



metraTec® hfMux-4-HP RFID-Multiplexer

The metraTec hfMux-4-HP is an RFID multiplexer for HF systems with an operating frequency of 13.56 MHz and a maximum power of 8 W. It allows connecting up to four antennas to a single mid-range or long-range RFID reader. This reduces system complexity and setup costs in cases where many antennas are needed and also lowers hardware system costs as the number of readers needed decreases. The device works irrespective of the manufacturer of the antennas and readers used. Furthermore, the multiplexer has a very small size and a minimal power consumption which enables mobile operation. Versions with eight and 16 antenna ports are available under the corresponding order codes (-8-HP and -16-HP).

Application Suggestions

- Sequential reading of several areas (e.g. library shelves)
- Location tracking with antenna arrays
- Reading of tags independent of polarisation (3D reading)

Further RFID Components by metraTec

metraTec offers a comprehensive set of RFID products that enables its customers to set up RFID systems whose components work together seamlessly. The hfMux-4-HP interfaces e.g. with up to four antennas of our Lambda series as well as custom antennas on the antenna side and with any long range reader with up to 8 W on the market.

Technical Specifications

Operating Principle	1 on 4 HF Multiplexer with reflective switches
System Impedance	50 Ohm
Operating Frequency	13.56 MHz
max. RF Input Power	8 W
Connections	BNC (other, e.g. SMA on request)
Power Supply	24 V DC
Current Consumption	60 mA typical
Insertion loss, typ.	0.45 dB
Cross talk, typ.	43 dB
Return Loss, typ.	-27 dB
Features	Hot Switchable, Failsafe
Control Inputs (S1, S2)	TTL
Switching speed	4 µs typical
Temperature Range	-40 °C to +85 °C (-40 °F to +185 °F)
Housing, dimensions	Aluminium, 112 x 62 x 30 mm (4.4" x 2.5" x 1.2")
Ingress Protection	IP 40 (higher on request)
Conformity	CE, including EN 60950-1, ETSI 301 489-3

At a Glance

- Simple set up and control
- Compatible with all HF readers up to 8 W RF power
- Low power consumption
- Small size

About metraTec

metraTec is a producer of a comprehensive line of RFID products as well as similar electronic equipment. As such, we are able to deliver the entire hardware needed for your RFID projects from one single source - filling the gap between the tag and your software infrastructure.

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