

PRINTER UNIT BUP-400

AutoSafe Interactive Fire Detection System Product Datasheet

Features

- Unique single-handed easy paperload system
- High speed and high quality fixed head thermal mechanism
- Powered from external 24VDC (18 to 32VDC) source
- USB interface
- Robust case design
- Easily mounted on a wall bracket

Application/Description

The printer requires AutoSafe software version 4.3.1 and later versions.

The printer kit includes the following items:

- Wall bracket (mounting instructions included)
- Printer Interface Module BSP-400 to be mounted onto a DIN mounting rail inside the Fire Alarm Control Panel BS-420 or a rack mounted BS-430.
- One 46mm diameter paper roll
- An 85cm length combined data and power cable (connected to the printer unit)
- This datasheet

The combined data and power cable fastened to the printer unit can be extended to maximum 3 meters if required.

AutoSafe will automatically detect when a printer is connected, no configuration needed.

AutoSafe supports one BSP-400 per BS-420/BS430.

Part number	Description
116-BUP-400	Printer Unit AutoSafe
Optional:	
116-1712-012.0001	Printer paper 57x46x13mm/25m
Spare parts:	
116-BSP-400	Printer Interface Module
116-7190-011.0031	USB-A TO MINI-B PRINT.CAB. 0,5M
116-5760-200.0004	PRINTER SER. AP1310-DC,BS-1374



Technical specifications	
Dimensions (mm)	47 x 92 x 108 (H x W x L)
Weight	446g (including battery and full roll of paper)
Mounting	Wall mounted, bracket
Materials	Compliant with RoHS Directive
Operating temperature	0 - 50°C
Power	Needs external 18 to 32VDC
Total current consumption	Idle: ~0,10A Printing: ~ 0,56A Self Test: ~ 0,86A Self Test Peak: 2,31A Inrush current: ~0,21A
Paper specifications	Paper Roll Width: 57.5 ± 0.5mm. Max roll diameter: 55mm (Approx. length: 33 meters) Accepts paper rolls with or without a core.
Print width	48 mm
Dots per line	8 dots/mm (vertical and horizontal)
Data buffer	20 Kb
Print method	Fixed head thermal mechanism
Print speed	50mm/s (typical)
Electrical connection	1 mini USB B connection to Controller Board inside the Fire Alarm Control Panel. Power and printer serial port: Screw terminals (maximum cable dimension 2,5mm ²)
USB cable length	Max 300cm. Must not be routed outside the Fire Alarm Control Panel.

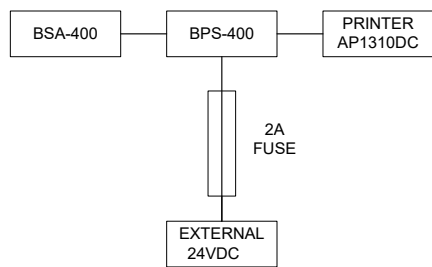


Serial cable length	Max 300cm
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Mounting the Printer Interface Module

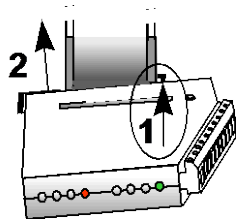
Note that a 2A fuse must be applied between the Printer Interface Module and the external 24V DC source (see schematics). By temporarily removing this fuse, the Printer Interface Module can be mounted without disconnecting the Fire Alarm Control Panel from the mains supply voltage.

- Use an antistatic ground bracelet.
- Remove the 2A fuse between the Printer Interface Module and the external 24V DC.



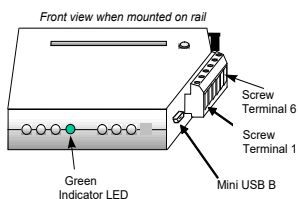
The module is easily plugged onto a DIN mounting rail inside the Fire Alarm Control Panel BS-420/BS-430. The connection block on the I/O module must be pointing to the right when the module is to be inserted.

- Snap the right side of the fastener onto the mounting rail (1), then press the module slightly inwards (2) until the left side fastens.



- Then, carefully press the module downwards as far as possible. Make sure that the module is properly connected to the module below.

- Connect the printer's USB cable to the USB mini B connector on the module.
- Connect the other wires to the module's screw terminals according to the illustration and signal overview below.



Screw terminal no	Signal
1	RS-232 TX
2	RS-232 RX
3	+24V DC OUT
4	0V DC OUT / RS-232 EARTH
5	+24V DC IN
6	0V DC IN

USB Mini B	Signal
	USB

- To turn the POWER ON, re-insert the 2A fuse.

