

MAIN FEATURES

- ❖ High sensitivity
- ❖ High dynamic range
- ❖ Wavelength division multiplexing technique
- ❖ 4 W composite RF output power



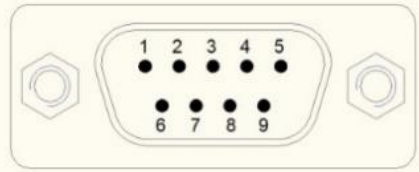
DESCRIPTION

This repeater is intended to be used for TETRA optical fibre systems. It is a compact and reliable unit, and it is especially advantageous to use it in areas where off-air transmission is not preferable. The base station side optical master unit can control and monitor the slave unit on the remote repeater side through the optical fibre. In order to provide redundancy, the slave has two independent optical connectors, and it can automatically switch between optical links, if it senses that one link is better than the other, based on user-defined conditions. This very economical solution can be installed easily, and the repeater can be monitored and controlled using the provided remote-control software.

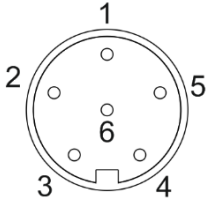
SPECIFICATIONS

ELECTRICAL PARAMETERS	
Frequency band	Downlink: 390 – 395 MHz Uplink: 380 – 385 MHz
Operating frequency bandwidth	5 MHz
Mode of operation	Band selective duplex
Linear output power	Downlink: +36 dBm or 2 x +33 dBm (2 carriers), meets ETSI regulation
ICP3	Downlink: +68 dBm minimum @ 2 x 33 dBm
ACPR	60 dB @ linear output power
Nominal gain	65 dB
Gain setting range	65 to 40 dB adjustable in 1 dB steps
Gain ripple	<±1.5 dB typical
Gain stability	<±1.5 dB (within operating temperature range)
Uplink input noise figure	<6 dB @ maximum gain
Harmonics	According to ETSI regulation
Spurious radiation	According to ETSI regulation
EVM	<1% typical (ETSI regulation <10%)
Optical module maximum RF input power	+5 dBm
Power supply voltage	230 VAC, 50 – 60 Hz
Power consumption	<100 W
MECHANICAL PARAMETERS	
Type of power supply plug	Type F plug
Type of optical connectors	LC/UPC (in waterproof housing)
Type of RF connector	N – female
Weight	<25 kg
Dimension	400 x 420 x 214 mm (see outline dimensions)

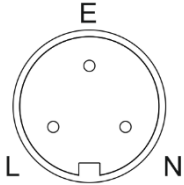
ENVIRONMENTAL PARAMETERS			
Operating temperature range		-20 °C ... +55 °C (extended heat sink)	
Storage temperature range		-30 °C ... +70 °C	
Cooling		Convection and optional switched forced cooling	
Degree of protection		IP65 Outdoor	
SOFTWARE PARAMETERS			
Wired control		RS-232	
Alarm I/O		4 external alarm inputs, user configurable sum alarm output (dry contact), status LED	
Remote control		Through optical fibre via master unit	
LOCAL CONTROL (RS-232) AND SUM ALARM CONNECTOR PINOUT (D-SUB MALE) ⁽¹⁾			
Pin no.	Function	Pin no.	Function
1	N.C.	6	N.C.
2	RX Data	7	Dry Contact
3	TX Data	8	N.C.
4	Dry Contact	9	N.C.
5	GND	-	-



EXTERNAL ALARM CONNECTOR PINOUT (BULGIN PX0412/06S)	
Pin no.	Function
1	External Alarm IN 2
2	External Alarm IN 3
3	External Alarm IN 4
4	N.C.
5	External Alarm IN 1
6	External Alarm COMMON



