Siemens 6DR2803-8C

01 Isolated Serial Communication Interface Module / system role

Product function

Siemens 6DR2803-8C links a SIPART controller to a supervisory system while keeping communication mode, telegram format and bus reference wiring aligned with the installed controller.

Selected configuration

RS232 is used for point-to-point communication, while the supported DR21, DR22 and DR24 arrangements also permit an RS485 serial bus. Select the interface on the module and match the host wiring accordingly.

Integration checkpoints

- Supervisory process monitoring
- Point-to-point serial coupling
- Multi-station serial bus
- Controlled parameter exchange

Interface selection	Hardware jumpers determine the serial circuit
Data exchange	Process values, operating state and configuration
Integration discipline	Use the telegram definition for the actual controller

The asynchronous half-duplex link uses the applicable DIN 66258 procedure and controller-specific telegram definition. Host address, character format, speed and time monitoring must be coordinated before enabling supervisory writes.

6DR2803-8C

02 Technical operating envelope

Electrical interfaces	RS232 or RS485
Transmission mode	Asynchronous, half-duplex
Transmission speed	300–9600 bit/s
Addressable stations	32
Character format	10 bits: start, 7-bit ASCII, parity, stop

Data-traffic monitoring	1–25 s or disabled
Galvanic isolation	Up to 50 V UC
RS232 cable-capacitance limit	2.5 nF
RS485 cable-capacitance limit	200 nF

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

Electrical and protocol pairing

Select RS232 or RS485 in hardware and match the host telegram procedure independently. A correct electrical connection does not resolve a wrong controller telegram format.

Cable-capacitance assessment

Permissible cable length depends on cable capacitance and construction. Use the applicable capacitance limit rather than assuming one maximum length for every cable.

Supervisory-write control

Validate readback before enabling writes to setpoints or configuration. Coordinate communication timeout behavior with the local controller’s intended operation.

6DR2803-8C

03 System integration and applications

Supervisory process monitoring

Read controller process values and operating states.

Point-to-point serial coupling

Connect a supported controller through RS232.

Multi-station serial bus

Use RS485 with a properly addressed supported controller network.

Controlled parameter exchange

Transfer settings through the correct controller telegram procedure.

Application and compatibility boundary

Cable capacitance limits the permissible connection length. Evaluate the actual cable construction and topology, then validate both read transactions and controlled parameter changes without disturbing the local control function.

Available unit verification

Check the RS232/RS485 jumper configuration and the intended controller slot and connector. Confirm serial module and any separately quoted connector or cable in the quotation. Evaluate the actual interfaces and included accessories against the installed arrangement.

6DR2803-8C

04 Engineering selection decisions

Why can 6DR2803-8C remain silent even when the host baud rate is correct?

The hardware interface jumper, telegram procedure, address and character format must also match. Check these separately before replacing the module.

Can RS232 and RS485 wiring be interchanged on 6DR2803-8C without changing jumpers?

No. The jumper selection determines the electrical interface. Restore the correct hardware setting and use the corresponding terminal assignment.

What limits the usable cable length for 6DR2803-8C?

Cable capacitance and construction determine the permitted length. Evaluate the actual cable against the interface-specific capacitance limit rather than applying one universal distance.

Why should supervisory writes through 6DR2803-8C be tested after reads?

A valid read verifies only part of the exchange. Controlled write and readback tests establish that the correct parameter or setpoint is being changed.

How should multiple controllers using 6DR2803-8C avoid address conflicts?

Assign and verify distinct station addresses and use the supported RS485 bus arrangement, including the approved reference and termination scheme.

What should be reviewed before disabling traffic monitoring on 6DR2803-8C?

Determine how loss of the supervisory link is detected elsewhere and how local control should continue. Removing timeout monitoring must not hide a required communication fault.

Does galvanic isolation on 6DR2803-8C eliminate all bus-reference requirements?

No. Follow the applicable interface wiring and potential limits. Isolation is not permission to omit the required reference or protective arrangements.

Why must the SIPART controller type be known when integrating 6DR2803-8C?

The telegram details and supported data exchanges are controller-specific. Use the correct definition for the actual DR controller rather than a generic serial driver assumption.

6DR2803-8C

05 Configuration boundary and references

Lifecycle and support

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

Replacement assessment

Preserve the controller-specific serial procedure, jumper selection, address and wiring. A connector match does not establish protocol compatibility.

Available unit details

Offered reference: Siemens 6DR2803-8C. Condition: New, original product. Check the RS232/RS485 jumper configuration and the intended controller slot and connector. Confirm serial module and any separately quoted connector or cable 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 MP 31, SIPART DR Signal Converters, 2019.

Related product navigation

- Siemens 6ES7314-6CH04-0AB0
- Siemens 6ES7307-1BA01-0AA0
- Siemens 6ES7151-1AA02-0AB0

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

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