

Isolated Barriers Backplane

TU747-I0000

User Manual

IM23H75-E

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Symbol Definition	
	WARNING: Indicates information that a potentially hazardous situation which, if not avoided, could result in serious injury or death.
	RISK OF ELECTRICAL SHOCK: Indicates information that Potential shock hazard where HAZARDOUS LIVE voltages greater than 30V RMS, 42.4V peak, or 60V DC may be accessible.
	ESD HAZARD: Indicates information that Danger of an electro-static discharge to which equipment may be sensitive. Observe precautions for handling electrostatic sensitive devices
	ATTENTION: Identifies information that requires special consideration.
	TIP: Identifies advice or hints for the user.

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Isolated Barriers Backplane TU747-I0000

Section 1 Basic Instruction

TU747-I0000 is a 16-channel isolated barrier backplane supports one piece or a pair of DO712-S modules. TU747-I0000 is able to house 16 digital output isolated barriers of MTL4500 series or SB4025-Ex series. Level signals go to TU747-I0000 barrier backplane from modules through DB37, and then they would be transferred to the field after being isolated.

The backplane supports DIN railway installation.

Section 2 Technology Performance

Table 2-1 Performance Index

Performance Items	Performance Instruction
Channel Number	16
Specification	(320×160) mm
Working Temperature	-20℃~70℃

Section 3 Instructions

3.1 Outside View of Isolated Barrier Backplane

The outside view of TU747-I0000 isolated barrier backplane is shown as Figure 3-1.

In TU747-I0000, DB1 is the female head of DB37 wire. TU747-I0000 connects to systematic module by DB37 and connects to devices in field by isolated barrier.

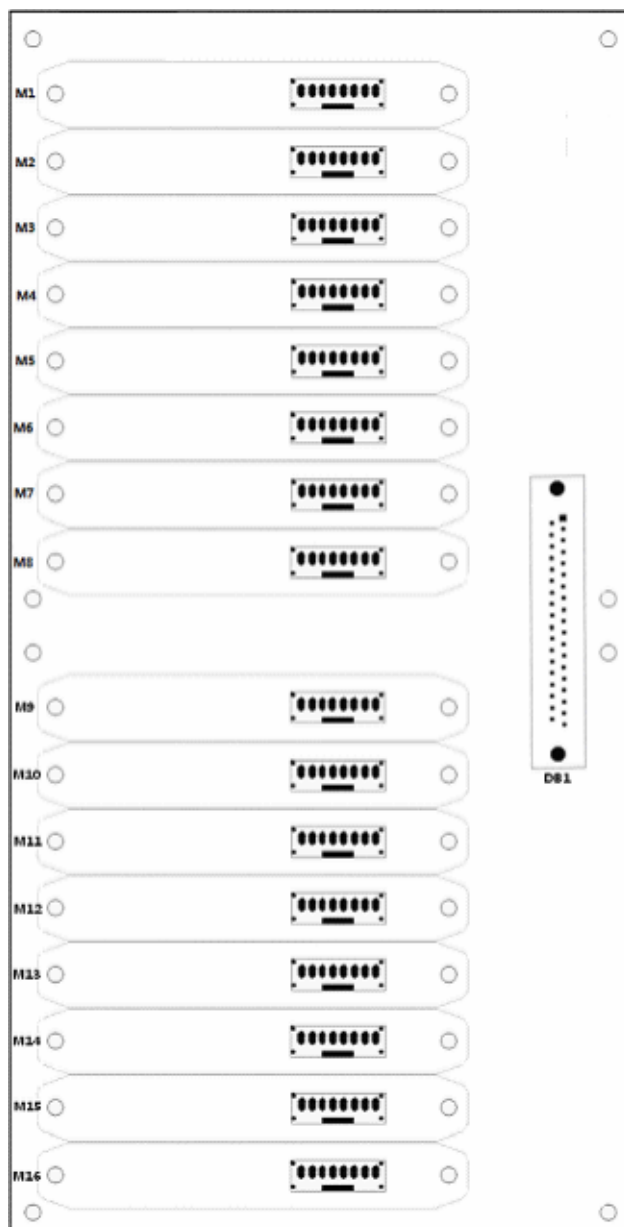


Figure 3-1 Outside View of TU747-I000 Barrier Backplane

3.2 Port Description

Table 3-1 Port Descriptions of TU747-I0000 Barrier Backplane

Mark number	Description
DB1	Port to connect DB37
M1	Port to connect the 1 st channel of barrier
M2	Port to connect the 2 nd channel of barrier
M3	Port to connect the 3 rd channel of barrier
M4	Port to connect the 4 th channel of barrier
M5	Port to connect the 5 th channel of barrier
M6	Port to connect the 6 th channel of barrier

Mark number	Description
M7	Port to connect the 7 th channel of barrier
M8	Port to connect the 8 th channel of barrier
M9	Port to connect the 9 th channel of barrier
M10	Port to connect the 10 th channel of barrier
M11	Port to connect the 11 th channel of barrier
M12	Port to connect the 12 th channel of barrier
M13	Port to connect the 13 th channel of barrier
M14	Port to connect the 14 th channel of barrier
M15	Port to connect the 15 th channel of barrier
M16	Port to connect the 16 th channel of barrier

3.3 Base/Barrier type selection

For field side, the barrier backplane connects to 16 barriers and the applicable types are shown in Table 3-3. For module side, it connects to DO712-S. The base types of DO712-S are shown in Table 3-2. For instruction of module and base, please refer to the related user manual.

Table 3-2 Applicable Base to Modules

Base Types	Description	Remark
MB745-S	The terminal adaptor base of I/O modules	The base has two DB37 ports, connecting to two TU747-I0000 modules.
MB746-S	The terminal adaptor base of redundant I/O modules	The base has one DB37 port, connecting to one TU747-I0000 modules.

Table 3-3 Applicable Barrier Types to Bases

Barrier Accessory	Remark
MTL4521	(20-35) V DC input in the regard of system; (12.8-21.4) V DC output in the regard of intrinsic safety
MTL4521L	(20-35) V DC input in the regard of system; (10.3-21.4) V DC output in the regard of intrinsic safety
SB4025-Ex	(switch contact, open-collector transistor, logical drive) input in the regard of system; level output in the regard of intrinsic safety, the output voltage is more than or equal to 12.8V when the current is 48mA.



Tip:

For the wiring method of field signals of the barriers, please refer to the user manual of the related isolated barriers.

Section 4 Revision

Table 4-1 Retrofit list of the version

Document Version	Applicable models	Remarks
V1.0(20190318)	Versions of applicable modules: TU747-I0000 V10.00.00.and above	