

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
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Product name	MiniPurge Type Z	MiniPurge Type Z	MiniPurge Type Z	MiniPurge Dust Protection Type Z
System Size (FF) Purge Flow Rate Maximum recommended enclosure volume*	1 225 NI/min (8 SCFM) 1.35m³ / 60 ft³	2 450 NI/min (16 SCFM) 2.7m³ / 120 ft³	3 900 NI/min (32 SCFM) 5.4m³ / 240 ft³	1 Adjustable 10 - 225 NI/min (0.35 - 8 SCFM)
Purging Method (MM)**	LC= Leakage Compensation CF= Continuous Flow	LC= Leakage Compensation CF= Continuous Flow	LC= Leakage Compensation	DP= Dust Protection (pressurization only)
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
Timing Method (TT)	Manual timing	Manual timing	Manual timing	Pressurization only, so timing not required
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)
Options as required (OT)	Contact Expo	Contact Expo	Contact Expo	Contact Expo
External Power Supply (VO)	N/A	N/A	N/A	N/A
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)
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
Product code	07 1Z(MM)/(HH)/(OO)	07 2Z(MM)/(HH)/(OO)	07 3Z(MM)/(HH)/(OO)	07 1ZDP/(HH)/((OO))
Datasheet	<u>Datasheet</u>	<u>Datasheet</u>	<u>Datasheet</u>	<u>Datasheet</u>

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 <u>application</u> <u>library</u>.

Read more on our website

MiniPurge Type Z

MiniPurge Dust Protection Type Z

Configure your product

Get started

^{*} Enclosure volume calculations based on 30 minute purge time. Figures in m³ based on 5 volume changes. Figures in ft. 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 5.4m³ under IECEx 60079-2; up to 240 cu. ft. under NFPA 496



Cerified under nine national and international schemes

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























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 manufacturing centres.

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