

Series 830 3-Way Pneumatic Directional Control Valves



Series 830 3-Way Directional Poppet Valve

Solenoid operated



TECHNICAL DATA:

NOTE: All dimensions expressed in $\frac{IN}{MM}$

Port Sizes: Single Subbase 1/8" NPT
Manifolds (2 thru 8 stations)

10-32 delivery ports with
1/4" NPT supply

Working Pressure: 0-150 psi

Flow: $C_v = .06$

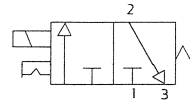
(up to 3 SCFM w/ 150 psi pressure supply; up to 2.25
SCFM w/ 80 psi supply (15 psi pressure drop))

Temperature Range: +5°F to +122°F

Media: Air, either lubricated or non-lubricated

Materials: Rugged engineering plastic body with nylon coil,
subbase and manifolds of black anodized
aluminum.

Manual Override: Locking



NOTE: Valve mounting screws
provided with subbases and
manifolds are M3 x 18mm.

ELECTRICAL DATA:

NEMA 4 (IP65) electrical protection

Standard Voltages (all coils rated for continuous duty)	Power Consumption	
	Inrush	Holding
24, 120 VAC (50/60 Hz)	8.5 VA	6.9 VA
6, 12, 24 VDC	4.8 W	

Voltage tolerance: $\pm 10\%$

FEATURES

- Direct acting, poppet design
- 3-way normally closed, single solenoid
- Manifold capabilities, 2 thru 8 stations
- Operates with lubricated or nonlubricated air

Valves with non-lighted connector

Port Size	Part No.
120 VAC-50/60 Hz	R432006547
240 VAC-50/60 Hz	R432006549
12 VDC	R432006552
24 VDC	R432006555
24 VAC-50/60 Hz	R432006557

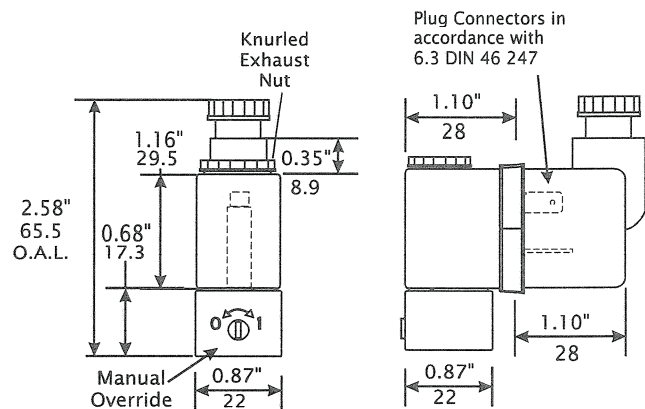
Valves with lighted connector

Port Size	Part No.
120 VAC-50/60 Hz	R432006548
240 VAC-50/60 Hz	R432006550
12 VDC	R432006553
24 VDC	R432006556
24 VAC-50/60 Hz	R432030351

Subbases and Manifolds

Port Size	Part No.
Single subbase, 1/8" ports	R432006538
2-Station manifold, 10-32 ports	R432006539
3-Station manifold, 10-32 ports	R432006540
4-Station manifold, 10-32 ports	R432006541
5-Station manifold, 10-32 ports	R432006542
6-Station manifold, 10-32 ports	R432006543
7-Station manifold, 10-32 ports	R432006544
8-Station manifold, 10-32 ports	R432006545

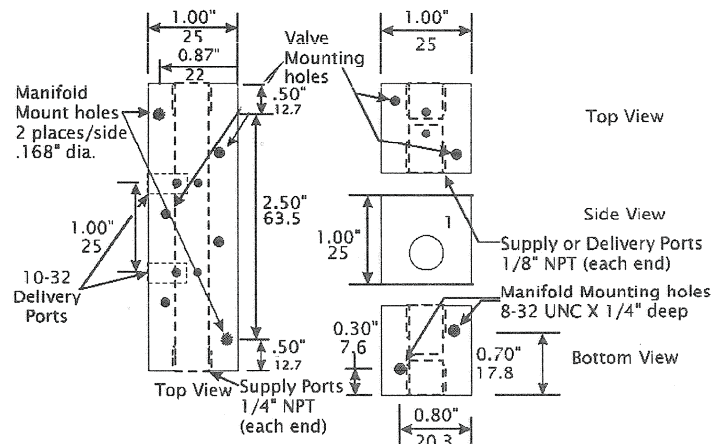
Valve Dimensions



dimensions = $\frac{IN}{mm}$

Subbase Dimensions

Manifold valves mount on 1" centers. For more than two stations, add 1" to O.A.L. for each additional station (up to 8 stations).



