

# 6DR2803-8C

## Serial Interface Module

### COMPLETE PRODUCT INFORMATION

It exchanges SIPART controller process data and settings with a higher-level system through a jumper-selected RS232 or RS485 serial interface.

- Supports RS232 or RS485 signaling
- Operates from 300 to 9600 bit per second
- Transfers process variables and configuration data
- Provides galvanic isolation to the controller

### VERIFIED IDENTITY

|                        |                  |                    |                                                                            |
|------------------------|------------------|--------------------|----------------------------------------------------------------------------|
| Article number         | 6DR2803-8C       | Module designation | SES serial interface module                                                |
| Transmittable signals  | RS232 or RS485   | Transmittable data | Operating states, process variables, parameters and configuration switches |
| Transmission procedure | DIN 66258 A or B | Character format   | 10 bits: start, 7-bit ASCII, parity and stop                               |

Official source: Siemens SIPART DR Signal Converters Catalog MP 31  
Publication: MP 31, 2019, SES module 6DR2803-8C

### APTER POWER | COMPLETE PRODUCT INFORMATION

WHATSAPP / PHONE +86 180 3023 5313

EMAIL [sales13@apterpower.com](mailto:sales13@apterpower.com) | WEBSITE [www.apterpower.com](http://www.apterpower.com)

6DR2803-8C | PAGE 1



# TECHNICAL DATA

|                               |                                                              |                                |                                                                            |
|-------------------------------|--------------------------------------------------------------|--------------------------------|----------------------------------------------------------------------------|
| <b>Article number</b>         | 6DR2803-8C                                                   | <b>Module designation</b>      | SES serial interface module                                                |
| <b>Transmittable signals</b>  | RS232 or RS485                                               | <b>Transmittable data</b>      | Operating states, process variables, parameters and configuration switches |
| <b>Transmission procedure</b> | DIN 66258 A or B                                             | <b>Character format</b>        | 10 bits: start, 7-bit ASCII, parity and stop                               |
| <b>Data rate</b>              | 300 to 9600 bit/s                                            | <b>Transmission</b>            | Asynchronous, half-duplex                                                  |
| <b>Addressable stations</b>   | 32                                                           | <b>Traffic monitoring</b>      | 1 to 25 s or none                                                          |
| <b>Galvanic isolation</b>     | Up to 50 V UC                                                | <b>RS232 cable capacitance</b> | Maximum 2.5 nF                                                             |
| <b>RS232 guideline length</b> | 50 m unshielded flat; 25 m shielded round                    | <b>RS485 cable capacitance</b> | Maximum 200 nF in MP31 catalog                                             |
| <b>RS485 guideline length</b> | 1200 m unshielded flat; 600 m shielded round in MP31 catalog |                                |                                                                            |

## APPLICATIONS & SYSTEM COMPONENTS

|                                         |                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------|
| <b>SIPART supervisory communication</b> | Links a SIPART controller to a higher-level station.                     |
| <b>Serial process-data exchange</b>     | Transfers operating states, variables and setpoints serially.            |
| <b>Controller configuration link</b>    | Supports parameter and configuration access under the approved protocol. |
| <b>SES module replacement</b>           | Restores the exact isolated serial-interface position.                   |

- compatible SIPART DR controller
- higher-level supervisory or configuration system
- jumper-selected RS232 or RS485 wiring
- approved serial protocol and station parameters

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6DR2803-8C | PAGE 2



6DR2803-8C

# PRECAUTIONS & ENGINEER FAQ

## PRODUCT PRECAUTIONS

- Verify the complete 6DR2803-8C marking and the assigned Siemens SIPART DR controller system position before work.
- Isolate all applicable power and isolated rs232 or rs485 serial controller data field energy before disconnection.
- Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- Restore power in a controlled sequence and review module, rack and host diagnostics.
- Place the connected sipart supervisory communication process in the approved maintenance state.
- Record every connector, conductor, address, jumper and project identity before removal.
- Confirm the installed compatible SIPART DR controller and jumper-selected RS232 or RS485 wiring against the approved system record.
- Prove the intended serial process-data exchange function and retain the final acceptance result.

## ENGINEER FAQ — PART 1

|   |                                                                        |                                                                                                                               |
|---|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>Which serial standards are available on Siemens 6DR2803-8C?</b>     | The SES module supports jumper-selected RS232 or RS485 operation in the documented SIPART controller arrangement.             |
| 2 | <b>What data can 6DR2803-8C transmit?</b>                              | It exchanges operating states, process variables, parameters and configuration-switch information with a higher-level system. |
| 3 | <b>Which frame and character format are documented for 6DR2803-8C?</b> | Siemens specifies DIN 66258 A or B with a 10-bit character containing start, 7-bit ASCII, parity and stop bits.               |

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6DR2803-8C | PAGE 3



|   |                                                    |                                                                                                      |
|---|----------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 4 | <b>What data-rate range applies to 6DR2803-8C?</b> | The documented transmission speed is 300 to 9600 bit/s using asynchronous half-duplex communication. |
|---|----------------------------------------------------|------------------------------------------------------------------------------------------------------|

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6DR2803-8C | PAGE 4



## ENGINEER FAQ & RELATED PRODUCTS

|   |                                                           |                                                                                                                                                |
|---|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>How many stations can 6DR2803-8C address?</b>          | The technical data lists up to 32 addressable stations with traffic monitoring from 1 to 25 seconds or disabled.                               |
| 2 | <b>What isolation boundary is provided by 6DR2803-8C?</b> | The module provides galvanic isolation between serial Rxd/Txd and the controller, rated up to 50 V UC in the catalog data.                     |
| 3 | <b>Which cable limits must be checked for 6DR2803-8C?</b> | Verify the selected RS232 or RS485 cable capacitance and the Siemens guideline length for the actual cable construction.                       |
| 4 | <b>How is 6DR2803-8C accepted after service?</b>          | Restore jumpers and serial parameters, confirm stable polling without timeouts, and verify process values and configuration data at both ends. |

### RELATED PRODUCTS ON APTER POWER

|    |                                                     |                                       |
|----|-----------------------------------------------------|---------------------------------------|
| 01 | <a href="#">Bently Nevada 330354 040 24 05</a>      | Related industrial automation product |
| 02 | <a href="#">Bently Nevada 3500 15 129486 01</a>     | Related industrial automation product |
| 03 | <a href="#">Bently Nevada 330103 00 06 10 02 CN</a> | Related industrial automation product |
| 04 | <a href="#">Bently Nevada 330101 30 63 15 02 CN</a> | Related industrial automation product |
| 05 | <a href="#">Bently Nevada 26363 30</a>              | Related industrial automation product |
| 06 | <a href="#">Bently Nevada 3300 12 02 20 00</a>      | Related industrial automation product |
| 07 | <a href="#">Siemens A5E36717803</a>                 | Related industrial automation product |
| 08 | <a href="#">Siemens A5E36717808</a>                 | Related industrial automation product |

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6DR2803-8C | PAGE 5

