INSTALLATION, OPERATION AND MAINTENANCE MANUAL - ORIGINAL VERSION

### **AVK BUTTERFLY VALVES WITH GROOVED ENDS DN65-200** SERIES 815

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#### 1. INTRODUCTION TO UL/FM APPROVED IPS GROOVED END BUTTERFLY VALVES DN65-200

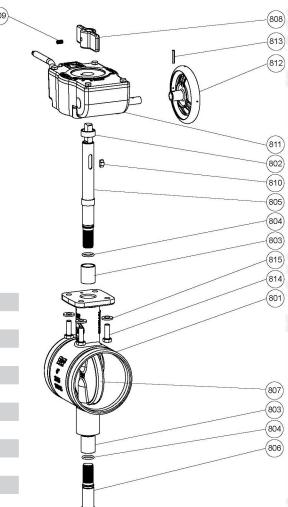
AVK series 815 grooved end butterfly valves are UL/FM approved. They are designed to be maintenance free and are for use in fire protection applications. They have a rated working pressure of 300 PSI/20.68 bar and are available in DN65-200. This manual will provide you with the information needed to properly install and maintain the valves, and to ensure a long service life.

#### 2. COMPONENT LIST

801	Body
802	Short bushing
803	Long bushing
804	Shaft O-ring
805	Drive shaft
806	Stub shaft
807	Disc
808	Indicator flag
809	Indicator flag set screw
810	Shear key
811	Gearbox
812	Handwheel
813	Handwheel pin
814	Gearbox bolt
815	Gearbox washer

	Item No.	Description	Material
	801	Body	Ductile iron, ASTM A536
	802	Short bushing	Metal PRFE cated steel/bronze
	803	Long bushing	Metal PRFE cated steel/bronze
	804	Shaft O-ring	NBR
	805	Drive shaft	431 stainless steel
	806	Stub shaft	431 stainless steel
	807	Disc	EPDM encapsulated ductile iron
	808	Indicator flag	Cast, iron, ASTM A126 Class B
	809	Indicator flag set screw	304 stainless steel
	810*	Shear key	Aluminum
	811	Gearbox	N/A
	812	Handwheel	Mild steel
	813*	Handwheel Pin	304 stainless steel
	814	Gearbox bolt	304 stainless steel
	815	Gearbox washer	304 stainless steel

<sup>\*</sup> AVK series 815 butterfly valves are designed to be maintenance free. In an accidental instance that the gearbox is over torqued, the shear key (810), or handwheel pin (813), may require replacement.





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#### 3. RECEIVING AND STORAGE

Inspect valves upon receipt for damage in shipment. Unload all valves carefully to the ground without dropping. Never lift a valve by the indicator flag or gearbox electrical cord. Valves should be stored in a clean and dry area until installed to prevent weather related damage. Do not expose the discs to sunlight or ozone for any extended period of time. Store the valves with the disc in the open position. For long term storage, the valves should be stored indoors.

#### 4. INSPECTION PRIOR TO INSTALLATION

Make sure that all mounting surfaces and disc seats are clean and free of foreign materials. Check the gearbox bolting to the valve for any loosening during transit. If loose, tighten the mounting hardware. Open and close the valve to verify operation and proper stop adjustments for both the open and closed positions. Check that the valve rotation direction is correct, and close the valve prior to installation.

#### 5. INSTALLATION

#### **WARNING**

The line must be isolated, depressurised and drained before installing/removing the valve to/from the system line. Failure to do so may cause pressure to be released, resulting in severe injury or death.

#### **NOTE**

Before closing a fire protection system control valve for maintenance or inspection, permission to shut down the affected fire protection systems must be obtained from the proper authorities and all personnel who may be effected by this decision must be notified.

It is recommended that automatic sprinkler systems are inspected, tested and maintained by a qualified inspection service.

Correct installation of the series 815 butterfly valve is important for proper operation. It may be installed with flow in either direction and in either horisontal or vertical applications. The couplings used with series 815 valves must be approved for fire protection service and installed in accordance with the manufacturers instructions. Series 815 valves may be installed with any schedule of pressure pipe or tubing that is listed or approved for fire protection. The gearbox can be mounted in 90 degree alternate positions for ease of installation.

An electrical connection diagram for the supervisory/ auxiliary switch connection is mounted on the exterior of the gearbox (see Fig. 1). Electrical and conduit connections are to be made in accordance with the authorities having jurisdiction and/or the National Electrical Code.

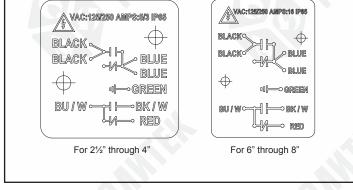


Fig. 1
Electrical wiring diagram

#### 6. MAINTENANCE

The owner is responsible for the inspection, maintenance and testing of their fire protection system and devices in accordance with the applicable standards of the authorities having jurisdiction.

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#### 7. TOOLS

The following tool requirements are for gearbox repositioning and stop adjustment. Please refer to coupling manufacturer documentation for other tool requirements.

808 Indicator flag set screw	All sizes	7/64" or 3 mm allen wrench
813 Gearbox mounting bolts	DN65-100 / 2½-4"	1/2" or 13 mm combination wrench
813 Gearbox mounting bolts	DN150-200 / 6-8"	11/16" or 17 mm combination wrench
Gearbox stop set screw	DN65-150 / 2½-6"	5/32" or 4 mm allen wrench
Gearbox stop set screw	DN200 / 8"	3/16" or 5 mm allen wrench
Gearbox stop jam nut	DN65-150 / 21/2-6"	1/2" or 13 mm combination wrench

#### 8. PARTS AND SERVICE

For information on parts and service for your area, contact AVK International A/S. Make a note of the valve model number and size, located on the valve, before making contact:

#### **AVK International A/S**

Bizonvej 1 DK-8464 Galten T: +45 8754 2100 www.avkvalves.eu