



RUBINETTERIE INDUSTRIALI s.r.l.

## PRODUCT PREVIEW



NEW TECHNICAL  
FEATURES



ENERGY SAVING



COMPACT  
DESIGN



USER  
FRIENDLY



FLEXIBLE  
RANGE

DISCOVER MORE:



soft torque technology



ARP  
AUTOMATIC RETURN to POSITION

**NEW BS5**  
soft torque technology

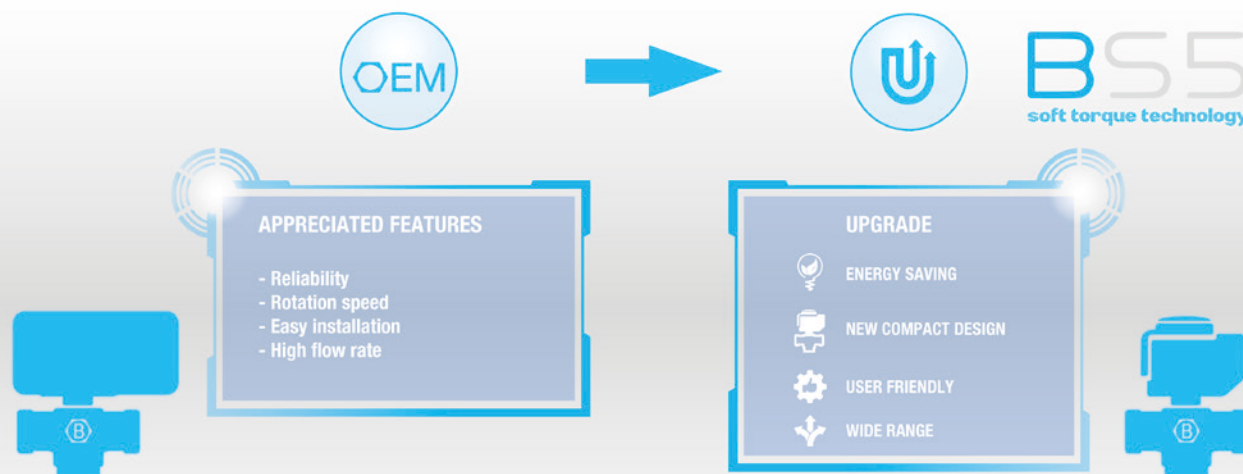
ZONE AND DIVERTING VALVES - 2 POINT AND AUTOMATIC RETURN

## INTRODUCTION

### DESIGN GENESIS

The BS5 series takes origin from Barberi®'s previous experience in the OEM field: in the last ten years we produced over than one million of zone valves, which stood out for their reliability (only 6 PPM in 10 years), their rotation speed, ease of installation and high flow rate. Features that allowed us to be recognized and appreciated by the most important manufacturers in our field.

This experience in the wide world of zone valves pushed us to further raise the bar in terms of technology, performance and energy efficiency of our product. The technological upgrade, we subjected our valves to in order to create the new BS5 series, allows us today to offer a single range of products capable of satisfying most of the market needs and meeting the needs of the future.

