

Nano-magna Ex

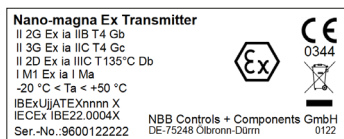
II 2G Ex ia IIB T4 Gb/II 3G Ex ia IIC T4 Gc/II 2D Ex ia IIIC T135°C Db/I M1 Ex ia I Ma



The Nano-magna Ex radio transmitter has been developed and certified in accordance with the European standards EN 60079-0 and EN 60079-11 in compliance with the European Directive 2014/34/EU for use in areas with potentially explosive atmospheres.

Classification

	2G Combustible gas, mist or liquid may occasionally occur.
	3G Combustible gas, mist or liquid can normally not occur or only for a short time.
	2D Combustible dust may occasionally occur.
	3D Combustible dust cannot normally occur or can only occur for a short time.
	M1 Methane and coal dust can occur constantly.
Gas groups	I Methane
	IIA Propane
	IIB Ethylene
	IIC Hydrogen
Dust groups	IIIA Combustible flyings
	IIIB non-conductive combustible dust
	IIIC Conductive combustible dust
Temperature class (Surface temperature)	T1 400°C
	T2 300°C
	T3 200°C
	T4 135°C



The radio transmitter may be used in potentially explosive atmospheres as specified on the type plate. (Example type plate)



Illustration contains optional equipment.

> Technology



SMJ



Teach-in function



Multi-user system



NBB battery system



LBT frequency search



Data feedback



Inclination sensor



IECEx/ATEX

Technical data



Technical information

Frequency range	429 MHz, 434 MHz, 868 MHz, 915 MHz, 2.4 GHz (depending on customer requirements and country-specific regulations)
RF power	≤ 10 mW
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. 50 ms
LF modulation method	FSK/GFSK (SubGHz)/O-QPSK (2.4 GHz)
Datarate	9.600 Baud (Bit/sec.) at SubGHz/250 k at 2.4 GHz
Ø Current consumption (depending on the expansion level)	Approx. 160 mA (with LCD)
Prewarning time „Battery empty“	Approx. 15 minutes
Acoustic response	–
LCD/TFT display	Optional: 4.3 inch graphic TFT color display (480 x 272 px), customized illustration possible
Energy saving function (Standby)	Standard: after 60 min. Optional: Setting according to customer requirements (continuous operation possible)

Machine data

Ambient operating temperature	-20 °C up to +50 °C
Weight	2.900 g
Dimensions (L x W x H)	354 mm x 229 mm x 170 mm
Case material	Glass fiber reinforced polyamide (electrically conductive)
Status display (7-segment, depending on the configuration)	1x (2-digit)

Equipment safety

CE certification	Yes
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	2x NiMH Ex-batteries (7.2 VDC / 1,800 mAh), pluggable
Operating time	Up to 12 hours per battery
Loading form	Externally, via a separate charger
Automatic battery compartment switching	Yes
Charger available for (UE)	110 VAC – 230 VAC, 12/24 VDC
Plug form AC (adapter set)	EU, USA / JP, UK, AU
Plug form DC	Car charger plug