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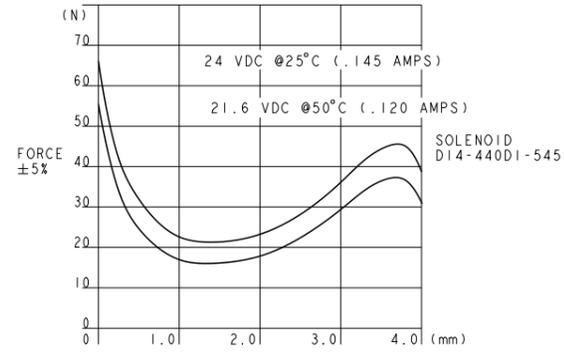
UNLESS OTHERWISE SPECIFIED: ISO 22768-mK

REVISIONS			
REV.	DESCRIPTION	DATE	APPR.
P	SEE ECND14-440D1REV.P. REDRAWN BY LISK IRELAND LIMITED.	14JUL17	R.D./T.G.
R	NOTIFIED BODY NO. "0598" WAS "1180". SEE ECNH-24614REVB.	21MARI9	T.G./R.D.

PRODUCT NUMBER	MODEL/TYPE NUMBER	DETAIL ASSEMBLY	VOLTS (NOM)	VOLTS (MAX)	WATTS	RESISTANCE ±5% (OHM)	FORCE ± 10% N (lbs) AT 1.4mm	FORCE ± 10% N (lbs) AT 3.8mm	STABILIZED TEMPERATURE °C	TEMPERATURE CLASS AND AMBIENT TEMPERATURE RANGE
D14-440D1-324	TYPE D1	HI5979-324	24.0	26.4	8.0	72	26(5.8)	59(13.2)	63	T4 @ -54°C to +60°C
D14-440D1-417	TYPE D1	HI5979-417	24.0	36.0	1.5	384	6(1.3)	23(5.2)	35	T6 @ -54°C to +60°C
D14-440D1-457	TYPE D1	HI5979-457	48.0	52.8	8.0	288	26(5.8)	59(13.2)	63	T4 @ -54°C to +60°C
D14-440D1-545	TYPE D1	HI5979-545	24.0	26.4	3.5	165	14(3.2)	36(8.1)	43	T6 @ -54°C to +60°C

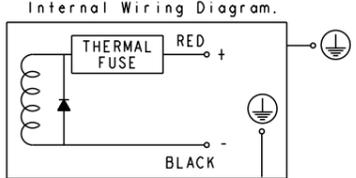
**1.0 CERTIFICATION**  
1.1 IECEx: CERTIFICATE IECEx BAS 11.0134X  
COMPLIES WITH IEC 60079-0:2011, IEC 60079-7:2007, IEC 60079-18:2009 Ex e mb IIC Gb (SEE CHART FOR TEMPERATURE CLASS & AMBIENT TEMP.)  
1.2 ATEX: CERTIFICATE BAS98ATEX2380X  
COMPLIES WITH CENELEC IEC 60079-0:2011, EN 60079-7:2007, EN 60079-18:2009  
**CE** 0598 **Ex** II 2G  
1.3 CSA North America: CSA FILE 1455291  
COMPLIES WITH CSA E79-0, E79-7, CSA-E79-18  
COMPLIES WITH ANSI/UL No. 60079-0, 60079-7, 60079-18  
**CSA** LISTED TO U.S. AND CANADA SAFETY STANDARDS. 04-1455291X  
US Ex e mb IIC, AEx e mb IIC for Class I Zone 1  
1.4 INMETRO:  
LISK IRELAND MFG; CERTIFICATE NCC 17.0054X Ex e mb IIC  
GW LISK USA MFG; CERTIFICATE TUV 14.1033X Ex e mb IIC

**OPERATING NOTES:**  
1. Coils are rated for continuous duty.  
2. Internal pressure = 0 bar operating and 0 bar static.  
3. Plunger travel = 4.00 (0.157)  
4. Corrosion protection: Terminal Box - stainless steel  
Housing - polymer coat 0.10-0.38mm thick  
Tube - manganese phosphate  
Bearings - zinc chromate  
Plunger - electroless nickel 0.01mm thick  
All other metallic parts - 300 series stainless steel



**2.0 INSTALLATION INSTRUCTIONS**  
- Mount solenoid to valve  
- Remove cover and attach electrical connections  
- Screws should remain within the cover and gasket  
- Ensure the striped leads of connecting wire are within the terminal block  
- Use an approved cable gland with M20x1.5 threads  
- Torque cover and ground screws to 2.5 N-M

North American applications - External earth (ground) connections. Use where local codes or Authorities permit or require external earth (ground) connections.

