



## Ball Valves general

Ball valves applied in sprayers are available for suction applications as well as for pressure application. They are available in different sizes and material strength. altek offers for both suction and pressure ball valves in different sizes 1¼", 2" and 3". They are available in both manual and electric operation.

The ball inside is manufactured from a mixture of  
\* POM & Teflon which produces easy slide properties. The sealing rings inside the housing are adjustable. This ensures long term functionality and safe operation of the sprayer.

\* 3 way central valve has Stainless Steel ball



## Manual and electrical Ball Valves

altek are continually updating the ball valves to deal with continually rising flow rates of modern sprayers. Accordingly, with the use of new material combinations developed in-house we vastly increased the wear-resistance of the internal ball, which is able to withstand even highly abrasive substances. In addition it is possible to adjust for wear by the use of adjustable seals to improve resistancy.

- **Extremely compact design**
- **High wear-resistance**
- **Manual operation with low effort**
- **Special fittings on request**
- **Adaptable to altek plug-in system for 5-way ball valve 1 1/4" and 2"**
- **With the 5-way 2" ball valve, hose diameters up to 60 mm possible**



## Ball valves · 5-way 1½"

### 5-way ball valve 1½"

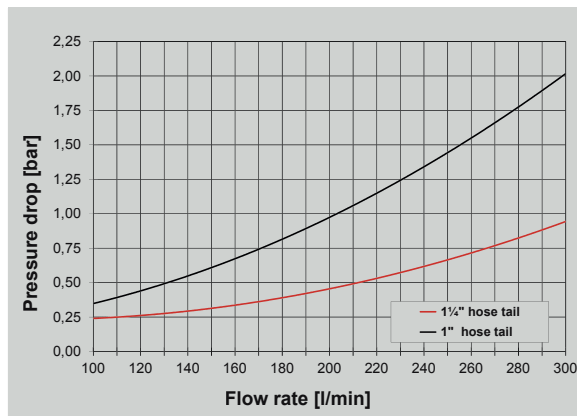
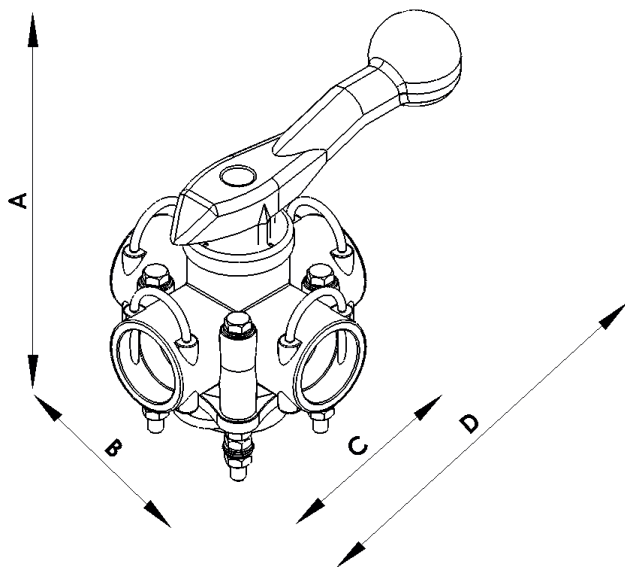
- individual adjustable seal
- high wear resistance
- retrofitable with electric drive
- Optional: Special connectors are available

Operating time pressure: max. 15 bar  
 Flow rate: max. 300 l/min  
 Inlet-ø: 1x AS40  
 Outlet-ø: 4x AS40  
 Ball valve: POM+PTFE  
 Material: POM GF 25, PA, FPM and NBR seals

#### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request

A	B	C	D
180	140	140	215
Specified in mm			



Article-No.	Type
61128	Kugelventil 5-Wege 1½"
Recommended fittings	
80352	Plug-in hose tail AS40/ø20/90° cpl
09184	Plug-in hose tail AS40/ø25/90° cpl
08874	Plug-in hose tail AS40/ø33/90° cpl
08275	Plug-in hose tail AS40/ø39/90° cpl
80353	Plug-in hose tail AS40/ø20 cpl
04595	Plug-in hose tail AS40/ø25 cpl
04581	Plug-in hose tail AS40/ø33 cpl
06247	Plug-in hose tail AS40/ø39 cpl
80333	Blindstopfen AS40 cpl
82614	Adapter Plug-in hose tail AS40/ Banjo 2" cpl
More Fittings: see section Fittings AS40	