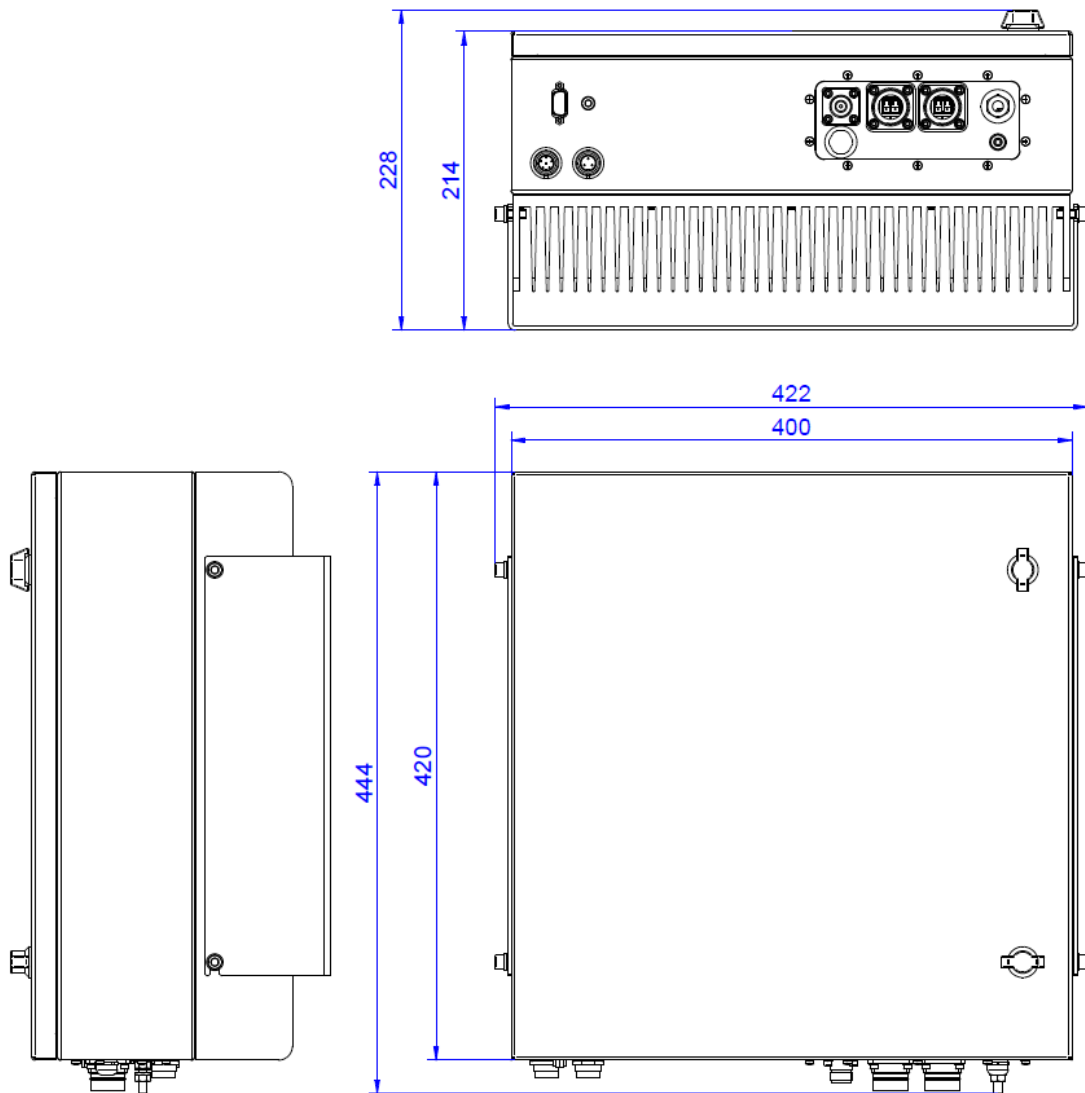
FAN CONNECTOR PINOUT (BULGIN PX0412/03S)	
Pin no.	Function
E	N.C.
L	+27 VDC (+)
N	0 VDC (-)



Specifications are subject to change without notice.

(1) In POWERED OFF state the relay will be open. The operation of the Dry Contact relay is configurable by the user.

OUTLINE DRAWING (mm)



ORDERING INFORMATION

MODEL NUMBER	FREQUENCY BAND	POWER SUPPLY
BRTF15K00274	380-385 MHz / 390-395 MHz	230 VAC
BRTF15K00430	410-415 MHz / 420-425 MHz	230 VAC
BRTF15K00455	412-417 MHz / 422-427 MHz	230 VAC
BRTF15K10140	455-460 MHz / 465-470 MHz	230 VAC
BRTF15K10629	380-385 MHz / 390-395 MHz	48 VDC

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTF15	V01	2023-04-19