Siemens 6GT2002-0ED00

01 PROFIBUS RFID Communication Module / system role

Product function and operating context

Siemens 6GT2002-0ED00 supports machine-level identification by moving reader transactions through an acyclic PROFIBUS communication path, reducing the need to place large identification payloads in the cyclic process image.

The basic module and connection block form the installed communication unit. ECOFAST and M12/7/8-inch connection options require the matching hardware and cable arrangement; the basic module alone does not define every external connector.

Integration checkpoints

- Conveyor identification
- Assembly-line tracking
- Machine-level reader connection
- Optical-code integration

Reader transactions	Direct addressing or supported file handling
Integration choice	Match the GSD and controller-side function interface
Modular connection	Select the required PROFIBUS and power block

The two reader ports supply power as well as communication. Their available current limits the usable combination of readers: when one reader requires more than 400 mA, only one reader may be operated on the module.

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02 Technical operating envelope

Reader interfaces	2
Reader interface electrical type	RS422
Reader connector	M12, 8-pin
PROFIBUS protocol	DP-V1, acyclic
PROFIBUS data rate	9.6 kbit/s–12 Mbit/s

Serial rate	115.2 kbit/s maximum
Supply range	20–30 V DC
Current without connected devices	80 mA typical at 24 V
Maximum total current	850 mA
Operating temperature	0–55 °C

Ratings apply to the stated hardware execution and operating conditions; companion hardware and configured functions require separate compatibility checks.

Reader power budget

Two physical ports do not guarantee that two high-current readers can operate together. Apply the single-reader restriction when reader current exceeds 400 mA.

Acyclic transaction handling

The controller must manage command completion, data validity and error responses for DP-V1 transactions. A healthy bus link alone does not prove a successful transponder operation.

Protocol distinction

ASM 456 and RF160C use different communication modes and software interfaces. Preserve the installed protocol and function-block arrangement during replacement.

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03 System integration and applications

Conveyor identification

Transfer tag data at a moving product identification point.

Assembly-line tracking

Associate process operations with the identified carrier or component.

Machine-level reader connection

Install compatible readers through the selected field connection block.

Optical-code integration

Use supported optical-reader devices in the configured identification architecture.

Application and compatibility boundary

ASM 456 uses acyclic DP-V1 transactions and supports the applicable identification functions. Preserve the GSD, address, reader protocol and controller function-block interface, then test a complete identification transaction at each intended reading point.

Available unit verification

Check the basic-module identity, selected connection block, reader ports and address setting. Confirm basic module, connection block, reader cables and terminators as separately quoted in the quotation. Evaluate the actual interfaces and included accessories against the installed arrangement.

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04 Engineering selection decisions

Why can two connected readers exceed the usable configuration of 6GT2002-0ED00?

The reader power budget matters as well as the port count. If a reader needs more than 400 mA, only one reader may be operated on the module.

Can a DP-V0 controller interface be reused unchanged with 6GT2002-0ED00?

ASM 456 uses DP-V1 acyclic transactions. Confirm master support and the matching function interface rather than assuming cyclic data exchange is equivalent.

What must be retained when changing the connection block of 6GT2002-0ED00?

Preserve the bus address, power arrangement, PROFIBUS connection method and termination required by the installed topology.

How does 6GT2002-0ED00 avoid placing large tag transfers entirely in the cyclic PROFIBUS data path?

Identification commands and data are handled through acyclic DP-V1 communication. The controller must still manage transaction completion and fault responses.

Why can a healthy bus connection coexist with failed reads through 6GT2002-0ED00?

Reader power, reader protocol, tag position and application command handling remain separate dependencies. Test the full reader-to-controller transaction.

When is file-name access appropriate with 6GT2002-0ED00?

Use it only with the supported identification system and MOBY file-handler configuration. Direct-address and file-based access require the corresponding controller interface.

Which check prevents a replacement 6GT2002-0ED00 from reporting data for the wrong reading point?

Verify each physical reader port against its controller assignment, then present a known target separately to each reading point.

How should communication recovery through 6GT2002-0ED00 be validated?

Interrupt and restore the approved test path, observe diagnostics and verify that the application distinguishes fresh completed transactions from stale data.

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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

Retain the ASM 456 DP-V1 protocol, reader family, connection block, GSD and controller function interface. A DP-V0 module is not a configuration-equivalent substitute.

Available unit details

Offered reference: Siemens 6GT2002-0ED00. Condition: New, original product. Check the basic-module identity, selected connection block, reader ports and address setting. Confirm basic module, connection block, reader cables and terminators as separately quoted in the quotation; companion equipment is included only when itemized.

Document roles: The original excerpt retains manufacturer tables and drawings; this brief addresses selection and system context; the separate installation guide covers field procedures and acceptance.

Technical basis: Siemens ID 10, Communication Modules, 2016.

Related product navigation

- Siemens 6ES7193-6BP00-0DA0
- Siemens 6ES7134-4GB01-0AB0
- Siemens 6ES7152-1AA00-0AB0

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

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