

Tailored Solutions

for Joystick Safety Radio Remote Controls



About ABITRON

We at ABITRON aim to make the machine operation more efficient, safer and more economic with our versatile and high quality safety radio remote controls. The wishes and demands of our customers are our top level priority. They challenge us und provide us with an unlimited potential for innovation. We strive to support our customers at the highest possible technical level.

Our team of employees has been active in the R&D, production, sales and service of safety radio remote controls for up to over 30 years. Every year, thousands of safety radio remote controls leave our factories. Every single one of our products benefits from our many years of industry experience and comprehensive specialist knowhow. The ABITRON locations in Austria and Germany are characterized by excellent qualified personnel and latest technologies. In addition, the facility in Germany has many years of experience in explosion-proof safety radio remote controls, which are developed and manufactured in Langquaid.

The use of ABITRON safety radio remote controls covers worldwide a variety of applications – from wireless controls for construction cranes, crushers, industrial cranes to construction machinery, loading cranes, municipal vehicles ... Furthermore, our specialised staff is able to accommodate to your requirements and design the safety radio remote control tailor-made to your needs.

Safety, reliability, and ongoing further development form the cornerstones of our quality policy. Every one of our employees knows and supports our single-minded focus on quality, which is further reinforced by having 100% of all products quality-tested. Our products are examined and certified by the latest European and international safety standards.



Industry



Hydraulics



Construction



Specialist Vehicles



EX / ATEX



Tailored Solutions



Tailored Solutions



At our production locations in Germany and Austria, we would like to implement your unique requirements, regardless if you buy 1 system or 500 systems. Our technically highly qualified personnel works together with you to develop the technically and economically best solution for your application!

ABITRON Austria GmbH, Altheim, Austria

Our experience with safety radio remote controls dates back to 2006. Until 2014 we were a partner of the Hetric group with our location in Altheim. In 2014, we started together with ABITRON Germany GmbH as a completely independent manufacturer for radio remote controls. At our location in Austria we not only take over the production of standard systems and customised radio remote controls, but also sales and service in the Central and Eastern European region. Our sales and service efforts are supported by our distribution partner Hydronic Handelsges.m.b.H, and their own authorised partners.

ABITRON Germany GmbH, Langquaid, Germany

The plant in Langquaid has been active in the development and production of safety radio remote controls for over 30 years. This location, where Hetric and the whole group first started under Max Heckl, is characterised by excellent qualified personnel and up-to-date technology. In 2014, we started together with ABITRON Austria GmbH as a completely independent manufacturer for radio remote controls. In addition to standard and customised radio remote controls, we manufacture and develop explosion-proof radio remote controls in Langquaid. The German office not only provides service to local customers, but also manages international sales and service in cooperation with our partners. In Germany alone, we provide for you a comprehensive network of distributors to guarantee personal, fast and optimised customer support.

ABITRON Service Standards:

- ✓ Customised labelling (logo, label colour,...)
- ✓ Individual consulting
- ✓ Fast delivery times
- ✓ International service & support
- ✓ Reliable and highest quality

What makes ABITRON radio remote controls safe?

Transmitter

- Key switch
- Self-test
- Stop button
- Monitored buttons & joysticks
- Battery monitoring
- Tilt switch

Receiver

- Self-test
- Self-monitored emergency stop
- Active & passive emergency stop

System

- Unique system address
- Shutdown in case of interference
- System monitoring with special software
- Up to category 3
- Up to performance level „e“

EURO



The user interface of the EURO transmitter provides ample space to neatly arrange all your required machine functions side by side on the transmitter. A surrounding protective ridge prevents accidental activation in case of impact on the ground. You can label the device with symbols or text by way of the plastic labels provided as standard, or the optional labelling plates made of extremely robust stainless steel.

