



230Vac Radio Link The Original Pump Overrun Solution

Features:

- Supplied ready to operate
- Replaces a “Switched Live Cable”
- Quick and Simple to Install
- Up to 5Km range line of sight.
- Up to 1Km range in buildings
- Screw Terminal Connections
- 230Vac Operation
- FSK/LoRa Spread Spectrum RF Modulation
- Weatherproof IP68 Enclosures
- RED Compliant and FCC Certified
- High Quality UK manufacture
- RIoT compatible



Description

MAINSLINK is a plug and play solution to replace a switched live cable. When 230Vac “LIVE” is input to the transmitter, the receiver provides a 230Vac “LIVE” switched output at its screw terminals.

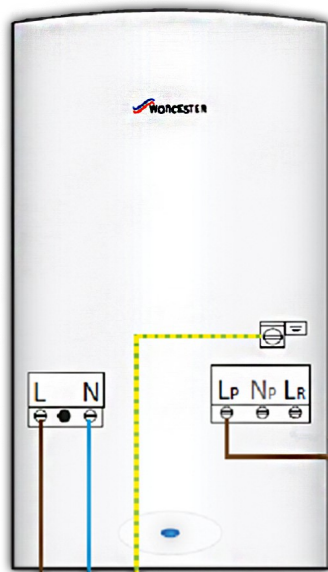
MAINSLINK utilises the RF Solutions state of the art RF-LoRa Spread Spectrum Frequency Modulation transceiver design to achieve a the highest performance / Range available from any Radio System, up to 1Km within a building environment and 5Km Line of sight.

When used as a Pump Overrun solution the TX is placed by the boiler and connected to the Boiler Pump output. The RX directly drives the pump from its Live switched output.

Ordering Information

Part Number	Description
MAINSLINK	System (TX and RX) ready to go

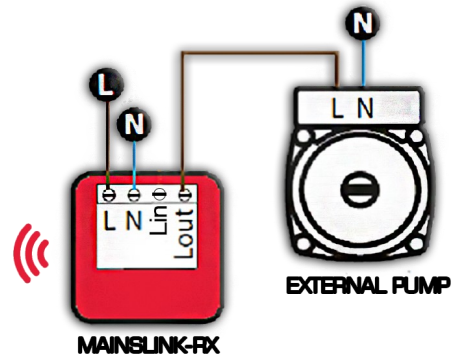
Application example: WORCESTER-BOSCH Boiler Installation



Operation

When the Boiler switches the Pump ON, MAINSLINK-TX is switched Live, then, MAINSLINK-RX Lout will automatically switch the pump on.

MAINS SUPPLY



Technical Specification:

Dimensions: 92 x 92 x 59mm

Electrical Characteristics	Min	Typical	Max	Units
Supply Voltage TX/RX:	220	230	250	Vac
Operating Frequency*		869.50		MHz
RF Output power			+20	dBm
Bandwidth (Spreading Factor)		60		KHz
Maximum switching load (RX)		1000		W
Time delay from TX Transmit to RX Relay operation:				
Mode FM		0.02		Secs
Mode 3		2		

Product Revision History

The below shows the product Development / Improvements that have been made to the product through the product Lifecycle.

MAINSLINK REVISION CHANGE HISTORY			
Date	Eng Change	New Revision	Product Change / Improvement
18/10/18	ECN314	2	Update to firmware to prevent lockup when pairing in Mode 3. Using Mode 3 only, the length of RF packet is >2secs, if, when in LEARN mode both MAINSLINKS' transmit at the same time then they can both be in the position of waiting for a response. New F/W randomly sets one as master on initial RF signal, then only one response is received removing the RF competition.
12/2/19	ECN319	6	If the input (RX signal) immediately coincides with an output (TX signal) in very rare cases (two reported) the RF transceiver has locked up, this is a fix to this issue.
1/9/19	ECN331	8	Addition of LEDs on Front panel for visual indication or operation. Improvements to the enclosure.
6/12/21	ECN366	9	RIoT compatible. After power cut, receiver will automatically turn on output in presence of Watchdog signal.

Version Identification

The product part number and revision of build can be viewed on the white label on the outside of the enclosure and also on the Circuit board assembly.

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