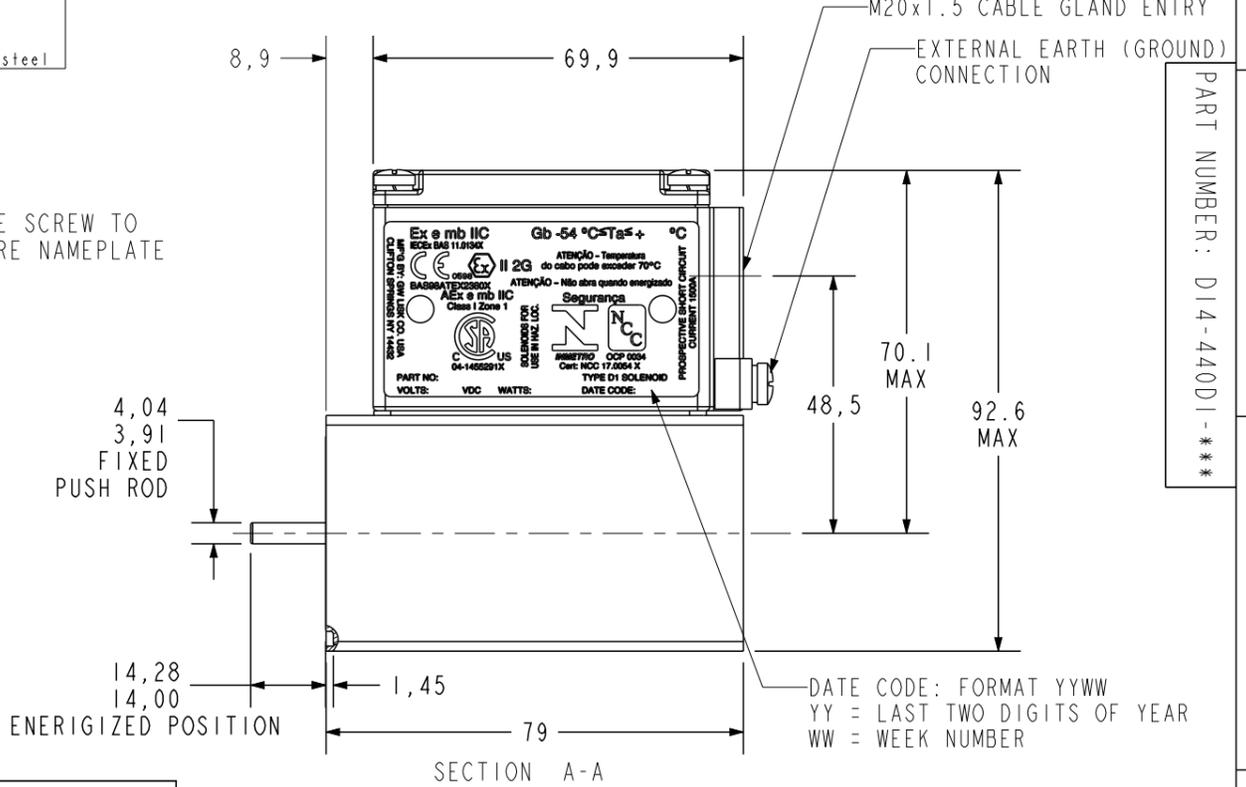
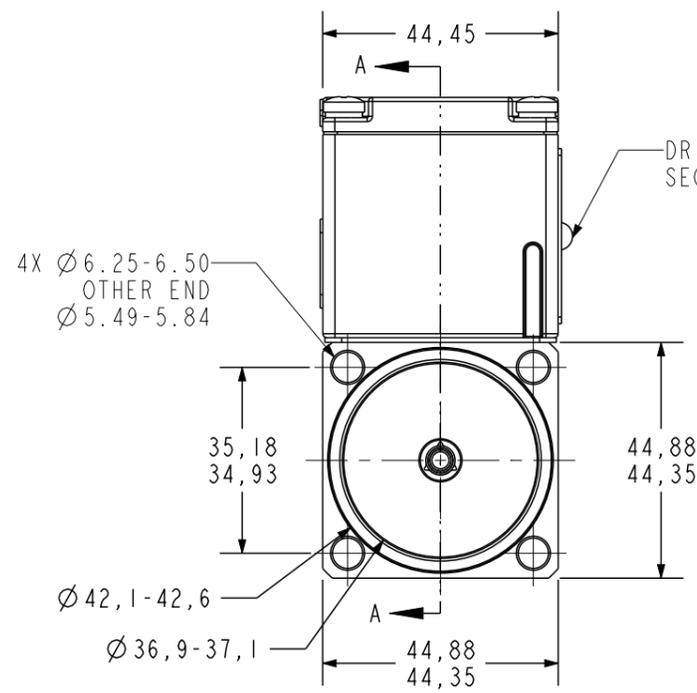


