

Technical Specifications

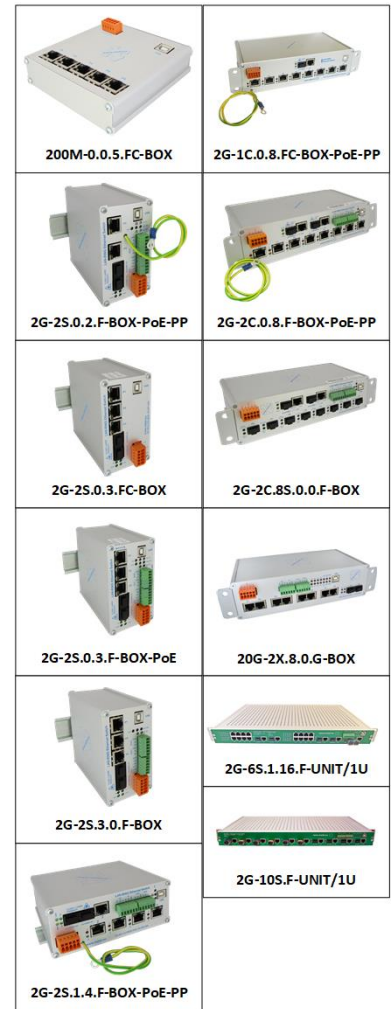
Devices: Industrial Switches LAN-RING Series

Main Advantages

- Redundant topology LAN-RING.v1, v2 (ring) and RSTP (mesh)
- Ring reconfiguration < 30ms

Supported Speeds on the Optical Ring	
2G Series	20G Series
100Mbps/1Gbps	1Gbps/10Gbps

- Supports RSTP protocol
- 802.1X authentication with direct security attack SNMPv3 notification (TRAPS)
- PoE up to 95W - IEEE802.3af,at,bt, POH, UPOE (see table Available Ports)
- Overvoltage protections up to 1000A on FE ports (see table Available Ports)
- High EMC Immunity
 - EN 61000-4-2, level 4 (8kV) - Electrostatic Contact Discharge
 - EN 61000-4-2, level 4 (15kV) - Electrostatic Air Discharge
 - EN 61000-4-4, level 4 (4kV/5kHz) - Electrical Fast Transient / Burst
 - EN 61000-4-5, level 4 (4kV) for FE ports - Surge Pulses,
 - EN 61000-4-5, level 3 (2kV) for DI and RS485. - Surge Pulses,
 - EN 61000-4-8, level 5 (100A/m) - Static Magnetic Field 50 Hz
 - EN 61000-4-9, level 5 (1000A/m) - Pulse Magnetic Field
- Digital/alarm inputs (see table Available Ports)
- Programmable relay (see table Available Ports)
- 2x RS485 bus: 1x compatible with security systems ASSET, GALAXY, PERIDECT
1-2x MODBUS RTU (see table Available Ports)
- Event management – Modbus RTU/TCP, E-mail, IP Watchdogs, ETH events, TCP events, DIO... , HTTP/ONVIF profile S client for controlling IP cameras
- Support for writing logs on SD card
- Redundant power supply inputs
- Safety management: local USB/remote LAN
- Maximum start time 15s



Available Ports

Ordering Name	10G SFP	COMBO PORTS	1G/100M SFP	100M SFP	GE	FE	RS485	DI/ALARM INPUT	Relay ⁽¹⁾	Total Number of the PoE Ports ⁽²⁾	IEEE802.3af (max. 15.4W)	IEEE802.3at (max. 30W)	UPOE (max. 60W)	IEEE802.3bt (max. 90W) ⁽³⁾	POH (max. 95W) ⁽³⁾
2G-10S.F-UNIT/1U	0	10	0	0	0	0	2	2	1	0	0	0	0	0	0
2G-6S.1.16.F-UNIT/1U	0	4	2	0	1	16	1	2	1	16	16	0	0	0	0
2G-2C.8S.0.0.F-BOX	0	2	0	8	0	0	2	2	1	0	0	0	0	0	0
2G-2C.0.8.F-BOX-PoE-PP	0	2	0	0	0	8	2	2	1	8	8	8	2	2	2
2G-1C.0.8.FC-BOX-PoE-PP	0	1	0	0	0	8	0	0	0	8	8	8	2	2	2
2G-2S.1.4.F-BOX-PoE-PP	0	0	2	0	1	4	2	2	1	4	4	4	2	2	2
2G-2S.3.0.F-BOX	0	0	2	0	3	0	2	2	1	0	0	0	0	0	0
2G-2S.0.3.F-BOX-PoE	0	0	2	0	0	3	2	2	1	3	3	3	0	0	0
2G-2S.0.3.FC-BOX	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0
2G-2S.0.2.F-BOX-PoE-PP	0	0	2	0	0	2	2	2	1	2	2	2	2	2	2
200M-0.0.5.FC-BOX	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
20G-2X.8.0.F-BOX	2	0	0	0	8	0	2	2	1	0	0	0	0	0	0

