Newsletter - MARCH 2011

REGISTER for ZIMO Newsletter via Email: auf www.zimo.at !

ZIMO ELEKTRONIK,
Schönbrunner Straße 188, A - 1120 Wien
Tel. 0043 (1) 8131007-0
www.zimo.at

The Current Decoder Palette

To provide for all the possible scales, interfaces (plugs etc.) and functional requirements, ZIMO constructs many different types of decoder and the range is changing all the time. Currently there are about 50 different loco decoders on offer. On this page are some pictures of a selection of the "small" decoders (for N, TT, H0, 00 and 0 scales), on the following pages the complete list is defined (including some which will appear in the next few weeks: MX622, MX648 and MX696), and on the last page you will find the large scale decoders.

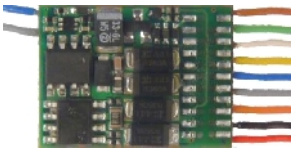
MX621, …R, …F ▶

MX621N ▶

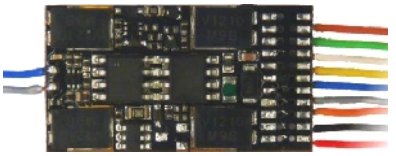
MX630, …R, …F ▶

MX630P16 ▶

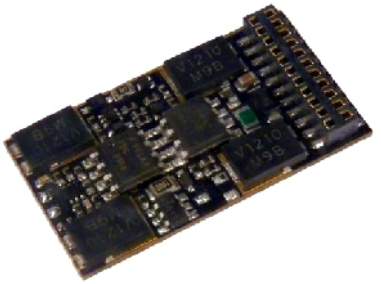
MX631, …R, …F ▶



MX631D, ..C ▶

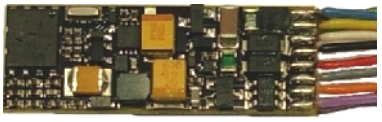


MX632, …R, …F ▲
(MX632V, ..W)



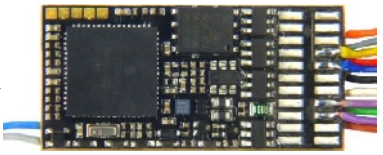
MX632D, ..C ▶

MX646, …R, …F ▶



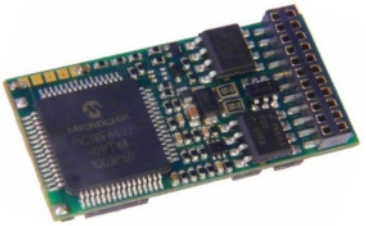
MX646N ▶

MX645, …R, …F ▶



MX645P22 ▶

MX644D, ..C ▶



12 x 6.5 x 2.2 mm *No Sound 0.7 A - 4 Function Outputs* ***CAUTION**: only DCC and DC Analogue (**not** MOTOROLA)*

MX621 *Family*	**Sub-miniature Decoder**, reduced features, compared with other decoders, for N, H0e, H0m, TT, H0, 00 with very limited space.
MX621	7 connection wires (very flexible wire) for rails, motor, 2 function outputs (120 mm long wire). For the 2 further function outputs there are 2 solder pads on the circuit board.
MX621R	Like MX621, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX621F	Like MX621, but with 6 pin plug as defined in NEM651) on 70 mm long wires.
MX621N	Like MX621, but with 6 pin interface as defined in NEM651 (= "small interface" in NMRA RP 9.1.1.), pins directly soldered to circuit board, for vehicles with correct 6 pin socket, no wires.

16 x 9 x 2.5 mm *No Sound 0.8 A - 4 Function Outputs - 2 Servos - SUSI DCC, MM, DC Analogue, AC Analogue*

MX622 *Family*	**Miniature Decoder**, with all ZIMO properties and features, for N, H0e, H0m, TT, H0, 00 with limited space.
MX622	9 connection wires (very flexible wire) for rails, motor, 4 function outputs (120 mm long wire). Solder pads for 2 logic level outputs or servo control, and SUSI
MX622R	Like MX622, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX622F	Like MX622, but with 6 pin plug as defined in NEM651 on 70 mm long wires.
MX622N	Like MX622, but with 6 pin interface as defined in NEM651 (= "small interface" as in NMRA RP 9.1.1.), pins directly soldered to circuit board, for vehicles with correct 6 pin socket, no wires.
MX622P12	Like MX622, but with **12 pin PluX - Interface** (pins soldered directly on circuit board).