## Ball valves · Electrical 5-way 1¼"



### Electrical 5-way ball valve 1¼"

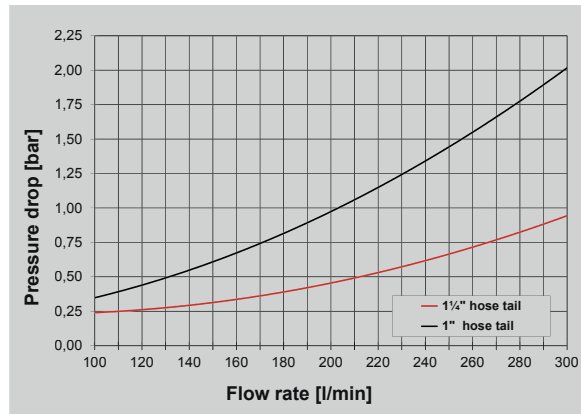
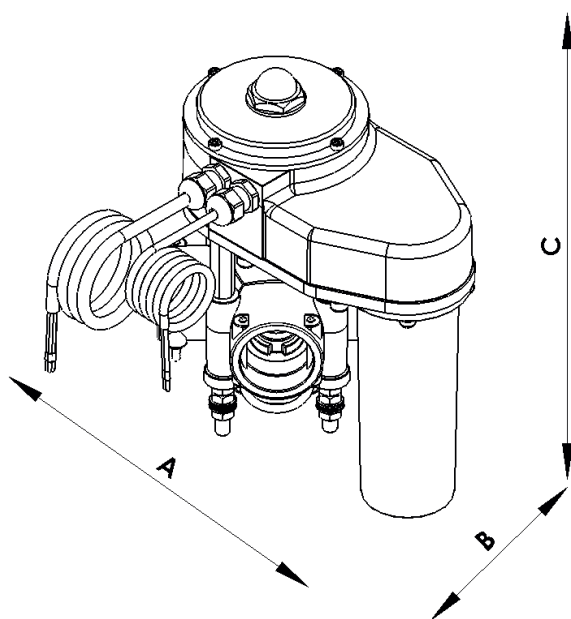
- individual adjustable seals
- high wear resistance
- integrated emergency operation
- optional: special connectors are available

Operating time pressure:	max. 15 bar
Flow rate:	max. 300 l/min
Inlet-ø:	1x AS40
Outlet-ø:	4x AS40
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Switch time:	360°/3,0 s
Material:	POM GF 25, PA, FPM and NBR seals

#### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request

A	B	C
235	190	190
Specified in mm		



Article-No.	Type
47947	Electrical 5-way ball valve ¼"
Recommended fittings	
80352	Plug-in hose tail AS40/ø20/90° cpl
09184	Plug-in hose tail AS40/ø25/90° cpl
08874	Plug-in hose tail AS40/ø33/90° cpl
08275	Plug-in hose tail AS40/ø39/90° cpl
80353	Plug-in hose tail AS40/ø20 cpl
04595	Plug-in hose tail AS40/ø25 cpl
04581	Plug-in hose tail AS40/ø33 cpl
06247	Plug-in hose tail AS40/ø39 cpl
80333	Blindstopfen AS40 cpl
82614	Adapter Plug-in hose tail AS40/ Banjo 2" cpl
More Fittings: see section Fittings AS40	





## Ball valves · 5-way 2"

### 5-way ball valve 2"

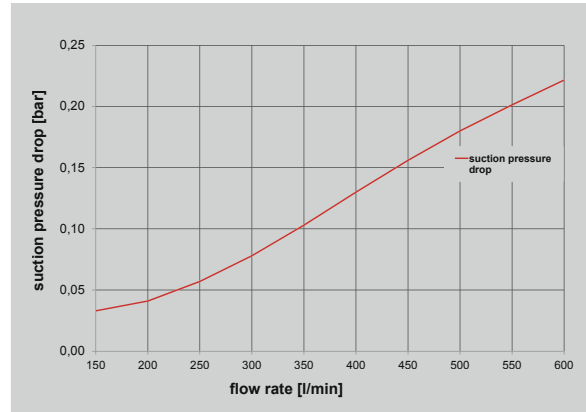
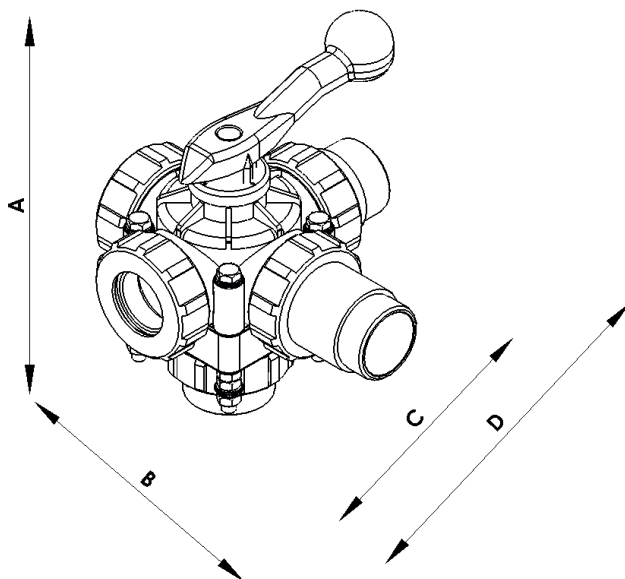
- individual adjustable seal
- high wear resistance
- retrofitable with electric drive
- optional: special connectors are available
- fittings for  $\varnothing 60$  mm hoses

Operating time pressure: max. 3 bar  
 Flow rate: max. 600 l/min  
 Inlet- $\varnothing$ : 2"  
 Outlet- $\varnothing$ : 2"  
 Ball valve: POM+PTFE  
 Material: POM GF 25, PA,  
 FPM and NBR seals

#### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request

A	B	C	D
235	190	190	260
Specified in mm			



Article-No.	Type
82757	5-way ball valve 2"
Recommended fittings	
47713	Adapter for connector KH2/D1=47 cpl
47883	Adapter for connector KH2/D1=63 cpl
47737	Fitting G2/female cpl
47735	Fitting G2/male/L=47,5 cpl
47736	Fitting G2/male/L=75 cpl
47587	Nut G2 $\frac{3}{4}$ for Fitting G2 Di=52,5 mm
47733	Nut G2 $\frac{3}{4}$ for Fitting G2 Di=68 mm
More Fittings: see section AS Fittings	





