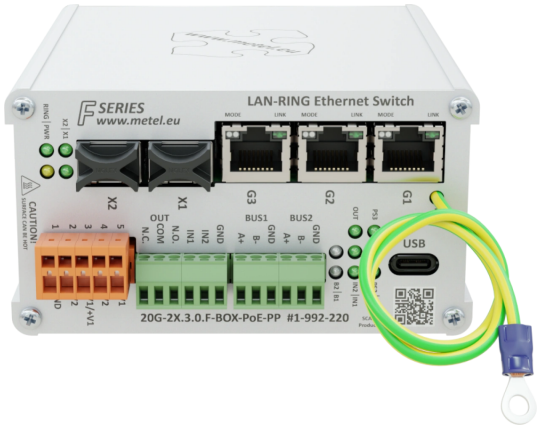
Network infrastructure

Short Catalog Sheet

METEL EU

20G-2X.3.0.F



- 2x SFP+ slot 10 GBASE-R / 1000 BASE-X
- 3x RJ45 port 10/100/1000 BASE-T
- Support UPOE, POH, 802.3af/at/bt, max. 95W per port
- The maximum total PoE power consumed through all ports is 150W
- 2x RS485 / Modbus-RTU
- 2x digital/alarm input
- 2 independent power inputs
- Redundant topology LAN-RING, RSTP
- Event management with support for: HTTP/ONVIF client, E-mail, IP Watchdogs, ETH events, TCP, Modbus, DIO, balanced loops...
- VLAN, QoS, SNMP, SMTP, SNTP, IGMP, RSTP(-M), LLDP, 802.1X
- Overvoltage protection up to 30A (8/20µs)
- Operating temperature from -40 °C to +75 °C

LAN-RING industrial managed PoE++ switches feature gigabit ports, SFP+ slots, plus RS485 bus, digital/alarm inputs and relay outputs. Event management, which is part of advanced management, makes these switches the ideal solution for applications with high demands on security and flexibility of the devices used. The switches support redundant MESH/RING topologies with connection recovery up to 30 ms. The highly resilient hardware allows the switches to be deployed in a wide operating temperature range from -40 to 75° with a maximum PoE power of 150 W. Three gigabit ports make the switches ideal for use in server rooms, NVRs and monitoring sites.

The devices are developed and manufactured in the EU and are NDAA compliant.

Available models

Order name	Order code
20G-2X.3.0.F-BOX-PoE-PP	1-992-220

Technical parameters

SLOT SFP+	
Number of	2
Supported formats	10 GBASE-R / 1000BASE-X
GIGABIT ETHERNET	
Surge protection	30 A waveform 8/20 µs
Connector	RJ45
Number of	3
Supported formats	10BaseT, 100BaseTx, 1000BaseTx
RS485	
Number of	2
Speed	max. 115200 bps
Surge protection	30 A waveform 8/20 µs
DI/BI INPUTS	
Number of	2
Digital mode	NC / NO
Alarm mode	Analog 0 - 30 kΩ for balanced loops
RELAY OUTPUT	
Number of	1
Contact type	Switching
Max. Load	62.5 VA (30 W) / 1 A / 60 V (resistive load)
POWER	
Number of	2
Connector	WAGO 734-205
Without PoE	10 - 30 VAC / 10 - 60 VDC
With PoE up to 15.4 W	48 - 57 VDC
With PoE+ up to 30 W	52 - 57 VDC
With PoE++ up to 95 W	53 - 57 VDC
Energy consumption	Max. 5 W without PoE
Surge protection	1500 W waveform 10/1000 µs
PoE	

Maximum total PoE consumption	150 W
Standard	IEEE 802.3af/at/bt, UPOE, POH
Number of PoE ports	3
Maximum power / port	95 W
ENVIRONMENT	
Operating temperature	-40...+75 °C
Storage temperature	-40...+75 °C
Humidity	Max. 100% (non-condensing)
MECHANICS	
Weight	0.5 kg
Dimensions - h / w / d	60 x 110 x 140 mm
IP protection	IP 30
Cooling	Active - temperature controlled
SECURITY	
Secure Booting	The code is stored and executed directly on SoC, therefore it is not externally accessible.
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
MANAGEMENT	
Application	SIMULand.v4
SNMPv3	Encrypted
SWITCH	
Number of MAC addresses	16 K
Maximum frame size	10 K (Jumbo)
Packet buffer	2 Mbit
Switching	Store-and-forward, full wire-speed, non-blocking on all ports
Switching capacity	46 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 802.3af/at/bt	Power over Ethernet up to 15.4 / 30 / 90W
UPOE	Universal Power Over Ethernet (PoE up to 60W))
POH	Power Over HDBaseT (PoE up to 90W)
IEEE 802.1p	Class of Service
IEEE 802.1X	Port-based Network Access Control (PNAC)
IEEE 802.1q	VLAN tagging
SMTP	Simple Mail Transfer Protocol
LAN-RING.v1, v2	Ring topology with a very short time reconfiguration of max. 30ms
SNMP v2c/v3	Simple Network Management Protocols
SNTP	Simple Network Time Protocol
RSTP	Rapid Spanning Tree Protocol
Modbus TCP/RTU	Master / Slave
Management	GUI SIMULandv4 - USB C / Encrypted management via LAN
IGMP v1/v2	Internet Group Management Protocols

EMC and safety

Standard	Level	Note
EN 55032		EMC of multimedia devices - emission requirements
EN 55035		EMC of multimedia devices - immunity requirements

Standard	Level	Note
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	2 kV	Bursty
EN 61000-4-5	2 kV	Shock pulses
EN 61000-4-6	10 V	Resistance to HF field induced line disturbances
EN 61000-4-8	30 A/m	Magnetic field
EN 61000-4-11		Short-term power dips and outages
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.

Document created on 02/10/2026 02:33AM:44

Dimensions