OUR
PRODUCT RANGE

- Solenoid Valves
- Ball Valves
- Butterfly Valves
- Plug Valves
- Pneumatic Actuators
- Control Valves
- Lined Valves
- Knife Edge Gate Valves
- Safety Valves
- Pinch Valves
- Pressure Reducing Valves
- Accessories

Plot No. 123-124, Aira Estate, B/h Security Estate,
Nr. Kashiram Textile Mill, Narol, Ahmedabad-382405
(Gujarat) India.

YOUTUBE

WEBSITE

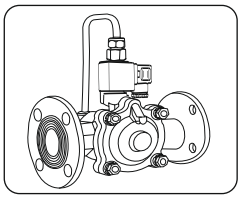
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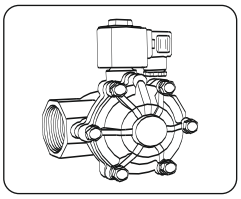
Mfg. & Mkt by:
aira *Euro* automation pvt. ltd
INDIA

2/2-WAY PILOT OPERATED
DIAPHRAGM
SOLENOID VALVES
Installation, Operation & Maintenance

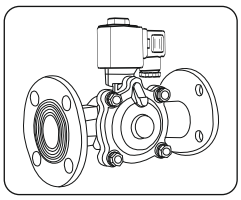
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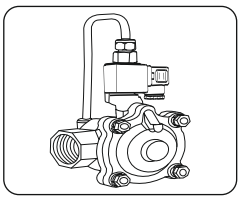
ISD / DBS SERIES



ISF / DBF SERIES



ISD / DBS SERIES N/O



IOM No: AEA-SOV-0024-R0

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1. SOLENOID VALVE COIL WIRING DIAGRAM :

⏩ How To Wire A 3 Pin ISO4400 DIN43650 Electrical Connector

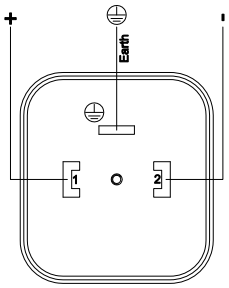


Figure [A]

⏩ It Is Good Practice To + Ve Power Supply (Red Or Brown Wire) To Terminal 1 - Ve Power Return (Black Or Blue) To Terminal 2.

⏩ It Is However Best Practice And Essential When Working In Damp Environments To Achieve Our IP65 Rating That The Correct Size Of The Cable Into The Conduit Entry Is Achieved So That The Rubber Grommet Fits Firmly Against The External Cable Sleeve To Prevent Water Ingress Into The Connector.

Cable Entry Standard
PG9 Is For Cables 6 - 8mm
PG11 Is For Cables 8 - 10mm

⏩ Also Ensure Correct Fitting Of The Gasket Between The Connector And The Coil With Correct Or Adequate Torque.

TORQUE SETTINGS :
Strain Relief Nut : 1.8 N/m +/- 10%
Central Fixing Screw : 0.4 N/m +/- 10%
Contact Screw : 0.2 N/m +/- 10%

⏩ It Is Also Important As Correct Sizing And Fitting Not Only Protects The Electrical System But Also Everything And Everyone Around The Connector. Keeping The Circuits Safe, Dry And Helping To Keep The Cable Securely Fixed In Place.

ORIENTATION OF THE CONNECTOR IS ALSO IMPORTANT.

⏩ Make Sure The Cable Conduit Entry Is Facing Down And That The Electrical Cable Has Sufficient Slack In It So That It Drops Under the Connector And Back Vertically Up And Into The Conduit Entry Of The Plug. This Will Help Prevent Water Ingress Into The Connector Keeping It Safe And Water Droplets Will Fall Away From The Conduit Entry Point.

2. INTRODUCTION :

⏩Thank You For Choosing **"aira"** Product. Each Product Is Fully Inspected After The Production To Offer You The Highest Quality. In Order To Fully Utilize The Product, We Strongly Recommend Users To Read The Manual Carefully And Fully Understand Before Operating / Servicing The Product.

⏩The Manual Should Be Provided To The End - User.

⏩The Manual Should Not Be Duplicated Or Reproduced For Any Purpose Without Any Approvals From **aira *Euro* automation pvt. ltd.** India.

⏩**"aira"** Offers High Flow Diaphragm Type Solenoid Valve, Are Specially Engineered In The Construction Of Investment Cast CF8 / CF8M / CF3M Body For Multiple And Long Lasting Operation Valves For The Inflamable Media / Environment / Flameproof / Explosion Proof Solenoid Coil Are Available In Such Application.