## Electrical 5-way ball valve 2"

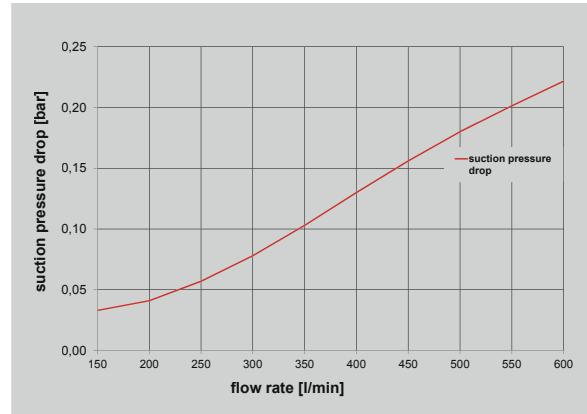
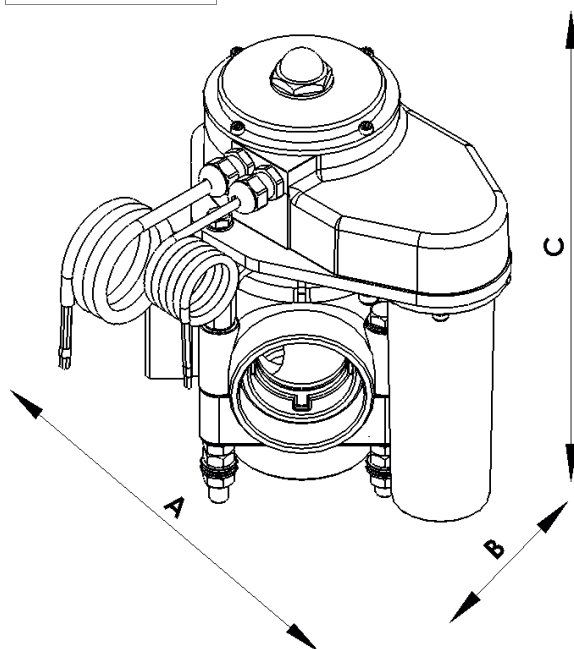
- individual adjustable seals
- high wear resistance
- integrated emergency operation
- optional: special connectors are available
- fittings for Ø60 mm hoses
- optional: electric control with potentiometer

Operating time pressure:	max. 3 bar
Flow rate:	max. 600 l/min
Inlet-Ø:	2"
Outlet-Ø:	2"
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Schaltzeit	360°/3,0 s
Material:	POM GF 25, PA, FPM and NBR seals

### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request

A	B	C
220	155	235
Specified in mm		



Article-No.	Type
47948	Electrical 5-way ball valve 2"
Recommended fittings	
47713	Adapter for connector KH2/D1=47 cpl
47883	Adapter for connector KH2/D1=63 cpl
47737	Fitting G2/female cpl
47735	Fitting G2/male/L=47,5 cpl
47736	Fitting G2/male/L=75 cpl
47587	Nut G2½ for Fitting G2 Di=52,5 mm
47733	Nut G2½ for Fitting G2 Di=68 mm
More Fittings: see section AS Fittings	





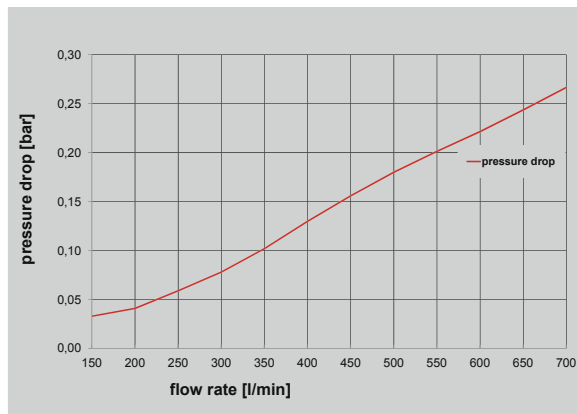
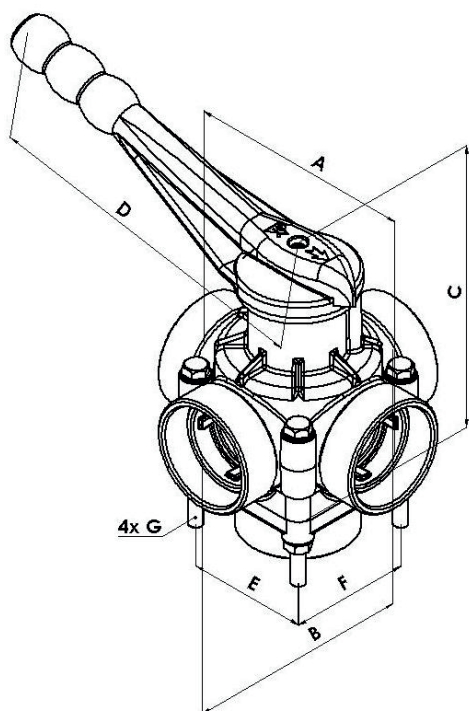
## Ball valves · Manually 5-way 2", 15 bar

### Manually 5-way ball valve 2", 15 bar

- individual adjustable seals
- high wear resistance
- ball bearing shaft
- retrofitable with electric drive
- optional: special connectors are available
- fittings for  $\varnothing 60$  mm hoses
- Body made from liquid fertilizer proof anodised aluminium

Operating time pressure:	max. 15 bar
Flow rate:	max. 700 l/min
Inlet- $\varnothing$ :	2"
Outlet- $\varnothing$ :	2"
Ball valve:	POM+PTFE
Material:	POM GF 25, PA, FPM and NBR seals