To reset the thermal fuse disconnect operating voltage and allow solenoid to cool.  
Substitution of any coil components (including all fasteners) not specified by G.W. Lisk may void certification. There is no maintenance required on solenoid. Solenoids can only be repaired at GW Lisk. 315-462-2611 FAX 315-462-7661 www.GWLISK.com

**3.0 SPECIAL CONDITIONS FOR SAFE USE (TYPE D1 SOLENOID)**

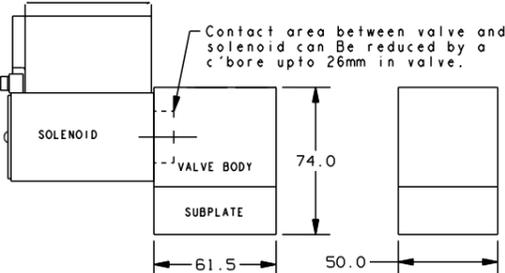
- 3.1 The solenoid shall be protected by a fuse which is capable of breaking a prospective short circuit current of 1500A.
- 3.2 The solenoid must only be energized when attached to the Valve.
- 3.3 The solenoid must not be thermally lagged.
- 3.4 If attached to a valve, the fluid through the valve must not exceed the specified ambient temperature.
- 3.5 FOR NORTH AMERICAN APPLICATIONS ;  
- For 8+ watts at 60°C ambient, use minimum 90°C rated supply wire.  
- For 1.5 and 3.5 watts at 60°C ambient, use minimum 75°C rated supply wire.

- 4.0 WARNINGS**  
4.1 Note cable entry temperature may exceed 70°C.  
4.2 Use in conjunction with sub-circuit fuse BS88, IEC269, 6A max.  
4.3 Do not open terminal box while energized



**5.0 HEAT SINK REQUIREMENTS (INSTALLATION)**

Type D1 Solenoids must be mounted on a heat sink the size shown or larger. The size and weight of heat sink are for cast iron/steel.  
Minimum surface area of heat sink 226 cm<sup>2</sup>  
Minimum mass of heat sink is 1.59 kg



**6.0 WARNING - USER RESPONSIBILITIES**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.  
THE USER, THROUGH ITS OWN ANALYSIS AND TESTING, IS SOLELY RESPONSIBLE FOR MAKING THE FINAL SELECTION OF THE SYSTEM AND COMPONENTS AND ASSURING THAT ALL PERFORMANCE, ENDURANCE, MAINTENANCE, SAFETY AND WARNING REQUIREMENTS OF THE APPLICATION ARE MET. THE USER MUST ANALYZE ALL ASPECTS OF THE APPLICATION, FOLLOW APPLICABLE INDUSTRY STANDARDS & FOLLOW THE INFORMATION CONCERNING THE PRODUCT IN THE CURRENT PRODUCT DRAWINGS AND IN ANY OTHER MATERIALS PROVIDED BY GW LISK.

1	SEE CHART	DETAIL ASSEMBLY	1
ITEM	PART NUMBER	DESCRIPTION	QTY.
DRAWN BY:	C. McNAMARA 07JUL17	<b>LISK</b> LISK IRELAND Ltd., Ennis Rd., Gort, Co. Galway.	DESCRIPTION <b>SOLENOID ASSEMBLY</b>
CHECKED BY:	K. LERNIHAN 11JUL17		
APPROVED BY:	R. DEVITT 11JUL17		
CERTIFIED PRODUCT NO MODIFICATIONS PERMITTED WITHOUT THE APPROVAL OF THE CERTIFIED PRODUCT AUTHORITY		CPA T. GREEN 14JUL2017	REV. R
Made by Lisk Ireland Limited Address: Ennis Rd., Gort, Co. Galway, IRL. Tel: +353 (0)91 631711 Cert Holder: GW LISK Inc. Address: Clifton Springs, NY 14432, USA Tel: +001 315 462 2611		PART No. D14-440D1-***	
UNITS: mm	3rd ANGLE PROJECTION	SIZE A3	SCALE: 0.750 DO NOT SCALE
REF.		SHEET NO. 1 of 1	

PART NUMBER: D14-440D1-\*\*\*