

APTER POWER PRODUCT MANUAL

6DD1681-0AJ1

SIMATIC TDC SU12 Ten-Signal Interface Module

The Siemens 6DD1681-0AJ1 is an SU12 interface module for SIMATIC TDC and FM 458-1DP. It transfers ten analog or digital signals from a 10-pole ribbon-cable connector to plant-side spring-loaded terminals without signal conversion. It provides a direct galvanic 1:1 wiring transition between the controller-side ribbon cable and field wiring, so signal type, reference potential, screening, and limits remain those of the connected TDC or FM 458 module.

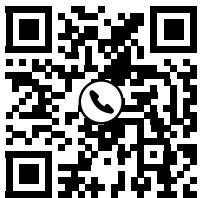
Manufacturer	Siemens
Prepared by	Apter Power
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APTER POWER SALES TEAM

INDUSTRIAL AUTOMATION PRODUCT SUPPORT

Ten Signals, One Transparent 1:1 Transition.

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6DD1681-0AJ1

1. Product Overview and Identity

The Siemens 6DD1681-0AJ1 is an SU12 interface module for SIMATIC TDC and FM 458-1DP. It transfers ten analog or digital signals from a 10-pole ribbon-cable connector to plant-side spring-loaded terminals without signal conversion. It provides a direct galvanic 1:1 wiring transition between the controller-side ribbon cable and field wiring, so signal type, reference potential, screening, and limits remain those of the connected TDC or FM 458 module.

Model Configuration

Field	Verified information
Complete model	6DD1681-0AJ1
Manufacturer	Siemens
Product description	SIMATIC TDC SU12 Ten-Signal Interface Module

Key Features

- Exact 6DD1681-0AJ1 identity retained
- Manufacturer-source data separated from unconfirmed values
- SU12
- System context: SIMATIC TDC / FM 458-1DP
- Model-specific lifecycle and installation guidance

2. Technical Specifications

Only manufacturer-confirmed information is stated. Values absent from the named Siemens source are marked for nameplate or document verification.

Parameter	Verified value
Interface module	SU12
Controller-side connector	10-pole connector X1
Plant-side signal terminals	10 spring-loaded terminals
Additional terminals	6 unused spring-loaded terminals
Signal capacity	10 analog or digital signals
Connection behavior	Direct 1:1; no signal conversion
Published use	SIMATIC TDC / FM 458-1DP

Verification Note

Use the complete 6DD1681-0AJ1 identity. The 2024 Siemens interface-module documentation continues to identify SU12 article 6DD1681-0AJ1. Confirm current ordering and service availability with Siemens. Values not published in the cited Siemens source are intentionally not inferred.

3. Functions, Applications and Components

Core Functions

- It provides a direct galvanic 1:1 wiring transition between the controller-side ribbon cable and field wiring, so signal type, reference potential, screening, and limits remain those of the connected TDC or FM 458 module.
- Maintains the documented SIMATIC TDC / FM 458-1DP system role for this exact identity.
- Provides an exact reference for engineering, maintenance, and quotation review.

Application Areas

Application	System role
Cabinet signal breakout	Terminate ten controller signals at spring-loaded field terminals.
Test and maintenance access	Create a traceable transition between ribbon cable and plant wiring.
TDC interface organization	Keep direct signals grouped without adding conversion.

Compatible Components

- Ten-pole ribbon cable and host module explicitly permitted by Siemens
- Analog or digital field circuits within the connected module limits
- Cabinet grounding and shielding arrangement required by the TDC/FM 458 documentation

Lifecycle Status

The 2024 Siemens interface-module documentation continues to identify SU12 article 6DD1681-0AJ1. Confirm current ordering and service availability with Siemens.

4. Installation Precautions

- Do not treat SU12 as an isolator or level converter
- Verify the host connector pinout before wiring
- Preserve signal reference and shielding
- Label every direct 1:1 circuit
- Follow ESD and de-energized-work requirements

STOP - Verify before installation

Use the complete 6DD1681-0AJ1 identity. The 2024 Siemens interface-module documentation continues to identify SU12 article 6DD1681-0AJ1. Confirm current ordering and service availability with Siemens. Values not published in the cited Siemens source are intentionally not inferred.

Use the physical nameplate and current Siemens documents as the controlling records.

5. Official Source and Use Notice

Official source

Siemens Interface Modules for SIMATIC TDC / FM 458-1DP Product Information, SU12 section, article 6DD1681-0AJ1.

Apter Power product page

<https://www.apterpower.com/Siemens/6DD1681-0AJ1>

Use Notice

This is an original Apter Power product-specific reference prepared from the Siemens source named above. It is not a Siemens publication and does not replace the original data sheet, nameplate, certificate, installation drawing, safety instructions, or machine-builder documentation.

ASK FOR QUOTE

For availability and quotation details, visit www.apterpower.com or contact sales13@apterpower.com.