

# SIEMENS

## Data sheet

6GK6040-0AT2-....

**Product type designation**

Product description

**RUGGEDCOM RS400**

serial device server with an integrated fully managed Ethernet switch, 128-bit Encryption, 4 port serial server, 4 port managed Ethernet switch & an optional V.90 modem  
 THE RUGGEDCOM RS400 IS AN INDUSTRIALLY HARDENED, SERIAL DEVICE SERVER WITH AN INTEGRATED, FULLY MANAGED, ETHERNET SWITCH, DESIGNED TO OPERATE RELIABLY IN ELECTRICALLY HARSH AND CLIMATICALLY DEMANDING ENVIRONMENTS. 128-BIT ENCRYPTION; 4 PORT SERIAL SERVER, 4 PORT MANAGED ETHERNET SWITCH & AN OPTIONAL V.90 MODEM



Figure similar

### Transmission rate

Transfer rate	10 Mbit/s, 100 Mbit/s
<ul style="list-style-type: none"> <li>• acc. to RS 232</li> </ul>	300 bit/s ... 115200 bit/s
<ul style="list-style-type: none"> <li>• acc. to RS 422/485</li> </ul>	300 bit/s ... 115200 bit/s
<ul style="list-style-type: none"> <li>• acc. to V.90</li> </ul>	56000 bit/s

### Interfaces

Number of electrical/optical connections	
<ul style="list-style-type: none"> <li>• for network components or terminal equipment / maximum</li> </ul>	4
Number of electrical connections	
<ul style="list-style-type: none"> <li>• for network components or terminal equipment</li> </ul>	4
<ul style="list-style-type: none"> <li>• for network components or terminal equipment / maximum</li> </ul>	4
<ul style="list-style-type: none"> <li>• for serial interfaces / acc. to RS 232/RS 422/RS 485 / maximum</li> </ul>	4

<ul style="list-style-type: none"> <li>• for modem / maximum</li> </ul>	1
<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	1
<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	1
<ul style="list-style-type: none"> <li>• for redundant voltage supply</li> </ul>	0
Type of electrical connection	
<ul style="list-style-type: none"> <li>• for network components or terminal equipment</li> </ul>	RJ45-Port, SUB-D 9 pin
<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	3-pole terminal block
<ul style="list-style-type: none"> <li>• for power supply</li> </ul>	3-pole terminal block
Number of optical interfaces	
<ul style="list-style-type: none"> <li>• for network components or terminal equipment / maximum</li> </ul>	2
<ul style="list-style-type: none"> <li>• for fiber optic cable / at 10 Mbit/s</li> </ul>	4
<ul style="list-style-type: none"> <li>• for fiber optic cable / at 100 Mbit/s</li> </ul>	4
Design of the optical interface / for fiber optic cable	
<ul style="list-style-type: none"> <li>• at 10 Mbit/s</li> </ul>	ST-Port (BFOC-Port)
<ul style="list-style-type: none"> <li>• at 100 Mbit/s</li> </ul>	ST-/SC-/MTRJ-/LC-Port
Range / at the optical interface / depending on the optical fiber used	
<ul style="list-style-type: none"> <li>• minimum</li> </ul>	2 km
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	90 km
Insulation voltage / for serial interfaces / acc. to RS 232/RS 422/RS 485 / rated value	2 kV

### Signal-Inputs/outputs

Relay design	Form-C contact relay
Operating voltage / of the signaling contacts	
<ul style="list-style-type: none"> <li>• at AC / Rated value</li> </ul>	120 V
<ul style="list-style-type: none"> <li>• at DC / Rated value</li> </ul>	30 V
Operating current / of the signaling contacts	
<ul style="list-style-type: none"> <li>• at AC / maximum</li> </ul>	0.4 A
<ul style="list-style-type: none"> <li>• at DC / maximum</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at DC / at 30 V / maximum</li> </ul>	1 A

### Supply voltage, current consumption, power loss

product options / wide range power supply	Yes
<b>Supply voltage / 1 / Rated value</b>	24 V
<ul style="list-style-type: none"> <li>• Supply voltage / 1 / rated value</li> </ul>	18 ... 36 V
<ul style="list-style-type: none"> <li>• Type of voltage / 1 / of the supply voltage</li> </ul>	DC
<b>Supply voltage / 2 / Rated value</b>	48 V
<ul style="list-style-type: none"> <li>• Supply voltage / 2 / rated value</li> </ul>	36 ... 59 V
<ul style="list-style-type: none"> <li>• Type of voltage / 2 / of the supply voltage</li> </ul>	DC
<b>Supply voltage / 3 / Rated value</b>	110 V
<ul style="list-style-type: none"> <li>• Supply voltage / 3 / rated value</li> </ul>	88 ... 300 V
<ul style="list-style-type: none"> <li>• Type of voltage / 3 / of the supply voltage</li> </ul>	DC