ATEX: Mining
Zone 1, 2/IIB, IIC/T4
Zone 22

IECEX: Mining
Zone 1 (also applicable Zone 2)/IIB, IIC/T4
Class I/Division 1, 2/Groups A-D/T4

NEC 500: Class II, III/Division 1, 2/Groups E-G/T4

IP protection type: up to 66



Options:

- Feedback via LCD and LED
- Key switch, stop button, dip switch, push button, joystick (digital/stepless), excavator joysticks
- Shoulder strap or chest plate for maximum comfort
- Cable control optional



Applications:



Specialist Vehicles



EX / ATEX



Tailored Solutions

The ABITRON GR transmitter stands out as an extremely robust and stable model. Its all-round rubberisation between the upper and lower part of the transmitter housing offers additional protection for your safety radio remote control. The practical design offers sufficient space for a multitude of functions and even excavator joysticks. You can label the device with symbols or text by way of the plastic labels provided as standard, or the optional labelling plates made of extremely robust stainless steel.

ATEX:	Mining Zone 1, 2/IIB, IIC/T4 Zone 22
IECEX:	Mining Zone 1 (also applicable Zone 2)/IIB, IIC/T4
NEC 500:	Class I/Division 1, 2/Groups A-D/T4 Class II, III/Division 1, 2/Groups E-G/T4
IP protection type:	up to 66



Applications:



Industry



Construction



Specialist Vehicles



EX / ATEX



Tailored Solutions

Options:

- Feedback via LCD and LED
- Key switch, stop button, dip switch, push button, joystick (digital/stepless), excavator joysticks
- Shoulder strap or chest plate for maximum comfort
- Cable control optional





This transmitter model has proven its worth in heavy-duty continuous operation over many years. The ergonomic and accessible design with a transmission surface facing the operator allows optimised access to all operating elements. The GL transmitter is a favourite for customised applications.

ATEX: Mining
Zone 1, 2/IIB, IIC/T4
Zone 22

IECEX: Mining
Zone 1 (also applicable Zone 2)/IIB, IIC/T4
Class I/Division 1, 2/Groups A-D/T4

NEC 500: Class II, III/Division 1, 2/Groups E-G/T4

IP protection type: up to 66



Options:

- Feedback via LCD and LED
- Key switch, stop button, dip switch, push button, joystick (digital/stepless)
- Neck strap or belly belt for maximum comfort
- Cable control optional



Applications:



Industry



Hydraulics



Construction



Specialist Vehicles



EX / ATEX



Tailored Solutions

The NOVA-XL transmitter does not only impress by its unique design, but also by its user-friendly and robust construction. There are many different standard models available. ABITRON can also customise the transmitter based on your individual needs.

ATEX:	Mining Zone 1, 2/IIB, IIC/T4 Zone 22
IECEx:	Mining Zone 1 (also applicable Zone 2)/IIB, IIC/T4 Class I/Division 1, 2/Groups A-D/T4
NEC 500:	Class II, III/Division 1, 2/Groups E-G/T4
IP protection type:	up to 66



Applications:



Industry



Hydraulics



Construction



Specialist Vehicles



EX / ATEX



Tailored Solutions

Options:

- Feedback via LCD and LED
- Key switch, stop button, dip switch, push button, joystick (digital/stepless)
- Neck strap or belly belt for maximum comfort
- Cable control optional



NOVA-L



The NOVA-L transmitter does not only impress by its unique design, but also by its user-friendly and robust construction. The very handy transmitter is ideally suited for digital or proportional applications. There are many different standard models available. ABITRON can also customise the transmitter based on our individual needs.

ATEX: Mining
Zone 1, 2/IIB, IIC/T4
Zone 22

IECEX: Mining
Zone 1 (also applicable Zone 2)/IIB, IIC/T4
Class I/Division 1, 2/Groups A-D/T4

NEC 500: Class II, III/Division 1, 2/Groups E-G/T4

IP protection type: up to 66



Options:

- Feedback via LCD and LED
- Key switch, stop button, dip switch, push button, joystick (digital/stepless)
- Cable control optional
- Tandem operation possible
- Neck strap or belly belt for maximum comfort



Applications:



Industry



Hydraulics



Construction



Specialist Vehicles



EX / ATEX



Tailored Solutions

The ergonomic design of the NOVA-M transmitter offers trouble-free access to all command elements. This transmitter model is ideal for digital or proportional applications. The NOVA-M is available in various standard models but also as a customised system based on your individual needs.