20 x 11 x 3.5 mm *No Sound 1.0 A - 6 Function Outputs - 2 Servos - SUSI DCC, MM, DC Analogue, AC Analogue*

MX630 *Family*	**H0/00 Decoder**, compact design, for universal use, most popular ZIMO decoder (with no sound)
MX630	9 connection wires (very flexible wire) for rails, motor, 4 function outputs (120 mm long wire), solder pads for 2 more function outputs, 2 logic level outputs or servo control, and SUSI
MX630R	Like MX630, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX630F	Like MX630, but with 6 pin plug as defined in NEM651 on 70 mm long wires.
MX630P16	Like MX630, but with with **16 pin PluX - Interface** (pins soldered directly on circuit board).

20.5 x 15.5 x 4 mm *No Sound 1.2 A - 6 Function Outputs - 2 Servos - SUSI DCC, MM, DC Analogue, AC Analogue*

MX631 *Family*	**H0/00 Decoder**, similar to MX630, higher power, with **Energy Storage (Stay-Alive),** for H0/00 and small 0 scale.
MX631	11 connection wires (120 mm long) for rails, motor, 4 function outputs, solder pads for 2 more function outputs, logic level outputs, servo control, and SUSI
MX631R	Like MX631, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX631F	Like MX631, but with 6 pin plug as defined in NEM651 on 70 mm long wires.
MX631D	Like MX631, but with **21-pin "MTC" - interface** (socket soldered direct on circuit board).
MX631C	Like MX631D, but for vehicles which need FA3 and FA4 as logic outputs (e.g. **Märklin**, **Trix, tw. HAG, LS, ..)**

28 x 15.5 x 4 mm *No Sound 1.6 A - 8 Function Outputs - 2 Servos - SUSI DCC, MM, DC Analogue, AC Analogue*

MX632 *Family*	**High Power Decoder,** with **Energy Storage Circuit (Stay Alive),** for H0, 00 and 0 scale.
MX632	11 connection wires(120 mm) for rails, motor, 4 function outputs, solder pads for 4 more function outputs, logic level outputs, servo control, and SUSI.
MX632R	Like MX632, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX632D	Like MX632, but with **21-pin "MTC" - Interface** direct on circuit board.
MX632C	Like MX632D, but for vehicles which need FA3 and FA4 as logic outputs (e.g. **Märklin**, **Trix, tw. HAG, LS)**
MX632V, VD	Versions with low voltage supply for function outputs
MX632W, WD	MX632V – 1.5 V or MX632W - 5 V MX632VD or MX632WD - with 21 pin interface.

30 x 15 x 4 mm ***SOUND*** *1.2 A - 8 Function Outputs - 2 Servos - SUSI* *DCC, MM, DC Analogue, AC Analogue*

MX644 *Family*	**H0/00 Sound Decoder, 3 Watt Audio on 4 Ohm (or 2 x 8 Ohm), 6 Sound Channels,** for H0, 00, 0, with **Energy Storage (Stay Alive).**
MX644D	with **21-pin "MTC" - Interface** (socket soldered onto circuit board)
MX644C	Like MX644D, for vehicles, which need FA3 and FA4 as logic level outputs (e.g. **Märklin**, **Trix, tw. HAG, LS, ..)**

30 x 15 x 4 mm ***SOUND*** *1.2 A - 10 Function Outputs - 2 Servos - SUSI* *DCC, MM, DC Analogue, AC Analogue*

MX645 *Family*	**H0/00 Sound Decoder, 3 Watt Audio on 4 Ohm (or 2 x 8 Ohm), 6 Sound Channels,** for H0, 00, 0, with **Energy Storage (Stay Alive).**
MX645	13 connection wires (120 mm long) for rails, motor, 6 function outputs, loudspeaker, Energy Storage, solder pads for more function outputs, logic level outputs, servos and SUSI.
MX645R	Like MX645, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX645F	Like MX645, but with 6 pin plug as defined in NEM651 on 70 mm long wires.
MX645P16	Like MX645, but with **16 pin PluX - Interface** (plug soldered on circuit board).
MX645P22	Like MX645, but with **22 pin PluX - Interface** (plug soldered on circuit board).