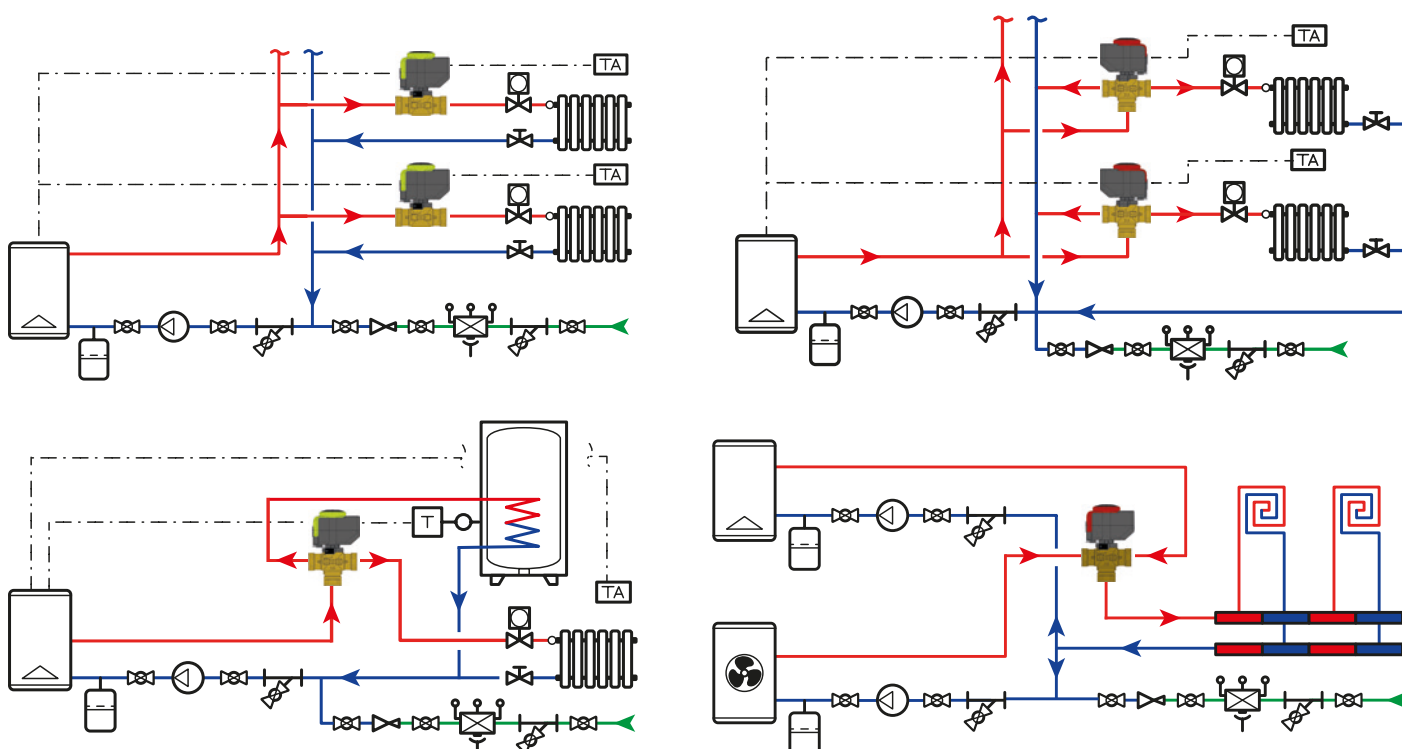


## DESCRIPTION

Barberi® BS5 motorized rotor zone valves are used in the zone management of heating and air conditioning systems, in central heating systems, wall-mounted boilers, solid fuel generators and heat pumps. The valve body features the Soft-Torque technology, characterized by a patented design and materials with very low friction coefficient, which allow a fast and smooth rotation in 8 seconds only, making the product an easy to use and high energy saving device.

The 3-way valve can also be used as diverting valve since the AB-A and AB-B ways have the same flow coefficient Kv. The 2-way valve is bidirectional (indifferent flow direction).

The ARP version with green cover features an Automatic Return in Position function (ARP) by means of an electric supercapacitor. This makes the valve operation and use more advantageous than traditional mechanical spring return actuators, with energy savings up to 90%.



## HIGHLIGHTS

► All the valves of Barberi® BS5 line are characterized by the following advantages:

### SOFT TORQUE TECHNOLOGY

The "soft torque technology" is a **Barberi® patent** which combines a particular design of the components with carefully selected materials; this combination allows to increase the product performance and ensure its maintenance over time. The result, in technical terms, is a **very low resistant rotation torque** which determines, in addition to the high flow rates and



### SPEED

The smooth and low-friction rotation makes the commutation faster (from one zone to the other in the 3-way valve, the zone closing in the 2-way valve), which occurs in **8 seconds** only.

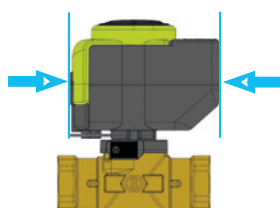
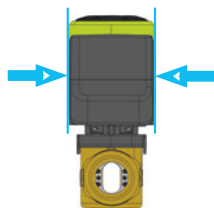


### ENERGY SAVING

The low resistant torque requires a lower electrical consumption during the valve rotation. In addition, our new ARP actuator, which we will explain in detail in the following pages, is characterized by a **reduction of up to 90% in electric consumption** with the valve open.