Two Station Manifold Single Station Manifold

Replacement Coils

Port Size	Part No.
120 VAC-50/60 Hz	R432006534
240 VAC-50/60 Hz	R432030356
12 VDC	R432006535
24 VDC	R432006536
24 VAC/ 50/60Hz	R432006537

Solenoid Connectors and Cables



Solenoid Connectors for Ceram™, Series 740, and CD07™ Valves (DIN 43650-FORM A/ISO 4400 30MM)

STRAIN RELIEF CONNECTORS NON-LIGHTED



8941000302*
(Old Part No. H -894100-00302)
(Standard)



**Part No. R432013747
(Old Part No. P -067325-00000)
(for use with wireways)

1/2" CONDUIT CONNECTORS NON-LIGHTED



Part No. R432015626
(Old Part No P -069390-00000)
(Molded Engineering Plastic)



Part No. R432015781**
(Old Part No. P -069707-00000)
(Metallic)

Lighted



Part No.	Old Part No.	
**R432013726	P -067261-00000	120 VAC
**R432013728	P -067262-00000	240 VAC
**R432013729	P -067264-00000	12 VDC
**R432013730	P -067265-00000	24 VDC
**R432015629	P -069417-00000	24 VAC

3/8" CONDUIT CONNECTOR NON-LIGHTED



Part No. R432015404***
(Old Part No. P -068674-00000)

Lighted



Part No.	Old Part No.	
R432008421	P -026078-00001	120VAC***
R432008422	P -026078-00002	240 VAC***
R432008423	P -026078-00004	12 VDC***
R432008424	P -026078-00005	24 VDC***
R432008425	P -026078-00006	24 VAC***

Solenoid Connectors For Series 581 and Series 830 Valves ONLY (INDUSTRIAL FORM§ 22MM)

Non-Lighted



*8941004702
Old Part No. H -894100-04702

STRAIN RELIEF CONNECTORS

Part No.	Old Part No.	
*R432013878	P -067854-00000	120 VAC
*R432013879	P -067855-00000	240 VAC
*R432013880	P -067857-00000	12 VDC
*R432013881	P -067858-00000	24 VDC
*R432008426	P -026079-00000	24 VAC

Lighted



§ Not FORM B.

Solenoid Connectors for Series 840, Series 579, & Series TC Valves ONLY (Form C) 15MM

VOLTAGE (lighted version)	PART NO.	OLD PART NO.
120 VAC/DC (Without Lead)	R432011981	P -048824-00001
120 VAC/DC (W/3' LEAD)	R432011961	P -048803-00001
120 VAC/DC (W/6' LEAD)	R432011963	P -048804-00001
24 VAC/DC (Without Lead)	R432011982	P -048824-00005
24 VAC/DC (w/3' LEAD)	R432011962	P -048803-00005
24 VAC/DC (W/6' LEAD)	R432011964	P -048804-00005

Solenoid Connector Lighted



Strain Relief Solenoid Connector Non-Lighted



Part No.
8941012202
(Old part no.
H -894101-02202)

Recommended Wire Size for Solenoid Connector: 18-22 gauge wire Cable diameter: .080" to .265" O.D.
R432008830 (Old Part No. P -027609-00000) 1/2" conduit connector for 840 wireway.

*0.236-0.315 O.D. Cable Diameter, **0.315-0.394 O.D. Cable Diameter, ***Cable Diameter up to 0.200
All connectors this page: Maximum Wire Size A.W.G. #14. (14 gauge may not fit in lighted connector.)

NOTICES TO PRODUCT USERS

1. WARNING: FLUID MEDIA

Bosch Rexroth pneumatic devices are designed and tested for use with filtered, clean, dry, chemical free air at pressures and temperatures within the specified limits of the device. For use with media other than air or for human life support systems, Bosch Rexroth must be consulted. Hydraulic cylinders are designed for operation with filtered, clean, petroleum based hydraulic fluid; operation using fire-resistant or other special types of fluids may require special packing and seals. Consult the factory.

