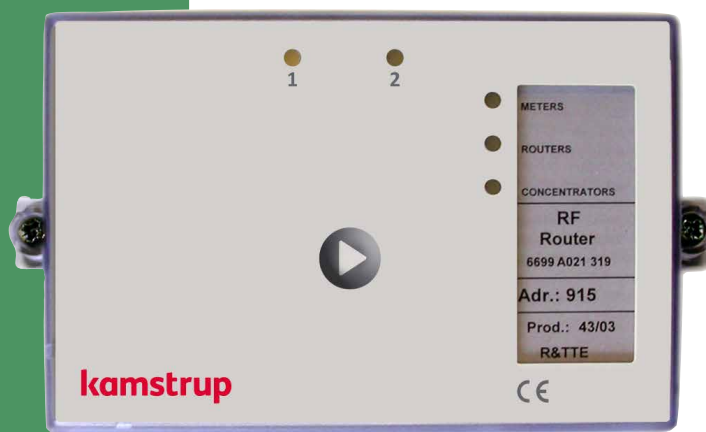


Data sheet

## The intelligent Network

### RF Router

- Handles radio communication of up to 70 energy meters/network units
- No configuration
- Status LEDs
- Optional connection of external antenna
- Optional update of software via radio network
- Battery or 230 VAC supply
- Flexible installation
- Handles leak and bursting alarms



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## Application

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Kamstrup RF Router is a network component used in Kamstrup's intelligent radio network requiring remote data reading of Kamstrup energy meters.

RF Router enables the station to build a network between the energy meters and the central network unit, RF Concentrator.

RF Router establishes radio connection for transmission of data between the individual energy meters and RF Concentrator.

The data to be read from the radio network are specified in the general system software.

RF Router includes an integrated antenna. If an increased working radius is necessary, an external antenna can easily be connected to RF Router.

The read data are transferred to the system software via RF Concentrator and GSM/GPRS or IP.

RF Router is available for operation in a licence-free frequency band or for chargeable frequencies.

The Kamstrup radio system is robust to other radio systems.

## Network installation

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To be able to use below as status indication on the radio network, you must install one or more Kamstrup energy meters and network units in the area.

### Installation test

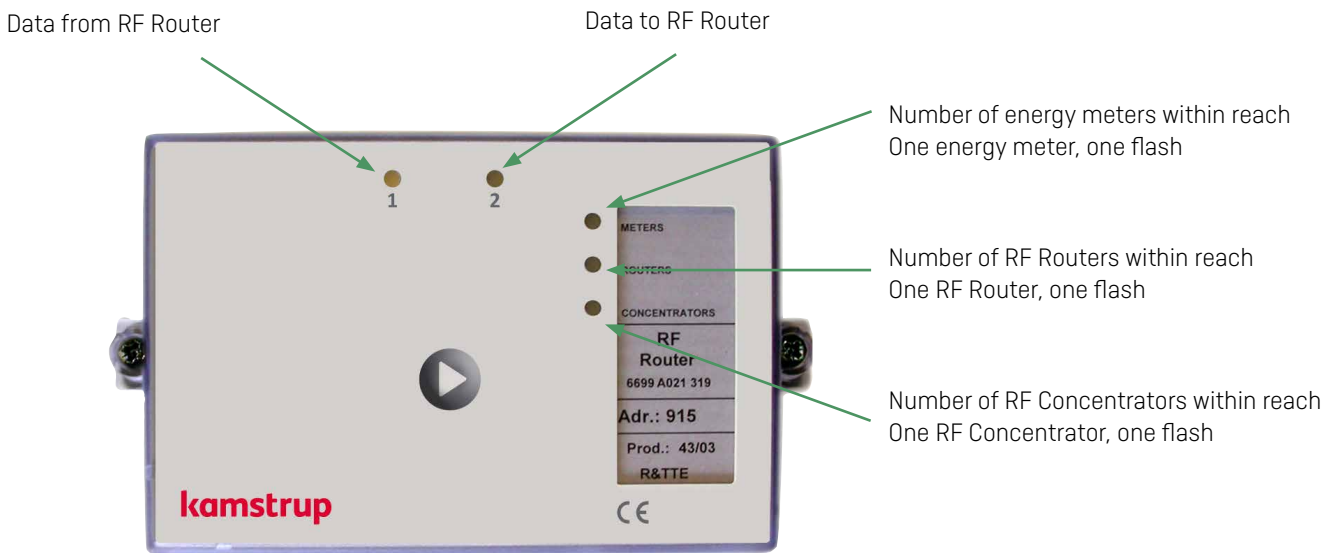
Mount the RF Router top after installation, and keep pressing the front key until the LED turns on in the right side marked "Meters". Release the front key and the RF Router starts creating its local list via radio communication. The LED's no. 1 and 2 flash on and off for max. 2 minutes. When the LED's go out the local list has been created and can be read either directly on the RF Router, see "RF Router - Local list test" or via a handheld terminal.

