



SXM FPB01

Fireproof Data Backup Unit for MDVR Systems

User manual

1. General description

The SXM FPB01 is a vehicle data storage unit designed to integrate with SXM line MDVR systems and ensure the preservation of critical information under extreme conditions.

It features reinforced protection against vibrations, impacts, compression, high temperatures and water ingress, ensuring data integrity in the event of collisions, fires or immersion.

Thanks to its robust design, it allows the retrieval of driving logs and video even in adverse scenarios, providing a reliable basis for incident analysis, operational audits, and fleet performance optimization.

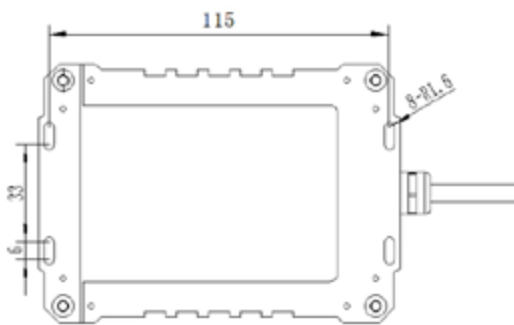
2. Appearance



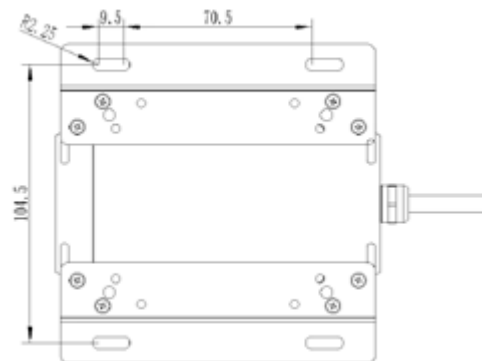
3. Specifications

Electrical interface	Power supply	5V±5%
	Energy consumption	<1 W
Functional interface	Data interface	USB 2.0
	Interface type	5-pin M12 female aviation connector
Storage	Storage medium	MLC
	Storage capacity	· 32 GB · 64 GB · 128 GB · 256 GB
	Write resistance	3,000 cycles
Disaster tolerance indicators	Fire resistance time	15 minutes at 1100 °C 120 minutes at 260 °C
	Deep-sea diving	24-hour immersion depth: 50 m (1 ATM)
	High-speed impact	High-speed impact resistance: 50 G for 100 ms (omnidirectional)
	Static extrusion	5 min 30 kN (omnidirectional)
	Pattern	Aviation black box Protected memory
Structure	Dimensions	122 x 88 x 57 mm
	Weight	0.98 kg

4. Installation Interface

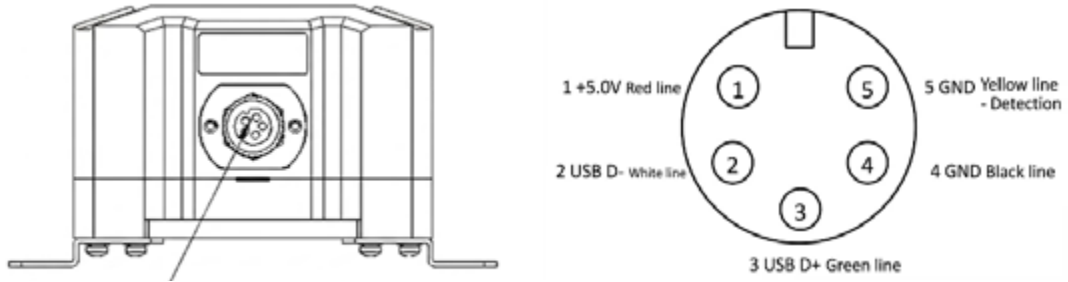


Without mounting bracket



With fixed support

5. Electrical interface



M12 5-Pin Aviation Connector

The SXM FPB01 has a connection interface via a 5-pin M12 aviation connector (jack), compatible with the USB 2.0 communication protocol.

Through an adapter cable, this interface can be converted to USB Type-A, allowing it to be connected to a wide variety of devices, such as MDVR/NVR systems, computers, and other compatible equipment.

The corresponding connection cable is shown below.



USB Adapter Cable: Connects the M12-5pin Aviation Connector to a USB Type-A port

6. Product Use

Jack connection interface , which can be adapted to USB using the appropriate cable. Therefore, the device to which it is connected must have one of these interfaces available.

It functions similarly to an external storage unit (USB type). It can be integrated with MDVR/NVR systems, vehicle recorders, PCs , or other compatible devices, and is recognized as an external drive for data transfer and backup.

exFAT or FAT32 file system (configurable according to requirements). Storage behavior will depend on the host device configuration.

a) Some video surveillance systems automatically format the drive upon detection, adapting it to the required file system before starting recording.

b) Other systems require prior manual formatting by the user, according to the format compatible with the equipment.

c) When connected to a PC, the device is recognized as a removable drive, allowing data read and write operations.

7. Important operating notes

When using this equipment, the following considerations should be taken into account:

- The device must be powered by a voltage of $5V \pm 5\%$. Values outside this range may affect its operation or cause malfunctions.
- The device incorporates automotive-grade eMMC internal memory, with an operating range of -40°C to 75°C .
- The storage medium uses MLC flash memory, with an estimated lifespan of 3,000 write cycles. To ensure product durability (3-year warranty), it is recommended to optimize the volume of data written daily.
- Avoid disconnecting or turning off the device during data writing processes, in order to prevent data loss or damage to the storage.
- Frequent writing of small files (less than 4 KB) is not recommended, as this can accelerate memory wear.
- The external wiring harness must be properly installed and protected, avoiding mechanical stresses such as pulling, compression, or twisting.
- When connecting the 5-pin M12 aviation connector, it is mandatory to properly secure the locking nut. Do not operate the equipment with the connector loose.
- The storage unit must remain firmly fixed during use to prevent failure due to vibration or disconnection.



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Product may vary from description.

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