



Excelon® Plus 3/2 VALVES

Air Preparation Range

1/4", 3/8" 82 Series

3/8", 1/2", 3/4" 84 Series

Installation and Maintenance Instructions



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TECHNICAL DATA

Fluid:	Compressed air
Maximum supply pressure:	10 bar (145 psig)
Operating temperature*:	-20 °C to +65 °C (-4 °F to +149 °F) *Air supply must be dry enough to avoid ice formation at temperatures below +2 °C (+35 °F)
Typical flow @ P1=6.3 bar (90 psi) & 0.5 bar (7.25 psi) pressure drop:	82 Series: 20.7 dm ³ /s (44 scfm) 84 Series: 50 dm ³ /s (106 scfm)
Typical exhaust flow @ P1 = 6.3 bar (90 psi) & 0.5 bar (7.25 psi) pressure drop:	82 Series: 22.2 dm ³ /s (47 scfm) 84 Series: 60 dm ³ /s (127 scfm)
Air quality:	ISO 8573-1 Class 7:4 - or better
Port threads:	82 Series: 1/4", 3/8" 84 Series: 3/8", 1/2", 3/4"
Exhaust port threads:	82 Series: 1/4" 84 Series: 1/2"
Thread forms:	ISO G, PTF
Materials:	Body: Aluminum End Caps: Aluminum Body Covers: ABS Elastomers - NBR Valve - Brass

GENERAL INSTALLATION

- GI-1 Always turn off and exhaust air pressure prior to installing and servicing units. Ensure that the air is completely exhausted prior to beginning any actions.
- GI-2 Always ensure power is removed from electrical circuit prior to installing and servicing units.
- GI-3 Electrical connections should only be made by personnel trained and authorized to perform these operations.
- GI-4 Connect piping to ports using pipe thread sealant using pipe thread sealant on male threads only. Do not allow sealant to enter the interior of the unit. Units should be installed with air flow in the direction of the arrow on the body and as close as possible to the device being serviced.
- GI-5 For ISO G threads do not install fittings that are longer than 13mm for 84 Series and 10mm for 82 Series
- GI-6 For Soft Start Valves install only into applications where the downstream pressure can build up during the initial safe pressure build up stage.
- GI-7 Install exhaust silencers, with flow rating greater than rated exhaust flow, into the exhaust port on the bottom of the unit.

CAUTION

Installation, commissioning, disassembling as well as repair and maintenance must only be carried out by qualified specialized personnel with expertise and experience on pneumatic technology and in case of electrical devices also electrical technology.

WARNINGS

1. These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under Technical Data.
2. Before using these products with fluids other than air, non-industrial applications or for life-support systems, consult Norgren.

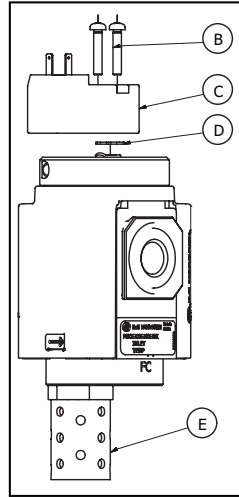
Excelon® Plus 3/2 VALVES

Air Preparation Range

3/2 Soft Start Dump Valves

3/2 Control Valves

Installation and Maintenance Instructions



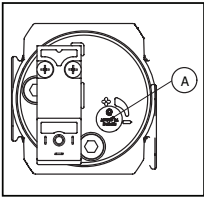
Warning! ISO G thread depth

Exceeding these ISO G thread depths can result in malfunction of the unit:

3/8", 1/2", 3/4" units maximum fitting insertion of 13mm

1/4", 3/8" compact maximum fitting insertion of 10mm

Soft Start Adjustment



P84C and P82C units will not have this feature.

1. The time required to reach full pressure is dependent on the downstream system volume. Units shipped from factory are set to give maximum delay.
2. To adjust delay:
 - a. Turn on air supply prior to applying signal to operator. Failure to do so may cause valve to continuously exhaust.
 - b. Actuate the solenoid (energize the solenoid or press and hold the solenoid override)
 - c. Remove environmental protection plug (A) to access adjusting screw
 - d. Use a 3mm allen key to turn adjusting screw clockwise to increase time delay and counterclockwise to decrease time delay.
 - e. Reinstall environmental protection plug (A) after setting.

Solenoid Electrical Connection

1. Make sure the electrical voltage rating on the solenoid matches the electrical system being connected. See label on solenoid for voltage rating.

Solenoid Replacement

1. Turn off electrical supply and shut off air to inlet of valve.
2. Remove the electrical connector from the solenoid
3. Remove the two solenoid mounting screws (B)
4. Remove solenoid (C) and gasket (D)
5. Verify that the electrical rating on the new solenoid matches the solenoid removed
6. Install new gasket (D) and solenoid (C), insert two screws (B) and tighten to 4.4-6.2 in-lb. (0.5-0.7) Nm torque.
7. Attach electrical connection to solenoid and secure.
8. Restore pressure and then electrical. Test operation.

Exhaust Silencer

1. When installing the valve into an air system, installation of an exhaust muffler (E) is recommended. The muffler needs to flow greater than the exhaust flow of the valve and provide acceptable noise reduction for the installed environment.

Spares

Part No.	Description
840650-50KIT	24 VDC Solenoid
840650-51KIT	110 VAC Solenoid
840650-52KIT	220 VAC Solenoid

Accessories - 3/8", 1/2", 3/4"

Part No.	Description
MB004A	1/2" NPT Silencer
MB004B	1/2" ISO R Silencer

Accessories - 3/8", 1/2", 3/4"

Part No.	Description
MB002A	1/4" NPT Silencer
MB002B	1/4" ISO R Silencer