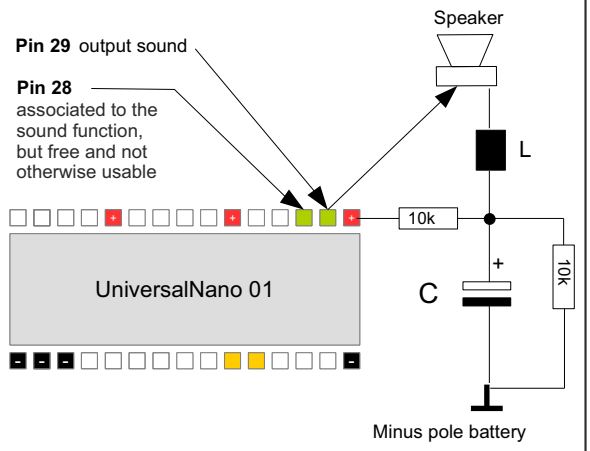
Art.no. **72335**

At delivery the Deltang serial protocol (not serial PPM) is selected. Deltang serial 7,9 and 18 channel protocol is supported. The power outputs deliver up to 1A peak and 0,5 A continuous current. The logic level pins, selected as logic inputs are designed only for connection to ground (minus of battery), never connect them to a higher voltage than 3,3V. The logic level pins selected as output deliver up to 12mA @ 3,3V 270 Ohm resistors are implemented on the print. The sum of all currents must not exceed 3A ! The supply voltage is 3-10V DC, 1-2S LIPO. With the USB adapter, which is available separately all settings can be changed in wide ranges. There are many different USB adapters on the market, you have to use one with a Silabs Chip inside. Ask your dealer.

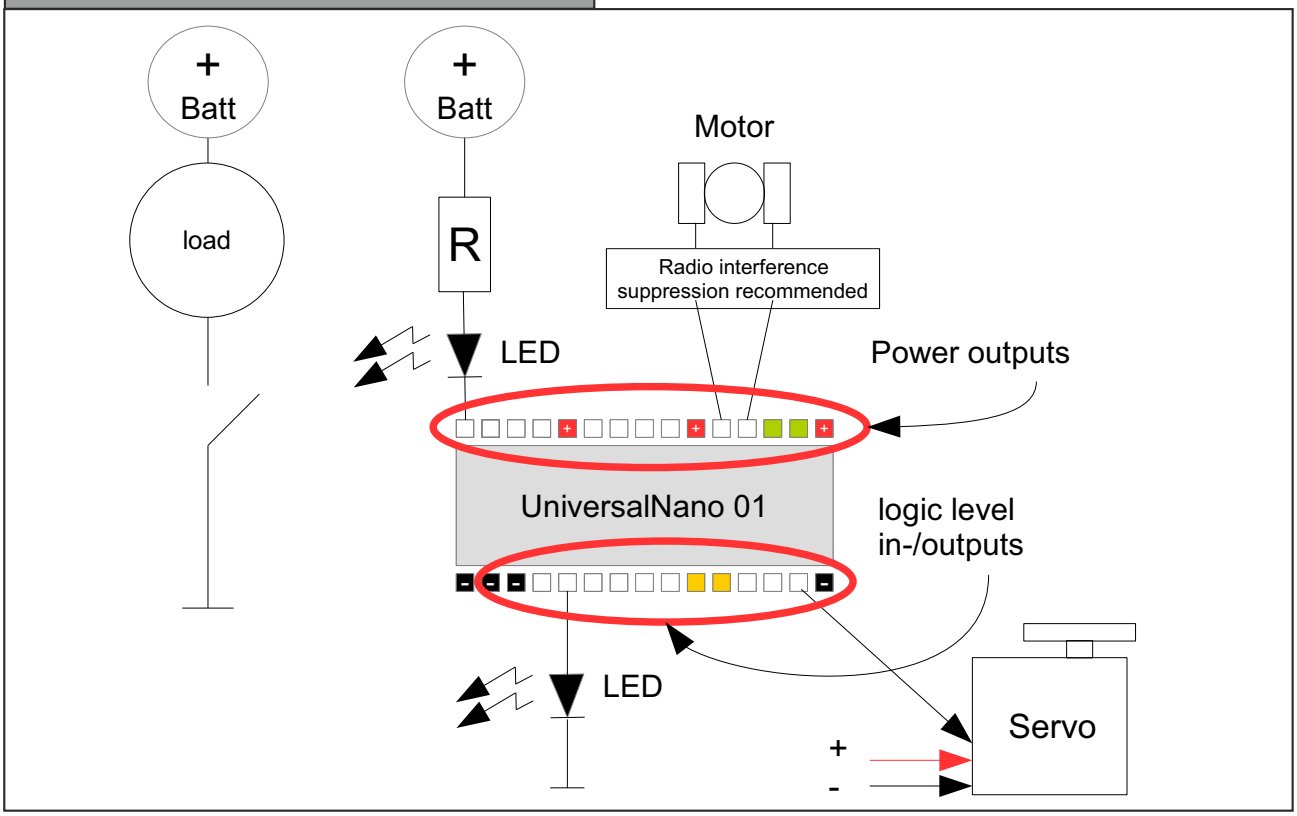
Connection diagram of the receiver with serial output:



Connection diagram speaker (8 ohm)



Connection motors, LEDs and servos:



Alterations and errors excepted / Status January 2021 / Christian Reply©

SOL-EXPERT group
Abt. 1zu87modellbau.de
Geschäftsführer: Christian Repky

Mehlisstrasse 19
88255 Baindt
Tel.: 07502 - 941150

Fax: 07502 - 94115-99
info@sol-expert-group.de
www.sol-expert-group.de