

BOC Burst Tell & Over-temperature Monitor Prototype Model 19302152

Operating instructions and specifications

Contents:

- 1) Specifications
- 2) Mechanical details
- 3) Connection Scheme
- 4) Circuit Diagrams

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Specifications:

a)General

A unit which is fully encapsulated. The unit will surface mount to an assembly, and will provide 4 metre lengths of cable for supply, alarm relays, thermocouple sensor and MTL barrier signal.

The unit will monitor the pump temperature and cause a failsafe alarm if temperature exceeds a preset value.

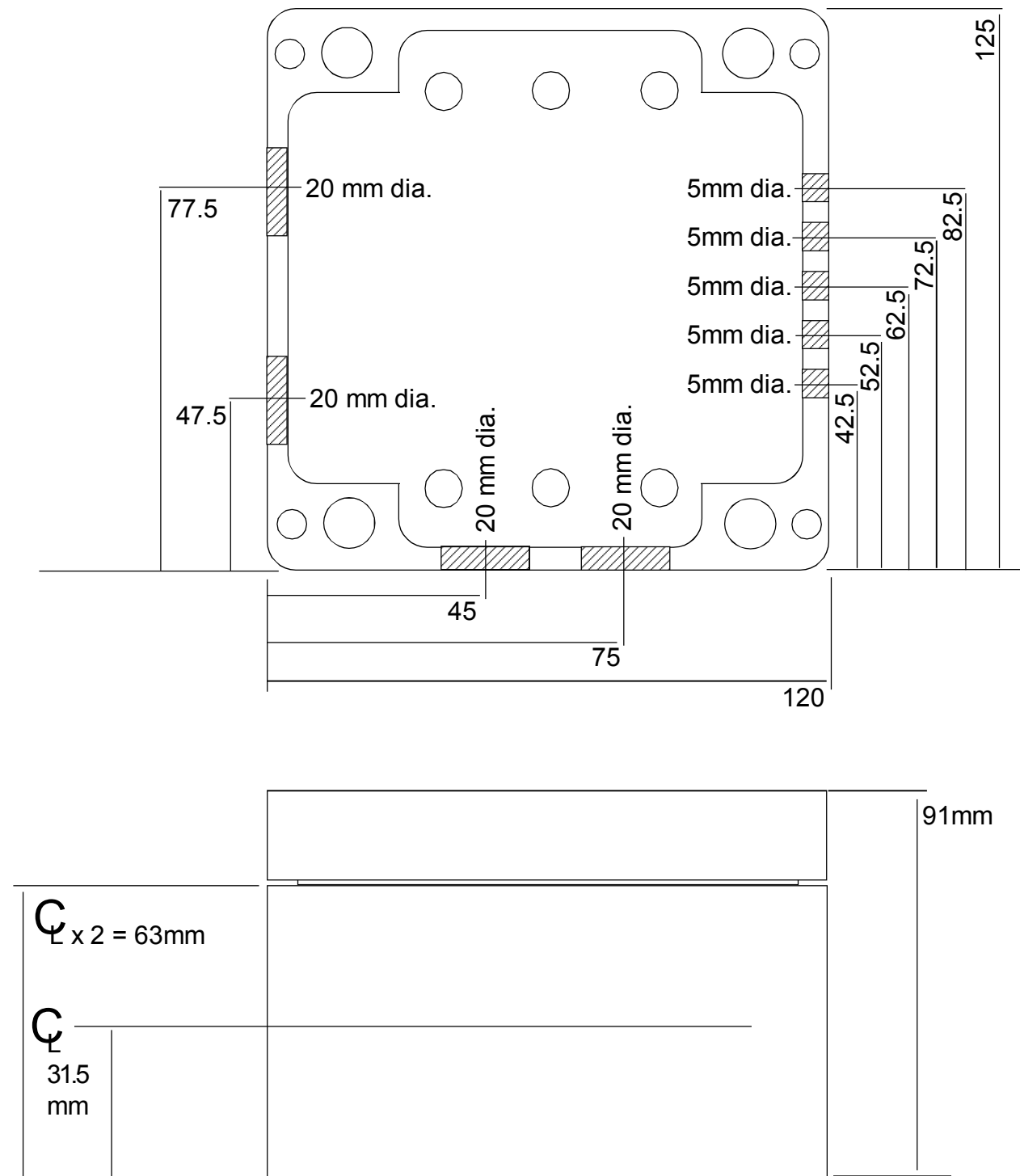
The unit will monitor a signal from an MTL barrier corresponding to burst tell condition and will cause a failsafe alarm if the resistance of that sensor falls outside predetermined limits.