Applications:



Industry



Hydraulics



Construction



Specialist Vehicles



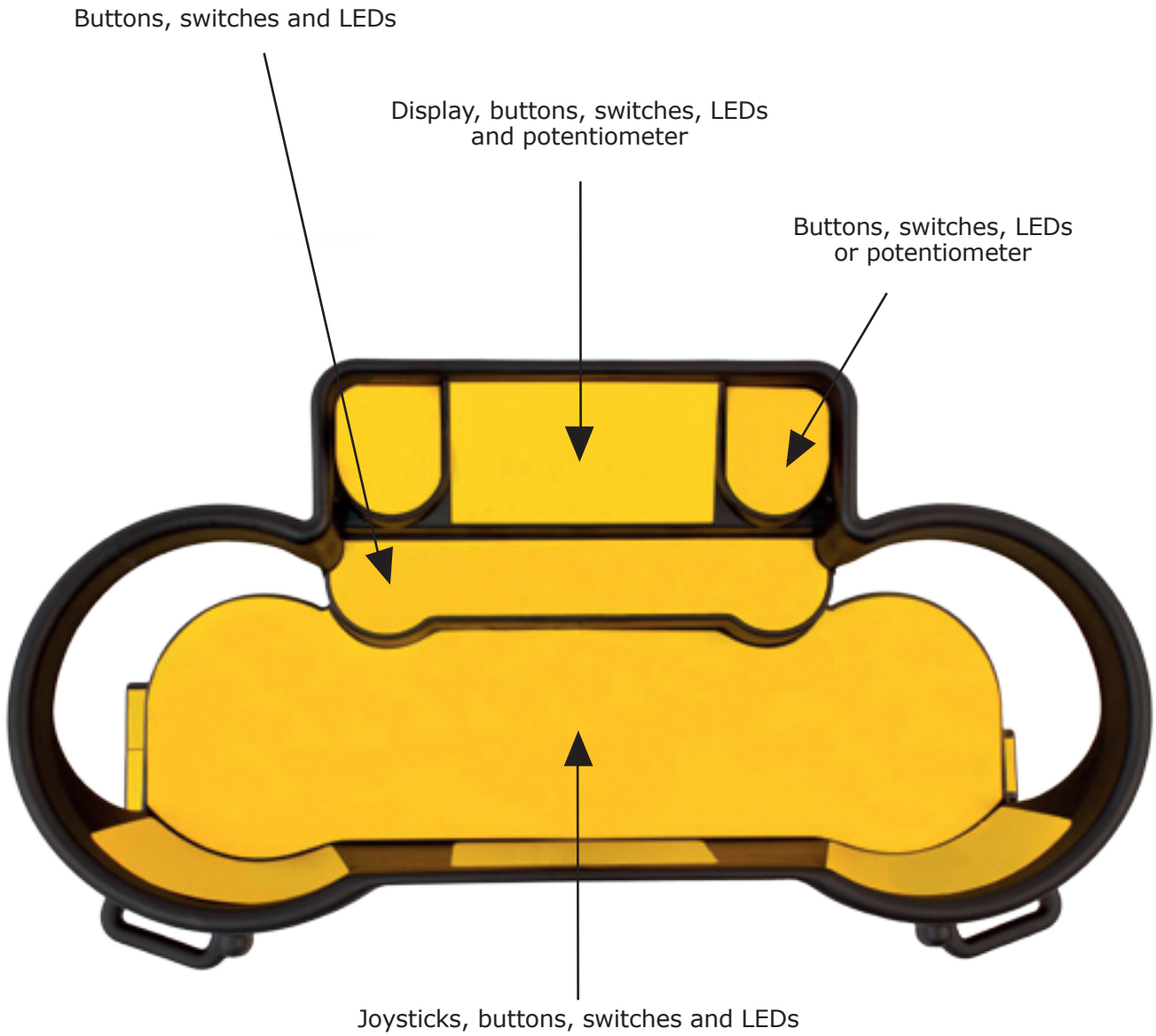
Tailored Solutions

Options:

- Feedback via LCD and LED
- Key switch, stop button, dip switch, push button, joystick (digital/stepless)
- LED-display
- Cable control optional
- Belly belt for maximum comfort

