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INTEGRATED THERMAL SOLUTIONS

Description

DAG-ECAT series are high-performance addressable alarm terminals with 7- or 12-inch touchscreen controllers, designed for interfacing with acquisition modules manufactured by Dagman or Evteam. The communication with these modules is based on a proprietary long-range failsafe bus. The 7-inch terminal is offered in IP54/NEMA 3S water-resistant wall-mounted enclosure that can be installed in technical rooms and other premises where dripping water might be potentially present. The 12-inch terminal is housed in heavy-duty sheet metal enclosure suitable for industrial environment.

The primary use of DAG-ECAT is to monitor up to four circuits with long detection strings for conductive liquids or hydrocarbons of up to 2400 m each. The communication frontend permits robust and reliable operation even in case of partial failure of the circuit of acquisition modules. Each individual acquisition module is connected to an independent sensor cable and the system provides true multi-leak capability. All compatible acquisition modules are powered by the terminal through the proprietary bus and the need of additional infrastructure is considerably reduced. The maximum distance covered with this wired layout (accumulated sensor and jumper cables) is in excess of 3 km per circuit. The optional loopback wiring increases the system reliability in case of cable breaks and shorts. This provides a redundancy architecture. Alarm threshold adjustment on each sensing cable installed is possible.

Photos and illustrations are not contractually binding and are subject to change without notice

The intuitive password-protected user interface on the touch panel provides flexible configuration and adjustable alarm threshold.

High-level interfacing to BMS/DCS/SCADA is implemented through Modbus RTU, Modbus TCP, email alerts and SNMP Traps. Other protocols can be implemented on request. Configurable dry contacts (number 12 - DPDT) for general alarm, leak alarm, power failure and trouble are also available.

Features and Benefits

- Very long range of leak detection circuit
- Easy T-branching – no special devices/components needed
- Adjustable alarm threshold (sensitivity 1-9)
- Can be installed in humid environments
- Able to interface with sensor modules for various types of liquids as water, acids, bases, hydrocarbons, organic solvents, etc.

Typical Applications

- Leak detection in data centers and commercial buildings
- Monitoring of storage tanks and fuel lines of emergency generators
- Monitoring of Military and Scientific facilities
- Leak detection in chemical and petrochemical plants
- Monitoring of Oil&Gas stations and other assets

DAGMAN

Compatible Acquisition Modules and Remote Devices

DAG-CLS-DIGI		Smart sensing cable for detecting conductive liquids indoor. Shipped with an addressable miniature electronic device as a separate module. Maximum length of sensor: 15 m
FLD-MXM		Acquisition module for hydrocarbons (manufactured by EVTeam) interfacing with sensor cables for detecting unwanted presence of hydrocarbons or fumes indoor or outdoor. Compatible with Dagman modular multisection sensor cable for hydrocarbons.
DAG-COST+		DC-powered version of the stand-alone alarm terminal for detecting leaks of polar or non-polar liquids. Interfacing to DAG-ECAT through Modbus RTU or Modbus TCP.

Technical Data

Display Size and Resolution	7-in TFT, 800 x 480; or 12-in TFT 1024 x 768
Dimensions	DAG-eCAT7: 295 x 260 x 125 mm; DAG-eCAT12: 400 x 300 x 160 mm
Weight	DAG-eCAT7: 1.3 kg; DAG-eCAT12: 7.5 kg
Fire Rating	UL94-HB (UL94-V0 available on request)
Ingress Rating	IP54/NEMA 3S - indoor use only (IP65/NEMA 4 available on request)
Operating Temperature Range	0°C to +50°C
Power Supply Input	100-240VAC or 24VDC
Maximum Length of Cable	Accumulated length of Sensor and Lead Cables per channel: 2 km
Power Consumption	DAG-eCAT7: 18.5W max.; DAG-eCAT12: 36W max.
Audible Sounder	80dB max. Buzzer with Silence button
Relay Contact	Power Failure + Leak + Cable Break: DPDT (NO/NC)
Relay Switching Capacity	DPDT - Switching current - 0.5 A at 250 VAC; 1A at 30 VDC
Relay Switching Power	60W
Supported Protocol (Monitoring)	Modbus RS485, Modbus TCP/IP, Bacnet over IP (External Gateway)
Installation	Wall-mounted (Flush mount possible)

DAG-ECAT alarm terminals are currently undergoing assessment and are supplied with CE-approuved / cULus Listed display controller. It shall be used according to the relevant local regulations and installed by qualified personnel.

Product Codes

DAG-eCAT7	Four-channel alarm terminal with 7-in touchscreen HMI, for circuits with a maximum of 25 acquisition modules each, with Modbus RTU/TCP, SNMP Traps and 12 DPDT relay outputs
DAG-eCAT7-HC	Four-channel alarm terminal with 7-in touchscreen HMI, for circuits with a maximum of 25 Evteam FLD-MXM acquisition modules each, with Modbus RTU/TCP, SNMP Traps and 12 DPDT relay outputs
DAG-eCAT12	Four-channel alarm terminal with 12-in touchscreen HMI, for circuits with a maximum of 25 acquisition modules each, with Modbus RTU/TCP, SNMP Traps and 12 DPDT relay outputs
DAG-eCAT12-HC	Four-channel alarm terminal with 12-in touchscreen HMI, for circuits with a maximum of 25 Evteam FLD-MXM acquisition modules each, with Modbus RTU/TCP, SNMP Traps and 12 DPDT relay outputs
DAG-eCAT12-COST-(HC)	Alarm terminal with 12-in touchscreen HMI, for interfacing with a maximum of 25 DAG-COST+ or DAG-COST+HC. Provides DC power to the DAG-COST+ devices, with Modbus RTU/TCP connection, SNMP Traps and 12 DPDT relay outputs

Manufacturer

Certifications

CE FC TECEE CB SCHEME

Valid only when used with the sensor modules approved by Dagman.