Overview of technical specifications[1]

CMC 850

IEC 61850[2]

Publishing	
GOOSE	360 virtual binary outputs, 128 GOOSEs
Sampled Values	IEC 61850-9-2 („9-2LE"), IEC 61869-9

Subscribing	
GOOSE	360 virtual binary inputs, 128 GOOSEs

Maximum number of streams	
Publishing	RelaySimTest: 4, Test Universe: 3 (1 stream: 4 V + 4 I)

Time synchronization

Internal system clock	
Frequency drift	< 0.37 ppm / 24 h < 4.6 ppm / 20 years

CMC 850 to external reference	
Absolute timing accuracy (voltage/current)	< 1 µs typ., < 5 µs guar.
Precision Time Protocol (PTP)	IEEE 1588-2008 IEEE C37.238 (Power Profile) IEC 61850-9-3 (Utility Profile)

CMC 850 to test objects	
IRIG-B, PPS, PPX	Via CMIRIG-B, TICRO 100

Low level outputs

Number of outputs	12
Setting range	0 ... ±10 Vpk

Binary outputs

Type	4 transistor
Switching voltage	max. 15 V
Switching current	max. 5 mA

External power supply

Nominal input voltage	100 ... 240 VAC, 1-phase (50/60 Hz)
Output voltage	48 VDC

Environmental conditions

Operation temperature	0 ... +50 °C / +32 ... +122 °F
Storage temperature	-25 ... +70 °C / -13 ... +158 °F
Humidity range	Relative humidity 5 ... 95 %, non-condensing

Miscellaneous

Weight	1.7 kg / 3.7 lbs
Dimensions (W x H x D)	85 x 145 x 325 mm / 3.3 x 5.7 x 12.8 in
PC connection	2 PoE (Power over Ethernet) ports USB Type-B port (PC) USB Type-A port (optional Wi-Fi adapter for wireless control)

Equipment reliability

Electromagnetic interference (EMI)	
International / Europe	IEC/EN 61326-1, IEC/EN 61000-6-4 IEC/EN 61000-3-2/3 CISPR 32 (Class A)/EN 55032 (Class A)
North America	47 CFR 15 Subpart B (Class A) of FCC

Electromagnetic susceptibility (EMS)	
International / Europe	IEC/EN 61326-1, IEC/EN 61000-6-2 IEC/EN 61000-4-2/3/4/5/6/11

Safety	
International / Europe	IEC/EN 61010-1
North America	UL 61010-1 CAN /CSA-C22.2 No. 61010-1

Mechanical tests	
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27

Certifications

Developed and manufactured under an ISO 9001 registered system

C US

[1] The full technical specifications are available on request. All data specified are guaranteed, except where indicated otherwise. OMICRON guarantees the specified data for one year after factory calibration, within 23 °C ±5 °C / 73 °F ±10 °F in the frequency range from 10 to 100 Hz and after a warm-up phase > 25 minutes

[2] The GOOSE and Sampled Values functionality require software licences for the respective configuration modules