### COMPACT DESIGN

The BS5 design is totally "**made in Barberi**" and aims to optimize **shape and function**, with a more functional style. Thanks to the lower thermal and mechanical stresses produced by the Soft Torque Technology, it was possible to significantly reduce the actuator size, thus allowing **wider application opportunities**.

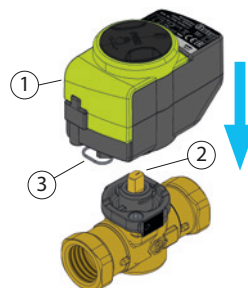


### USER FRIENDLY

Designed for **intuitive use**, the following systems simplify its installation and application:

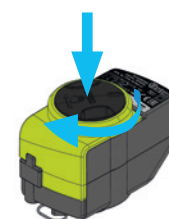
#### ONE HAND ASSEMBLY

The **installation of the actuator** (1) on the valve body (2) can be performed **with a single hand**. Leaving the clip (3) placed in the specific slot, a simple click is enough to connect the actuator to the valve body, without any tool. The actuator disassembly can be made by removing the clip and unlocking the actuator from the valve stem.



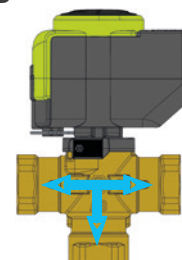
#### PUSH AND TURN SYSTEM

The manual setting of the valve can be obtained by simply pushing down the knob and rotating it into the desired position.



#### MID POINT - MANUAL KNOB

Placing the actuator's **manual knob half way** (mid point), the 2-way valve gets partially open and the 3-way valve is set in the intermediate position. All the ports are therefore connected together thus **making the system fill/drain faster**.



#### TRACEABILITY CONTROL

A specific place on the valve body will show all the information for a **complete product traceability**.

### WIDE RANGE

The width of the range makes the BS5 series a perfect choice for every application:

- **Valve body available with 2 and 3 ways**

Versions with female connections (from 1/2" to 1"), male connections (from 3/4" to 1 1/4") and compression ends for copper pipe (22 and 28 mm);

- The **actuator is available with 2 point mode** (red cover), fully interchangeable with the previous Y series zone valves, **or ARP technology**

- **Automatic Return in Position** (green cover), fully interchangeable with the previous Y series and the traditional spring return zone valves.

The validity of the project will also allow us to open new application scenarios in the future. Stay in touch with Barberi® to find out more.

#### ACTUATOR TYPE



#### VALVE TYPE



#### CONNECTION TYPE



#### VALVE SIZE

3/4" M  
1" M  
1 1/4" M  
1/2" F  
3/4" F  
1" F  
22 mm  
28 mm



# B55 ARP

soft torque technology



**GREEN  
DEAL  
SOLUTIONS**



**NEW**



**ARP**

**AUTOMATIC RETURN in POSITION**

#### **ELECTRONIC EVOLUTION:**

THE SPRING RETURN SYSTEMS GIVE WAY TO AN INNOVATIVE SYSTEM THAT MANAGES THE AUTOMATIC CLOSING THROUGH THE ELECTRONICS OF THE ACTUATOR.



**INTERCHANGEABLE  
WITH SPRING RETURN  
VALVES**



**SIMPLIFIED  
ELECTRICAL  
CONNECTION**



**CONSUMPTION  
REDUCED UP TO 90%**



**ROTATION IN 8 S**



**AUXILIARY  
MICROSWITCH**



**MANUAL MODE - MID  
POINT**



## BS5 ARP: HIGHLIGHTS

➤ In addition to the advantages of the entire BS5 series, the ARP series with automatic return (green cover) shows the following peculiarities:



