

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Amikon cover with selected official Expo Technologies pages

EXPO TECHNOLOGIES

ETM-IS11-113

INTRINSICALLY SAFE ELECTRONIC TIMER

Selected official pages provide applicable identification, safety, configuration, installation and technical specification context.

D826-ET MiniPurge[®]

Manual

ML 533

**Important Note:**

It is essential for safety that the installer and user of the Expo system follow these instructions.

Please refer to the standard for principles and definition.

These instructions apply only to the pressurizing system. it is the responsibility of the manufacturer of the pressurized enclosure to provide instructions for the enclosure.

Expo Technologies reserves the right to replace any component, with one of the equivalent functionality.

MiniPurge® Control Unit Data

Action on Pressure Failure:	Alarm and Trip (isolate power to pressurized enclosure), user adjustable Alarm Only.
Type of Operation:	Automatic leakage compensation using the Closed Loop Automatic Pressurization System (CLAPS System).
Leakage Compensation Capacity	1500 NI/min at 5 barg inlet pressure.
Enclosure Material:	Stainless Steel 316L.
Mounting Method:	Wall mounting straps. Fixing holes as per drawing.
Temperature Limits:	-20°C to +55°C
Compressed Air Supply:	Clean, dry, oil free air or inert gas. Refer to Air Supply Quality section in Installation of the System.
Supply Pressure:	5 to 16 barg (73 to 232 psi).
Main Regulator:	Set at 5 barg, 40 µm automatic drain supply inlet filter.
Logic Regulator and Gauge:	Fitted and set to 2.5 barg (36 psi).
Process Connections:	Purge supply and outlet to pressurized enclosure 1" NPT female. Minimum supply line 25 mm (1") ID tube. Reference points & signals 1/8" NPT female.
Visual Indicators:	Alarm (Red ●) / Pressurized (Green ●). System Purging: 4 LEDs that flash sequentially to indicate elapsed time (black when not purging).
Power Interlock Signal:	2.5 barg outlet via 1/8" NPT female connection.
Alarm Switch (Primary):	2.5 barg outlet via 1/8" NPT female connection.
Secondary Pressure Switch:	2.5 barg outlet via 1/8" NPT female connection.
Minimum Pressure Sensor:	Minimum: 0.5 mbarg. Maximum: 5.0 mbarg. Default Setting: 1.5 mbarg. Tolerance -0, +0.7 mbarg.
Primary & Secondary Sensor	Minimum: 0.5 mbarg. Maximum: 5 mbarg. Default Setting: 1.5 mbarg. Tolerance -0, +0.7 mbarg.
Note: There must be a 1.5 mbarg difference between the minimum pressure and intermediate sensors.	
Purge Flow Sensor:	Set at 6.4 mbarg (Tolerance: -0, +10%).
CLAPS Sensor:	Minimum: 5.0 mbarg. Maximum: 15 mbarg. Default Setting: 10 mbarg. Tolerance: -0, +10%
Note: there must be a 2.5 mbarg difference between the intermediate and CLAPS sensor calibration point. For example: Minimum pressure = 5 mbarg, intermediate pressure = 6.5 mbarg, CLAPS sensor = 9 mbarg.	
Purge Time:	User selectable, in 1 minute intervals, up to 99 minutes (tolerance -0, +3 seconds). Default Setting 99 minutes.
Weight:	58 kg (127.9 lb).

Relief Valve Unit and Purge Outlet Valve with integral spark arrestor

Type:	RLV104/ss/FS, Design number D758RLV.		
Bore:	Purge Outlet Valve Ø 104 mm, Relief Valve Ø 75 mm.		
Relief Valve Lift-Off Pressure:	Minimum:	20 mbarg.	
	Maximum:	50 mbarg.	
	Default:	30 mbarg (+0, -20%).	
Flow Rate:	Range:	2000, 3000, 4000, 5000, or 6000 NI/min.	
	Default:	2000 NI/min.	
Material:	Housing:	Stainless steel 316L.	
	Gasket:	Silicone foam.	
	Spark arrestor:	Stainless steel mesh.	
Mounting Method:	Rectangular cut-out and fixing holes as per drawing.		
Weight:	7 kg (15.4 lb).		

EU Declaration of Conformity



This is to declare that the products listed below are manufactured in conformity with the following EU Directives under the sole authority of Expo Technologies Ltd:

Electromagnetic Compatibility Directive 2014/30/EU

MiniPurge Systems with a /PO suffix in the type number are non-electrical and are outside the scope of the EMC Directive. MiniPurge Systems with suffices /PA or /IS incorporate one or more volt-free ("dry") contacts which work in circuits specified by others. In normal operation these circuits are "benign" and no CE mark is appropriate. MiniPurge Systems with Electronic Timer (Option /ET and /ES) are designed to conform to the EMC Directive, in compliance with EN 61000-6-4:2007 and EN 61000-6-2:2005 (Intertek Report EM10048000) and 61000-6-4:2007 + A1:2011 and EN 61000-6-2:2005 (Intertek Report 102569070LHD-001) respectively.

Low Voltage Directive 2014/35/EU

MiniPurge Systems are intended for use in potentially explosive atmospheres (Hazardous Areas) and are therefore excluded from the Low Voltage Directive.

Pressure Equipment Directive 2014/68/EU

MiniPurge Systems are classified as not higher than category I under Article 13 of this Directive and intended for use in potentially explosive atmospheres (Hazardous Areas) and are therefore excluded from the Pressure Equipment Directive. MiniPurge Systems are covered under ATEX Directive 2014/34/EU.

ATEX Directive 2014/34/EU

MiniPurge Systems are designed to conform to the above Directive in fulfilment of the Essential Health & Safety requirements of Annexe II and in compliance with:

EN 60079-0:2018

EN 60079-2:2014

EN 60079-11:2011

MiniPurge Systems are certified by CSA Group (Netherlands) B.V. under EC Type-Examination Certificate SIR 01ATEX1295X, in compliance with:

EN 60079-0:2012 + A11:2013

EN 60079-2:2014

EN 60079-11:2011

MiniPurge Systems are manufactured under Production Quality Assurance Notification 99ATEXM043, issued by CSA Group (Netherlands) B.V. (EU Notified Body No. 2813).

Technical documentation and assessments are in the Expo Technologies confidential technical file SC004.

For and on behalf of Expo Technologies Ltd



John Paul De Beer
Managing Director

Date 5th July 2021