

Nano-magna



The Nano-magna is our largest joystick transmitter, which is particularly suitable for complex applications. Maximum number of control elements possible. Low weight despite the size.

> Bedienelemente

Joysticks	<ul style="list-style-type: none"> – Up to 8 single-axis (MSA1)* – Up to 4 dual-axis (MSA2)* – Up to 2 three-axis (MSA3)*
Joystick options	<ul style="list-style-type: none"> – Stepped travel activation – Embedded push button (MSA2) – Travel limiting gates (MSA2)
Digital on/off switch	Up to 39 on/off functions available via toggle switches, push buttons, rotary switches, key switch, etc.*
Additional analog functions	Up to 4 analog devices such as potentiometers
Cable control interface	1 x CAN I/O for machine control and feedback

* Consult NBB for available combinations.

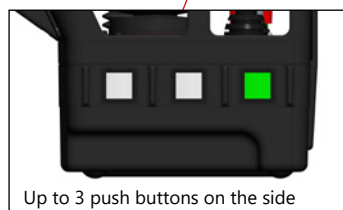
Additional protectors (optional)



4.3 inch TFT colour display (customer-specific programming)

Compact, ergonomic housing

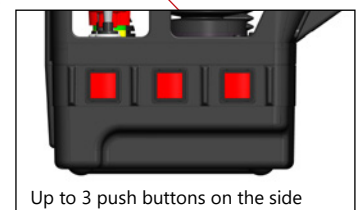
Push buttons, rotary switches, potentiometers, toggle switches, key switch, etc. (different combinations possible)



Up to 3 push buttons on the side



Two NiMH batteries (7.2VDC/2400mAh)



Up to 3 push buttons on the side

> Technology



SMJ



Proximity Detection



Teach-In function



Multi-user system



NBB battery system



LBT frequency search



Data feedback



Inclination sensor

Technical data

> Technical information

Frequency range	419 MHz, 429 MHz, 434 MHz, 868 MHz, 915 MHz, (2.4 GHz) (depending on customer requirements and country-specific regulations)
RF power	≤ 1 mW, ≤ 10 mW, ≤ 25 mW (depending on frequency range and country-specific regulations)
Typical working range	≤ 100 m (depending on environmental conditions)
Frequency channel search, automatic	LBT-Modus (listen before talk) (depending on country and function configuration)
Antenna	Integrated
Typical response time of the control commands	Approx. 20 ms (SubGHz) / 5 ms (2.4 GHz)
LF modulation method	FSK/GFSK
Baud rate (depending on customer requirements)	9600 Baud (Bit/sec.) at SubGHz 250 k at 2.4 GHz
Ø Current consumption (depending on the expansion level)	– With LED 7-segment display: approx. 140 mA – With LCD display: approx. 250 mA
Prewarning time „Battery empty“	Approx. 15 minutes
Acoustic response	Integrated buzzer, customized setting
LCD/TFT display	Optional: 4.3 inch graphic TFT color display (480 x 272 px) with customized design
Energy saving function (stand by)	Standard: after 60 min. Optional: setting according to customer requirements (continuous operation possible)

> Machine data

Ambient operating temperature	-20°C up to +70°C
Weight	3500 g
Dimensions (L x W x H)	354 mm x 229 mm x 141 mm
Case material	Impact resistant glass fiber reinforced polyamide
Status display (7-segment, depending on the configuration)	1x (2-digit)

> Equipment safety

CE certification	Yes
IP-Protection class	IP65
Data security	Addressing of each transmitter by unique bit combination
EMERGENCY STOP or STOP function	Yes (sending stop telegrams for 2 sec.)

> Power supply

Power supply	NiMH battery (7.2VDC/2400mAh), pluggable
Operating time	Up to 10 hours
Loading form	– Externally, via a separate charger – Optional: via additionally built-in CAN bus connector with integrated battery charging functionality
Automatic battery compartment switching	Yes
Available for (UE)	230VAC, 110VAC, 12/24VDC
Optional plug shape	EU, USA, JP, GB, AU