## ARP TECHNOLOGY

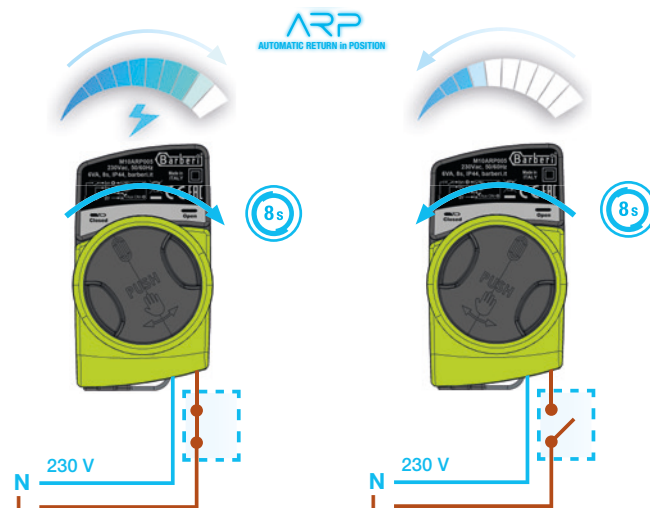
The technology with “automatic return in position” is an **innovative system** that **manages the automatic valve closing through the electronics of the actuator**. For a better comprehension of the working way, we invite you to combine the following explanation to the figures here beside:

## Valve opening (2-ways) or diversion in A (3-ways):

- 1) electric supply on (for example thermostat contact closed)
- 2) the knob rotates in clockwise direction in 8 s to open the 2-way valve or divert the 3-way valve towards the port A
- 3) the supercapacitor charges
- 4) the valve remains in this position with an electric consumption reduced up to 90% if compared to a spring return valve

## Valve closing (2-ways) or diversion in B (3-ways):

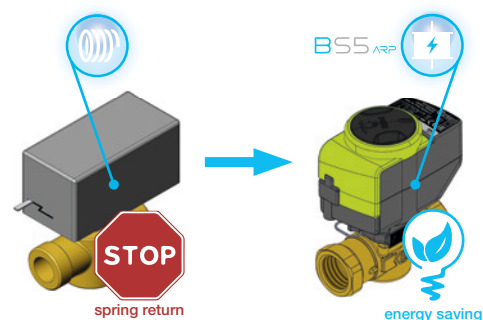
- 1) electric supply off (for example thermostat contact open)
- 2) the supercapacitor generates the electric current to restore the initial position of the valve (Automatic Return in Position ARP)
- 3) the knob rotates in anticlockwise direction in 8 s to close the 2-way valve or divert the 3-way valve towards the port B
- 4) the supercapacitor discharges.



## INTERCHANGEABILITY WITH SPRING RETURN

Spring return valves give way to the new technology with Automatic Return in Position (ARP), with the following advantages:

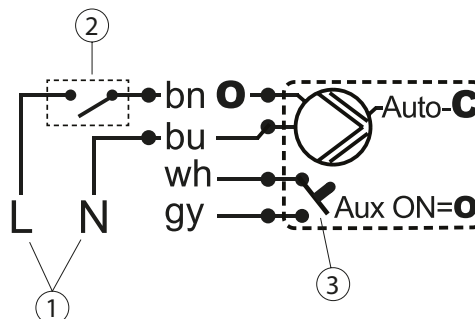
- 1) **same configuration of the valve ports**
- 2) same wiring diagram without earth connection (simplified connection)
- 3) the spring is replaced by an electronic system with supercapacitor
- 4) **consumptions reduced up to 90% in open position**. The valve does not need anymore to counteract against the spring: it is easily kept open through electricity with a consequent very low consumption of current
- 5) **rotation speed in 8 s** both during opening and closing.



## SIMPLIFIED ELECTRICAL CONNECTION

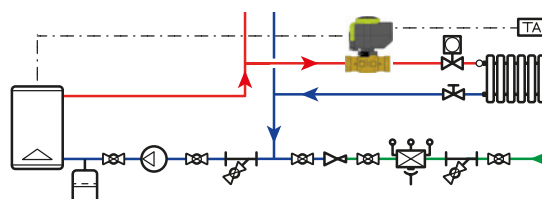
The BS5 ARP valves can be **connected in the same way of the spring return valves**:

- 1) 2 wire electric supply
- 2) on-off switch on the brown cable (for example: thermostat)
- 3) auxiliary microswitch closed with valve open (or diverted for the 3-way valve)
- 4) absence of earth connection thanks to the double electric insulation of the actuator.