28 x 10.5 x 4 mm ***SOUND*** *1.0 A - 4 Function Output - 2 Servos - SUSI* *DCC, MM, DC Analogue, AC Analogue*

MX646 *Family*	**Miniature Sound Decoder, 1 Watt Audio on 8 Ohm**, for N, TT, H0e, H0m; H0 or 00 with limited space.
MX646	9 connection wires for rails, motor, 2 function outputs, loudspeaker, solder pads for 2 further function outputs, logic level outputs, servos and SUSI.
MX646R	Like MX646, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX646F	Like MX646, but with 6 pin plug as defined in NEM651 on 70 mm long wires.
MX646N	Like MX622, but with 6 pin interface as defined in NEM651 (= "small interface" as in NMRA RP 9.1.1.), pins directly soldered to circuit board, for vehicles with correct 6 pin socket, no wires, 2 connection wires for loudspeaker.
MX646L	Like MX646, but with 6 pin interface as defined in NEM651 (= "small interface" as in NMRA RP 9.1.1.), **90 ^{o} right angle** version, 6 pins directly soldered to circuit board, 2 connection wires for loudspeaker.

20 x 11 x 4 mm ***SOUND*** *0.8 A - 6 Function Outputs - 2 Servo - SUSI* *DCC, MM, DC Analogue, AC Analogue*

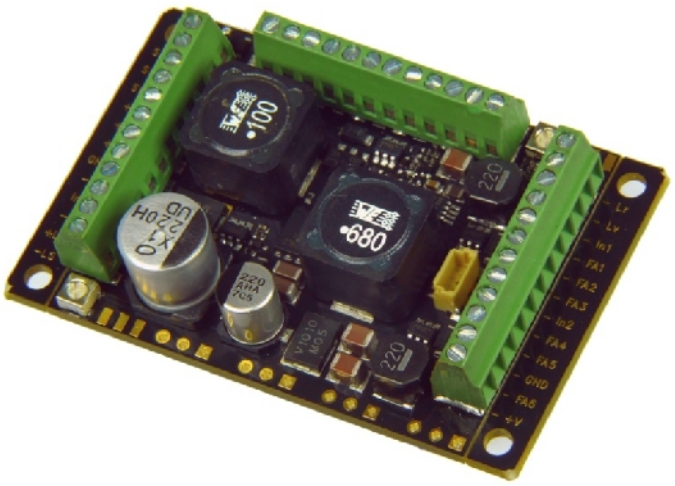
MX648 *Family*	**Sub-miniature Sound Decoder, 1 Watt Audio on 8 Ohm**, for N, TT, H0e, H0m; H0 or 00 with limited space.
MX648	9 connection wires for rails, motor, 2 function outputs, loudspeaker, solder pads for 2 further function outputs, logic level outputs, servos and SUSI.
MX648R	Like MX646, but with 8 pin plug as defined in NEM652 on 70 mm long wires.
MX648F	Like MX646, but with 6 pin plug as defined in NEM651 on 70 mm long wires.
MX648P16	Like MX646, but with **16-pin PluX - Interface** (plug soldered on circuit board).

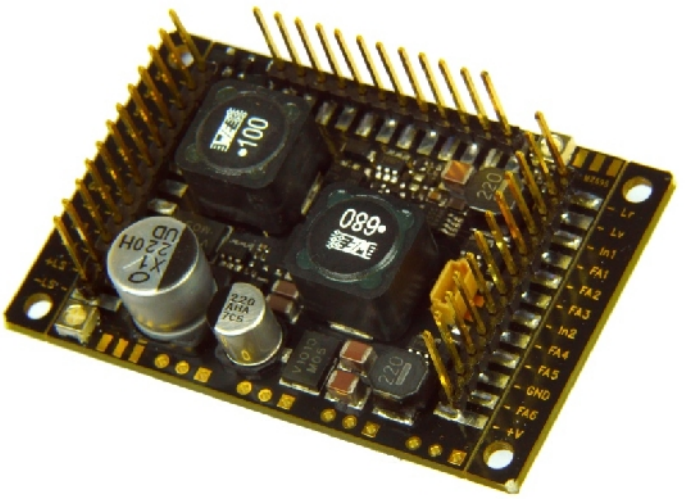
Announcement:

- Decoder types with the new "NEXT" interface for N and TT scales are planned.
- Also to be expected are new function and accessory decoders.