A	B	C	D	E	F	G
175	175	270	220	93	93	M10
Specified in mm						



Article-No.	Type
83091	5-way ball valve 2", 15 bar
Recommended fittings	
47713	Adapter for connector KH2/D1=47 cpl
47883	Adapter for connector KH2/D1=63 cpl
47737	Fitting G2/female cpl
47735	Fitting G2/male/L=47,5 cpl
47736	Fitting G2/male/L=75 cpl
82648	Nut G2 3/4 for 2" pressure valve
More Fittings: see section AS Fittings	







## Electrical 5-way ball valve 2", 15 bar Ball bearing shaft

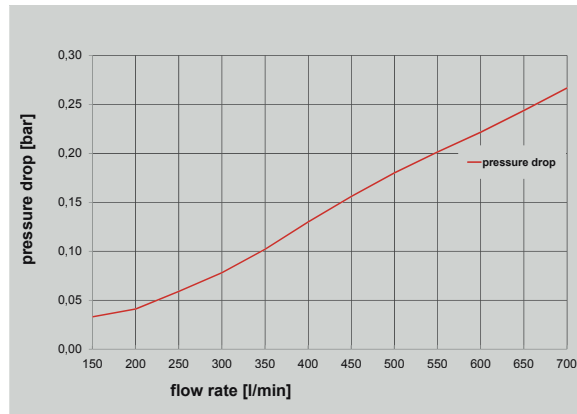
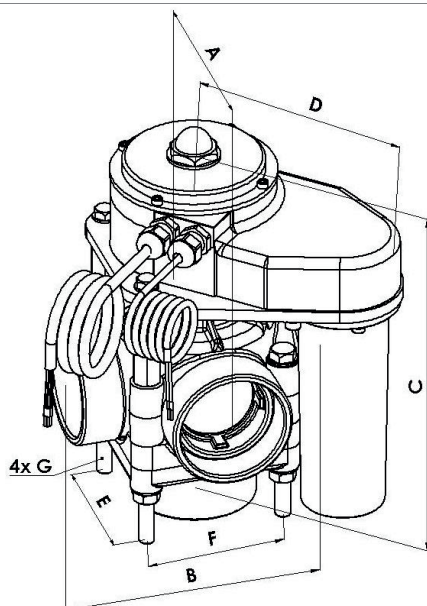
- individual adjustable seals
- high wear resistance
- ball bearing shaft
- integrated emergency operation
- optional: special connectors are available
- fittings for  $\varnothing 60$  mm hoses
- optional: electric control with potentiometer
- Body made from liquid fertilizer proof anodised aluminium

Operating time pressure:	max. 15 bar
Flow rate:	max. 700 l/min
Inlet- $\varnothing$ :	2"
Outlet- $\varnothing$ :	2"
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Switch time:	360°/3,0 s
Material:	POM GF 25, PA, Aluminium, FPM and NBR seals

### Options:

- Adapter for special connectors  
(e.g. with threads smaller than 2")

A	B	C	D	E	F	G
175	175	270	220	93	93	M10
Specified in mm						



Article-No.	Type
82705	Electrical 5-way ball valve 2", 15 bar
Recommended fittings	
47713	Adapter for connector KH2/D1=47 cpl
47883	Adapter for connector KH2/D1=63 cpl
47737	Fitting G2/female cpl
47735	Fitting G2/male/L=47,5 cpl
47736	Fitting G2/male/L=75 cpl
82648	Nut G2 ¾ for 2" pressure valve
More Fittings: see section AS Fittings	







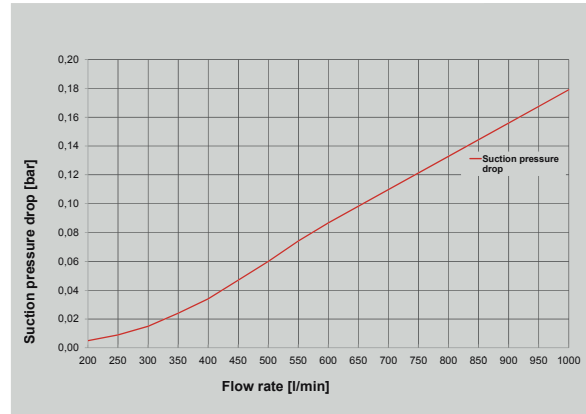
## Ball valves · 5-way 3"

### 5-way ball valve 3"

- high wear resistance
- retrofitable with electric drive
- ball bearing shaft
- optional: special connectors are available
- standard fittings with BSP-thread
- Body made from liquid fertilizer proof anodised aluminium

Operating time pressure: max. 3 bar  
 Flow rate: max. 1.000 l/min  
 Inlet-ø: 3"  
 Outlet-ø: 3"  
 Ball valve: POM+PTFE  
 Material: POM GF 25, PA, Aluminium, FPM and NBR seals

