

Data sheet

## Kamstrup High Power Radio Router module

### for MULTICAL® 603

- Automatic radio reading of MULTICAL® 603
- High transmission power
- Built-in router functionality
- Autodetection of radio frequency on two channels
- External antenna connection
- Two extra pulse inputs for connection of water and electricity meters
- Easily built into the modular slot of the meter – plug and play
- Supports leakage and burst alarms
- Data from the meter is read in as little as one second



## General description/Application

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The High Power Radio Router module is mounted in MULTICAL® 603 and functions as a router unit in a radio network. In addition, the module functions as an ordinary radio module and can be read via hand-held terminal, USB Meter Reader or a fixed network.

The module is installed in MULTICAL® 603 without configuration and is ready for communication in less than 30 seconds after installation.

The reading system (hand-held terminal, USB Meter Reader or Radio Mesh Fixed Network) then determines which data should be read.

The High Power Radio Router module is equipped with two radio channels and detects automatically whether communication is on the high-power channel (channel 1) or on the low-power channel (channel 2)

Channel 1 is typically used for communication between high-power radio network units, whereas channel 2 is used for collecting data from e.g. a battery-supplied water meter. This provides good stability and high security when transferring data.

The built-in router functionality provides you with the possibility of building up a radio mesh network between the individual meters and the central concentrator controlling the radio communication to and from the meters.

The High Power Radio Router module is delivered with extra pulse inputs for additional consumption meters.

Kamstrup's radio system is extremely robust to interference.

## Technical data

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### Electrical data

Supply	Supplied by the meter which must be mains-supplied (high power 24/230 VAC)
Range	
- channel 1 (high-power)	Urban areas up to 350 m Rural areas up to 5,000 m
- channel 2 (low-power)	Up to 200 m
Frequency band	Available for license-free and license-demanding frequencies: - 434 MHz range (license-free) - 444 MHz range (license-demanding)
Output power	Max 500 mW on license-demanding frequencies (high power) Max 10 mW on the license-free frequency (EU) (low power)
Reading period	Down to one second for short data packages containing billing data

### Mechanical data

Dimensions (L x W x D)	90 x 35 x 14 mm
Weight	37 g, incl. internal antenna and module cover
Temperature range	-40 °C...+ 70 °C

## Markings and standards

Radio Equipment Directive (RED)

- EN300 220-2 v.3.1.1:2016
- EN301 489-1 v.2.1.1:2016
- EN301 489-3 v.2.1.0:2017
- EN61010-1:2010
- EN62311:2008

Restriction of Hazardous Substances Directive (RoHS)

## Ordering information

	XX	YY	ZZZ
<b>Module type</b>			
High Power Radio Router module	A		
<b>System configuration</b>			
EU, 319, Ch1/Ch2, NET0 [434.050/434.420 MHz] *		00	
EU, 319, Ch1/Ch2, NET1 [434.050/434.420 MHz] *		01	
CH, 318, Ch1/Ch2, NET0 [434.050/434.420 MHz]		02	
CH, 318, Ch1/Ch2, NET1 [434.050/434.420 MHz]		03	
SE2, 327, Ch1/Ch2, NET0 [444.050/434.420 MHz]		04	
SE2, 327, Ch1/Ch2, NET1 [444.050/434.420 MHz]		05	
SE1, 328, Ch1/Ch2, NET0 [444.050/444.400 MHz]		06	
SE1, 328, Ch1/Ch2, NET1 [444.050/444.400 MHz]		07	
NO, 339, Ch1/Ch2, NET0 [444.675/434.420 MHz]		08	
NO, 339, Ch1/Ch2, NET1 [444.675/434.420 MHz]		09	
DK2, 348, Ch1/Ch2, NET0 [444.550/434.420 MHz]		10	
DK2, 348, Ch1/Ch2, NET1 [444.550/434.420 MHz]		11	
DK1, 349, Ch1/Ch2, NET0 [444.450/434.420 MHz]		12	
DK1, 349, Ch1/Ch2, NET1 [444.450/434.420 MHz]		13	
FI, 359, Ch1/Ch2, NET0 [444.300/434.420 MHz]		14	
FI, 359, Ch1/Ch2, NET1 [444.300/434.420 MHz]		15	
<b>Datagram</b>			
Determined by the reading system			000

\* Both frequencies are max 10 mW [10 dBm]

## Accessories

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<b>Description</b>	<b>Type number</b>
External triangle antenna with 2.5 m antenna cable	6699 407
External triangle antenna without antenna cable	6699 408
Converter box for external triangle antenna without antenna cable	6699 417
Cavity wall antenna with 2.5 m antenna cable	6699 442
Antenna cable – 50 m super low loss RG58	6699 460

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