

EMS-TL-G25

Telemetry gateway, 25 points, controller plus expansion module

Our own configuration of the documented 10-point controller with one expansion module, for a row loop between the 10-point and 50-point builds

EMS-TL-G25 is our own configuration of the documented expansion module: the documented 10-point controller plus one expansion module, giving 25 points on the same 24 VAC/DC supply, one RS-485 trunk and two 10/100 Ethernet ports. It speaks BACnet/IP, Modbus and SNMP over IP, and BACnet and Modbus over RS-485, and sits inside the family's documented ceiling of 50 points across up to 3 devices. The failure it exists to catch is a point list that outgrows a 10-point controller mid-project, after the panel has been built.

ORDERING INFORMATION

Part number	EMS-TL-G25
Onboard points	25
Composition	Documented 10-point controller plus one expansion module
Configuration note	Our own configuration of the documented expansion module
Universal inputs	5 per device, per the documented input types
Communications	1 × RS-485 and 2 × 10/100 Ethernet
Supply	24 VAC/DC
Expansion	To 50 points across up to 3 devices

POINTS AND IO

Parameter	Value	Notes
Onboard points	25	Between the documented 10-point build and the documented 50-point ceiling
Composition	Documented 10-point controller plus one expansion module	This code is our own configuration of the documented expansion module, not a documented catalogue build
Universal inputs	5 per device, accepting thermistor Type 3 / 10K, 0–100 kΩ, 0–10 V DC, 0–20 mA with an external resistor, and dry contact	Input type is set per channel at commissioning
Analog outputs	2 × 0–10 V DC at 4 mA maximum per device	Documented output set of the controller
Digital outputs	3 × triac, 24 V AC at 0.5 A per device	Documented output set of the controller
Point count composition	10-point controller plus one expansion module	The expansion module adds points to the same point list, not a separate controller
Expansion ceiling	50 points across up to 3 devices	A G25 can expand further inside the documented ceiling
Point dictionary it has to absorb	2 112 pages of register and object definitions in one published CDU protocol reference	Context for the point list the gateway is expected to carry

Parameter	Value	Notes
Point names in that dictionary	Fluid Flow Rate, Inlet Fluid Pressure, Outlet Fluid Pressure, Differential Pressure, and the alarm Fluid Loop High/Low Differential Pressure	Named points carried in the published reference
Engineering units in that dictionary	°C, m³/h, kPa, Pa, bar, % RH, VAC and Hz	Unit handling is part of the point-list setup

COMMUNICATIONS AND PROTOCOLS

Parameter	Value	Notes
Serial	1 × RS-485 per device	Daisy-chain capable
Ethernet	2 × 10/100 Ethernet per device	Daisy-chain capable
Protocols over IP	BACnet/IP, Modbus and SNMP	Head-end integration options on the IP side
Protocols over RS-485	BACnet and Modbus	Field-side integration options on the serial trunk
Point list across devices	One point list spanning the controller and the expansion module	The head end sees one device with 25 points

SUPPLY AND ENVIRONMENT

Parameter	Value	Notes
Supply	24 VAC/DC	Shared with the controller rail
Operating temperature	–20 to 60 °C	Gateway enclosure envelope
Storage temperature	–40 to 85 °C	Gateway enclosure envelope
Humidity	5–95 % RH non-condensing	Condensing conditions are outside the envelope
MTBF	10 years	Published reliability figure for the controller family
Enclosure mounting	DIN-rail, inside a control panel or enclosure	The panel provides the environmental protection for the devices

STANDARDS AND COMPLIANCE

Parameter	Value	Notes
Built to	UL 916, C-UL, CE, FCC Part 15 Class B, RoHS2, REACH, WEEE and CAN/CSA-C22.2 No. 205-12	Ratings the product is built to, stated as standard designations
Approval documents	Shown on request	Certification names are published on the badge cards
RoHS and REACH	Declared for the controller family	Substance declarations travel with the delivery documentation

APPLICATIONS

- Row loops whose point list is larger than a 10-point controller and smaller than the 50-point ceiling
- Panels already built around the documented 10-point controller that need more IO without a second head-end device
- Loops carrying ΔT , flow, differential pressure, level and leak points plus filter differential pressure

COMPATIBLE WITH

- EMS-TL-ST and EMS-TL-STC temperature pairs on universal inputs
- EMS-TL-SF and EMS-TL-SFU flow instruments
- EMS-TL-SDP differential-pressure transmitter, 4–20 mA with an external resistor
- EMS-TL-SL level instrument and EMS-TL-SK leak channel input module
- EMS-TL-K100, EMS-TL-K300, EMS-TL-K800 and EMS-TL-K2300 kits

SCOPE

- Edge gateway only: coolant distribution units and cold plates are outside this scope

GATEWAY LADDER BY POINT COUNT

Parameter	Value	Notes
EMS-TL-G10	10 points	Documented configuration: 5 universal inputs, 2 analog outputs, 3 triac outputs
EMS-TL-G25	25 points	Our own configuration: documented 10-point controller plus one expansion module
EMS-TL-G50	50 points	Documented ceiling, across up to 3 devices

NOTES

- EMS-TL-G25 is our own configuration of the documented expansion module combined with the documented 10-point controller. It is not a documented catalogue build of the controller family.
- An enclosure IP rating is not stated in the retrieved documentation for this gateway, so no rating row appears on this datasheet.
- CAN/CSA-C22.2 No. 205-12, UL 916, C-UL, CE, FCC Part 15 Class B, RoHS2, REACH and WEEE are standard designations the product is built to; they are not approvals held by the company.
- Certification names are published on the badge cards; approval documents are shown on request.
- Scope: no coolant distribution units and no cold plates.

Full specification sheet and current pricing EMS-Trade Cooling · ems-cool.com Typical lead time confirmed on order acknowledgement.	EMS-TL-G25 Rev. A 2026-09-19
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