A	B	C	D	E	F	AS1-AS5	G
263	263	270	250	93	158	G3 male	M10
Specified in mm							

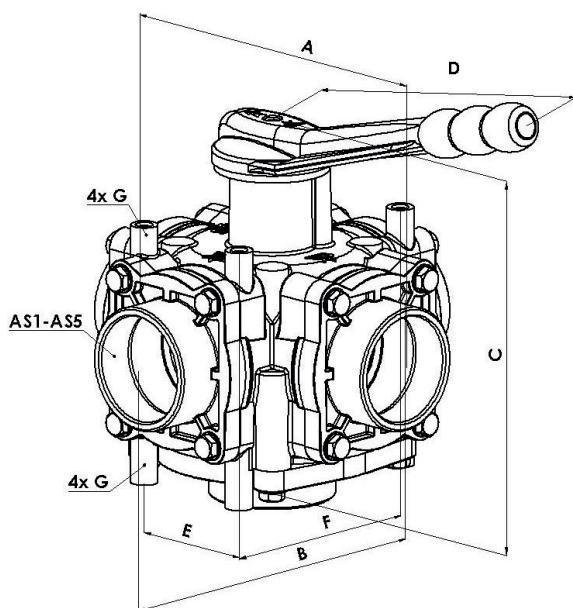


Article-No.	Type
82014	Manually 5-way ball valve 3"
82797	Manually 5-way ball valve 3" with POM ball and Banjo flange
82011	Flange BV 3" cpl G3/male
82542	Flange BV 3" cpl G2/male

#### Recommended fittingsEinlass (AS1-AS5)

All fittings of the series of standard BSP fittings can be used

More Fittings: see section AS Fittings





## Electrical 5-way ball valve 3"

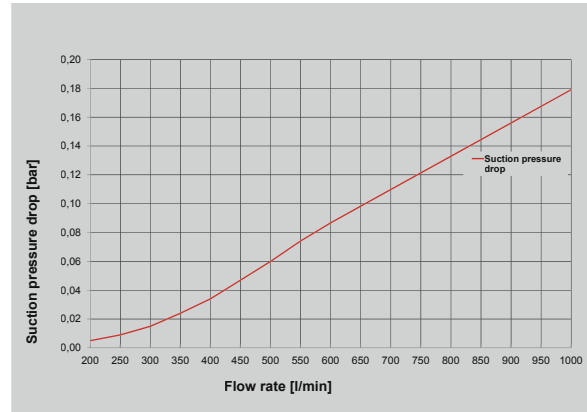
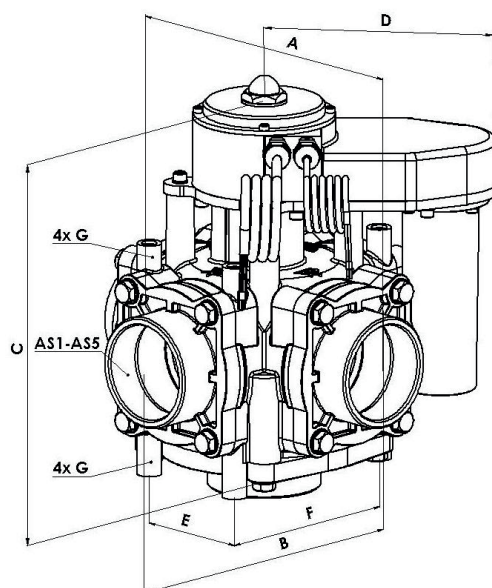
- high wear resistance
- ball bearing shaft
- integrated emergency operation
- optional: special connectors are available
- standard fittings with BSP-thread
- optional: electric control with potentiometer
- Body made from liquid fertilizer proof anodised aluminium

Operating time pressure:	max. 3 bar
Flow rate:	max. 1.000 l/min
Inlet-ø:	3"
Outlet-ø:	3"
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Switch time:	360°/3,0 s
Material:	POM GF 25, PA, Aluminium, FPM and NBR seals

### Options:

- Adapter for special connectors  
(e.g. with threads smaller than 2")

A	B	C	D	E	F	AS1-AS5	G
263	263	310	140	93	158	G3 male	M10
Specified in mm							



Article-No.	Type
82015	Electrical 5-way ball valve 3"
82798	Electrical 5-way ball valve 3" with POM ball and Banjo flange
82011	Flange BV 3" cpl G3/male
82542	Flange BV 3" cpl G2/male

### Recommended fittingsEinlass (AS1-AS5)

All fittings of the series of standard  
BSP fittings can be used

More Fittings: see section AS Fittings



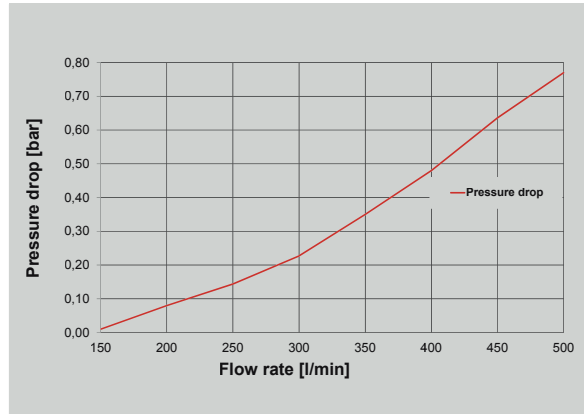
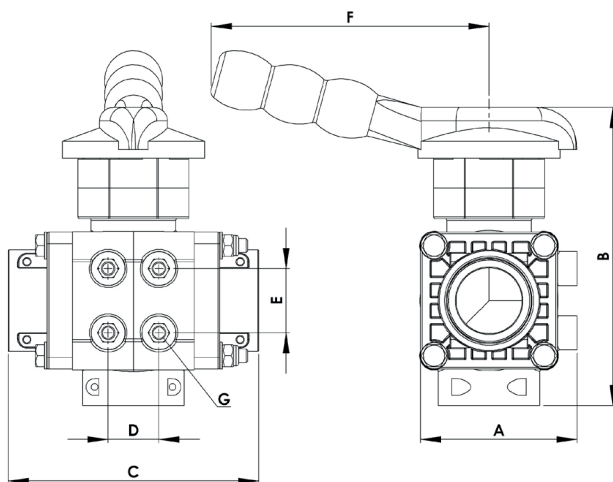
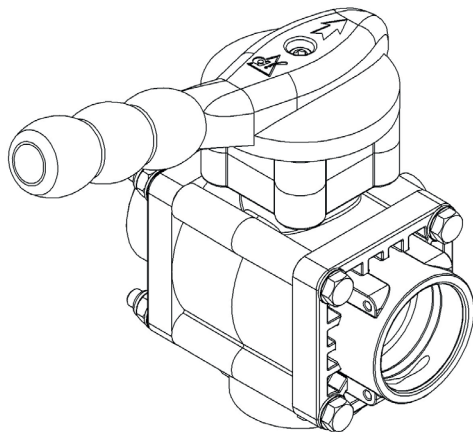


