

SmartPurge II

IECEX, ATEX and FM Certified Intelligent Purge and Pressurization System

SP2-PM-SS

SP2-PL-SS

Enclosure sizes up to 5.3m³ (187 cu ft)
Zone 1 Gas and Zone 21 Dust



- + The SmartPurge II carries International Certification, certified to both IECEx, ATEX and FM Standards
- + Robust 316L Stainless Steel construction makes the SmartPurge II resistant to offshore and corrosive environments
- + Conforms to IEC 61508 Safety Integrity Level (SIL) 2
- + Universal Applications – a single model for both leakage compensation and continuous flow applications. Wide operating temperature range and universal power supply allows a large range of solutions to be provided by one model
 - o Temperature range -20°C to +60°C (-4°F to 140°F)
 - o Universal power supply 90-254 V AC or 11-28 V DC
- + High Purge air flow capacity
 - o Leakage Compensation 110-540 NI/min (3.9-19.1 cuft/min)
 - o Continuous Flow 10-540 NI/min (0.35-19.1 cuft/min)
 - o Purges enclosures up to 5.3 m³ (187 cuft)
- + Universal mounting options and compact size make the unit easy to integrate into existing and custom sized enclosures The controller with its integral purge outlet can be mounted in any orientation on your enclosure
- + Configurable inputs/outputs
- + Two selectable alarms
- + Auxiliary inputs for override keyswitch, door switch or intermediate pressure switch

ADDITIONAL SYSTEMS COMPONENTS

In addition to the Smart Purge II controller, you will also need to select the appropriate system components for your application.

- + **Cable Glands – SP2-GK** - IECEx and ATEX certified cable glands are supplied separately to the SmartPurge II controller unit enabling you to select the most suitable cable glands for your hazardous area application.
- + **2 x M16** - Cable OD 4-8.4 mm
2 x M20 - Cable OD 7.2-11.7 mm
- + **Digital Valve - SP2-DV** – For the control of Leakage Compensation and High Purge Continuous Flow systems. This Intrinsically safe device switches between the purge flow and leakage compensation flow rate.
- + **Continuous Flow Kit – SP2-CF** - For the control of Continuous Flow applications. Suitable for low flow rate applications, where a continuous flow of air is required for cooling, or dilution of hazardous gases generated inside the enclosure is required.

OPTIONAL ACCESSORIES

- + **Remote Panel – SP2-RP** The Intrinsically safe Remote Panel duplicates the status and operation of the SmartPurge system. The LCD and four navigation buttons enable all the functions of the SmartPurge to be duplicated up to 50 m (150 ft) away from the main control unit. The unit includes a password protected override function.
- + **Remote LED - SP2-RL** – Intrinsically Safe tri-colour LED giving simple remote indication of Purge system status. Stainless steel bezel mounts in 22 mm hole. Supplied with 2 m (6 ft) cable attached.
- + **SmartPurge Interface Unit – SIU** – Flameproof Interface for switching higher loads or additional signals.
- + **Override Switch - SP2-OS** – Panel mounting key operated override switch to bypass SmartPurge Controller output signal.
- + **Splash Cover-SP2-SC** – Protects the output valve from direct water jets.

SPII 11-15

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IEC IECEx ATEX Ex CE FM APPROVED ISO 9001

Purge + Pressurization + Innovation
www.expoworldwide.com

TECHNICAL SPECIFICATION



Purge Flow Range

Leakage Compensation 110 to 540 NI/min
3.9 to 19.1 cu ft/min

Continuous Flow 10 to 540 NI/min
0.35 to 19.1 cu ft/min

Maximum Purge Time 99 minutes

Power Switching 2 pole, 6 A, 250 V AC1 /
5 A, 30 V DC1

Supply Voltage

90 to 254 V AC 50 / 60 Hz Part Code: SP2-PM-SS
11 - 28 V DC Part Code: SP2-PL-SS

Low Pressure Trip Options

Immediate trip. Alarm only. Delay trip (Maximum delay time:
99 minutes)

Status/Alarm Function

Choice of two (SPNO) for Alarm: General Alarm, Pressure
correct/Not correct, Low Pressure Pre-Alarm, Purge in
Progress, Ready to Purge

Alarm/Status

Two single pole 1 A, 250 V AC1

Enclosure Pressure

0.8 to 7 mbarg (0.3 to 2.8 "wc) after purge

Air Supply Pressure (Regulated)

2 to 7 barg (29 to 102 psi) @ certified flow +20%

Control Valve Outputs

IS digital solenoid valve

Purge Override

Password or IS Keyswitch

External Control Input

IS Volt Free Contact (Override Keyswitch, Door Switch,
Pressure Switch, Start Purge Switch)

Environmental Protection

IP64 Stainless Steel 316 enclosure, satin finish

Mounting Position

Side or top, external or internal

Control Unit Dimensions

187 x 139 x 107 mm (7.3" x 5.3" x 4.2") (H x W x D)
20mm clearance for air exit and spark arrestor

Temperature Range

-20°C to +60°C (-4°F to +140°F)

Weight

SmartPurge II Controller	4.2 kg (9.3 lb) approx.
Digital Valve	1.0 kg (2.2 lb) approx.
Remote Panel	1.0 kg (2.2 lb) approx.

Certification

ATEX

II 2 (2) G Ex e ib mb [p] IIC T4 -20°C ≤ Ta ≤ 60°C
II 2 (2) D Ex tb [pD] IIIC 135°C -20°C ≤ Ta ≤ 60°C

IECEX

Ex e ib mb [p] IIC T4 Gb -20°C ≤ Ta ≤ 60°C
Ex tb [pD] IIIC 135°C Db IP64 -20°C ≤ Ta ≤ 60°C

FM (ANSI/ISA)

I/1/AEx e ib mb [p] IIC T4 -20°C ≤ Ta ≤ 60°C
21/AEx tb [pD] IIC T135°C -20°C ≤ Ta ≤ 60°C



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