2. WARNING: MATERIAL COMPATIBILITY

Damage to product seals or other parts caused by the use of non-compatible lubricants, oil additives or synthetic lubricants in the air system compressor or line lubrication devices voids Bosch Rexroth's warranty and can result in product failure or other malfunction. See lubrication recommendations below.

AIR LINE LUBRICANTS! In service higher than 18 cycles per minute or with continuous flow of air through the device, an air line lubricator is recommended. * (Do not use line lubrication with vacuum products.) However, the lubricator must be maintained since the oil will wash out the grease, and lack of lubrication will greatly shorten the life expectancy. The oils used in the lubricator must be compatible with the elastomers in the device. The elastomers are normally BUNA-N, NEOPRENE, VITON, SILICONE and HYTREL. Bosch Rexroth recommends the use of only petroleum-based oils without synthetic additives, and with an aniline point between 180° and 210° F.

COMPRESSOR LUBRICANTS! All compressors (with the exception of special "oil free" units) pass oil mist or vapor from the internal crankcase lubricating system through to the compressed air. Since even small amounts of non-compatible lubricants can cause severe seal deterioration (which could result in component and system failure) special care should be taken in selecting compatible compressor lubricants. It is recommended that users review the National Fluid Power Association "Recommended Guide Lines For Use Of Synthetic Lubricants In Pneumatic Fluid Power Systems" (NFPA T1-1978).

3. WARNING: INSTALLATION AND MOUNTING

The user of these devices must conform to all applicable electrical, mechanical, piping and other codes in the installation, operation or repair of these devices.

INSTALLATION! Do not attempt to install, operate or repair these devices without proper training in the technique of working on pneumatic or hydraulic systems and devices, unless under trained supervision. Compressed air and hydraulic systems contain high levels of stored energy. Do not attempt to connect, disconnect or repair these products when system is under pressure. Always exhaust or drain the pressure from system before performing any service work. Failure to do so can result in serious personal injury.

MOUNTING! Devices should be mounted and positioned in such manner that they cannot be accidentally operated.

4. WARNING: APPLICATION AND USE OF PRODUCTS

The possibility does exist for any device or accessory to fail to operate properly through misuse, wear or malfunction. The user must consider these possibilities and should provide appropriate safe guards in the application or system design to prevent personal injury or property damage in the event of malfunction.

5. WARNING: CONVERSION, MAINTENANCE AND REPAIR

When a device is disassembled for conversion to a different configuration, maintenance or repair, the device must be tested for leakage and proper operation after being reassembled and prior to installation.

MAINTENANCE AND REPAIR! Maintenance periods should be scheduled in accordance with frequency of use and working conditions. All Bosch Rexroth products should provide minimum of 1,000,000 cycles of maintenance free service when used and lubricated as recommended. However, these products should be visually inspected for defects and given an "in system" operating performance and leakage test once a year. Where devices require major repair as result of the one million cycles, one year, or routine inspection, the device must be disassembled, cleaned, inspected, parts replaced as required, rebuilt and tested for leakage and proper operation prior to installation. See individual catalogs for specific cycle life estimates.

6. PRODUCT CHANGES

Product changes including specifications, features, designs and availability are subject to change at any time without notice. For critical dimensions or specifications, contact factory.

*Many Bosch Rexroth pneumatic components can operate with or without air line lubrication; see individual sales catalogs for details.

--Refer to the appropriate service catalog for parts and service information.

LIMITATIONS OF WARRANTIES & REMEDIES

Bosch Rexroth warrants its products sold by it to be free from defects in material and workmanship to the following:

For twelve months after shipment Bosch Rexroth will repair or replace (F.O.B. our works), at its option, any equipment which under normal conditions of use and service proves to be defective in material or workmanship at no charge to the purchaser. No charge will be made for labor with respect to defects covered by this Warranty, provided that the work is done by Bosch Rexroth or any of its authorized service facilities. However, this Warranty does not cover expenses incurred in the removal and reinstallation of any product, nor any downtime incurred, whether or not proved defective.

All repairs and replacement parts provided under this Warranty policy will assume the identity, for warranty purposes, of the part replaced, and the warranty on such replacement parts will expire when the warranty on the original part would have expired. Claims must be submitted within thirty days of the failure or be subject to rejection.

