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DETECT, PROTECT, SAVE ENERGY THE SMART GAS DETECTION FOR PARKING SAFETY

Smart Connectivity
Smart Maintenance

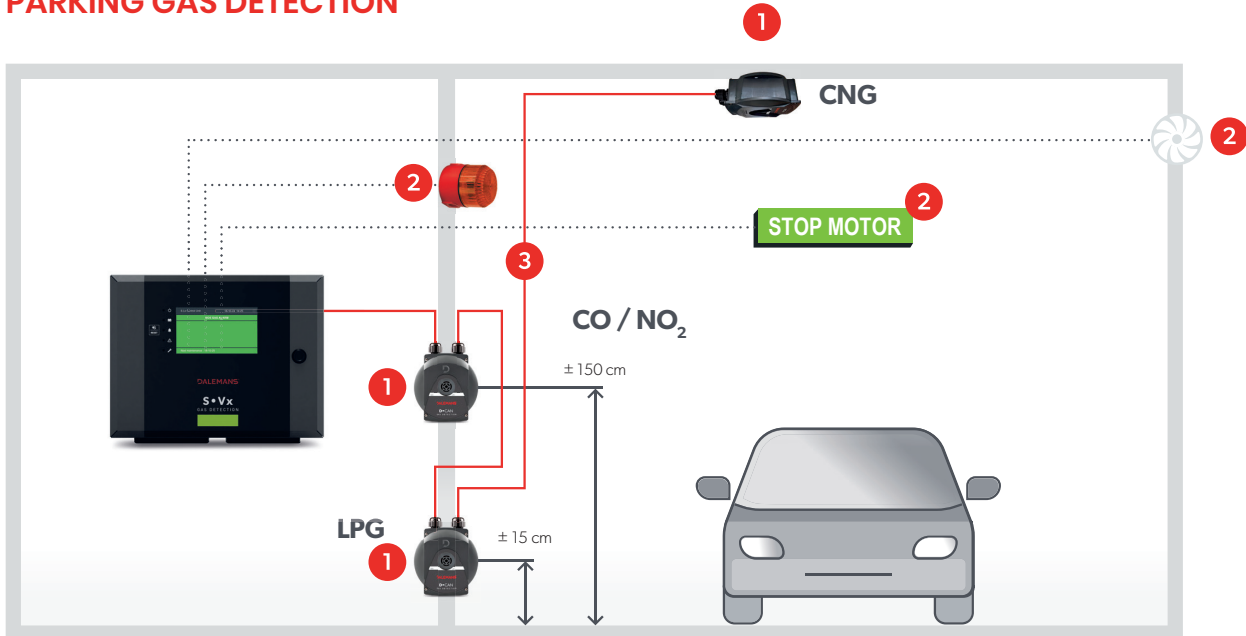
Smart Data Visualisation



EN50545-1

DALEMANS®
G A S D E T E C T I O N

PARKING GAS DETECTION



CAN Bus connection

PRODUCT DESCRIPTION

The S•Vx control unit is a device that allows the monitoring of gas concentrations of many potentially harmful gases in order to take immediate actions before a danger materializes.

The S•Vx is designed to operate within commercial or industrial buildings, such as underground car parks, requiring the presence of numerous detectors.

Combined with D•CAN, D•420, D•TEX 420, DAX•420 or DAT•420 detectors, the S•Vx alarm control unit can easily monitor gas concentrations for very complex installations.

1 Gas detectors

Detectors compatible with the CAN bus system for the measurement of toxic and explosive gases. Connections of different gas detectors (CO, NO₂, CH₄, LPG, ...) possible on a single line.

2 Output relays

Six output relays (base).
Allows the control of auxiliary servomechanisms:

- › Ventilators,
- › Alarm sirens,
- › Flash lamps,

Expansion cards with up to 2x 6 addressable output relays.

3 CAN Bus

1x CAN Bus interface, 2 lines (base).
Expansion card with 2x CAN Bus interfaces (2 lines each).
Connection between the CAN Bus elements via 2x2x0.75mm² shielded or Ethernet S/FTP 0.5mm² cable