## Ball valves · 3-way ø39 mm

### 3-way ball valve ø39 mm bottom feed

- innovative sealing concept with modified Polyamid for increased service life
- manual operation with low effort
- compact with large 39 mm nominal width

Operating time pressure: max. 15 bar  
 Flow rate: max. 500 l/min  
 Outlet-ø: AS50  
 Ball valve: Stahl: 1.4305  
 Seals: modifiziertes Polyamid  
 Material: POM GF 25



Article-No.	Type
83174	Ball valve 3-way, manually ø39mm
Recommended fittings	
17157	Plug-in hose tail AS50/ø46 cpl
17330	Plug-in hose tail AS50/ø46/90° cpl
22040	Plug-in hose tail AS50/ø39 cpl
24891	Plug-in hose tail AS50/ø39/90° cpl
80610	Plug-in hose tail AS50/G2/male cpl
82945	Plug-in hose tail AS50/AS40 cpl
More Fittings: see section Fittings AS50	

A	B	C	D	E	F	G
93	176	148	30	38	164	4 x M8
Specified in mm						

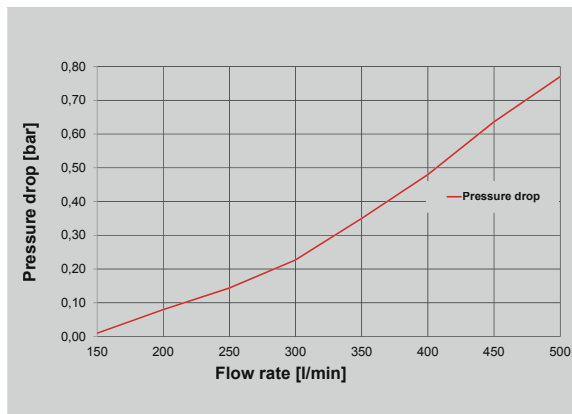
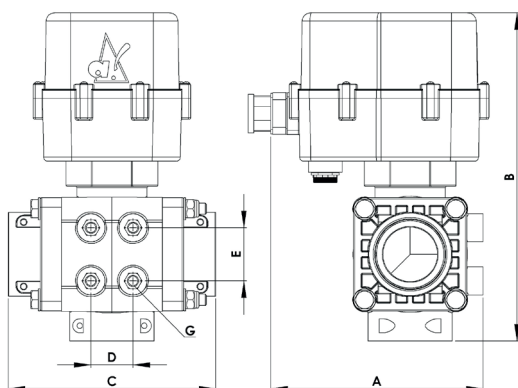
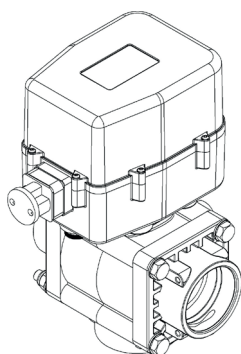




## Electrical 3-way ball valve ø39 mm bottom feed

- innovative sealing concept with modified Polyamid for increased service life
- gear drive for the valve mounted on low friction bearing
- compact with large 39 mm nominal width
- very short cycle time of 470 ms.
- optional: electric control with potentiometer

Operating time pressure:	max. 15 bar
Flow rate:	max. 500 l/min
Minimum diameter:	32 mm
Ball valve:	Stahl: 1.4305
Nominal voltage:	12 Volt / 24 Volt
Power input:	3,5 A bei 20 bar
Switch time:	450 ms
altek plug in system:	AS50
Seals:	modified polyamid
Material:	POM GF 25