Cable Connections on Printer Interface Module

Term. Points	Colour	Input / Output	Description
4	Black	Input	0V Common (RS-232 signal return and power supply common)
3	Red	Input	Positive Battery Input (+24)
2	Orange	Output	RS-232 TX data
1	Blue	Input	RS-232 RX data
	Green	Not in use.	Insulate with insulation tape.
	White	Not in use.	Insulate with insulation tape.

LED indications on Printer Unit

Pattern	Power Status	Buffer Mode
Constant green	OK	Normal
Fast flashing green	OK	Spool
Long green – short red	Low voltage	Normal
Short green – short red	Low voltage	Spool
Fast flashing red	Error condition	
No light	Printer is OFF	Printer is OFF

Paper / Loading Paper

Pressing the paper feed button advances paper at typically 50 mm per second. "Double-clicking" the button will give the following behaviour:

- in idle mode, prints a demo/test message including the firmware version, encoded calibration data, and the full character set
- in spool mode, or having been out of paper, prints any stored data and enters idle mode

The procedure for loading paper is as follows:

- Slide the Lid Release Button forwards until the lid springs open
- Unwind a small amount of paper from the roll and insert the paper roll into the printer
- Close the lid down, and the paper is loaded
- After loading, check that the paper is straight and advances properly, and tear off any excess by pulling the paper sharply towards you across the serrated tear bar. In the event of a jam or other paper loading problem, release the lid and straighten the paper before closing again.



Feeding Paper using the AutoSafe Printer Menu

- From the System menu, select Printer, then Paper Feed (requires access level 2).



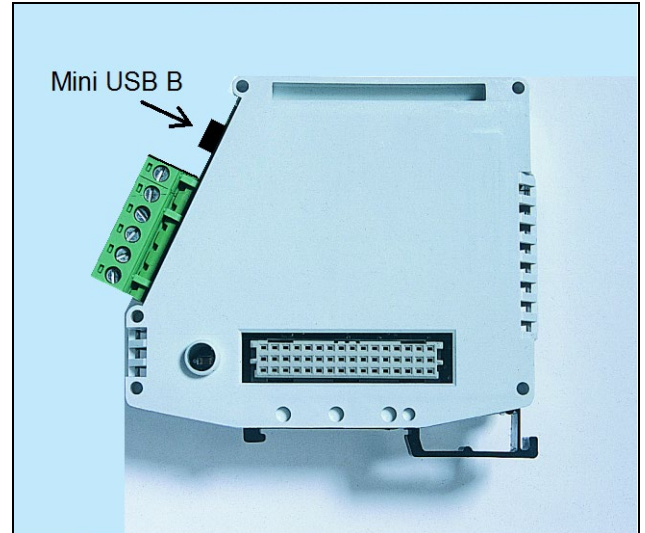
Printer Interface Module

- USB to RS-232 converter for AutoSafe printer ser. 1310-DC
- 1 x Mini USB B connector
- 1 x RS-232 output
- 1 x 24V DC Power input
- 1 x 24V DC Power output
- Conforms to CE standards

The Printer Interface Module connects the Printer Unit BUP-400 to the AutoSafe system. It is easily plugged onto a DIN mounting rail inside the Fire Alarm Control Panel BS-420 or a rack mounted BS-430.

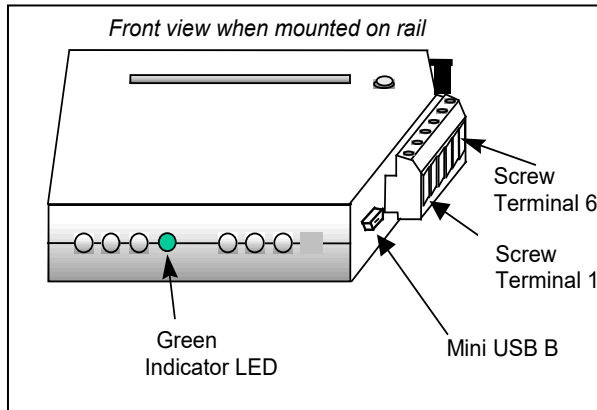
The Printer Interface Module is powered from a USB bus. A 24V DC input and output provide power to the printer.

The Printer Interface Module must be mounted inside a Fire Alarm Control Panel BS420 or a rack mounted BS-430 (maximum 1 interface per BS-420/BS-430).



Indicators/connectors on Printer Interface Module

- Green indicator LED - Power OK indicator



Technical specifications	
Dimensions (mm)	95x89x32
Weight (g)	76.5 g
Materials	Plastic encapsulation and PCB
Mounting	Onto a standard 35mm TS mounting rail
Max. temperature range	-25°C - 75°C