S•Vx

CATEGORY	CHARACTERISTIC	VALUE
POWER SUPPLY	Mains voltage & frequency	230V AC ~ 50Hz
	Input current	Max 1.5A @ 230V AC
	Available power per unit (for detectors, batteries and internal parts)	151W
	Batteries	2x 12V VLRA 7Ah (optional) Higher capacity batteries available in a separate battery pack (S•BP)
ENCLOSURE	Material	Powder coated steel enclosure
	External dimensions	407 x 310 x 152 mm
	Weight	8.6kg (without batteries)
	Ingress protection Indice de protection IP	IP 55 (dust and water jets protected)
	Wall mounting with separate backplate	YES
CONNECTION	Hinged door for easy maintenance	YES
	Cables entries	5x 3.2-6.3mm ext. diameter / 16x 4-7.5mm ext. diameter / 5x 5.5-10.5mm ext. diameter / 12x 8-12.5mm ext. diameter /
INPUTS	Wire terminals (excepted CAN and Ethernet)	0.75mm ² - 2.5mm ² wires
	Digital detectors (CAN Bus)	Up to 126x per CAN interface Maximum 240x per system
	Digital detector Interfaces (CAN Bus)	1 x (base), or 3x (optional)
	Maximum current output per interface (CAN Bus)	1.6A (@ 40°C) to 1.8A (@ 20°C)
	Current loop detectors	0 (base), 8x or 16x (optional) 2-wires or 3-wires 4..20mA
	Maximum current output per current loop detectors	80mA (@ 40°C) to 100mA (@ 20°C)
	Cabling length	CAN Detectors: Up to 1000m (CAN Bus protocol limit) Analog Current Loop Detectors: (see footnote*)
	Cable type	CAN: 2x2x0.75mm ² shielded or Ethernet S/FTP 0.5mm ² Current loops: minimum 0.75mm ² shielded
OUTPUTS	External alarm input	1x input, ON/OFF 24V DC, configurable behavior
	Alarms: programmable changeover relays	6x (base), 12x or 18x (optional) 3 poles NC-NO-C, max. 230V / 3A
	Fault: changeover relay	1x, failsafe mode, 3 poles NC-NO-C 3 poles NC-NO-C, max. 230V / 3A
	Analog outputs	0 (base), 1x or 2x (optional) 4..20mA/0..20mA/0..10V
	Siren output	1x, with active output 24V DC - 200mA max
INTERFACE	Digital communication	1x Ethernet RJ45 with MODBUS TCP protocol 1x Internal connectivity board slot for co-engineered connectivity solutions
	Display	7" capacitive TFT touchscreen with bright colors
	LED indicators	5x : Power, Battery, Alarm, Fault, Maintenance
	IMute/Reset button	Available on front panel
	Service port	1x jack 3.5mm with serial to USB PC connector
MAIN FUNCTIONS	LED Status Ring	N/A
	Configurable alarm levels	Up to 4x for each detector Alarm types: Instantaneous, average, and qualifying timer
	I/O mapping	Configurable logic between inputs (e.g. alarms & faults) and outputs (e.g. relays)
	Maintenance alert	Easy zone creation using the configuration software
	Display of events and statuses	Configurable interval, with clear reminders on the display
	Measurements display	Internal event journal with filters Clear main screen with event information
	Datalogging	Clear measurements visualization
	Customizable labels	Yes (optional), measurements and events, using a high-capacity SD card with CSV files
OPERATING CONDITIONS	Reliability	Detector locations, control unit name, ext. alarm names, relay names Self-tests at power on and continuously Continuous data integrity checks Continuous voltage monitoring Continuous program sequence monitoring
	Temperature	-10°C to 40°C
	Humidity	10% to 90% RH (non-condensing)
	Pressure	90 to 110kPa
	Altitude	Maximum 2000m
CERTIFICATIONS	Pollution degree	2
	Overvoltage category	III
	Electromagnetic compatibility (EMC)	EN 50270 (type 2)
	Low-voltage safety	EN 61010-1
CONNECTION	Construction & performance of Gas detection in car parks & tunnels	EN 50545-1
	Marking	CE, RoHs, WEEE, IP55

* depends on cable resistance, detector voltage & load (see Instructions Manual)



S•Vx

S•Vx CONFIGURATION OPTIONS

Part Number	Description	S•Vx BASE	CAN BUS EXTENSION	RELAYS 7-12 EXTENSION	RELAYS 13-18 EXTENSION	ANALOG IN. 1-8 EXTENSION	ANALOG IN. 9-16 EXTENSION
03685	S•Vx, 1x CAN Bus (2 segments), 6 relays	✓					
03686	S•Vx, 1x CAN Bus (2 segments), 12 relays	✓		✓			
03687	S•Vx, 1x CAN Bus (2 segments), 18 relays	✓		✓	✓		
03688	S•Vx, 3 CAN Bus (6 segments), 6 relays	✓	✓				
03689	S•Vx, 3 CAN Bus (6 segments), 12 relays	✓	✓	✓			
03690	S•Vx, 3 CAN Bus (6 segments), 18 relays	✓	✓	✓	✓		
03691	S•Vx, 1x CAN Bus (2 segments), 6 relays, 8 analog inputs	✓				✓	
03692	S•Vx, 1x CAN Bus (2 segments), 12 relays, 8 analog inputs	✓		✓		✓	
03693	S•Vx, 1x CAN Bus (2 segments), 18 relays, 8 analog inputs	✓		✓	✓	✓	
03694	S•Vx, 1x CAN Bus (2 segments), 6 relays, 16 analog inputs	✓				✓	✓
03695	S•Vx, 1x CAN Bus (2 segments), 12 relays, 16 analog inputs	✓		✓		✓	✓
03696	S•Vx, 1x CAN Bus (2 segments), 18 relays, 16 analog inputs	✓		✓	✓	✓	✓

One must choose between mounting a CAN Extension board or one or two 420 Extension boards. They cannot be installed simultaneously.

The total current of interfaces must take into account the power available to the unit. Please refer to the technical documentation and to Dalemans representatives.