⁽¹⁾ Fully programmable relays available in the Event Management. ⁽²⁾ Max. 250W from all ports

⁽³⁾ The values are valid for PoE design 2020. From 9/2020 it will gradually replace older designs.

Overvoltage protections

	Power IN	GE [A]	FE [A]	DI [A]	RS [A]
2G-2S.0.2.F-BOX-PoE	1500 W		1000	30	30
2G-2S.0.2.F-BOX-PoE-PP	1500 W	-	1000	30	30
2G-2S.0.3.FC-BOX	1500 W	-	150	-	-
2G-2S.0.3.F-BOX-PoE	1500 W	-	150	30	30
2G-2S.3.0.F-BOX-PoE	1500 W	30	-	30	30
2G-2S.1.4.F-BOX-PoE-PP	1500 W	30	1000	30	30
2G-1C.0.8.F-BOX-PoE-PP	1500 W	30	1000	30	30
2G-2C.0.8.F-BOX-PoE-PP	1500 W	30	1000	30	30
2G-2C.8S.0.0.F-BOX	1500 W	30	-	30	30
2G-2S.1.16.F-UNIT/1U	1000 A	30	30	30	30
2G-10S.F-UNIT/1U	1000 A	30	-	30	30
20G-2X.8.0.F-BOX	1500 W	30		30	30

COMBO ports 400W(8/20 μ s) - RJ45 port

Standards and protocols

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) w/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 Fiber-Optic at 1 Gbit/s (125 MB/s)
IEEE 802.3ac	Max. frame size 1522 bytes (to allow "Q-tag")
IEEE 802.3af, at, bt	Power over Ethernet (15.4 W, 25.5 W, 90W)
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	RTU/TCP, mode Master and Slave
SNMP v2c/v3	Protocol for managing devices on IP networks
IGMP v1/v2	Internet Group Management. This protocol is used for establishing multicast groups
SNTP	Simple network time protocol
SMTP	Internet standard for e-mail transmission across IP
RSTP	Protocol prevents creation of loops in the network
LAN-RING.v1, v2	Ring topology with a very short time reconfiguration of max. 30ms.
Management	USB cable A/B – local management protected with password sw SIMULand – encrypted management via LAN

Switching

MAC table size	8 K
Packet buffer size	1 Mbit

Powering

- Independent supply inputs (10-60VDC or 10-30VAC)

	BOX Versions	2G-6S.1.16.F-UNIT/1U	2G-10S.F-UNIT/1U
Without PoE	Input 1: DC:10-60VDC or AC:10-30VAC	Input 1: DC:10-60VDC ⁽⁴⁾ Input 2: DC:10-60VDC ⁽⁴⁾	Input 1: 230VAC Input 2: 230VAC
	Input 2: DC:10-60VDC	Input 3: 230VAC	
With PoE	Input 1: DC:48-57VDC	Input 1: DC:48-57VDC ⁽⁴⁾	
	Input 2: DC:48-57VDC	Input 2: DC:48-57VDC ⁽⁴⁾	
With PoE+	Input 1: DC:52-57VDC		
	Input 2: DC:52-57VDC		
With PoE over 30W/port	Input 1: DC:55-57VDC		
	Input 2: DC:55-57VDC		

⁽⁴⁾Included 1x PSE 280W/48V.

Working Environment

- Operational range –40...+70°C (2G-6S.1.16.F –30...+60°C)
- Storage range –40...+70°C
- Humidity max. 95% (non-condensing)

Mechanics

- Cover Aluminum case IP30
- Installation BOX - to a flat surface, DIN35 / BOX with 8 FE or GE ports - to a flat surface, DIN35, to 10' racks or to 19" racks with reduction RE-19/10 UNIT/1U to 19" racks

The producer retains the right to change any technical parameters without previous written or published notification.