

The new generation



D3 radio controls

DEMAG
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Five days of continuous use

D3, the latest generation of our radio controls, is an efficient man/machine interface for manually controlled crane installations. With many new functions and practical features, our D3 is the ideal control system for your cranes and hoists.

EFFECTIVE

When a radio receiver is put into operation, it can already be paired with up to 3 transmitters. However, the receiver can only be controlled by one of the paired transmitters. Control can be transferred from one transmitter to another within seconds at the press of a button.

The benefits of multi-transmitter operation:

- Fast and simple transmitter replacement
(e.g. if a hand-held transmitter fails or is lost)
- Control point can be transferred
- Personal transmitters
(up to 3 workers/groups per crane)

ERGONOMIC

The perfect ergonomic design of our hand-held transmitters enables safe and fatigue-free control – even over longer periods of operation. Thanks to their large, distinct buttons and practical shape, the control units can also be easily operated with gloves. We offer hand-held transmitters with two types of buttons. The variable type can be operated in much the same way as an accelerator pedal, while the first step of the 2-stage variant actuates the low speed and the second step is only used for the maximum speed.

Our transmitters that are equipped with joysticks offer similar force feedback: they also feature extremely precise control with smooth speed steps.

STRONG

Our radio controls are equipped with smart, state-of-the-art power management: the rechargeable batteries included with the system can be charged in just two-and-a-half hours. Thanks to their power-saving HF transmission system and low-energy hardware design, they can be used for 5 days without interruption on just one battery charge – even with intensive transmitter operation.

FOR INDIVIDUAL NEEDS

The maximum speed of the lifting and travel motions can be limited at the press of a button, regardless of how far the buttons are pressed. The speed limit parameters of variable-speed hand-held transmitters can be individually set to 30, 50 or 70% of the maximum speed for each motion axis.

When the speed limit function is used for hand-held transmitters that have variable buttons, the entire button motion can be used for the reduced maximum speed. This zoom function provides even finer control of cranes and hoists at low speeds.

Only the low speed (V1) of 2-stage transmitters is enabled while the speed limit is activated.



COEXISTENCE

Our new generation can be operated in proximity to up to 40 D3 radio systems – without any mutual interference or interruption of other DRC radio systems. D3 transmitters and receivers satisfy the DIN EN 300328 coexistence standard.



SAFETY

The D3 series offers one of the best forms of technical protection against high risks. Its safety-related functions satisfy the requirements for Category 3 and Performance Level d of the DIN EN 13849-1 machine safety standard.



ENDURANCE

The battery packs of our D3 hand-held transmitters can be charged in 2.5 hours for up to 5 days of continuous operation.



SPEED LIMIT FUNCTION

Travel and lifting speeds can be limited to 30, 50 or 70% of the maximum speed when variable-speed transmitters are used.



TRANSMITTER TRANSFER

Transfer control of a crane from one transmitter to another without interrupting the operating process.



VARIABLE CONTROL

Transmitters with variable-speed buttons have a progressive characteristic for very fine control at low speeds over a large range.



Safe and reliable operation with full control

Safe

We have developed our latest generation of controls with the aim of offering the safest and most reliable system on the market. Thanks to its bi-directional radio communication and adaptive frequency hopping, our D3 generation offers highly reliable radio communication that is resistant to interference.

Its safety-related functions satisfy the requirements for Category 3 and PL d of DIN EN 13849-1.

Reliable

Highly improved transmitter density and coexistence with other equipment:

The new radio transmission method used for the D3 generation meets the most demanding requirements in terms of transmitter density and coexistence with other equipment that operates in the 2.4 GHz ISM band.

This method combines various transmission mechanisms:

- Frequency hopping ensures that radio transmission is robust and highly resistant to interference
- Its adaptive characteristic (Listen Before Talk) enables interference with neighbouring radio applications to be effectively eliminated.

DRC-D3 transmitters and receivers meet the provisions of the DIN EN 300328 V 1.8.1 standard, which specifies the requirements for coexistence with other radio applications in the 2.4 GHz ISM band frequency range (e.g. WLAN access points) as of 2015.