The unit will annunciate the presence of 24VDC power by way of a green LED. The unit will annunciate the healthy (non-alarmed) status of overtemp. and burst tell relays by way of individual amber LEDs. The unit will annunciate the alarmed status of overtemp. and burst tell relays by way of individual red LEDs.

b)Detail

Power Supply voltage	20 to 28 VDC
Current Consumption	280 mA max.
Operating Temperature	-20 to + 50 Degrees C.
Accuracy:	
Thermocouple measuring circuit	+/- 2 degrees about -140C
Cold junction compensation circuit	0.1 Degree/C ambient change
Burst Tell sensing response	1500 Ohms healthy. Open or short = alarm MTL produces nominally 8mA DC for 1500 Ohms burst tell resistance.
Thermocouple failure	Causes unit to alarm for open circuit
Relay rating	10 Amperes nominal, 20 Amperes peak for less than 2 seconds.
Fault tolerance	Unit is designed to fail safe under fault conditions A wiring error in installation or maintenance may cause irreparable damage to this unit as it is a fully sealed unit and access to parts is impossible
Relay protection	Relays are protected by fast blowing 20A fuses

BOC model OTBT-1 Enclosure details

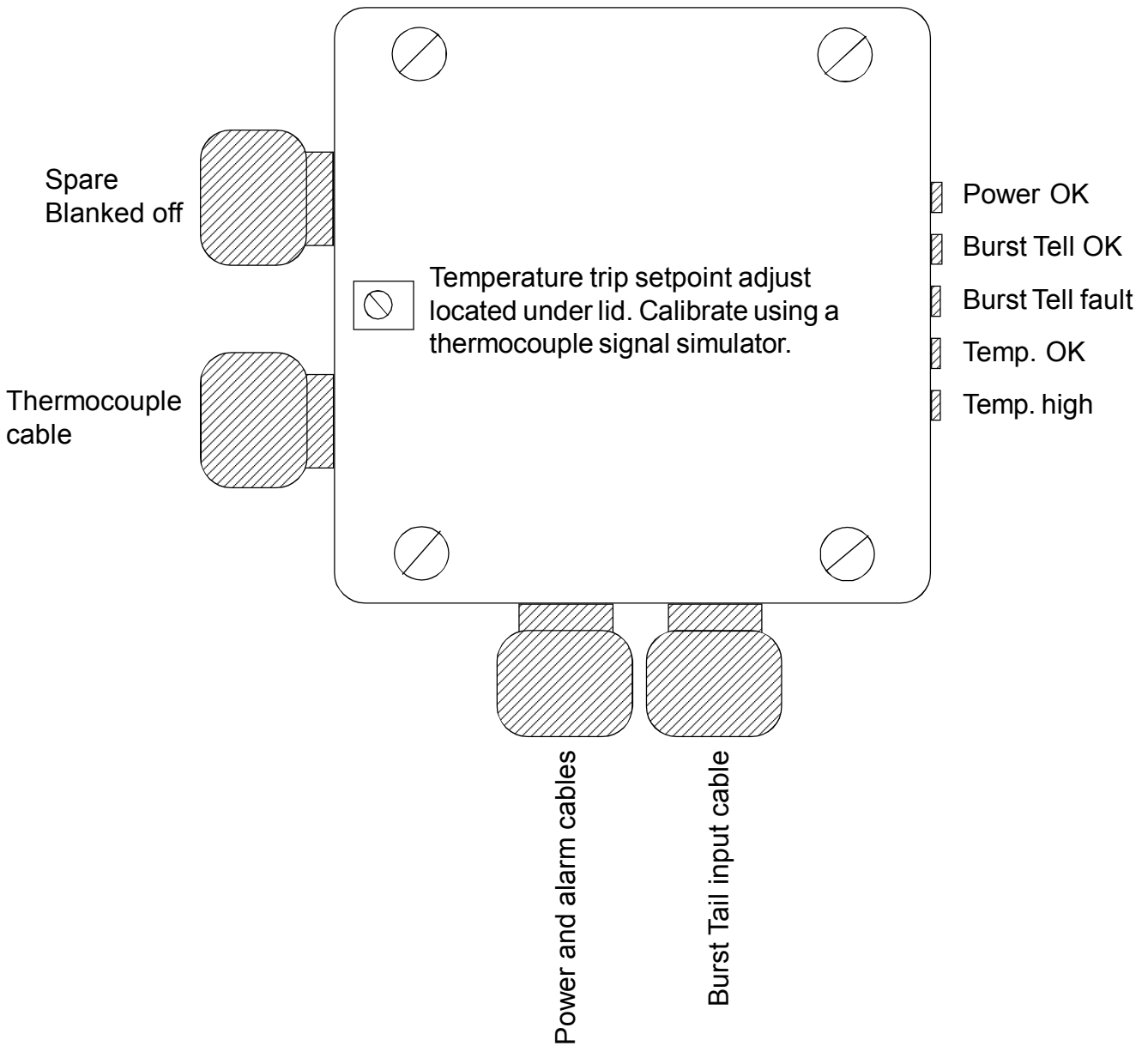


All holes central f/b on main enclosure assembly

Glands project 26 mm from body of enclosure

Enclosure material : Black GRP, filled with polyurethane potting compound.
 Gland material : BZP Steel and synthetic plastic compression components

BOC model OBTB-2 Cable Idents and termination



Termination Identification

NB !!! Read carefully! Incorrect termination may cause irreparable damage to this unit

Thermocouple Cable

Per IEC Type T extension cable standards

Power & Alarm cables

- 1=+24VDC power input
- 2=0V power input
- 3=Burst Tail alarm relay contact
- 4=Overtemp alarm relay contact
- 5=Burst Tail alarm relay contact
- 6=Overtemp alarm relay contact

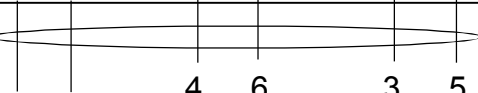
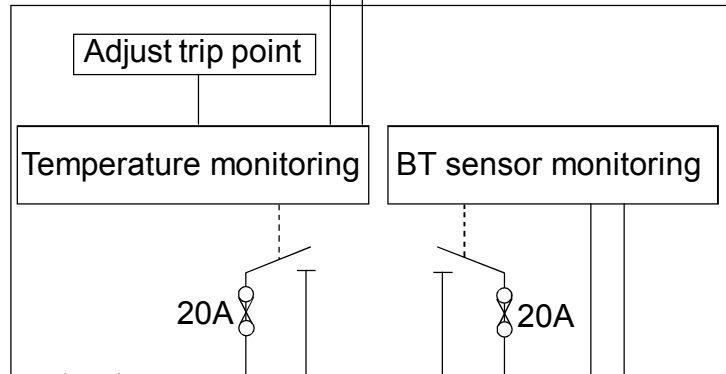
Burst Tail input cable

yellow= Positive (+) of MTL barrier
green= Negative (-) of MTL barrier

General Circuit diagram, internal to OTBT1

Blue figure of 8 cable
2 core compensating
Thermocouple
type T

Blue
White



1 2 4 6 3 5 + -
+24VDC 0V Ground
20A 20A 20A 20A
Yellow Green
From MTL Barrier

Power

Grey 7 core cable

6.3mm dia screened cable, black sheath.