



The D2001/D2801 receiver

The Datek D2001/D2801 receiver has been designed for a long service life in harsh environments and for easy maintenance. Separate circuit boards for radio, logic devices and power supply with LEDs indicating operating status and information flow make any troubleshooting easy. The 11-pin socket-mounted industrial relays manage high loads (10 A/250 VAC), which means that the receiver can be directly connected to all kinds of apparatus without the need for intermediate devices. Older cranes with large contactors and high power consumption can also be directly operated.

Robust and easy to maintain

The receiver is mounted inside a sturdy steel cabinet which complies with protection class IP65. If the receiver will be particularly exposed to such things as chemicals, sea water or road salt, a stainless-steel cabinet can be chosen as an option. The radio board, logic devices and voltage transformer are mounted in an aluminium case inside the receiver cabinet door.

The front of the case is fitted with transparent perspex, making it easy to see the operating status of each board. A quick-release coupling keeps the case in place, so it can easily be removed. This facilitates fast and easy replacement of important electronics, the moving of electronic devices between different receivers, troubleshooting in a more suitable location or sending the unit in for service.

The 11-pin industrial relays are socket-mounted, which makes them easy to replace if required. Connections to controlled applications are made using connection blocks with screw terminals. The individually detachable connections facilitate easy disabling and troubleshooting of different functions. This makes it easy to identify and replace the defective module, thereby avoiding longer downtime.

Product benefits

- Suitable for construction cranes, overhead cranes, deck winches, etc. with two or more speed steps
- 11-pin industrial relays that manage high loads: 10 A/250 VAC
- Can be customised for various applications and according to preference
- Easy to install and maintain
- The use of a unique digital protocol and verification by double processors ensures safety
- Designed for challenging environments and reliable operation. The receiver complies with protection class IP65 and is resistant to chemicals, cold, heat and humidity
- Backwards compatibility makes it possible to use the D2001/D2801 in place of previous receiver models

Comprehensive safety

Datek uses synchronous data transmission, which means that each bit of data is checked very carefully. Even the smallest deviation from the norm is detected, and then the entire data packet that has been received is rejected. Each system has a unique ID code. If the transmitter's ID code does not match the receiver's, radio communication will never be established.

Both the protocol and its checksum are digitally verified by dual processors using different software. This provides what is known as a redundancy check. If the processors interpret the protocol differently, they immediately shut down all outputs. Such safety features as digitally verified transmission and redundancy checking are just two of the innovations which Datek has pioneered in the area of radio remote control. Since its founding in 1979 Datek has focused on developing safe radio remote controls, something we still do and will continue to do.

Radio transmission

The receiver's frequency is adjusted to the required frequency band. For frequency shift transmitters, the receiver scans the frequency band until it finds the relevant transmitter with the correct ID code and protocol.

Feedback

The receivers in this series can be provided with two-way communication. Feedback to the transmitter unit is obtained through semi-duplex, which means that only one frequency is utilised for both control signals to the receiver and feedback data. This is advantageous if availability of frequencies is limited, as you are only taking up one frequency instead of two.

Customised receivers

The receiver cabinet is available in two different sizes, depending on the number of functions/relays required. Receivers with up to 23 relays come in a cabinet measuring 380 x 380 x 210 mm. Receivers with more than 23 relays come in a cabinet measuring 380 x 600 x 210 mm.

D2001 can control up to 20 digital functions.

D2801 can control up to 28 digital functions.

D2801 Extended can control more than 28 digital functions by using two receiver logic boards in a master/slave configuration. This makes it possible to have 56 simultaneous digital outputs from the receiver.

Further information

For more information about our radio systems, please visit our website at www.datek.net or call us on +46 8 534 101 50.

We will be glad to help you.



General information

Dimensions	380 x 380 x 210 mm (≤23 relays)
Dimensions	380 x 600 x 210 mm (>23 relays)
Temperature range	-25° – 70°C
Protection class	IP65

Radio transmission

Frequency	406 – 472 MHz
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Power supply

Supply voltage	48/110/230 VAC
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Outputs

Digital outputs	≤56
Output relays	10 A/250 VAC

Feedback

Digital inputs	6
Digital / analogue inputs	8

Options

- Signal horn
- Pre-assembled machine cable with Harting connector
- Extension cable for aerial
- Stainless-steel cabinet

Recommended transmitters

- D2801 MIDI
- D2801 MIDI Extended
- D2012 Hand-Held Transmitter