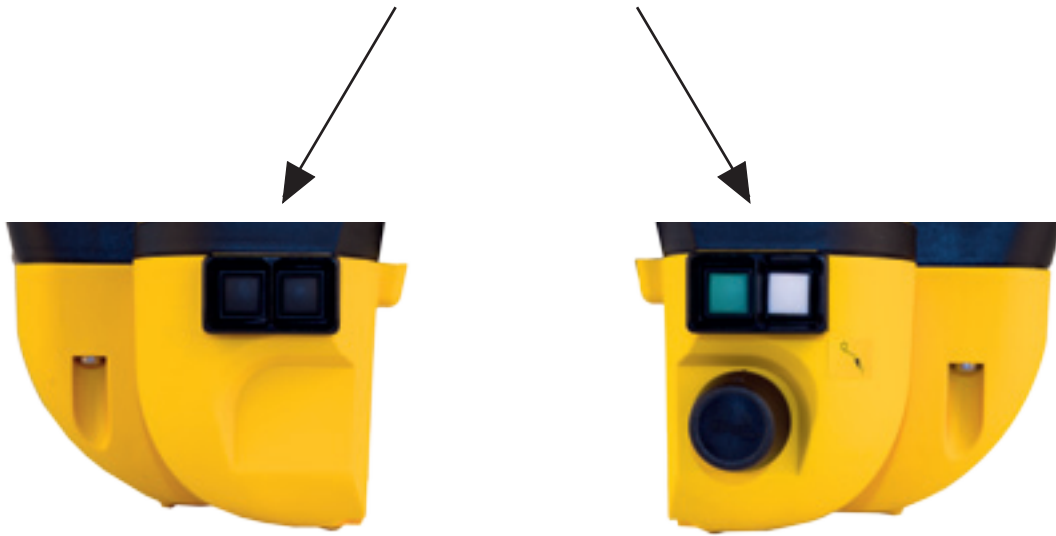


NOVA-XL Transmitter Layout Example

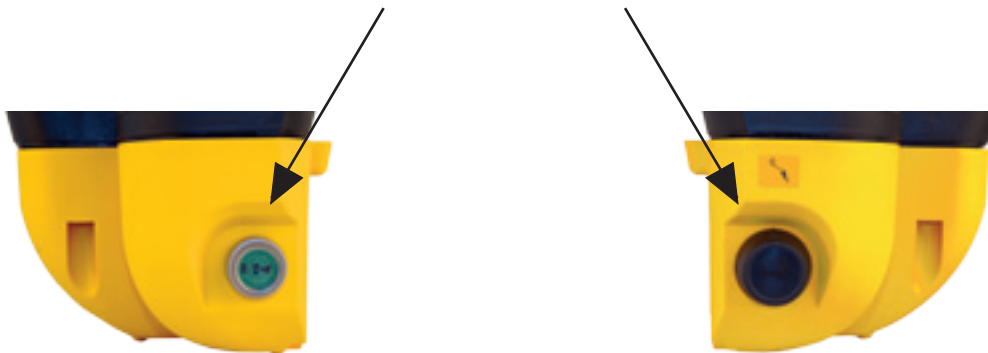


NOVA-XL Transmitter Layout Example

Max. 2 square push buttons
Available colours: white / yellow / green / red / blue / black



Stop button, key switch, knob switch, connection
for cable control and external power supply /
charging connection



NOVA-L and NOVA-XL available in various colours



Equipment Options

You can equip your transmitter with the following control elements:

Joysticks



Joystick JM-2L
proportional version
available for: - NOVA-L
- NOVA-XL
- GL
- GR
- EURO



Joystick JM-3K
digital and proportional versions
optional: cross gate, deadman,
Z-axis
available for: - NOVA Serie
- GL
- GR
- EURO



Joystick JC300
digital and proportional versions
optional: cross gate, deadman
available for: - GL
- GR
- EURO



Joystick V10
proportional version with addi-
tional button on the front side
of the handle and additional
button or seesaw on top of the
handle
available for: - GR
- EURO

Push buttons



Button with one contact level
calottes in various colours and
with illumination available, IP 65
available for: - NOVA series
- GL
- GR
- EURO



Button with two contact levels
calottes in various colours, IP 65
available for: - NOVA series
- GL
- GR
- EURO



Squared button
in various colours, IP 65
available for: - NOVA series
- GL
- GR
- EURO

