Siemens 6GK7443-5DX05-0XE0

01 PROFIBUS Communications Processor / system role

Product function and operating context

Siemens 6GK7443-5DX05-0XE0 coordinates cyclic DP exchange and supported engineering services without making every network device interchangeable.

The CP443-5 Extended can serve distributed DP devices while supporting additional communication services. Station addresses, configured modules and process-data lengths must agree with the physical network before cyclic exchange is accepted.

Integration checkpoints

- Distributed DP I/O
- Acyclic parameter access
- S7 communication
- Maintenance routing

Network role	DP master and controller communication
Engineering services	Supported acyclic access and routing
Resource planning	Shared CP and station communication capacity

A network can satisfy its baud-rate setting yet still have poor electrical integrity. Cable topology, termination and segment loading remain system-level responsibilities. Diagnose intermittent communication with the actual segment arrangement rather than increasing retries without cause.

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02 Technical operating envelope

PROFIBUS data rate	9.6 kbit/s to 12 Mbit/s
Bus connector	9-pin Sub-D; RS485
Backplane supply	5 V DC; +/-5%
Typical current	0.6 A
Power loss	3 W
DP devices	Up to 125

DP input address space	4096 bytes total
DP output address space	4096 bytes total
Per-device I/O	244 bytes input; 244 bytes output
DPV1 services	Supported
Operating temperature	0-60 degrees C

Use the exact hardware execution with the supported system configuration and installation conditions.

Why must total station resources be checked before adding another 6GK7443-5DX05-0XE0?

The permitted CP arrangement depends on other communication processors and their roles. Count DP masters and PROFINET IO controllers in the complete station, and assess shared resources rather than using one standalone maximum.

What distinguishes a routing failure from a cyclic DP fault on 6GK7443-5DX05-0XE0?

Cyclic I/O can remain healthy while a routing path or engineering address is wrong. Check the intended route, participating device support and tool configuration separately from cyclic diagnostics. Avoid disrupting a healthy process bus to troubleshoot an engineering-only path.

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03 System integration and applications

Distributed DP I/O

Exchange cyclic process data with configured DP devices.

Acyclic parameter access

Use DPV1 services with compatible devices.

S7 communication

Connect supported stations over the engineered PROFIBUS network.

Maintenance routing

Reach supported downstream devices through the configured routing path.

System and supply context

6GK7443-5DX05-0XE0 belongs to the SIMATIC S7-400 installation described by the technical reference. Connected equipment and accessories must be included explicitly in the configured assembly.

Application boundary

The following uses describe supported engineering roles; they do not establish interchangeability with another model or remove application-specific validation.

How should intermittent faults on 6GK7443-5DX05-0XE0 be investigated at high baud rates?

Inspect termination, connectors, cable topology and segment limits under the actual network conditions. Correlate failures with the affected segment and operating load. Lowering the baud rate can mask an electrical problem without correcting it.

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04 Engineering selection decisions

Why can 6GK7443-5DX05-0XE0 recognize a DP device but reject its process data?

The detected station identity may not match the configured module layout or data length. Compare the device configuration and diagnostic details before changing addresses. Recognition alone is not proof of valid cyclic data exchange.

Does DPV1 support in 6GK7443-5DX05-0XE0 guarantee every slave supports acyclic access?

No. The target device and its configuration must support the requested service. Verify device capabilities and service responses before treating a rejected parameter request as a CP failure.

How should a replacement slave behind 6GK7443-5DX05-0XE0 be accepted?

Verify the station address, configured modules, data lengths and parameter set, then test the affected process values and outputs. A matching product family or an extinguished fault lamp does not prove the application mapping is correct.

What is required before changing the PROFIBUS rate on 6GK7443-5DX05-0XE0?

Confirm that every participant and segment supports the selected rate and that cable lengths and termination remain valid. Plan an approved network outage and verify all stations afterward; a local rate change is not an isolated module setting.

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05 Configuration boundary and references

Lifecycle and support

The current manufacturing and manufacturer-support stage for this exact model is not confirmed.

Replacement assessment

Compare the complete 6GK7443-5DX05-0XE0 identity, installed connections and configuration before selecting a replacement. DPV1 and routing services enable additional engineering functions when the participating devices and software support them. Their availability does not imply that every connected slave accepts every acyclic service or that all changes can occur without process interruption.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; use it together with the applicable manufacturer instructions.

Technical basis

Siemens CP443-5 Extended, C79000-G8976-C162-10.

Related product navigation

- Siemens 6GK1503-3CB00
- Siemens 6GK1571-0BA00-0AA0
- Siemens 6GK1500-0FC10

Related products for separate application assessment; verify the platform and interface. No interchangeability is implied.

Product enquiries