MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6ES7492-1AL00-0AA0

SCREW CONTACT FRONT CONNECTOR

Used with the applicable SIMATIC S7-400 48-pole Screw Connector configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SIMATIC S7-400 48-pole Screw Connector applicable manufacturer data

4.11 Wiring Rules

Lines and Tools

For wiring the S7-400 modules, there are some rules for the cables and tools to use.

Rules for	... Power Supply	... Front Connectors		
		Crimp terminal	Screw-type terminal	Spring-type terminal
Conductor cross-sections:				
Outer diameter:	3 to 9 mm			
Flexible cond. without wire end ferrule	no	0.5 to 1.5 mm^2	0.25 to 2.5 mm^2	0.08 to 2.5 mm^2
Flexible cond. with wire end ferrule	**230 VAC:** flexible sheathed cable 3 x 1.5 mm^2 **24 VDC:** flexible sheathed cable 3 x 1.5 mm^2 or individual wires 1.5 mm^2	no	0.25 to 1.5 mm^2	0.25 to 1.5 mm^2
No. of conductors per terminal	1	1	1 *	1 *
Stripping length of single conductors	7 mm	5 mm	8 to 10 mm without ferrule 10 mm with ferrule	8 to 10 mm without ferrule 10 mm with ferrule
Wire end ferrules	**230 VAC:** with insulating collar to DIN 46228 E1,5-8 **24 VDC**: without insulating collar to DIN 46228, shape A, short version	-	with or without insulating collar to DIN 46228 Part 1 or 4, Shape A, normal version	with or without insulating collar to DIN 46228 Part 1 or 4, Shape A, normal version
Blade width and shape of the screw driver	3.5 mm (cylindrical shape)	-	3.5 mm (cylindrical shape)	0.5 mm x 3.5 mm DIN 5264
Tightening torque: for connecting conductors	0.6 to 0.8 Nm	-	0.6 to 0.8 Nm	-

* You can also connect a combination of two conductors of up to 1.0 mm each to a screw-type or spring-loaded terminal. You must use special wire end ferrules for this purpose. Two types and manufacturers of such ferrules are given below:

- Phoenix TWIN Type no. 32 00 81 0, for 2 x 1 mm^2
- AMP Order no. 966 144-4, for 2 x 1 mm^2

Note

You must use shielded cables for the analog modules (see Section A.5).

Preparing to Wire the Front Connector

1. Insert a screwdriver at the point marked on the bottom left of the front connector, then lever off the lower corner of the cover.
2. Open the cover completely.
3. Pull the opened cover forward at the bottom and swing it up.