Rotary switches



Rotary switch, multi-level
6 switch positions, reducible,
switching angle 60°
available for: - NOVA series
- GL
- GR
- EURO



Rotary switch, multi-level
10 switch positions, reducible,
switching angle 36°
available for: - NOVA series
- GL
- GR
- EURO



Rotary switch, multi-level
12 switch positions, reducible,
switching angle 30°
available for: - NOVA series
- GL
- GR
- EURO



Rotary switch, multi-level
0-15 BCD one level with plate
available for: - NOVA-L
- NOVA-XL
- GL
- GR
- EURO

Dip switches



Standard versions:
0-momentary
0-maintain
momentary-0-momentary
maintain-0-maintain
momentary-0-maintain
available for: - NOVA series
- GL
- GR
- EURO



Military versions:
0-momentary
0-maintain
momentary-0-momentary
maintain-0-maintain
momentary-0-maintain
available for: - NOVA series
- GL
- GR
- EURO



Locked in 0 position versions:
0-momentary
0-maintain
momentary-0-momentary
maintain-0-maintain
available for: - NOVA series
- GL
- GR
- EURO

further equipment options ...

Equipment Options

Stop buttons



Rotary release, IP 65
available for: - NOVA series
- GL
- GR
- EURO



Push-pull release, IP 65
available for: - NOVA-L
- NOVA-XL
- GL
- GR
- EURO

Knob switches



2-steps with anti-rotation
protection, IP 65
versions: 0-momentary
0-maintain
available for: - NOVA series
- GL
- GR
- EURO



3-steps with anti-rotation
protection, IP 65
versions: momentary-0-momentary
maintain-0-maintain
momentary-0-maintain
maintain-0-momentary
available for: - NOVA series
- GL
- GR
- EURO



versions: 0-maintain
maintain-0-maintain
available for: - NOVA series
- GL
- GR
- EURO

Potentiometers

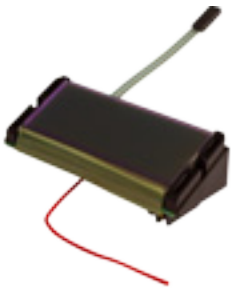


Rotary potentiometer, one level
with or without detents
available for: - NOVA series
- GL
- GR
- EURO



Rotary potentiometer, two level
without detents
available for: - NOVA series
- GL
- GR
- EURO

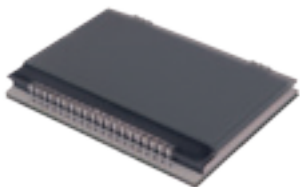
Displays



Graphic display with backlight,
120x32 pixel,
4 lines of 20 characters each
available for: - NOVA-XL



Graphic display with backlight,
120x32 pixel,
4 lines of 20 characters each
available for: - GL
- GR
- EURO



Graphic display with backlight,
128x64 pixel,
8 lines of 20 characters each
available for: - GL
- GR
- EURO

LEDs



LED indicator lamp
in various colours,
5 mm chrome housing, IP 65
available for: - NOVA series
- GL
- GR
- EURO



LED indicator lamp
in various colours,
5 mm black chrome housing, IP 65
available for: - NOVA series
- GL
- GR
- EURO



LED indicator lamp
in various colours,
3 mm chrome housing, IP 67
available for: - NOVA series
- GL
- GR
- EURO

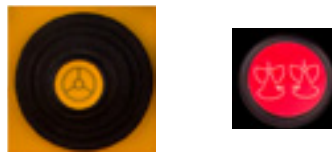
Functionalities

Labelling

Making your radio remote control even more unique, ABITRON can implement your individual labelling requests.

This includes:

- Customer logo
- Label colour
- Machine icons
- Labelling on top of joystick



Labelling on top of joystick



Your customer logo on transmitter and receiver housing possible

Made of following materials:



Plastic label



Aluminium plate



Stainless steel plate



Fluorescent / self-luminous label

Range

According to your requirements, we can modify the range of the radio by use of:

- External antenna
- Power amplifier
- Short range start-up

Illumination

ABITRON offers different illuminating possibilities, so you can keep working safely even in the dark.

