

6GK6090-0GS2.-.... RUGGEDCOM RS900G

Technical Data

Product-type designation	RUGGEDCOM RS900G
Product description	10-Port Managed Ethernet Switch with Gigabit Uplink Ports, 128-bit Encryption THE RUGGEDCOMRS900G IS AN INDUSTRIALLY HARDENED, FULLY MANAGED ETHERNET SWITCH PROVIDING DUAL FIBER OPTICAL GIGABIT ETHERNET PORTS AND 8 FAST ETHERNET COPPER PORTS; 128-BIT ENCRYPTION; 2 - FIBER OPTICAL GIGABIT ETHERNET PORTS (1000BASEX); 8 - FAST ETHERNET PORTS (10/100BASETX); MULTIPLE FIBER CONNECTOR TYPES (LC, SC, SFP PLUGGABLE OPTICS); BI-DIRECTIONAL SINGLESTRAND FIBER SUPPORT; LONG HAUL OPTICS ALLOW GIGABIT DISTANCES UP TO 70KM;
Transmission rate	
Transfer rate / 1	10 Mbit/s
Transfer rate / 2	100 Mbit/s
Transfer rate / 3	1000 Mbit/s
Interfaces	
Number of electrical/optical connections / for network components or terminal equipment / maximum	10
<ul style="list-style-type: none"> remark 	8 Standard Copper Ports + 2 Fiber Ports
number of electrical/optical connections / for gigabit Ethernet / maximum	2
Number of electrical connections	
<ul style="list-style-type: none"> for network components and terminal equipment 	8
<ul style="list-style-type: none"> maximum 	8
<ul style="list-style-type: none"> for operator console 	1
<ul style="list-style-type: none"> for management purposes 	0
Design of electrical connection	
<ul style="list-style-type: none"> for operator console 	RS232
<ul style="list-style-type: none"> for signaling contact 	3-pole terminal block, screwable
<ul style="list-style-type: none"> for power supply 	5-pole terminal block, screwable
Number of optical connections / for network components or terminal equipment / maximum	2
Range / at the optical interface / depending on the	2...90 km

optical fiber used	
operating distance / of optical interface / depending of used optical fiber / at gigabit	0.5...70 km
Signal-Inputs/outputs	
Relay design	Form-C contact relay (SP CO)
type of the relay output	Changeover contact
Operating current / of signaling contacts	
<ul style="list-style-type: none"> at DC 	
<ul style="list-style-type: none"> at 30 V / maximum 	1 A
Supply voltage, current consumption, power loss	
product options / wide range power supply	Yes
Type / 1 / of supply voltage	DC
Supply voltage / 1	
<ul style="list-style-type: none"> rated value 	24 V
<ul style="list-style-type: none"> rated value 	10...36 V
Current consumed / 1 / at rated value of supply voltage / max.	0.4 A
Type / 2 / of supply voltage	DC
Supply voltage / 2	
<ul style="list-style-type: none"> rated value 	48 V
<ul style="list-style-type: none"> rated value 	36...72 V
Current consumed / 2 / at rated value of supply voltage / max.	0.2 A
Type / 3 / of supply voltage	DC
Supply voltage / 3	
<ul style="list-style-type: none"> rated value 	88...300 V
Type / 4 / of supply voltage	AC
Supply voltage / 4	
<ul style="list-style-type: none"> rated value 	85...264 V
Supply voltage / for DC	24 V
<ul style="list-style-type: none"> rated value 	
<ul style="list-style-type: none"> minimum 	10 V
<ul style="list-style-type: none"> maximum 	36 V
Consumed current / maximum	0.4 A
Power loss	
<ul style="list-style-type: none"> maximum 	10 W
Permitted ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> during operating 	-40...+85 °C
<ul style="list-style-type: none"> Comment 	A maximum operating temperature of +85 °C is permissible for a duration of 16 hours
Coating	Conformal Coating optional
operating condition / fanless operation	Yes
Protection class IP	IP40

Design, dimensions and weight	
Design	compact
Width	66 mm (2.6 in)
Height	188 mm (7.4 in)
Depth	127 mm (5 in)
Net weight	1.22 kg
Material / of the enclosure	20 AWG galvanized steel enclosure
Mounting type	
<ul style="list-style-type: none"> • 19-inch installation 	No
<ul style="list-style-type: none"> • 35 mm DIN rail mounting 	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes
<ul style="list-style-type: none"> • S7-300 rail mounting 	No
<ul style="list-style-type: none"> • fixed-mounted 	Yes
Product properties, functions, components / general	
number of automatically learnable MAC addresses	8192
memory capacity	
<ul style="list-style-type: none"> • of MAC-address table 	32 Kibyte
<ul style="list-style-type: none"> • of message buffer / maximum 	2 Mibyte
switch-latency period	7 μ s
transfer rate / of the switch	5.6 Gbit/s
number of priority channels	4
product characteristic	
<ul style="list-style-type: none"> • no head-off-line-blocking 	Yes
<ul style="list-style-type: none"> • Switching-Method Store & Forward 	Yes
<ul style="list-style-type: none"> • Zero-Packet-Loss technology 	No
Product functions / management, configuration	
Product function	
<ul style="list-style-type: none"> • CLI 	Yes
<ul style="list-style-type: none"> • web-based management 	Yes
<ul style="list-style-type: none"> • MIB support 	Yes
<ul style="list-style-type: none"> • RMON 	Yes
<ul style="list-style-type: none"> • switch-managed 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • Telnet 	Yes
<ul style="list-style-type: none"> • HTTP 	Yes
<ul style="list-style-type: none"> • HTTPS 	No
<ul style="list-style-type: none"> • TFTP 	Yes
<ul style="list-style-type: none"> • SFTP 	Yes
<ul style="list-style-type: none"> • IGMP (snooping/querier) 	Yes
number of groups / at IGMP	256
Protocol / is supported	

