

MAIN FEATURES

- ❖ Extended TETRA bandwidth (6,5 MHz)
- ❖ High sensitivity
- ❖ High dynamic range
- ❖ 4 W composite RF output power
- ❖ Optional uplink muting
- ❖ Wavelength division multiplexing technique
- ❖ SNMP support



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: 390.0 – 396.5 MHz Uplink: 380.0 – 386.5 MHz
Operating frequency bandwidth	6.5 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	45 dB
Gain setting range	45 to 25 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	<24 kg
Dimensions	400 x 420 x 155 mm (see outline dimensions)

ENVIRONMENTAL PARAMETERS

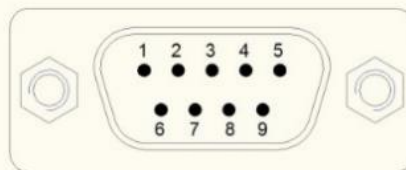
Operating temperature range	0 °C ... +45 °C
Storage temperature range	-30 °C ... +70 °C
Cooling	Convection and optional switched forced cooling
Degree of protection	IP65 Outdoor

SOFTWARE PARAMETERS

Wired control	Ethernet (SNMP v1 / v2c)
Alarm I/O	4 external alarm inputs, user configurable sum alarm output (dry contact), SNMP notifications, status LED
Remote control	Through optical fibre via master unit

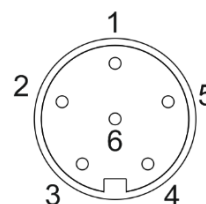
SUM ALARM CONNECTOR PINOUT (D-SUB MALE) ⁽¹⁾

Pin no.	Function	Pin no.	Function
1	N.C.	6	N.C.
2	N.C.	7	Dry Contact
3	N.C.	8	N.C.
4	Dry Contact	9	N.C.
5	N.C.	-	-



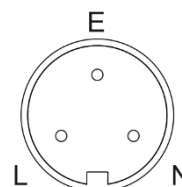
EXTERNAL ALARM CONNECTOR PINOUT (BULGIN PX0412/06S)

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)

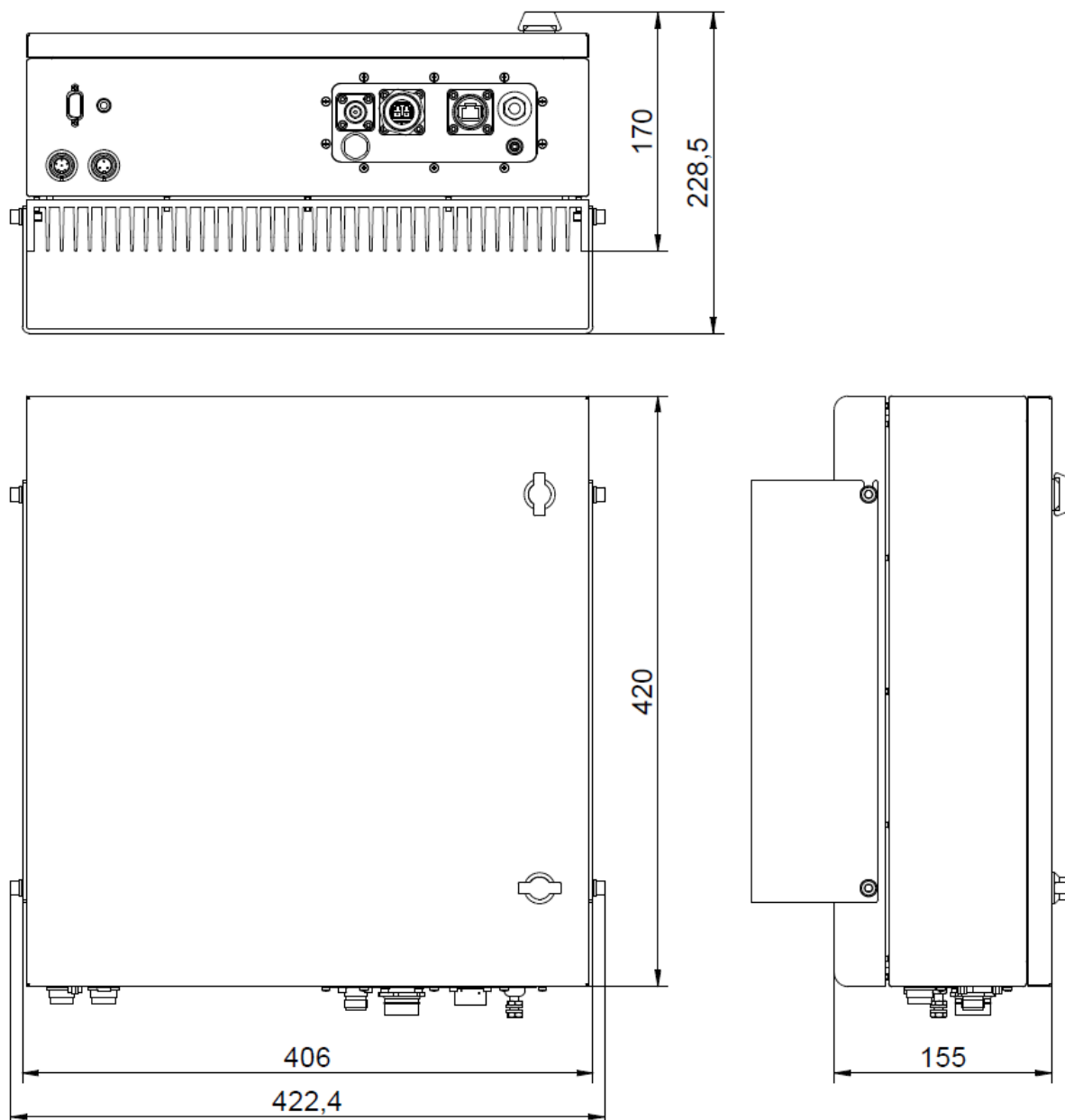
Pin no.	Function
E	N.C.
L	+27 VDC (+)
N	0 VDC (-)



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	DESCRIPTION
BRTF33K11053	BRTF33, 36 dBm, S1-S1, 380.0-386.5 MHz / 390.0-396.5 MHz, G 45 dB, SNMP, wall mount, HS 40 mm, 230 VAC

DOCUMENT REVISION

DOCUMENT NAME	REVISION	DATE
BRTF33-LM-K11053	V01	2023-04-19