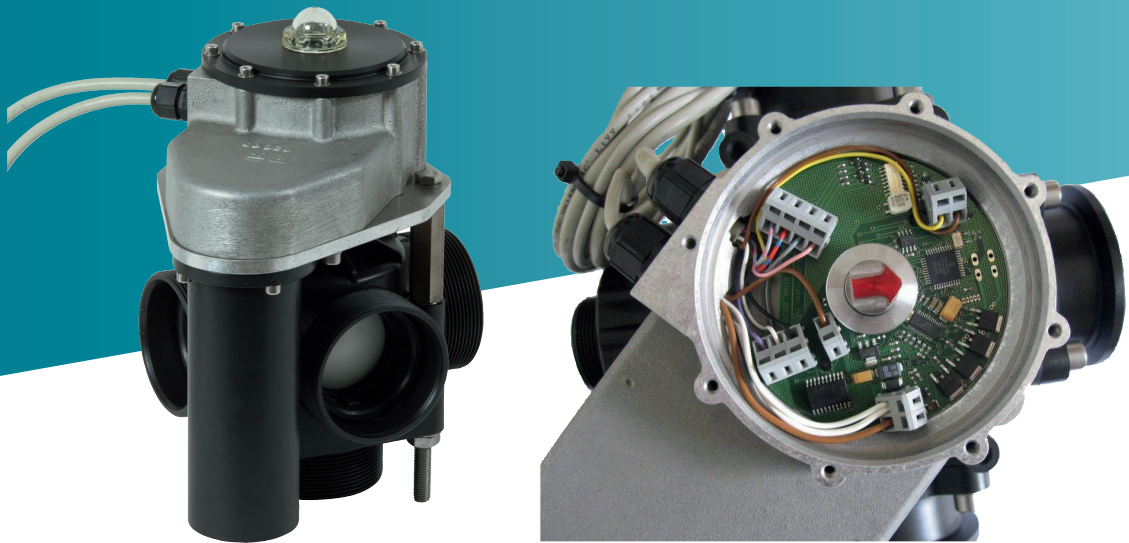


Article-No.	Type
83175	Ball valve 3-way, electrical ø39mm 2 wire
83176	Ball valve 3-way, electrical ø39mm 3 wire
Recommended fittings	
17157	Plug-in hose tail AS50/ø46 cpl
17330	Plug-in hose tail AS50/ø46/90° cpl
22040	Plug-in hose tail AS50/ø39 cpl
24891	Plug-in hose tail AS50/ø39/90° cpl
80610	Plug-in hose tail AS50/G2/male cpl
82945	Plug-in hose tail AS50/AS40 cpl
More Fittings: see section Fittings AS50	

A	B	C	D	E	F	G
152	235	148	30	38	-	4 x M8
Specified in mm						







## Ball Valves SMART Series

The electronic operation system of altek's "smart series of ball valves" allows easier adjustments to customer needs by programming the print circuit accordingly. The ball valve operating electronics can be simply integrated into the customers hardware, either by CAN Bus or ISO Bus operation. Due to the fact that relays` are replaced by microelectronic building units, the functions can be programmed in such way that bi- directional operation is possible. It is also possible to have two ports partially open for flushing and draining the system.

- **Reduction of deposit: Possibility of changing the direction of rotation manually or automatically**
- **Integrated safety device in the smart board prevents the motor and the gear drive from being overloaded.**
- **Possibility for online diagnoses**
- **Permanent monitoring of the power draw protects the ball valve electronics and the electric motor.**
- **In case of blocked or hard moving ball the motor is cut out using thermal protection**



## Ball valves · Smart Series · Electrical 5-way 1 1/4"

### Electrical 5-way ball valve 1 1/4" Smart Series

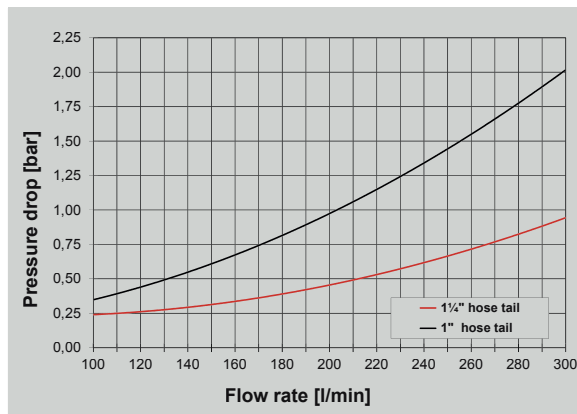
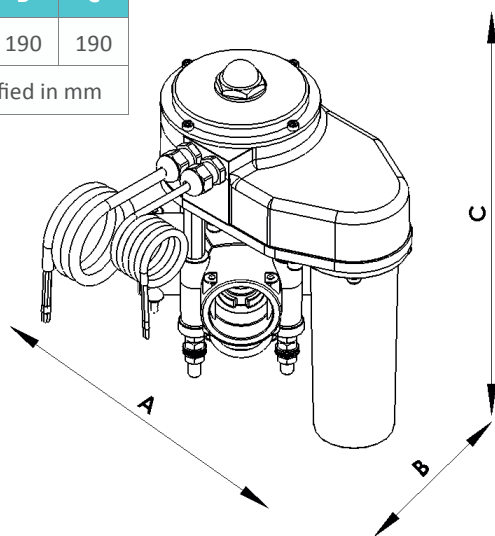
- Programmable Right and Left turning direction or both ways with the option to have two ports open for flushing the systems.
- To avoid deposit on the ball is it possible to change the direction of turning manually or automatically.
- In case of slow or rough-running of the drive the vibration mode can be used to free the ball. The choice can be either manual or automatic
- Network via CAN- or ISO-Bus systems, with the advantage of very high precision and the possibility for online-diagnoses. It is simple to integrate the ball valve operating electronic in the Hardware of OEM's

Operating time pressure:	max. 15 bar
Flow rate:	max. 300 l/min
Inlet-ø:	AS40
Outlet-ø:	AS40
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Switch time:	360°/3,0 s
Material:	POM GF 25, PA, FPM and NBR seals

#### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request

A	B	C
235	190	190
Specified in mm		



Article-No.	Type
83449	Electrical 5-way ball valve 1 1/4" Smart Series
Recommended fittings	
80352	Plug-in hose tail AS40/ø20/90° cpl
09184	Plug-in hose tail AS40/ø25/90° cpl
08874	Plug-in hose tail AS40/ø33/90° cpl
08275	Plug-in hose tail AS40/ø39/90° cpl
80353	Plug-in hose tail AS40/ø20 cpl
04595	Plug-in hose tail AS40/ø25 cpl
04581	Plug-in hose tail AS40/ø33 cpl
06247	Plug-in hose tail AS40/ø39 cpl
80333	Dummy plug AS40 cpl
82614	Plug-in hose tail AS40/Banjo 2" cpl
More Fittings: see section Fittings AS40	







