



The D6003 receiver

The Datek D6003 receiver is designed to control hydraulic applications safely. This receiver is suitable for various proportional applications such as truck cranes, drilling rigs, piling machines, concrete chutes/pumps, etc. Receiver output signals are adjustable to accommodate current- and/or voltage-controlled hydraulic valves from various manufacturers.

Robust and easy to maintain

The receiver is designed for harsh working environments and a long service life. Separate circuit boards and LEDs indicating control functions, information flow and operating status make any troubleshooting easy. All connectors and relays are socket-mounted, making it easy to identify and replace the defective module, thereby avoiding longer downtime. The receiver is mounted inside a sturdy stainless-steel cabinet that complies with protection class IP65. The radio board

and logic board 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 on 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. All outputs are protected against transients and short circuits.

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.

Product benefits

- Easy to install and maintain
- Can be customised for various applications and according to preference
- The use of a unique digital protocol and verification by double processors ensures safety
- Online calibration for optimal control of proportional applications
- 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 D6003 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.

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.

Output signals

The receiver's standard design has eight proportional and thirteen digital output signals. All functions can be controlled simultaneously. If control of more functions is needed, the receiver can either be extended or functions can be shifted.

Online calibration

From the transmitter, many parameters can easily be calibrated online to ensure optimal control. Calibrated values, such as initial, maximum and micro speeds, are stored in three different memory banks. By means of a switch on the transmitter, the operator can access these memory banks to select a particular setting or suitable operating properties. The calibrated values are stored in the receiver. If a new transmitter is ordered for the system, all settings are saved, and the operating properties remain the same. A further number of parameters can be preconfigured from the factory or adjusted by authorised personnel either online or using a PC. These include acceleration, retardation, linearity, cruise control and overloads. A system's specific characteristics can be copied to another system or to a PC.

D6003K – the more compact receiver

For Danfoss hydraulics, a more compact version of the receiver with a sturdy fibreglass enclosure is available. This receiver measures only 220 x 120 x 90 mm and is therefore suitable for installation in confined spaces. The receiver can control eight proportional and 21 digital functions simultaneously.



General information

Dimensions	300 x 200 x 160 mm
Temperature range	-25° – 70° C
Protection class	IP65

Radio transmission

Frequency	406 – 472 MHz
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Cable control

Technology	2-wire
Length	≤200 metres (standard 10 m)

Power supply

Supply voltage	12/24 VDC
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Outputs

Proportional outputs	8
Digital outputs	13

Feedback

Digital inputs	6
Digital/analogue inputs	8

Options

- Pre-assembled cables with connectors for hydraulic valves and other functions
- Extension cable for aerial
- Cable control between transmitter and receiver

Recommended transmitters

D2801 MIDI
D2801 MIDI Extended
D2012 Hand-held transmitter

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.