• SNMP v1	Yes
• SNMP v2	No
• SNMP v2c	Yes
• SNMP v3	Yes
product function / for MIB-support	
• by BRIDGE-MIB	RFC1493
• by IF-MIB	RFC2863
• by RMON-MIB	RFC2819
• by RSTP-MIB	draft-ietf-bridge-bridgemib-smiv2-03-RSTP-MIB
• by SNMPv2-MIB	RFC1907
• by SNMPv2-SMI	RFC2578
• by SNMPv2-TC	RFC2579
• by TCP-MIB	RFC2012
• by UDP-MIB	RFC2013
Product functions / VLAN	
Product function	
• VLAN - port based	Yes
Number of VLANs / maximum	255
Protocol / is supported / GVRP	Yes
Product functions / DHCP	
Product function	
• DHCP client	Yes
• DHCP Option 82	Yes
• DHCP Option 66	No
• DHCP Option 67	No
Product functions / Redundancy	
Product function	
• redundancy procedure STP	Yes
• RSTP redundancy protocol	Yes
• redundancy procedure MSTP	Yes
• eRSTP	Yes
Protocol / is supported	
• STP/RSTP	Yes
• STP	Yes
• RSTP	Yes
• MSTP	Yes
Product functions / Security	
product function	
• IEEE 802.1x (radius)	Yes
protocol / is supported	
• TACACS+	Yes

• SSH	Yes
• SSL	Yes
key length	
• at SSL	128 bit
• at RSA	1024 bit
product function / port-rate-limiting	Yes
adjustable port-rate-limitation	128 kbit/s...8 Mbit/s
Product functions / Time	
product function	
• SNTP-client	Yes
• SNTP-server	Yes
Protocol / is supported	
• SNTP	Yes
Standards, specifications, approvals	
Standard	
• for EMC	FCC Part 15 (Class A), EN55022 (CISPR22 Class A)
• for safety / of CSA and UL	cCSAus (Compliant with CSA C22.2 No. 60950, UL60950, EN60950)
Laser protection class	Complies with 21 CFR Chapter1, Subchapter J
Verification of suitability	
• CE mark	Yes
• Railway application in accordance with EN 50155	No
• IEC 61850-3	Yes
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product conformity	
• according to IEEE 802.3-10BaseT	Yes
• according to IEEE 802.3u-100BaseTX	Yes
• according to IEEE 802.3u-100BaseFX	Yes
• according to IEEE 802.3x-Flow Control	Yes
• according to IEEE 802.3ab-1000BaseT	Yes
• according to IEEE 802.3ad-Link Aggregation	Yes
• according to IEEE 802.1d-MAC Bridges	Yes
• according to IEEE 802.1d-STP	Yes
• according to IEEE 802.1p-class of service	Yes
• according to IEEE 802.1Q-VLAN tagging	Yes
• according to IEEE 802.1Q-2005 (formerly IEEE 802.1s) MSTP	Yes
• according to IEEE 802.1w-RRST	Yes
• according to IEEE 802.1x-port based Network Access Control	Yes
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product conformity	

• RFC768-UDP	Yes
• RFC783-TFTP	Yes
• RFC791-IP	Yes
• RFC792-ICMP	Yes
• RFC793-TCP	Yes
• RFC826-ARP	Yes
• RFC854-Telnet	Yes
• RFC894-IP over Ethernet	Yes
• RFC1112-IGMPv1	Yes
• RFC1519-CIDR	Yes
• RFC1541-DHCP (client)	Yes
• RFC2068-HTTP	Yes
• RFC2236-IGMPv2	Yes
• RFC2284-EAP	Yes
• RFC2475-Differentiated Service	Yes
• RFC2865-RADIUS	Yes
• RFC3414-SNMPv3-USM	Yes
• RFC3415-SNMPv3-VACM	Yes

Further Information / Internet Links

Internet link	
• to website	
• Industry Mall/RUGGEDCOM Selector	http://ruggedcom-selector.automation.siemens.com
• Siemens RUGGEDCOM	http://siemens.com/ruggedcom
•	http://www.siemens.com/industrial-controls/mall
• selection instrument cables and connectors	http://www.siemens.com/snst
•	http://www.siemens.com/cax
•	http://www.siemens.com/simatic-net
• Information und Download Center	http://www.siemens.com/automation/net/catalog
•	http://automation.siemens.com/bilddb
•	http://support.automation.siemens.com

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