This Warranty is not transferable beyond the first using purchaser. Specifically, excluded from this Warranty are failures caused by misuse, neglect, abuse, improper operation or filtration, extreme temperatures, or unauthorized service or parts. This Warranty also excludes the use of lubricants, fluids or air line additives that are not compatible with seals or diaphragms used in the products. This Warranty sets out the purchaser's exclusive remedies with respect to products covered by it, whether for negligence or otherwise. Neither, Bosch Rexroth nor any of its affiliates will be liable for consequential or incidental damages or other losses or expenses incurred by reason of the use or sale of such products. Our liability (except as to title) arising out of the sale, use or operation of any product or parts, whether on warranty, contract or negligence (including claims for consequential or incidental damage) shall not in any event exceed the cost of replacing the defective products and, upon expiration of the warranted period as herein provided, all such liability is terminated. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER FOR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. No attempt to alter, amend or extend this Warranty shall be effective unless authorized in writing by an officer of Bosch Rexroth Corporation.

Bosch Rexroth reserves the right to discontinue manufacture of any product, or change product materials, design or specifications without notice.

Bosch Rexroth Corporation

Pneumatics
1953 Mercer Road
Lexington, KY 40511-1021
Telephone (859) 254-8031
Facsimile (859) 254-4188
pneumatics@boschrexroth-us.com
www.boschrexroth-us.com/brp

USA

Bosch Rexroth Corporation
Corporate Headquarters
5150 Prairie Stone Parkway
Hoffman Estates, IL 60192-3707
Telephone (847) 645-3600
Facsimile (847) 645-6201

Bosch Rexroth Corporation
Electric Drives and Controls
5150 Prairie Stone Parkway
Hoffman Estates, IL 60192-3707
Telephone (847) 645-3600
Facsimile (847) 645-6201

Bosch Rexroth Corporation
Hydraulics
2315 City Line Road
Bethlehem, PA 18017-2131
Telephone (610) 694-8300
Facsimile (610) 694-8467

8 Southchase Court
Fountain Inn, SC 29644-9018
Telephone (864) 967-2777
Facsimile (864) 967-8900

Bosch Rexroth Corporation
Linear Motion and Assembly
Technologies
14001 South Lakes Drive
Charlotte, NC 28273
Telephone (800) 438-5983
Facsimile (704) 583-0523

Bosch Rexroth

Regional Sales Offices:

Central

Bosch Rexroth Corporation
5150 Prairie Stone Parkway
Hoffman Estates, IL 60192-3707
Telephone (847) 645-3600
Facsimile (574) 472-8788

Great Lakes

Bosch Rexroth Corporation
2730 Research Drive
Rochester Hills, MI 48309
Telephone (248) 267-4000
Facsimile (248) 853-2033

Northeast

Bosch Rexroth Corporation
99 Rainbow Road
East Granby, CT 06026
Telephone (860) 844-8377
Facsimile (860) 844-8595

Bosch Rexroth Corporation
2315 City Line Road
Bethlehem, PA 18017-2131
Telephone (610) 694-8300
Facsimile (610) 694-8467

Other North America

Bosch Rexroth Canada
3426 Mainway Drive
Burlington, Ontario L7M 1A8
Telephone (905) 335-5511
Facsimile (905) 335-4184
www.boschrexroth.ca

Bosch Rexroth, S.A. de C.V.
Calle Neptuno # 72
Unidad Industrial Vallejo
CP 07700 Mexico, D.F.
Telephone (555) 754-1711
Facsimile (555) 752-5943

Southeast

Bosch Rexroth Corporation
14001 South Lake Drive
Charlotte, NC 28273
Telephone (800) 438-5983
Facsimile (704) 583-0523

Southwest

Bosch Rexroth Corporation
1520 Selene Drive, Suite 104
Carrollton, TX 75006
Telephone (972) 245-6718
Facsimile (972) 242-2850

West

Bosch Rexroth Corporation
7901 Stoneridge Drive, Suite 220
Pleasanton, CA 94588
Telephone (925) 227-1074
Facsimile (925) 227-1081

Bosch Rexroth Corporation
13766 Alton Parkway, Suite 147
Irvine, CA 92618-1622
Telephone (949) 609-1640
Facsimile (888) 873-3434

Further contacts

www.boschrexroth.com/
addresses

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