## AUXILIARY MICROSWITCH

Both 2- and 3-way valves are equipped with auxiliary microswitch, SPST free of potential type. With the 2-way valve open or the 3-way diverted in A, the microswitch gets electrically closed thus allowing to activate other electric devices.



# BS5

soft torque technology



## NEW SERIES BS5 2P

THE NEW 2 POINT BS5 SERIES REPLACES THE PREVIOUS 2-WAY AND 3-WAY Y SERIES.



**INTERCHANGEABLE  
ACTUATOR  
WITH Y SERIES**



**ROTATION IN 8 S**



**AUXILIARY  
MICROSWITCH**



**MANUAL MODE - MID  
POINT**



**INTEGRATED CABLE**

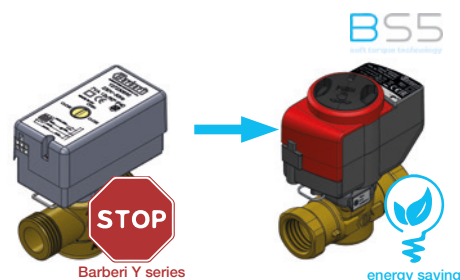


## BS5 2 POINTS: HIGHLIGHTS

- In addition to the advantages of the entire BS5 series, the 2 point series (red cover) shows the following peculiarities:

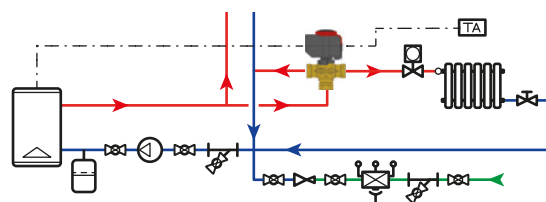
### ↻ INTERCHANGEABILITY WITH Y SERIES VALVES

The new 2 point BS5 valves are **fully interchangeable with the previous Barberi Y series valves** thanks to the same port configuration. Also the M10 actuator alone can be used as spare part for the previous Y27 model, connecting it on the previous valve body. This is an advantage if a complete or partial change of the previous Y series valve is needed, keeping the same working logic and same electric connections.



### ✂ AUXILIARY MICROSWITCH

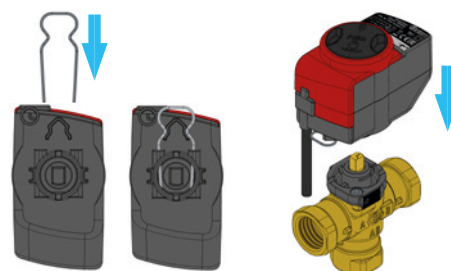
Both 2- and 3-way valves are equipped with auxiliary microswitch, SPST free of potential type. With the 2-way valve open or the 3-way diverted in A, the microswitch gets electrically closed thus allowing to activate other electric devices.



- Designed for **intuitive use**, also for the 2P version the following systems simplify its installation and application:

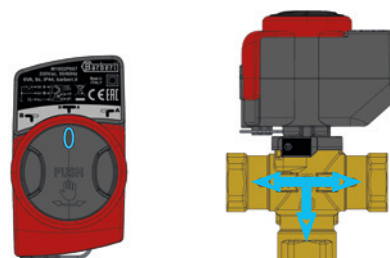
### ✋ ONE HAND ASSEMBLY

The **installation of the actuator** on the valve body can be performed **with a single hand**. Leaving the clip placed in the specific slot, a simple click is enough to connect the actuator to the valve body, without any tool. The actuator disassembly can be made by removing the clip and unlocking the actuator from the valve stem.



### ⚙ MID POINT - MANUAL KNOB

Placing the actuator's manual knob half way, the 2-way valve gets partially open and the 3-way valve is set in the intermediate position. All the ports are therefore connected together thus **making the system fill/drain faster**.



## RELATED PRODUCTS

### ➤ MOTORIZABLE DIVERTING AND MIXING VALVES

Motorized diverting valves - mixing valves suitable to be used as diverting and zone valves - 2 point actuator.