This allows a maximum transmitter density of 40 radio systems in a factory workshop, which means that 40 DRC-D3 radio systems can be operated in parallel in proximity to each other.





DRC-10 D3 hand-held transmitters

Our new, impact-resistant hand-held transmitters have ten buttons, which can be used for 2-stage or variable control, depending on the type. They can be used for precise and smooth control of cranes and travelling hoists.



The large, two-colour LC display enables all important operating status information to be seen clearly, even under strong light. Warning signals can be output both visually in the form of a red display background and by touch via a vibration alarm. An additional LED indicates the operating status of the radio control system.

Thanks to their ergonomic design, DRC-10 units can also be easily used for safe and reliable control with gloves.

Two rubber-coated bumpers, the strong polyamide (PA) housing and a silicone sleeve included for improved protection against chemicals and abrasive materials ensure that the control unit meets the challenges of tough applications.

Six buttons can be used to control up to three motion axes. Two buttons can be programmed for special functions – such as for selecting the required crab and taring the current load value.

The signal button, which can alternatively be used to test the limit switches, and the stop button provide additional safety.

DRC-10 D3 HAND-HELD TRANSMITTERS

- Dimensions (LxWxH): 253x76x50 mm
- LCD, 2 colours, illuminated, 35x25 mm
- Max. 20 dBm (100 mW) transmission output (ERP)
- Typical range of approx. 100 m
- 2.4 GHz ISM band frequency range
- IP 55 enclosure
- Weight (with/without battery): 520 g/465 g
- 2,050 mAh rechargeable battery capacity
- Approx. 5 days of operation with one charge
- Variable control: part no. 773 791 44
- 2-stage control: part no. 773 792 44



DRC-DR D3 RADIO RECEIVERS

The single-board receiver can be simply installed in the electronic equipment enclosure of a hoist unit with SafeControl and can be paired with up to three transmitters. Thanks to its convenient plug-and-play functionality, the receiver can also be simply added at a later date.

As part of our safety concept, DRC-DR systems will only accept control signals from one transmitter.

The specially designed, particularly flat aerial offers maximum directional characteristics and, at the same time, full transmission capability. It is optimised for space-saving and protected installation on rope hoists or crane bridge enclosures.

- Interface for SafeControl processor control system
- IP 55 enclosure integrated in rope hoist control system
- Temperature range -20°C to + 70°C
- Weight of radio receiver 94 g
- +5 V DC supply voltage
(from the rope hoist control system)
- Typical range of approx. 100 m
- 2.4 GHz ISM band frequency range
- Part no. 711 333 45
- Special aerial for receivers: part no. 711 445 45

Please note that for technical reasons, the two previous D1 and D2 generations are not compatible with our new D3 generation.



Mini joystick DRC-MJ

Our DRC-MJ mini joystick features a very compact design and is optimised for control with one hand. It has the same functions as our 10-button transmitters and can be used intuitively (e.g. for diagonal travel).



- Bright, high-contrast, two-colour display: neutral and red
- LED: indicates operating status
- Ergonomic shape for fatigue-free operation
- Impact resistant: rubber bumpers at both ends
- Ribs to prevent accidental actuation
- Tough housing made of polyamide with a smooth, scratch-resistant surface
- Vibration alarm: tactile feedback, e.g. if an overload occurs
- Joysticks: optimum control for intuitive operation with one hand (right/left), top: lift/lower, bottom: long and cross travel for diagonal motions
- Long/cross travel: mechanical latch at slow speed (V1)
- Electronic gate, individually programmable:
 - 2nd axis is blocked when 1st axis is released
- Display: operating status, load display, charge level, etc.
- Programmable function keys: crab selection, tare, assistance functions
- 2 buttons: signal button (also for limit switch check), stop function
- Speed limit with zoom function
- Variable control elements

Accessories



DRC-10 SILICONE PROTECTIVE SLEEVE

- Makes your DRC-10 even more resilient
- Improved protection against chemicals and abrasive materials
- Included in the scope of delivery
- For re-ordering: part no. 773 580 44



WALL BRACKET

- Fixed storage location for DRC hand-held transmitters
- Rugged metal construction
- Hand-held transmitter can be inserted also when plug-in charger is connected
- Part no. 773 688 44

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