- Illuminated display
- Illuminated control panel
- Illuminated buttons



Illuminated display



Illuminated control panel



Illuminated buttons

Cable Control

If the use of radio remote controls is prohibited or not possible due to the conditions on site, we can equip your radio remote control with an additional cable control or as a stand-alone cable control.

We recommend the following transmitters:

- NOVA-L
- NOVA-XL
- GL
- GR



Feedback and frequencies

Feedback

You can easily display the selected data at your transmitter, keeping you informed about your machine and active functions at all times. For this purpose, you can choose between different graphic displays and LED lamps.



Video Feedback

Technical data:

- 3.5 inch colour display
- scratch-proof diffuser
- approx. 100 m reach
- sturdy camera with protection rating IP 67
- several cameras per transmitter
- magnetic sockets for flexible positioning



Frequencies

In Europe, there is a huge frequency area of unlicensed and free of charge frequencies available for our safety radio remote controls. If problems arise during the operation, the system switches off to safety mode.

Frequencies available:

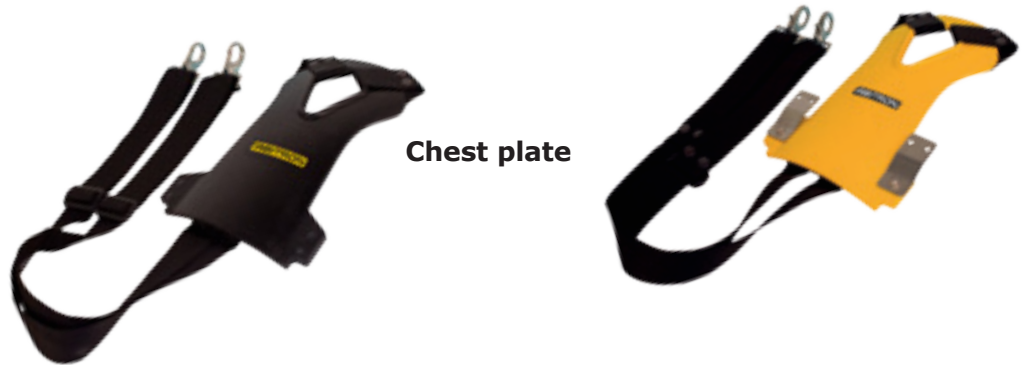
- 433 MHz, 434 MHz, 869 MHz
- other frequencies upon request

Versions:

- manually adjustable channel
- automatic channel search

Carrying Possibilities

ABITRON offers numerous comfortable and safe solutions for carrying your safety radio remote controls:



Chest plate



Belly belt

Several combinations available for each transmitter and carrying option



Neck belt



Shoulder strap



Receivers

Receiver interfaces

ABITRON receivers are available with the following interfaces:

- CAN-Bus
- Devicenet
- Profibus
- RS 232
- RS 485
- Profinet
- further interfaces upon request

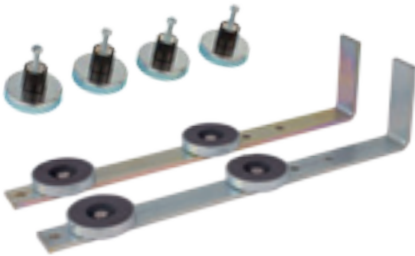
Plug versions:

- 14-, 16-, 24-, 30-, 32-, 64-, 70-poles; 3+PE, 6+PE, 14+PE, 17+PE
- M screw connection
- Receiver directly wired to connection cable
- and many more

Housing version:



Various receiver mounts:



Various antennas & antenna extensions:



- **Fast and easy mounting of the receivers**
- **Receiver mounting outdoors (IP 65), cabinet or vehicle's interior possible**
- **Robust and shock proofed housing**
- **Relays, transistor or proportional outputs**
- **Analogue, digital and serial data feedback to the transmitter**
- **Tandem systems (log in function)**
- **Various connection plugs possible**
- **Variable receiver mounts**
- **Various antennas & antenna extensions available**

RX* with EX-antenna - Receiver on mounting plate for installation in EX-housing of customer



RX-EX2-IIC-* and RX-EX22-*
- Housing for receiver zone 2 / 22



RX-EX-1-IIC-* - Housing for receiver zone 1 / 21 with EX d-chamber



RX-EX-1-* - Housing for receiver zone 1 / 21 with connection chamber and EX d-chamber



Explosion-Proof Radio Remote Controls



EX-Approvals:

- ✓ ATEX
- ✓ IECEX
- ✓ NEC 500
- ✓ other approvals upon request



Explosion protection is becoming an increasingly important issue across all ABITRON application areas. Those include not only traditional EX-applications, like mining or the chemical industry, but also many applications in the manufacturing sector. Our expert staff has many years of experience in

manufacturing explosion-proof systems. ABITRON offers a comprehensive portfolio of explosion-proof safety radio remote controls for a wide variety of applications and global certifications to match your requirements.