V55



460



M03.2



## CATALOGUE

## V82.W.ARPM

2-way zone valve. ARP actuator with automatic return in position, rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Max differential pressure: **1 bar**  
 Working temperature range: **0 (no frost)–90 °C**  
 Max working pressure: **10 bar**  
 Protection class: **IP 44**  
 Frequency: **50–60 Hz**  
 Power consumption: **6 VA**  
 Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	Size	Kv	V	Running time [s]	Nr. poles	Cable [m]		
V82 BF1 WBD E	G 1/2 F	12	230	8	4	0,9	1	6
V82 BF2 WBD E	G 3/4 F	12	230	8	4	0,9	1	6
V82 BF3 WBD E	G 1 F	12	230	8	4	0,9	1	6
V82 B22 WBD E	22 mm	12	230	8	4	0,9	1	6
V82 B28 WBD E	28 mm	12	230	8	4	0,9	1	6
V82 BM2 WBD E	G 3/4 M	12	230	8	4	0,9	1	6
V82 BM3 WBD E	G 1 M	12	230	8	4	0,9	1	6
V82 BM4 WBD E	G 1 1/4 M	12	230	8	4	0,9	1	6

## V83.W.ARPM

3-way zone and diverting valve with central common port. ARP actuator with automatic return in position, rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Max differential pressure: **1 bar**  
 Working temperature range: **0 (no frost)–90 °C**  
 Max working pressure: **10 bar**  
 Protection class: **IP 44**  
 Frequency: **50–60 Hz**  
 Power consumption: **6 VA**  
 Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	Size	Kv	V	Running time [s]	Nr. poles	Cable [m]		
V83 AF1 WBD D	G 1/2 F	8	230	8	4	0,9	1	6
V83 AF2 WBD D	G 3/4 F	8	230	8	4	0,9	1	6
V83 AF3 WBD D	G 1 F	8	230	8	4	0,9	1	6
V83 A22 WBD D	22 mm	8	230	8	4	0,9	1	6
V83 A28 WBD D	28 mm	8	230	8	4	0,9	1	6
V83 AM2 WBD D	G 3/4 M	8	230	8	4	0,9	1	6
V83 AM3 WBD D	G 1 M	8	230	8	4	0,9	1	6
V83 AM4 WBD D	G 1 1/4 M	8	230	8	4	0,9	1	6

## M10.ARP.2VM

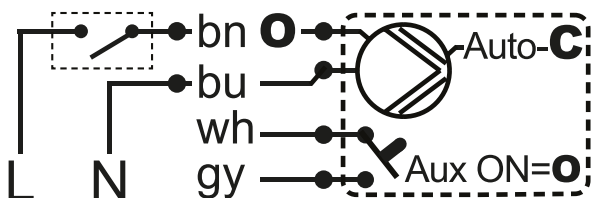
Spare ARP actuator with automatic return in position for 2-way zone valve. With rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Protection class: **IP 44**  
 Frequency: **50–60 Hz**  
 Power consumption: **6 VA**  
 Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	V	Running time [s]	Nr. poles	Cable [m]		
M10 ARP 005	230	8	4	0,9	1	10

Wiring diagram M10 ARP with automatic return in position with aux. microswitch



## M10.ARP.3VM

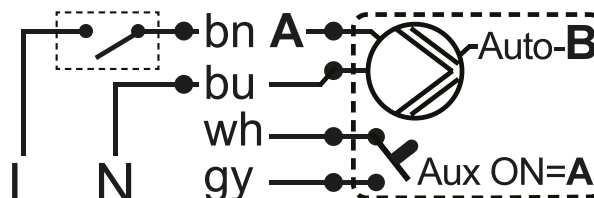
Spare ARP actuator with automatic return in position for 3-way zone and diverting valve. With rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Protection class: **IP 44**  
 Frequency: **50–60 Hz**  
 Power consumption: **6 VA**  
 Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	V	Running time [s]	Nr. poles	Cable [m]		
M10 ARP 004	230	8	4	0,9	1	10

Wiring diagram M10 ARP with automatic return in position with aux. microswitch





## CATALOGUE

## V82.W.2PM

2-way zone valve. 2 point actuator with rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Max differential pressure: **1 bar**

