

Purge & Pressurization system selection guide

Type Z for Zone 2/22 & Class I/II Division 2



Expo Technologies has been working with electrical panel builders and OEMs across a wide range of industries, including oil & gas, chemical & petrochemical, and pharmaceutical & biotechnology, developing innovative solutions using purge and pressurization. Our purge systems are certified and approved to national and international standards.

Expo's MiniPurge Type Z and MiniPurge Dust Protection Type Z provide control for purging and pressurizing electrical and electronic equipment, and are renowned for their simple installation & operation, reliability, and long life. For special and more challenging applications, the systems provide flexible platforms for customisation.

Hazardous Area Suitability	Zone 2 / Class I Div 2	Zone 2 / Class I Div 2	Zone 2 / Class I Div 2	Zone 22 / Class II Div 2	Zone 2
					
Product name	MiniPurge Type Z	MiniPurge Type Z	MiniPurge Type Z	MiniPurge Dust Protection Type Z	SmartPurge Z
System Size (FF) Purge Flow Rate Maximum recommended enclosure volume*	1 225 NI/min (8 SCFM) 1.35m ³ / 60 ft ³	2 450 NI/min (16 SCFM) 2.7m ³ / 120 ft ³	3 900 NI/min (32 SCFM) 5.4m ³ / 240 ft ³	1 Adjustable 10 - 225 NI/min (0.35 - 8 SCFM)	Minimum 310 NI/min (11 SCFM) 6.1m ³
Purging Method (MM)**	LC= Leakage Compensation CF= Continuous Flow LC flow rate up to 60NI/min (2 SCFM)	LC= Leakage Compensation CF= Continuous Flow LC flow rate up to 250NI/min (9 SCFM)	LC= Leakage Compensation LC flow rate up to 800NI/min (28 SCFM)	DP= Dust Protection (pressurization only)	Automatic leakage compensation: up to 90NI/min (3.2 SCFM)
Housing (HH)	ss= Stainless steel enclosure pm= Panel mount bp = Back plate	ss= Stainless steel enclosure pm= Panel mount bp = Back plate	ss= Stainless steel enclosure pm= Panel mount bp = Back plate	ss= Stainless steel enclosure pm= Panel mount bp = Back plate	GRP= Glass-fibre reinforced plastic, maintains IP66.
Timing Method (TT)	Manual timing	Manual timing	Manual timing	Pressurization only, so timing not required	Automatic, adjustable: 1-99 mins.
Output signals (OO)	IS=Suitable for IS / Non-incendive circuits. PO=Pneumatic outputs (for connection to Expo MIU)	IS=Suitable for IS / Non-incendive circuits. PO=Pneumatic outputs (for connection to Expo MIU)	IS=Suitable for IS / Non-incendive circuits. PO=Pneumatic outputs (for connection to Expo MIU)	IS=Suitable for IS / Non-incendive circuits. PO=Pneumatic outputs (for connection to Expo MIU)	Low pressure alarm: NO volt-free dry contact. Rating: AC-1 250VAC, 8A DC-1 30VDC, 6A
Options as required (OT)	Contact Expo	Contact Expo	Contact Expo	Contact Expo	Contact Expo
External Power Supply (VO)	N/A	N/A	N/A	N/A	AC model= 90-254 VAC, 50-60 Hz. Nominal 65mA @ 230VAC. Nominal 125mA @ 110 VAC. DC model= 18-30 VDC. Nominal 300mA @ 24VDC.
Certified Temperature Range	-20°C to +55°C (-4°F to +131°F)	-20°C to +55°C (-4°F to +131°F)	-20°C to +55°C (-4°F to +131°F)	-20°C to +55°C (-4°F to +131°F)	-20°C to +58°C (-4°F to +136°F)
Approval	IECEX; ATEX; UL; FM; INMETRO; EAC; CCC; KOSHA	IECEX; ATEX; UL; FM; INMETRO; EAC; CCC; KOSHA	IECEX; ATEX; UL; FM; INMETRO; EAC; CCC	IECEX; ATEX; FM; INMETRO; EAC; CCC; KOSHA	IECEX; ATEX
Product code	07 1Z(MM)/(HH)/(OO)	07 2Z(MM)/(HH)/(OO)	07 3Z(MM)/(HH)/(OO)	07 1ZDP(HH)/((OO))	AC model: SPZ-1ALG-M111 DC model: SPZ-1ALG-L111
Datasheet	Datasheet	Datasheet	Datasheet	Datasheet	Datasheet

Typical applications

- Control panel purge
- Gas analyser protection
- Painting robot purge
- Mobile systems
- Label printers
- Protection of PCs and screens
- OEM equipment

For more information, visit our [application library](#).

Read more on our website

[MiniPurge Type Z](#)

[MiniPurge Dust Protection Type Z](#)

[SmartPurge Z](#)

Configure your product

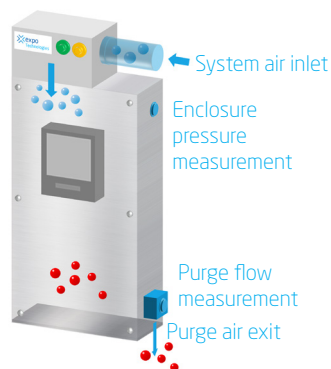
[Get started](#)

* Figures in m³ based on 5 volume changes. Figures in ft.³ based on 4 volume changes. In line with applicable codes and standards.

** MiniPurge LC and Dust Protection systems include the control unit (CU) and relief valve (RLV). CF systems include an additional spark arrestor protected outlet (SAU).

Expo's purge & pressurization systems protect thousands of electrical systems worldwide

Purge and Pressurization (Ex p) – a simple protection concept that excludes any hazardous material from the equipment installation. Ex p offers many advantages over other protection concepts – since general purpose electrical equipment and enclosures can be used, it makes system design, assembly, and commissioning simpler.



Purge: The purge system supplies clean, dry instrument air to the enclosure at a high flow rate for a pre-set time, expelling any potentially flammable atmosphere remaining inside. Enclosure pressure and purge flow are monitored. The electrical equipment inside the enclosure is not energised.



Pressurization: After purge is complete, the system supplies sufficient air to maintain a constant pressure inside the enclosure, compensating for any small leaks, preventing ingress of the outside atmosphere. Enclosure pressure is monitored. The electrical equipment inside the enclosure can be energised.



More than 17,500 electrical systems protected by Expo purge systems

Protect very large enclosures up to 6.1m³ under IECEx 60079-2; up to 240 cu. ft. under NFPA 496

Certified under nine national and international schemes

Expo's purge and pressurization systems have the widest range of certification.

ATEX



Expo operates in more than 50 countries worldwide. To find out more about how Expo can help you solve your hazardous area problems, get in touch via our website www.expoworldwide.com or through your local channel partner.

You can speak to an applications engineer at one of our regional offices.

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