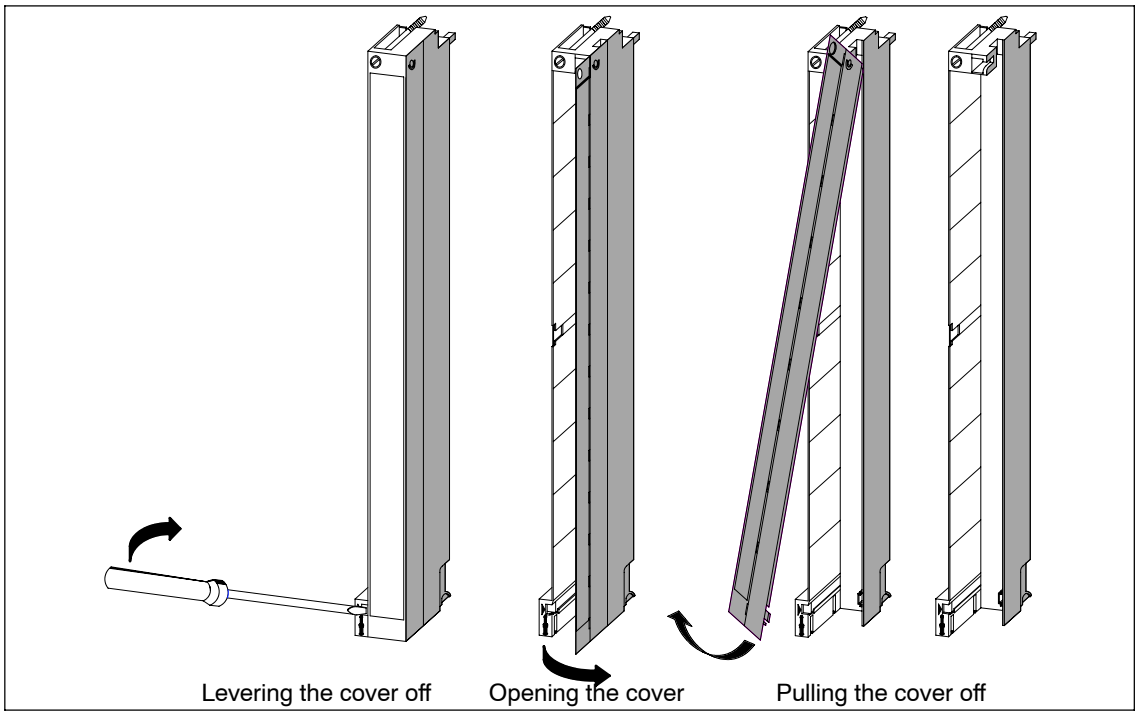


Figure 4-12 Preparing to wire the front connector

4. Cut the wires to length. Avoid any loops in the front connector after wiring.
5. Strip the wires according to the table in Section 4.11.

Note

The front connector contains a jumper which is required to enable specific functions on certain signal modules. Do not remove this jumper.

4.15 Wiring the Front Connector, Screw Terminals

Procedure

To wire the prepared front connector:

1. Are you using wire ferrules?

   If yes: Strip the conductors at a length of 10 mm. Press-fit the wire end ferrules onto the conductors.

   If not: Strip the conductors at a length of 8 to 10 mm.

2. Terminate the wires, starting at the bottom of the front connector.
3. Screw the ends of the conductors onto the front connector (tightening torque = 0.6 to 0.8 N/m. Also tighten the unwired terminals.

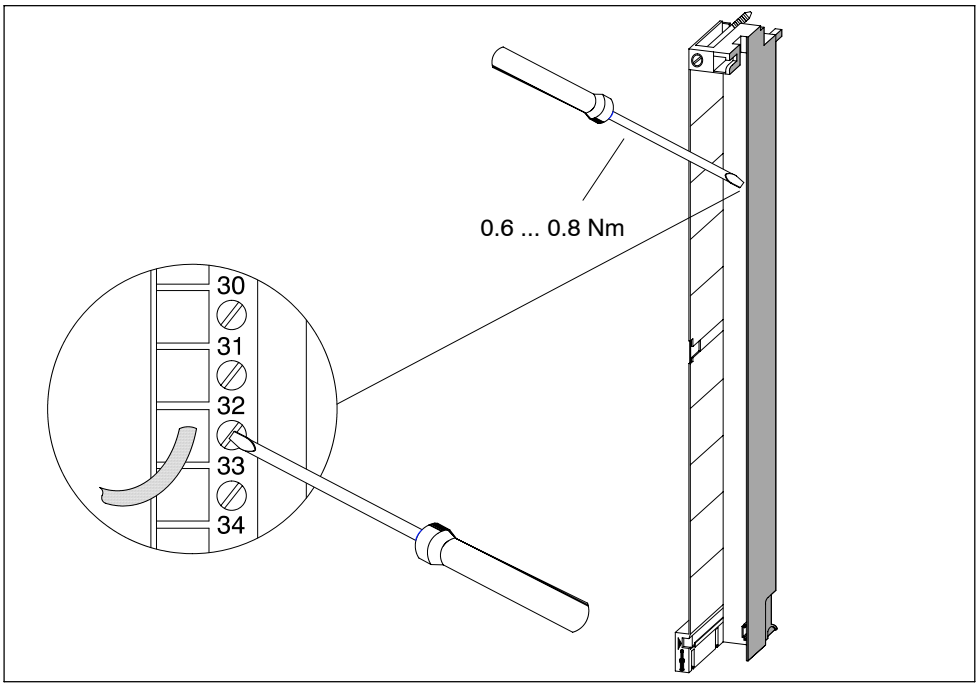


Figure 4-14 Wiring a Front Connector with Screw-Type Terminals