Working temperature range: **0 (no frost)–90 °C**

Max working pressure: **10 bar**

Protection class: **IP 44**

Frequency: **50–60 Hz**

Power consumption: **6 VA**

Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	Size	Kv	V	Running time [s]	Nr. poles	Cable [m]		
V82 BF1 WAD E	G 1/2 F	12	230	8	5	0,9	1	6
V82 BF2 WAD E	G 3/4 F	12	230	8	5	0,9	1	6
V82 BF3 WAD E	G 1 F	12	230	8	5	0,9	1	6
V82 B22 WAD E	22 mm	12	230	8	5	0,9	1	6
V82 B28 WAD E	28 mm	12	230	8	5	0,9	1	6
V82 BM2 WAD E	G 3/4 M	12	230	8	5	0,9	1	6
V82 BM3 WAD E	G 1 M	12	230	8	5	0,9	1	6
V82 BM4 WAD E	G 1 1/4 M	12	230	8	5	0,9	1	6

## V83.W.2PM

3-way zone and diverting valve with central common port. 2 point actuator with rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Max differential pressure: **1 bar**

Working temperature range: **0 (no frost)–90 °C**

Max working pressure: **10 bar**

Protection class: **IP 44**

Frequency: **50–60 Hz**

Power consumption: **6 VA**

Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	Size	Kv	V	Running time [s]	Nr. poles	Cable [m]		
V83 AF1 WAD C	G 1/2 F	8	230	8	5	0,9	1	6
V83 AF2 WAD C	G 3/4 F	8	230	8	5	0,9	1	6
V83 AF3 WAD C	G 1 F	8	230	8	5	0,9	1	6
V83 A22 WAD C	22 mm	8	230	8	5	0,9	1	6
V83 A28 WAD C	28 mm	8	230	8	5	0,9	1	6
V83 AM2 WAD C	G 3/4 M	8	230	8	5	0,9	1	6
V83 AM3 WAD C	G 1 M	8	230	8	5	0,9	1	6
V83 AM4 WAD C	G 1 1/4 M	8	230	8	5	0,9	1	6

## M10.02P.2VM

Spare actuator for 2-way zone valve. 2 point type with rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Protection class: **IP 44**

Frequency: **50–60 Hz**

Power consumption: **6 VA**

Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**



Code	V	Running time [s]	Nr. poles	Cable [m]		
M10 02P 011	230	8	5	0,9	1	10

## M10.02P.3VM

Spare actuator for 3-way zone and diverting valve. 2 point type with rapid assembling on the valve, manual knob and cable. Auxiliary microswitch.

Protection class: **IP 44**

Frequency: **50–60 Hz**

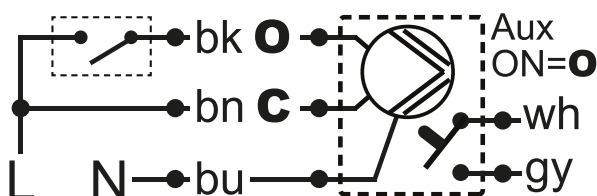
Power consumption: **6 VA**

Aux. microswitch contact rating: **1 SPST, 6(1) A-230 V**

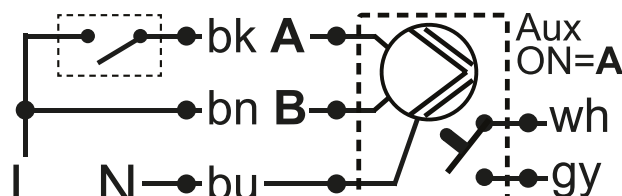


Code	V	Running time [s]	Nr. poles	Cable [m]		
M10 02P 007	230	8	5	0,9	1	10

Wiring diagram M10, 2 points-5 poles with aux. microswitch



Wiring diagram M10, 2 points-5 poles with aux. microswitch





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AND FOOT VALVES  
**B7**



FILTERS AND DIRT  
SEPARATORS  
**B8**



BALL SHUT-OFF VALVES  
AND COCKS  
**B9**



MONOBLOCS  
**B10**



FITTINGS  
**B11**

# BARBERI WORLD

## MORE THAN REAL

Our products are the visual representation of our mission:  
satisfying the demands of distributors and installers alike.

Even today, after 65 years, our extensive range of valves and components  
for heating and hot water systems continues to innovate and modernise.