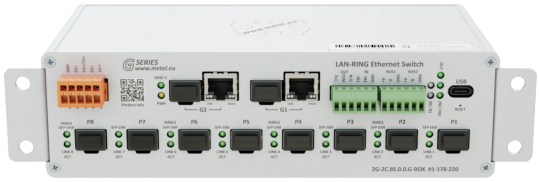
Network infrastructure

Short Catalog Sheet

METEL EU

2G-2C.8S.0.0.G



- 2x COMBO port (SFP/RJ45)
- 8x SFP slot with 100BASE-X support, only 100Mbit optical modules, SFP with RJ45 in these slots is not supported
- 2x RS485 / Modbus-RTU
- 2x digital/alarm input & 1x programmable relay
- Configuration via SSH CLI and GUI SIMULand
- Secure Boot
- Redundant topology LAN-RING, RSTP, MSTP
- 2 independent power inputs
- 64 events with HTTP/ONVIF client, Email, IP Watchdogs, ETH events, TCP, Modbus, inputs / outputs etc
- VLAN, QoS, SNMP, SMTP, SNTP, IGMPv1/2, RSTP, LLDP, 802.1X, LACP, MSTP, Tacacs+, Syslog
- Fine surge protection on all ports
- Operating temperature from -40 °C to +75 °C

Industrial-managed switches with SSH CLI and SIMULand GUI configuration are equipped with COMBO ports, SFP slots, RS485 buses, digital / alarm inputs, and a programmable relay. In addition to supporting common network standards, they also contain Event management with 64 automatic actions, making these switches the ideal solution for complex applications with high demands on security and flexibility of the equipment used. The switches support redundant MESH / RING topologies with link recovery below 30ms and redundant power supply. The highly resilient hardware allows the switches to be deployed in harsh environments over a wide operating temperature range.

Some of the listed features will be released during 2025!

The current list of available features is available upon request at info@metel.eu.

Devices are developed and manufactured in the EU and meet the requirements of the NDAA.

Available models

Order name	Order code
2G-2C.8S.0.0.G-BOX	1-178-220

Technical parameters

COMBO PORT	
Number of	2
SFP slot	100/1000 BASE-LX, BASE-BX
RJ45	10/100/1000 BASE-T
SFP SLOT	
Number of	8
Supported formats	100 BASE-LX, BASE-BX
RS485	
Number of	2
Speed	max. 115200 bps
Surge protection	1500 W waveform 10/1000 µs
DI/BI INPUTS	
Number of	2
Digital mode	NC / NO
Alarm mode	Analog 0 - 30 kΩ for balanced loops
RELÉ OUTPUT	
Number of	1
Contact type	Switching
Max. Load	62.5 VA (30 W) / 1 A / 60 V (resistive load)
POWER	
Input voltage range	10 - 30 VAC / 10 - 60 VDC
Energy consumption	Max. 13 W
Surge protection	1500 W waveform 10/1000 µs
Number of	2
Connector	WAGO 734-205
ENVIRONMENT	
Operating temperature	-40...+75 °C
Storage temperature	-40...+75 °C
Humidity	Max. 100% (non-condensing)
MECHANICS	
Weight	1.1 kg

MECHANICS	
Dimensions - h / w / d	60 x 255 x 113 mm
IP protection	IP 30
Cooling	Passive
SECURITY	
Firmware Booting	The code is encrypted and signed
	Secure Boot decrypt and verify the signature
Firmware Upgrade	The FW image is encrypted and signed using AES-256, RSA-4096, SHA-512
SNMP	SNMPv3 - SHA-512 / AES-256 (recommended)
	SNMPv2c (obsolete)
GUI Application	Digitally signed installation file using SHA-256, RSA 4096
IEEE 802.1X-2004	RFC3748 - EAP Packet Format, Authenticator PAE, Supplicant PAE
SSH	SSH v2, OpenSSH, OpenSSL
Tacacs+	Authentication, Authorisation, Accounting
MANAGEMENT	
SSH	CLI
Application	SIMULand.v4
SNMPv3	Encrypted
SWITCH	
Number of MAC addresses	8 K
Maximum frame size	1632 B
Packet buffer	1 Mbit
Switching	Store-and-forward, full wire-speed, non-blocking on all ports
Switching capacity	5.6 Gbps

Standards and protocols

Standard	Note
IEEE 802.3i	10BASE-T 10 Mbit/s (1.25 MB/s) over twisted pair IEEE 802.3u for 100BaseT(X) and 100BaseFX
IEEE 802.3u	100BASE-TX, 100BASE-T4, 100BASE-FX Fast Ethernet at 100 Mbit/s (12.5 MB/s) with autonegotiation
IEEE 802.3ab	1000BASE-T Gbit/s ethernet over twisted pair at 1 Gbit/s (125 MB/s)
IEEE 802.3z	1000BASE-X Gbit/s ethernet over optical fiber at 1 Gbit/s (125 MB/s)
IEEE 802.3ac	Max. frame size 1522 bytes (allow 802.1Q tag)
IEEE 802.3x	Flow Control
IEEE 802.1p	Class of Service
IEEE 802.1X	Port-based Network Access Control (PNAC)
IEEE 802.1q	VLAN tagging
Modbus TCP/RTU	Master / Slave
SNMP v2c/v3	Simple Network Management Protocols
IGMP v1/v2	Internet Group Management Protocols
SMTP	Simple Mail Transfer Protocol
SNTP	Simple Network Time Protocol
RSTP	Rapid Spanning Tree Protocol
LAN-RING.v1, v2	Ring topology with a very short time reconfiguration of max. 30ms
Management	GUI SIMULandv4 - USB C / Encrypted management via LAN
LACP	IEEE 802.3ad, Link Aggregation Control Protocol
MSTP	Multiple Spanning Tree Protocol
Tacacs+	Terminal Access Controller Access-Control System for Authentication, Authorization, and Accounting (AAA) in network security
Syslog	Standard for message logging

EMC and safety

Standard	Level	Note
EN 55032		EMC of multimedia devices - emission requirements
EN 55035		EMC of multimedia devices - immunity requirements
EN 62368-1		Safety requirements of Information technology equipment
EN IEC 63000		The Assessment Of Electrical And Electronic Products With Respect To The ROHS
EN 61000-4-2	8 kV	Air discharge
EN 61000-4-2	4 kV	Contact discharge
EN 61000-4-3	10 V/m	Radiated HF field
EN 61000-4-4	1 kV	Bursty
EN 61000-4-5	1 kV	Shock impulses
EN 61000-4-6	3 V	Resistance to RF field induced line disturbances
EN 61000-4-8	30 A/m	Magnetic field
EN 50121-4 ed.4		Railway applications - EMC Emission and immunity of signalling and communication equipment

Notes

- The manufacturer reserves the right to change technical parameters without prior notice.
- Some of these features will be released during 2025!
- A current list of available features is available upon request at info@metel.eu.
- Hardware, software and firmware developed and manufactured in accordance with ISO 27001 in the Czech Republic.

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Dimensions