FG-BBOX
Digital Black Box

Product Datasheet

► FG-NET Satellite Device
► Digital, Fully Addressable
► Monitoring Up to 1200m Sense Cables
► Location of Faults to 1m

Description

The FG-BBOX is a satellite device of the TTK FG-NET Digital Unit. It is monitored by FG-NET via a standard Ethernet network. It expands FG-NET to manage two additional circuits of sense cables with up to 1200 metres of additional Sense Cables.

The FG-BBOX can be connected with all TTK Digital Sense Cables, for water, acids and oil leak detection.

The FG-BBOX has the same advanced functionalities as FG-NET with multiple simultaneous leak location to 1m accuracy. All command and control is centralised to the FG-NET, FG-BBOX is not equipped with display so it can be discretely located.

FG-BBOX connects to the FG-NET through the facilities Ethernet network, eliminating the need for additional connections.

In the event of a fault on the sense cables connected to the FG-BBOX, the relevant relay contact is activated and the LED on the relevant circuit switched to red.

On the FG-NET unit, the alarm appears on its touch screen, the responses are identical as a fault on the sense cable physically connected on the FG-NET unit.

Features & Benefits

FEATURES

- Up to 80 Digital Sense Cables can be managed independently providing a maximum protected length of 1200m for the both circuits.
- No physical jumper cable or distance limit between FG-NET unit and FG-BBOX.
- Up to 16 FG-BBOX can be connected to one FG-NET unit without exceeding a total number of 500 Digital Sense Cables per FG-NET.
- TCP/IP connection via standard RJ45 socket.
- Relay type: Volt Free Contact NO/NC.
- 4 Relay contacts: 2 leak relays (1 for each circuit), 1 cable break relay and 1 power failure relay.

BENEFITS

- Multiple simultaneous leaks can be detected and located (80 cables = 80 alarms).
- Different types of sense cables can be connected on the same panel for a truly bespoke system (Water, Acids, Oils)
- Each sense cable is addressable and can be assigned a specific name.
- Cable break faults can be detected (to the nearest cable). When a cable break occurs, the system maintains its integrity by continuing to monitor all preceding cables for faults.
- Extension and upgrade of the system is easy.

Product Diagram

L: 175mm P: 55mm H: 220mm

Technical Data

Compatibility	Digital unit: FG-NET Sense cables (digital): FG-EC, FG-AC, FG-OD range Sense cables (analogue through FG-DTCS box): FG-ECS, FG-ACS
Dimensions	W: 175 mm H: 220 mm D: 55 mm
Maximum Length of Sense Cable	80 lengths of sense cable (40 per circuit)
Accuracy	+/- 1 meter
System Capacity	Up to 16 FG-BBOX can be monitored by 1 FG-NET
Supply Voltage	100-240VAC 0.35A 50/60Hz
Maximum Power Consumption	15W
Working Temperature Range	-15°C to 55°C
Working Humidity Range	5% to 80% non-condensing
Relay Types	Volt free contact (NO, NC, COM)
Relay Numbers	4
Connectivity	RJ45
Maximum Relay Switching Voltage	125 V AC and 220 V DC
Maximum Relay Switching Capacity	60 W (30V x 2A)
Ingress Protection	IP50 - indoor use only

Identification Codes

FG-BBOX (Wall mounted)	FG-NET's Satellite Device - 2 Circuits Black Box (wall mounted) 100-240VAC
FG-NET (Wall mounted / Rack mounted)	Digital Touchscreen Leak Detection Panel 100-240VAC
FG-EC, FG-AC, FG-OD	Digital sense cables in 3m, 7m and 15 lengths (3m, 7m and 12m for FG-OD)
Accessories	
FG-DTC	Diversion Box for 'TTK Bus 8723'
FG-DTCS	Addressable Box for one Water or Acids Cable, on 'TTK Bus 8723' (Sector Mode)
FG-DCTL	'Cut-To-Length' Addressable Box for one Water or Acids Cable, on 'TTK Bus 8723' (Sector Mode)
FG-DOD	Bus Interface, for Integration of FG-OD Cables
FG-CLC	Leader Cable 3,5m, on 'TTK Bus 8723'
FG-TMC	Digital End Plug for FG-EC/AC Cables

Certificates

CE TÜV GS Ex

FG-OD sense cables which are certified by ATEX can be connected to the FG-BBOX digital black box.

All the connections in the FG-BBOX must be done with the power supply switched off. Read carefully the installation procedure for the FG-NET digital unit.

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