



2 Way Boiler & Pump Control

Features:

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



Description

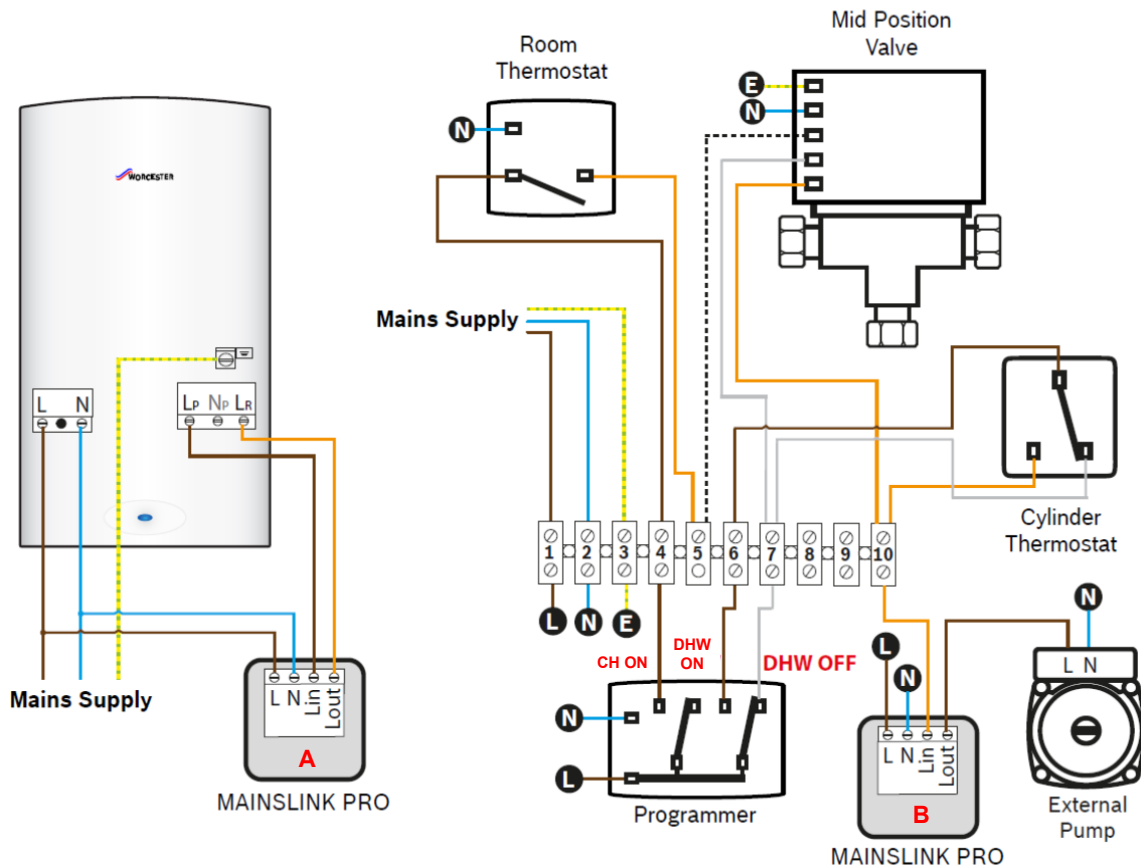
MAINSLINK-PRO removes the need to lay all “Switched Live Cables” between the Boiler and the wiring Centre. It provides a bi-directional two way 230Va switching RF link. MAINSLINK-PRO consists of two identical units. One unit is installed by the boiler and the other within the wiring Centre.

Each unit has a ‘Live In’, and a ‘Live Out’ screw terminal. When the ‘Live in’ is ‘LIVE’ at one unit it sends an RF signal to the other unit which switches its ‘Live out’ ‘LIVE’, and vice versa, MAINSLINK-PRO 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.

Ordering Information

Part Number	Description
MAINSLINK-PRO	System consisting Pair of Transceiver units

Application example: WORCESTER-BOSCH Boiler Installation



This system provides two functions, Switching of the Pump from the boiler and Switching of the Boiler from the wiring Centre.

Connections at the Boiler

The boiler output to the Pump is connected to the MAINSLINK-PRO A, (Lin).

The boiler switching input is connected to the MAINSLINK-PRO A (Lout).

It is recommended to use a single switch fuse spur to supply the Boiler and MAINSLINK together. (so that both appliances are isolated together)

Connections at the Wiring Centre

The thermostats switching output to switch the boiler is connected to the MAINSLINK-PRO B (Lin).

The Pump is connected to the MAINSLINK-PRO B (Lout).

