Radio modules for MULTICAL® 41

Wireless radio reading of MULTICAL® water meters

Operates within a license-free radio frequency

Easily built into the modular space of the meter (Plug and Play)

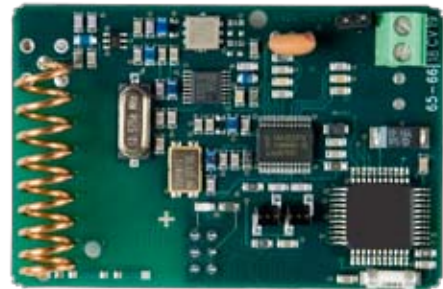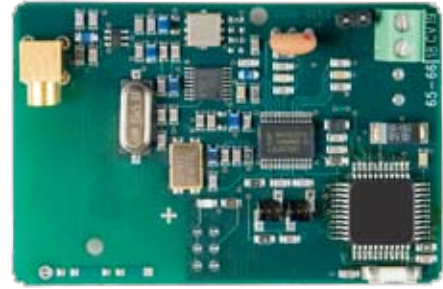**Built-in antenna**

External antenna is possible

No configuration

Prepared for radio network

Extra pulse output

Supplied from the meter

Supports leakage and bursting alarm

Application

With a radio module from Kamstrup placed in the meter it is possible to read the meter by using the hand-held terminal MULTITERM Pro without disturbing the customer.

External cables are not necessary as is the case with reading via an external data plug or an optical eye.

he radio module is mounted in the modular space of the meter without using tools and is ready for use less than 10 seconds after the calculator top has been mounted.

The software program of the hand-held terminal determines which data should be read in the meter.

This data is transferred every 24 hours from the meter to the memory of the radio module, and thereby the reading time can be reduced considerably.

At the utility the read data is easily transferred to the AMR system.

The radio module offers leak surveillance, where the meter's volume is controlled every hour and compared with an alarm limit. If the limit is exceeded, the radio module sends an alarm to the radio network handling the alarm.

Furthermore, a pulse output has been mounted on the module for use in CTS systems.

The radio module is supplied as standard to operate within a licence-free band, but can also be supplied for other licence demanding frequencies.
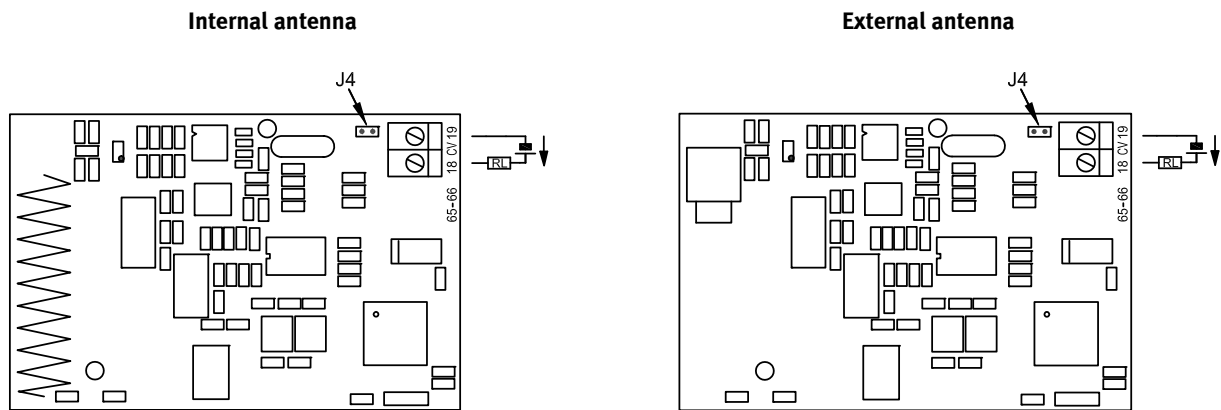
The radio module is prepared to form part of a Kamstrup radio network, where read data is automatically transferred to the system software via the network components RF Router and RF Concentrator.

Kamstrup's radio system tolerates other radio systems.

Kamstrup

Connection Diagram

Internal antenna

External antenna

Technical data

Electrical data

Supply	Supplied via the meter
Range	
– Installed	Up to 200 m
– With external antenna	Up to 500 m
Frequency band	
– Standard	License-free frequency band
– Alternative	License demanding frequencies
Output	2 mW (3 dBm)
Leakage alarm	The alarm limit is set to 10 litres from the factory
Pulse output	1 pulses per 10 litres
	Voltage – 30 V
	Load – 10 mA
	Pulse width – 0.1 second

Mechanical data

Dimensions	45 x 64 mm
Ambient temperature	-40 - +60°C
Mounting	In the modular space of the meter

Marking/approvals

EN 1434 approval	
R&TTE directive	EN 300 220 – class 2
	EN 301 489
CE-marking	

Typical reading duration	MULTICAL® 41
Data from the memory of the radio module	6 sec.
Data directly from the meter	12 sec.

See the radio flash manual for further information on reading duration and data diagram.

Order specification

Description	Type no.
Radio module for MULTICAL® 41	
– Internal antenna	66-0L-000-3xx
– External antenna	66-0M-000-3xx
External antenna (1.5 m antenna cable)	66-99-407
External antenna	66-99-408
Converter, external antenna	66-99-417