Coming soon: new Decoder Update Device - ***MXULF***

- low cost energy usage from any external power supply,
- USB Host Interface for "Decoder Update from USB Stick“,
- USB Client Interface for Update under Computer control,
- 3 Keys and 5 LEDs for operation and control,
- Key-controlled test drive (when power supply sufficient),





51 x 40 x 14 mm ***SOUND*** *6 A - up to 15 Function Outputs - 4 Servos - SUSI DCC, MM, DC Analogue, AC Analogue*

MX695 *Family*	**Large Scale Sound Decoder, 10 Watt Audio on 4 Ohm (or 2 x 8 Ohm),** for 0, G, 1, 2, … with **Energy Storage Interface** (also for Gold-Caps), up to **three low voltage outputs**.
MX695KV	**Full version with 36 screw terminals**: 15 function outputs, 4 servo connections (3-pin plug), 3 low voltage outputs (5 V, 10 V, variable), 2 controllers (for volume and variable low voltage), SUSI Plug.
MX695KS	**Reduced** Version with 28 terminals, 8 function outputs, one low voltage output (10 V).
MX695LV	**Full Version** with **three 12-pin interfaces** (as lower price alternative to screw terminals).
MX695LS	**Reduced** Version with two 12-pin interfaces, 8 function outputs, fits directly into ESU circuit board.
MX695KN	Large Scale Decoder ***without Sound;*** 20 screw terminals: 8 function outputs, low voltage output *10* V

55 x 29 x 16 mm ***SOUND*** *5 A - up to 14 Function Outputs - 4 Servo - SUSI DCC, MM, DC Analogue, AC Analogue*

MX696 *Family*	**Large Scale Sound Decoder** in **Narrow Form, 10 Watt Audio on 4 Ohm (or 2 x 8 Ohm),** for 0, G, 1, 2, … with **Energy Storage Interface** (also for Gold-Caps), up to **three low voltage outputs**.
MX696V	**Full Version** with **two 2x8-pin interfaces**: 14 function outputs, 4 servo connections (3-pin plugs), 3 low voltage outputs (5 V, 10 V, variable), SUSI plug.
MX696S	**Reduced** Version with 8 function outputs, one low voltage output (10 V).

The new ZIMO Large Scale Decoders, on every feature, offers much more than in the past, and sets new standards in the market:

- *Higher Motor Current (6 A) with low heat loss and no heat sink*

  The modern technology uses "synchronous rectification" with a performance that makes the question "What is the maximum motor current?" almost obsolete. The function outputs are designed for high currents up to a total of 2 A, which can be used on one output by itself, if you wish.

- *Up to 15 Function Outputs (depending on the version), Special Fan Output*

  Thus even very complex lighting installations can be controlled and other features can be implemented. This includes the highly developed and recently extended function mapping (not just for the MX695, but for all ZIMO decoders) but nevertheless the NMRA Standard is included.

- *Additional 4 Servo Outputs on a standard plug (incl. 5 V Supply)*

  Brand new in the MX695KV, LV and MX695V are the 3 pin servo connectors which include the 5 V power supply. The servo control lines are also available in the low-cost MX695KS and LS versions.

- *3 low-voltage outputs for functions (5 V fixed, 10 V fixed, from1.2 V to track voltage variable),*

  In large scale locomotives, low-voltage equipment (lights, LEDs, servos, smoke generators and fans) are often fitted and the low-voltage outputs of the MX695 support easy and low-risk connections, with an adjustable regulator on the circuit board for the variable low voltage. Of course there are various CVs which can be used to dim and control the lights.

- *Audio Power up to 10 Watt (on 4 Ohm or 2 x 8 Ohm), 32 MBit, 6 Sound Channels*

  What was until now only possible with an enhancement board (10 Watts) is now supplied as standard (at no extra charge). The number of sound channels (6 instead of 4) improves the sound quality, and the playback rate of 22 kHz is still a high standard.

- *Support for External Energy Storage (Stay Alive Circuit)*

  The direct connection of external capacitors for energy buffering (stay alive circuits) is now common place on all ZIMO decoders (except the miniature types), and the MX695 can now use the larger Gold Caps, with a simple additional circuitry, and battery packs of 14.4 volts.