D758-ET MiniPurge®

Manual

ML434



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.

Relief Valve opens (continuously or intermittently)

Fault Location	Cause	Solution
Pressurized Enclosure	Enclosure pressure is too high.	• Adjust the Leakage Compensation Valve.
Relief Valve Unit	Relief Valve malfunction.	• Consult manufacturer's manual.

System enters purging but purge indication does not occur

Fault Location	Cause	Solution
Air Supply	Insufficient flow rate due to inadequate air supply pressure. Often due to pressure drop in the supply pipe.	Static pressure of 5 barg must be maintained during purge • Check air supply pressure at the inlet to the control unit. • Ensure that the supply pipe bore is suitable for the flow rate
Pressurized Enclosure	Excessive leakage from the pressurized enclosure.	• Check around the enclosure while purging is taking place. • Total leakage at purge outlet valve should not exceed 10% of purge flow sensor setting. • Check for leakage down cables and conduit.
Pipe Work	Tubing from Relief Valve flow sensing point not airtight.	• Ensure fitting nuts are tightened. • Check for tube damage. • Repair as necessary.
MiniPurge Control Unit	Flow sensor setting incorrect.	• Check the pressure is correct on the flow sensor.

System begins purging but cycles fail to complete

Fault Location	Cause	Solution
Electronic Timer	Time set to 00	• Reset timer to correct purge time.
	The intrinsically safe battery pack is discharged	• Replace as necessary.

Flow restrictor ball valve opens/closes by itself

Fault Location	Cause	Solution
Flow restrictor	Flow restrictor locknut loose	• Tighten locknut to 2.5 N/m^2
	Flow restrictor Shakeproof washer missing/damaged	• Replace washer - Expo part code S0019/028

Expo Technologies UK
T: +44 (0) 20 8398 8011
E: sales@expoworldwide.com
Expo Technologies US
T: +1 (440) 247 5314
E:sales.na@expoworldwide.com
Expo Technologies China
T: +86 532 8906 9858
E: qingdao@expoworldwide.com

Section 10: Recommended Spares List

Part Number	Description
KFL-AO1N-001	Filter Kit for S0015/275 filter / regulator
S0030/606	Purge flow sensor factory set to 6.4 mbarg
S0030/016	Minimum Pressure sensor, must be factory set to the value as stated on the Customer Test and Inspection Sheet
HSI-0160-000	Intermediate pressure sensor
S0030/588	CLAPS Sensor must be factory set to the value as stated on the Customer Test and Inspection Sheet
S0015/018	Pressure gauge (Air Supply Pressure), 0 - 10 barg
S0015/135	Miniature gauge (Logic Pressure), 0-4 barg
ETM-IS31-001	IS battery pack for electronic timer module
AGE-GE00-168	Electronic Timer Assembly c/w potted Timer Switch

Section 11: Glossary

Acronym	Definition
A&T	Alarm and Trip
AO	Alarm Only
CLAPS	Closed Loop Automatic Pressurization System
CU	Control Unit
ET	Electronic Timer
FCV	Flow Control Valve
IS	Intrinsically Safe
LC	Leakage Compensation
PA	Power and Alarm
RLV	Relief Valve Unit

Section 12: Drawings and Diagrams

Title	Drawing Number	Number of Sheets
D758 Control Unit - Electronic Timer	D758MOTORSYS-E	2
Motorpurge Hook-Up	MOTOR-HU	1
D758-3 P and I Diagram	D758-PI	1
D758 Circuit Diagram	AGM-PA00-021	1
D758 Ex e Terminal Box Layout	AGE-WC00154	1
Manual Override Switch Hook Up	AGE-WC00-117	1
Size 5 MOTORPURGE RLV	XBR-RTD0-009	1
MiniPurge® X LC Sequence Diagram	XBR-7TD0-040	1
System Status Indication	TP-518-058-WD	1

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