BRTF15

TETRA REDUNDANT OPTICAL MACRO SLAVE REPEATER

- **4W COMPOSITE RF OUTPUT POWER**
- **REDUNDANT OPTICAL CONNECTIONS**
- **HIGH SENSITIVITY**
- **HIGH DYNAMIC RANGE**

This repeater is intended to use for TETRA in or outdoor 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 (like tunnels, large buildings etc.). The base station side optical master unit can communicate, control and monitor - through optical fiber - the slave unit on the remote repeater side. In order to increase the redundancy the slave has two independent optical connectors and it can automatically switch from one optical source to the other source if it sense some failure. This very economical solution can be installed easily, and the repeater can be set and monitored using the bundled remote control software.

Electrical characteristics:

Frequency Band Uplink	380 – 385 MHz[1]
Frequency Band Downlink	390 – 395 MHz[1]
Nominal Gain	65 dB
Gain Setting	40 to 65 dB adjustable in 1dB step
ICP3 Downlink	> 68 dBm typ.
Linear Output Power	+36 dBm[2] @ -36dBm IM
Max. ALC Level	+36 dBm [2]
Uplink Path Noise Figure	< 5 dB @ max. gain
Pass Band Ripple	< ±1,5 dB max.
Gain Stability	< ±1,5 dB (within operating temp. range)
Optical Module Maximum RF Input Power	+5 dBm
Optical Connectors	LC/PC
RF Connectors	N-female
Power Supply	100 - 240 VAC / 50 -60 Hz, optional DC 48 V
Power Consumption	< 100 W
Weight	25 kg
Size	420 x 400 x 175 mm
Operating Temperature Range	0°C to +45°C (optional -25°C to +55°C)[3]
Storage Temperature Range	-30°C to +70°C
Local Control	RS-232
Remote Control	Through optical fibre with master unit
Degree of Protection	Outdoor

[1] Other TETRA bands are also possible.
[2] According to the customer request other downlink RF power level version also possible.
[3] Depending on the actual site of installation extra heatsink might be needed.
Specifications are subject to change without notice.

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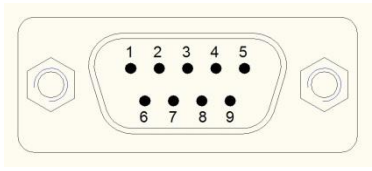
Local control connector pin map

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		

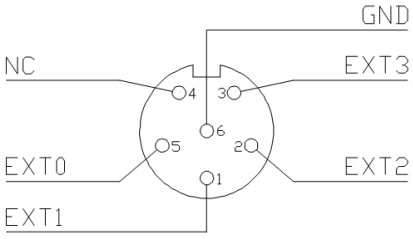


Sum Alarm events on dry contact connectors

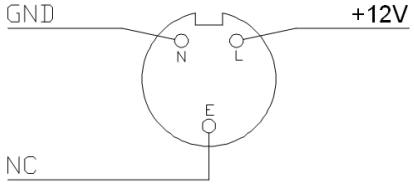
Status	DSUB-M PIN 4 and 7
Downlink Forward Power	Open / Close
Uplink module current	Open / Close
RF Overdrive for more than 30 min.	Open / Close
VSWR	Open / Close
Module temperature	Open / Close
PAM status alarm	Open / Close
Supply Voltage alarm	Open / Close
Fan error	Open / Close
Tamper	Open / Close
Optical module alarm	Open / Close
RSSI link alarm	Open / Close

The active state can be set in GUI.

External alarm connector and fan pin map



EXTERNAL ALARMS



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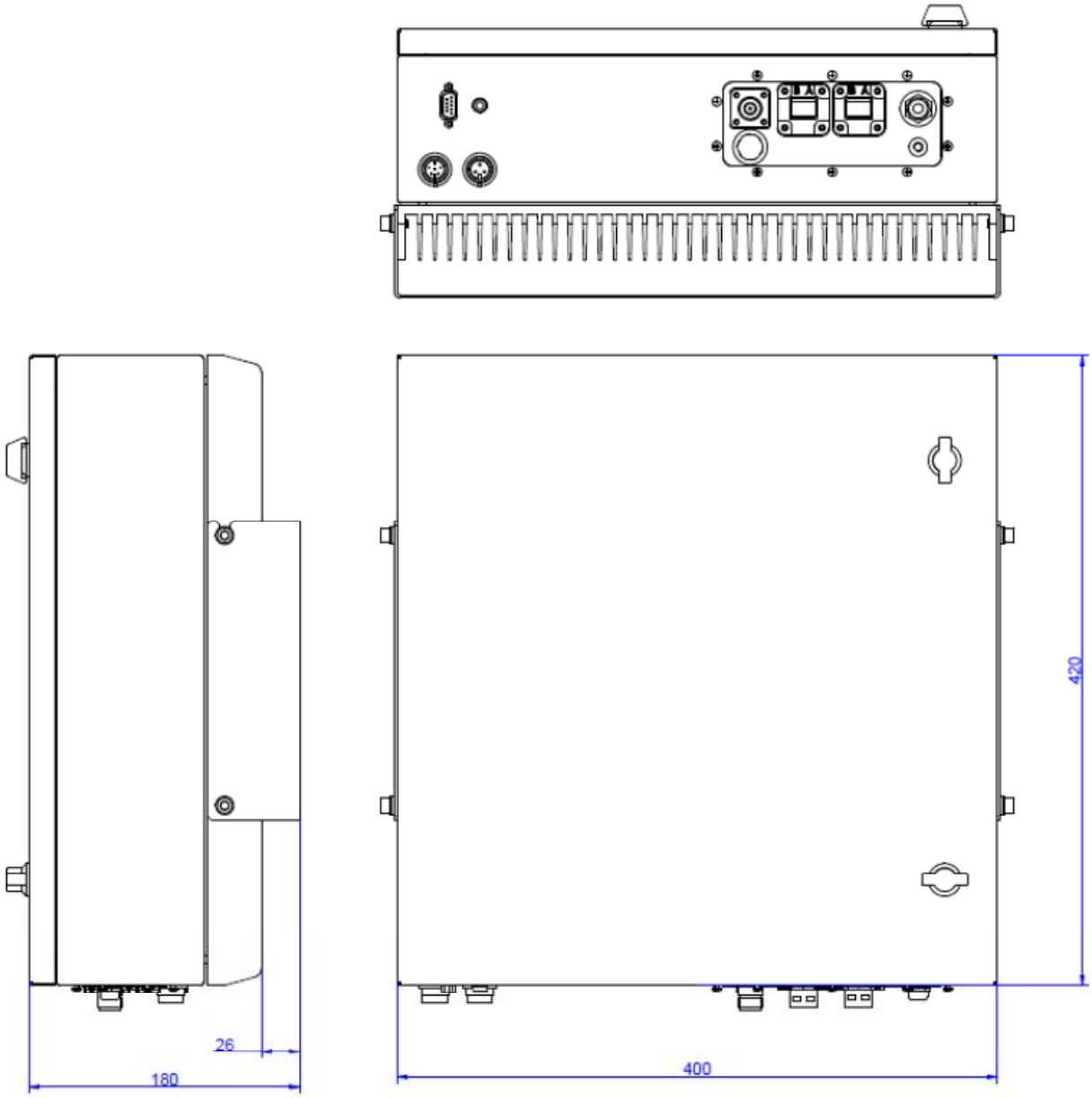
Repeater side outline dimensions (mm):



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