Operation

When the wiring centre commands the Boiler ON MAINSLINK-PRO B (Lin) is switched is Live then MAINSLINK-PRO A Lout will automatically switch a LIVE signal to turn the boiler on.

When the Boiler switches the Pump drive ON MAINSLINK-PRO, (Lin) "A" is switched Live then MAINSLINK-PRO B Lout will automatically switch the pump on.

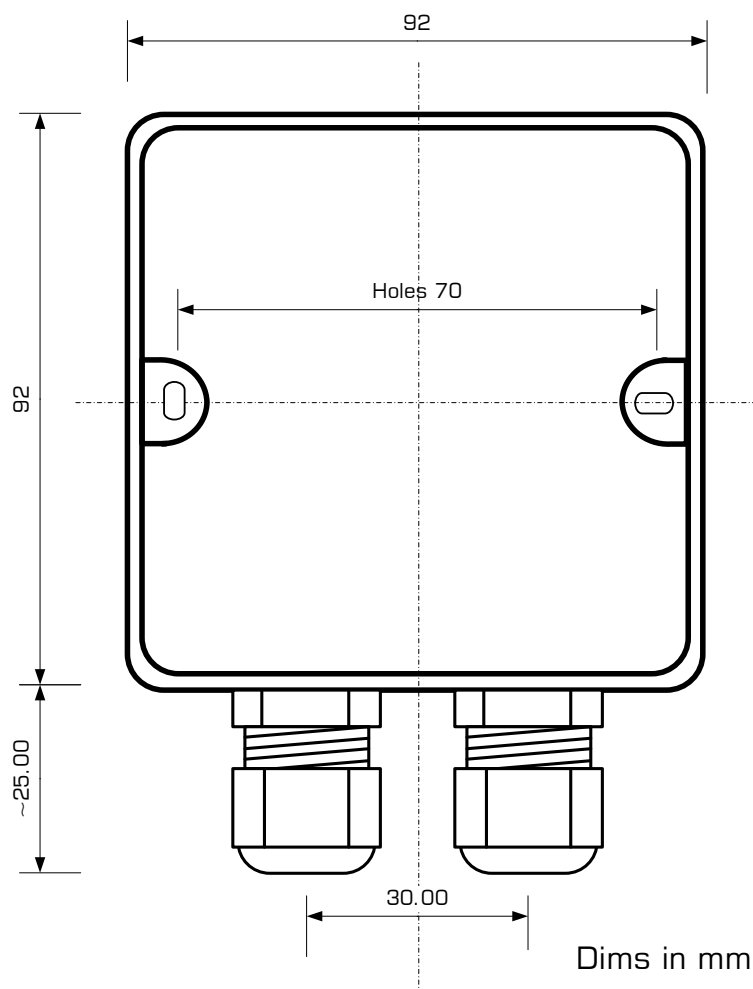


Warnings :

- Product is not independently isolated, ISOLATE the mains electricity supply before removing the cover and observe any relevant safety precautions. Maintenance to the product that involves removal of the cover should only be carried out by a competent person or qualified electrician.
- F2 Fuse rating is 4A (T) 250 H (Ceramic). Replace fuse with same type and rating.
- Relay is rated at 10A peak, and 5A constant.
- Product must be connected to a switch fused (spur/supply) or BS 1363 Plug. It is recommended a single Fuse Spur is used to supply the Boiler and MAINSLINK-PRO jointly so that they are isolated together.

Dimensions and Wall mounting information:

MAINSLINK-PRO is a professional use product and should only be installed by a competent person. The product must be FIXED to the wall (EN60950 4.1).



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 3 Mode 7		3 4		Secs

Product Revision History

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

MAINSLINK-PRO 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 Mode7. Using Mode 7 only the length of RF packet is >2secs, if, when in LEARN mode both MAINSLINK-PRO 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	3	If the input (RX signal) immediately coincides with an output (TX signal) in vary rare cases (two reported) the RF transceiver has locked up, this is a fix to this issue.
1/9/19	ECN331	3	Addition of LEDs on Front panel for visual indication or operation. The enclosure is now waterproof to IP68.

Revision 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.

Simplified Declaration of Conformity (RED)

BG - С настоящото RF Solutions Limited декларира, че този тип радиосъоръжение дефинирани в този документ е в съответствие с Директива 2014/53/EC.

Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: www.rfsolutions.co.uk

CS -Tímto RF Solutions Limited prohlašuje, že typ rádiového zařízení definované v tomto dokumentu je v souladu se směrnicí 2014/53/EU.

Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.rfsolutions.co.uk

DA - Hermed erklærer RF Solutions Limited, at radioudstyrtypen defineret i dette dokument er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.rfsolutions.co.uk

DE - Hiermit erkläre RF Solutions Limited, dass der Funklagentyp in diesem Dokument definiert der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: www.rfsolutions.co.uk

EL - Με την παρούσα ο/η RF Solutions Limited, δηλώνει ότι ο ραδιοεξοπλισμός ορίζεται σε αυτό το έγγραφο πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: www.rfsolutions.co.uk

EN - Hereby, RF Solutions Limited declares that the radio equipment type defined within this document is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.rfsolutions.co.uk

ES - Por la presente, RF Solutions Limited declara que el tipo de equipo radioeléctrico definido dentro de este documento es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.rfsolutions.co.uk

ET - Käesolevaga deklareerib RF Solutions Limited, et käesolev raadioseadme tüüp määratletud selles dokumendis vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: www.rfsolutions.co.uk

FI - RF Solutions Limited vakuuttaa, että radiolaitetyyppi määriteltä selles dokumendis on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.rfsolutions.co.uk

FR - Le soussigné, RF Solutions Limited, déclare que l'équipement radioélectrique du type défini dans ce document est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: www.rfsolutions.co.uk

HR - RF Solutions Limited ovime izjavljuje da je radijska oprema tipa definirani u ovom dokumentu u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: www.rfsolutions.co.uk

HU - RF Solutions Limited igazolja, hogy a dokumentumban meghatározottak szerinti típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.rfsolutions.co.uk

IT - Il fabbricante, RF Solutions Limited, dichiara che il tipo di apparecchiatura radio definito all'interno di questo documento è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: www.rfsolutions.co.uk

LT - Aš, RF Solutions Limited, patvirtinu, kad radijo įrenginių tipas apibūžta šiame dokumente atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: www.rfsolutions.co.uk

LV - Ar šo RF Solutions Limited deklarē, ka radioiekārtā kas definēts šajā dokumentā atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: www.rfsolutions.co.uk

MT - B'dan, RF Solutions Limited, niddikjara li dan it-tip ta' taghmir tar-radju definit f'dan id-dokument huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformita' tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li ġej: www.rfsolutions.co.uk

NL - Hierbij verklaar ik, RF Solutions Limited, dat het type radioapparatuur gedefinieerd in dit document conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: www.rfsolutions.co.uk

PL - RF Solutions Limited niniejszym oświadczam, że typ urządzenia radiowego zdefiniowane w tym dokumencie jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.rfsolutions.co.uk

PT - O(a) abaixo assinado(a) RF Solutions Limited declara que o presente tipo de equipamento de rádio definido neste documento está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: www.rfsolutions.co.uk

RO - Prin prezenta, RF Solutions Limited declară că tipul de echipamente radio definit în acest document este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.rfsolutions.co.uk

SK - RF Solutions Limited týmto vyhlasuje, že rádiové zariadenie typu definované v tomto dokumente je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: www.rfsolutions.co.uk

SL - RF Solutions Limited potrjuje, da je tip radijske opreme opredeljeno v tem dokumentu skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.rfsolutions.co.uk

SV - Härmed försäkrar RF Solutions Limited att denna typ av radioutrustning definieras i detta dokument överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: www.rfsolutions.co.uk

RF Solutions Ltd. Recycling Notice

Meets the following EC Directives:

DO NOT

Discard with normal waste, please recycle.

ROHS Directive 2011/65/EU and amendment 2015/863/EU

Specifies certain limits for hazardous substances.

WEEE Directive 2012/19/EU

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfils its WEEE obligations by membership of an approved compliance scheme, environment agency registration number **WEEJB104WV**.



Disclaimer:

Whilst the information in this document is believed to be correct at the time of issue, RF Solutions Ltd does not accept any liability whatsoever for its accuracy, adequacy or completeness. No express or implied warranty or representation is given relating to the information contained in this document. RF Solutions Ltd reserves the right to make changes and improvements to the product(s) described herein without notice. Buyers and other users should determine for themselves the suitability of any such information or products for their own particular requirements or specification(s). RF Solutions Ltd shall not be liable for any loss or damage caused as a result of user's own determination of how to deploy or use RF Solutions Ltd's products. Use of RF Solutions Ltd products or components in life support and/or safety applications is not authorised except with express written approval. No licences are created, implicitly or otherwise, under any of RF Solutions Ltd's intellectual property rights. Liability for loss or damage resulting or caused by reliance on the information contained herein or from the use of the product (including liability resulting from negligence or where RF Solutions Ltd was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict QuasarUK Ltd's liability for death or personal injury resulting from its negligence.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[RF Solutions:](#)

[MAINSLINKPRO](#)