Service & Maintenance

Service, as we understand it, is more than just a technical service. Our highly educated and committed service technicians will answer your service questions quickly and diligently.

On the phone as well as directly on site – we will be at your side and you benefit from our know-how for maintenance, service and repair requests.



Spare parts

A lot of radio remote controls are under enormous pressure and require isolated spare parts. You can easily order by phone, fax or e-mail at ABITRON – with the guarantee for a prompt delivery of all relevant items. Our employees are at your service.



The most popular ABITRON transmitters all work with one and the same battery!



NOVA-XL



GL



GR



NOVA-L

One battery – numerous possibilities!



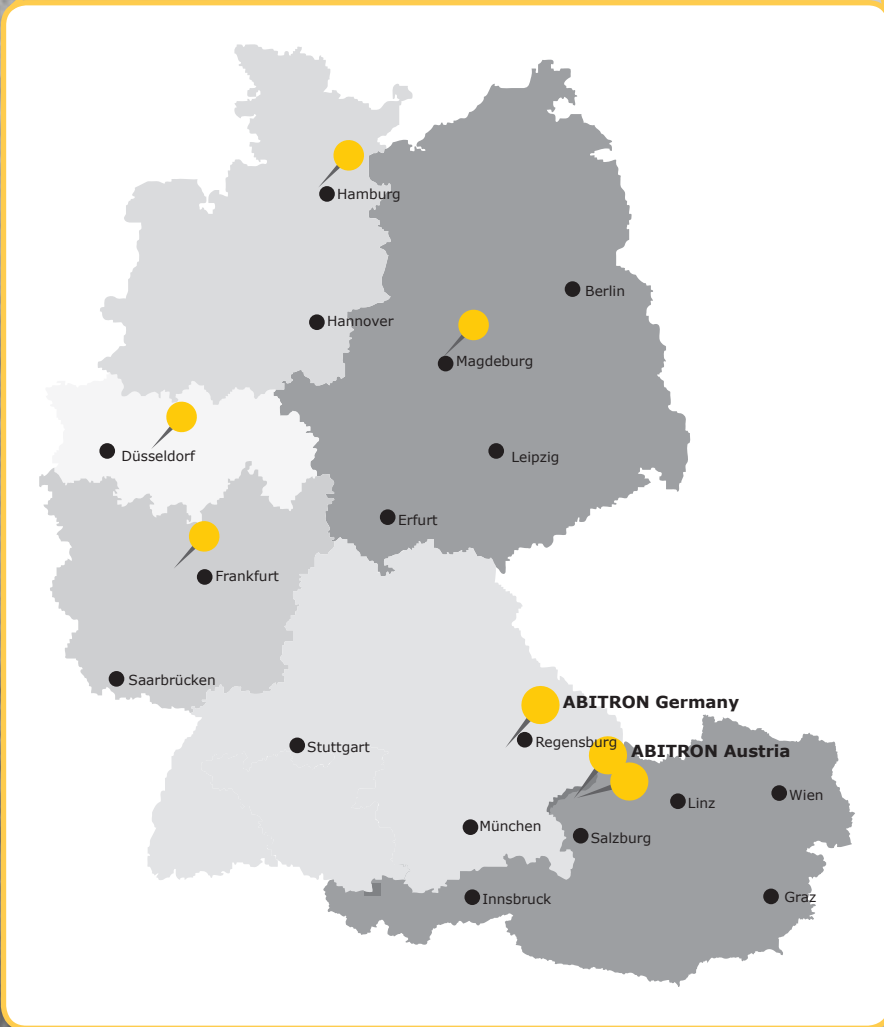
NOVA-M



EURO



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