<b>Supply voltage / 4 / Rated value</b>	
<ul style="list-style-type: none"> <li>Supply voltage / 4 / rated value</li> <li>Type of voltage / 4 / of the supply voltage</li> </ul>	85 ... 265 V AC
Product component / fusing at power supply input	Yes
Power loss [W]	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	8 W

<b>Permitted ambient conditions</b>	
Ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> <li>Note</li> </ul>	-40 ... +85 °C -40 ... +85 °C -40 ... +85 °C A maximum operating temperature of +85 °C is permissible for a duration of 16 hours
Relative humidity / at 25 °C / without condensation / during operation / maximum	95 %
Coating	conformal coating optional
Operating condition / fanless operation	Yes
Protection class IP	IP40

<b>Design, dimensions and weight</b>	
Design	compact
Width	202 mm
Height	44 mm
Depth	291 mm
Net weight	2.2 kg
Material / of the enclosure	18 AWG galvanized steel enclosure
Mounting type	
<ul style="list-style-type: none"> <li>35 mm DIN rail mounting</li> <li>S7-300 rail mounting</li> <li>19-inch installation</li> <li>wall mounting</li> </ul>	Yes No Yes Yes

<b>Product properties, functions, components / general</b>	
Product component / Integrated / Ethernet switch	Yes
Product function	
<ul style="list-style-type: none"> <li>DNP 3.0 to DNP conversion via UDP/TCP</li> <li>Modbus RTU to Modbus TCP conversion</li> <li>RAW socket mode for any serial protocols</li> </ul>	No Yes No
Protocol / is supported	
<ul style="list-style-type: none"> <li>DNP3</li> <li>GVRP</li> <li>HTTP</li> <li>Modbus TCP</li> </ul>	Yes Yes Yes Yes

• TFTP	Yes
Number of automatically learnable MAC addresses	2048
Number of priority channels	4
Operating mode	
• multi-point	Yes
• Point-to-point	Yes
Product function / port-rate-limiting	Yes
Product feature	
• Store & Forward switching method	Yes
Product function	
• support several modbus masters	Yes
Protocol / is supported	
• PPP	Yes
• TIN	Yes
Storage capacity	
• of the MAC-address table	16 Kibyte
• of message buffer / maximum	1 Mibyte
Switch latency period	5 $\mu$ s
Transfer rate / of the switch	1.2 Gbit/s

#### Product functions / management, configuration

Product function	
• CLI	Yes
• RMON	Yes
• web-based management	Yes
Protocol / is supported / Telnet	Yes

#### Product functions / Diagnosis

Protocol / is supported	
• SNMP v1	Yes
• SNMP v2c	Yes
• SNMP v3	Yes
Product function	
• MIB support	Yes
• for MIB support	
— by BRIDGE-MIB	RFC1493
— by IF-MIB	RFC2863
— by RMON-MIB	RFC2819
— by RSTP-MIB	draft-ietf-bridge-bridgemib-smiv2-03
— by SNMPv2-MIB	RFC1907
— by SNMPv2-SMI	RFC2578
— by SNMPv2-TC	RFC2579
— by TCP-MIB	RFC2012

## Product functions / VLAN

Number of VLANs / maximum	15
Product function / VLAN - port based	Yes
VLAN identification number	1 ... 1000

## Product functions / DHCP

Product function	
• DHCP Option 82	No

## Product functions / Redundancy

Product function	
• redundancy procedure MSTP	No
• redundancy procedure RSTP	Yes
• eRSTP	Yes
Protocol / is supported	
• MSTP	No
• RSTP	Yes

## Product functions / Security

Product function	
• IEEE 802.1x (radius)	No
• RADIUS client	Yes
Protocol / is supported	
• SSL	Yes
• RADIUS	Yes
• TACACS+	Yes
Key length	
• with SSL	128 bit
• with RSA	1024 bit

## Product functions / Time

Protocol / is supported	
• NTP	No
• SNTP	Yes

## Standards, specifications, approvals

Standard	
• for EMC	FCC Part 15 (Class A), EN55022 (CISPR22 Class A)
• for safety / from CSA and UL	UL 60950-1, CSA C22.2 no. 60950-7
• for hazardous zone / from CSA and UL	Hazardous Locations: Class 1 Division 2
• for emitted interference	EN 61000-6-4 (Class A)
• for interference immunity	EN 61000-6-2
Laser protection class	Complies with 21 CFR Chapter 1, Subchapter J
Certificate of suitability	EN 61000-6-2, EN 61000-6-10



- to website: Siemens RUGGEDCOM
- to website: Selector for cables and connectors
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx Download Manager
- to website: Industry Online Support

<http://siemens.com/ruggedcom>

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## Security information

### Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.automation.siemens.com>. (V3.4)

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