3. VALVE SPECIFICATION :

Pressure	0.7 To 12 Bar
Temperature	-5°C to 85°C (Up to 120°C On Request)
Coil Voltage	12V, 24V, 48, 110V, 230V AC/DC
Coil Insulation	"F Class" / "H" Class (FLP)
Coil Encloser Meets	IP 67 (Flame Proof / Explosion Proof As Per IS / IES 60079 - 1 STD For Gas Group II C Zone 1 & 2)
Coil Rating	Continuous Rated
Ends	Screwed / Flanged 150# / TC End

4. BILL OF MATERIAL :

No.	Part Name	Material	Qty.
01	Body	CF8 / CF8M / CF3M	1
02	Cover	CF8 / CF8M / CF3M	1
03	Diaphragm Assembly	STD	1
04	Spring	S.S. 304	1
05	Hex Bolt Washer	S.S.	4
06	O Ring	NBR / VITON	1
07	Pilot Seat	BRASS	1
08	Housing O Ring	NBR	1
09	Rubber Seat	VITON	1
10	Plunger	S.S. 430F	1
11	Plunger Spring	S.S. 304	1
12	Spring Guide	S.S. 304	1
13	Housing	S.S.304	1
14	Coil	STD	1
15	Coil Packing Nut	S.S. 304	1

5. EXPLODED VIEW :

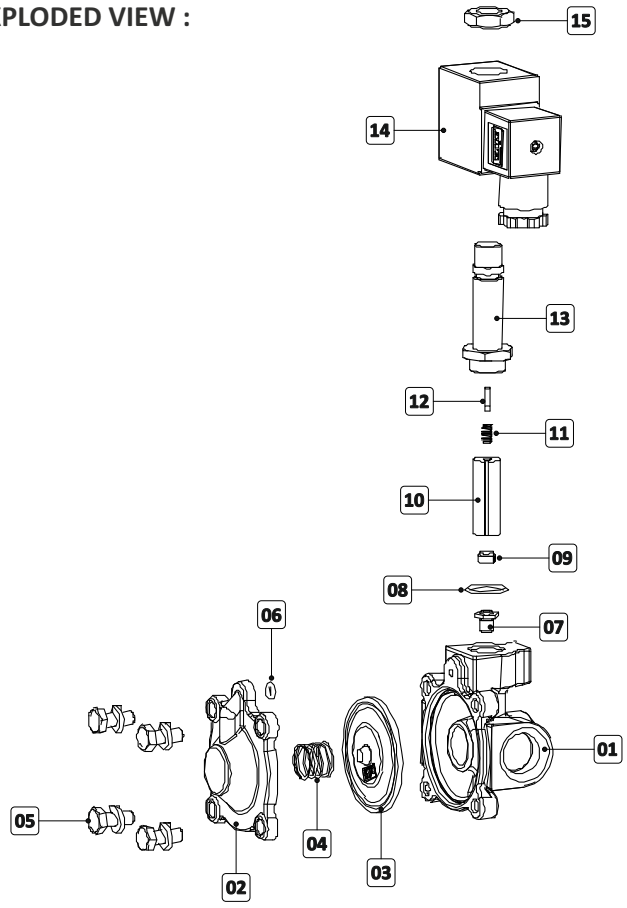
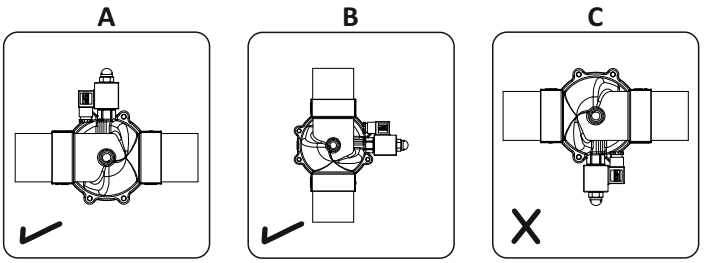


Figure [B]

6. INSTALLATION :

- Install The Unit In Clean & Acid Free Surrounding Atmosphere.
- Check Whether The Unit Is As Per Requirement, Its Port Size, And Fittings To Be Used On The Unit.
- Before Assembly, Please Make Sure That There Are No Damages With The Product And All Required Parts Are Available.
- Before Assembly, Please Make Sure That The Line Pressure Does Not Exceed The Maximum Pressure Specified On The Product Label.
- Before Assembly, Please Make Sure That There Is No Flow In The Line Where The Coil Will Be Connected, And That Such Possibility Has Been Prevented During The Assembly, During The Valve Mount The Proper Wrench Must Be Used.

SOLENOID VALVE CONNECTION :
(A) RIGHT, (B) RIGHT, (C) WRONG



CORRECT INSTALLATION | **CORRECT INSTALLATION** | **INCORRECT INSTALLATION**

Figure [C]

- In Solenoid Valve Assembly Please Be Careful That Coil Should Not Be At The Lower Part When Conduction Assembly.
- Otherwise The Plunger In The Hive Shall Be Affected By The Residuals And Rusts Accumulated In Time And Prevent The Coil To Move The Plunger The Solenoid Valve May Be Assembled As Show In Above Figure.

7. MAINTENANCE INSTRUCTIONS :

- Before Removing The Unit, The Air Line Must Be Completely Exhausted By Operating The Valve Several Times.
- Then Remove The Valve From The Machine Thoroughly.
- The Valve Can Be Tested By Connecting The Valve With Actuator And Operating It.
- According To The Exploded View The Solenoid Valve Is Opened And The Parts Are Examined And Cleaned With The Pressurized Air.
- Particularly The Plunger, Diaphragm Spring And Orifice Should Properly Be Cleaned The Burrs And Residuals On Them Should Be Removed The Damaged Parts.
- If Any Should Be Replaced With Original **"aira"** Brand Spare Parts. The Spare Parts May Be Supplied From Our Company.