### Sign up for the radio network

Keep pressing the front key until the LED's turn on in the right side marked "Meters" and "Routers". The RF Router sends a sign up inquiry to the nearest RF Concentrator. The LED's no. 1 and 2 flash on and off. If all 3 LED's then turn on, the RF Router is signed up for the radio network.

### Local list test

Keep pressing the front key until the LED's turn on in the right side marked "Meters", "Routers" and "Concentrators". The local list is displayed when the LED's flash on and off, see next picture.



## Technical data

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### Electrical data

Supply	Battery or 230 VAC supply
Reach	Under normal installation conditions up to 350 m from mounting position With external antenna up to 1000 m
Frequency	Licence-free frequency band or chargeable frequencies
Transmitting power	10 mW
Battery lifetime	10 years with monthly readings

### Mechanical data

Dimensions (w x h x d)	147 x 100 x 45 mm
Ambient temperature	-40 – +60 °C
Mounting	Indoors External antenna can be mounted outdoors
Protection class	IP54

### Standards

EN 13757-3 (M-Bus protocol)  
EN 13757-5 (Network relaying)

### Marking/Approvals

R&TTE directive	EN 300 220 – class 2 EN 301 489, EN60 950, EN62 311
CE marking	

## Ordering options

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### Battery operated systemes – typical heating systems

6699-	X	X	X	X	XXX
<b>Network Components</b>					
RF Router, NET 0	A				
RF Concentrator, NET 0	B				
RF EVL, NET 0	C				
RF Router, NET 1, Combi	E				
RF EVL, NET 1, Combi	F				
RF M-Bus Converter, NET 0	G				
RF M-Bus Converter, NET 1, Combi	H				
RF CS, NET 0	J				
<b>Module</b>					
No module		0			
Data input for GSM 9600		1			
Data/Power Converter for EVL		2			
CS, Current Loop module		7			
Data/Power Converter for RF M-Bus		9			
IP 201 module		A			
<b>Supply</b>					
No module			0		
Battery			2		
230 VAC			3		
230 VAC – High Power			5		
24 VAC			6		
High Power Lithium battery			9		
<b>Bracket</b>					
Bracket for thin antenna cable				1	
Bracket for thick antenna cable				2	
Bracket for EVL				3	
<b>Optional frequency code</b>					
EU					319
SE					329

Please contact Kamstrup A/S for further information

## Ordering options

### 230 V operated /combi systems

6699-	Z	Z	Z	Z	ZZZ
<b>Network Components</b>					
RF Concentrator, NET 0	B				
RF Concentrator, NET 1, Combi	D				
RF M-Bus Converter, NET 0	G				
RF M-Bus Converter, NET 1, Combi	H				
RF CS, NET 0	J				
<b>Module</b>					
No module		0			
Data input for GSM 9600		1			
Data module/Westermo 4-wire		6			
CS, Current Loop module		7			
Data/Power Converter for RF M-Bus		9			
IP 201 module		A			
<b>Supply</b>					
230 VAC			3		
230 VAC – High Power			5		
High Power Lithium battery			9		
<b>Bracket</b>					
Bracket for thin antenna cable				1	
Bracket for thick antenna cable				2	
<b>Optional frequency code</b>					
EU					319
SE					329

Please contact Kamstrup A/S for further information

RF Router

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