## Electrical 5-way ball valve 2" Smart Series

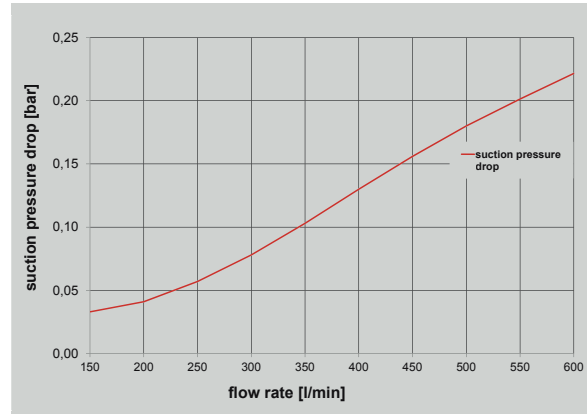
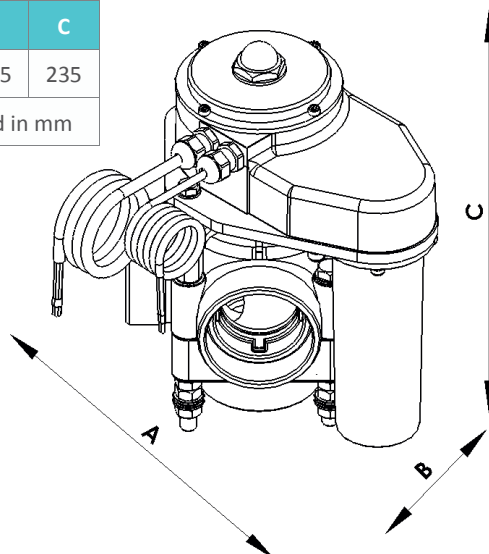
- Programmable Right and Left turning direction or both ways with the option to have two ports open for flushing the systems.
- To avoid deposit on the ball is it possible to change the direction of turning manually or automatically.
- In case of slow or rough-running of the drive the vibration mode can be used to free the ball. The choice can be either manual or automatic
- Network via CAN- or ISO-Bus systems, with the advantage of very high precision and the possibility for online-diagnoses. It is simple to integrate the ball valve operating electronic in the Hardware of OEM's

Operating time pressure:	max. 3 bar
Flow rate:	max. 600 l/min
Inlet-ø:	2"
Outlet-ø:	2"
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Switch time:	360°/3,0 s
Material:	POM GF 25, PA, FPM and NBR seals

### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request

A	B	C
220	155	235
Specified in mm		



Article-No.	Type
83450	Electrical 5-way ball valve 2" Smart Series
Recommended fittings	
47713	Adapter for connector KH2/D1=47 cpl
47883	Adapter for connector KH2/D1=63 cpl
47737	Fitting G2/female cpl
47735	Fitting G2/male/L=47,5 cpl
47736	Fitting G2/male/L=75 cpl
47587	Nut G2½ for Fitting G2 Di=52,5 mm
47733	Nut G2½ for Fitting G2 Di=68 mm
More Fittings: see section Fittings AS40	





## Ball valves · Smart Series · Electrical 5-way 2", 15 bar

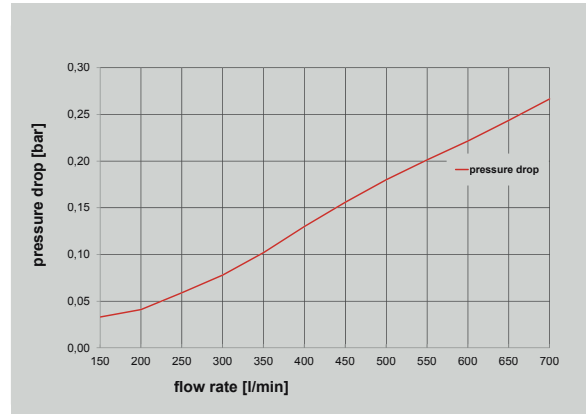
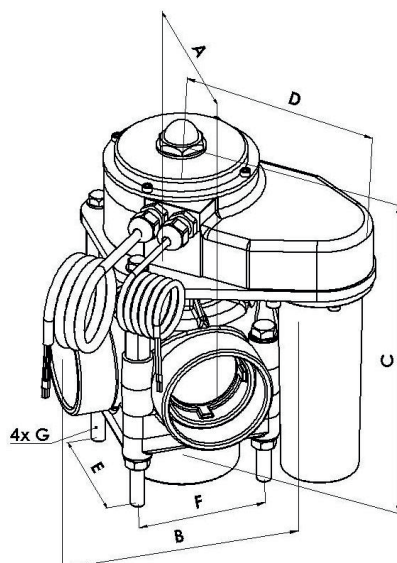
### Electrical 5-way ball valve 2", 15 bar Smart Series

- Programmable Right and Left turning direction or both ways with the option to have two ports open for flushing the systems.
- To avoid deposit on the ball it is possible to change the direction of turning manually or automatically.
- In case of slow or rough-running of the drive the vibration mode can be used to free the ball. The choice can be either manual or automatic
- Network via CAN- or ISO-Bus systems, with the advantage of very high precision and the possibility for online-diagnoses. It is simple to integrate the ball valve operating electronic in the Hardware of OEM's

Operating time pressure:	max. 15 bar
Flow rate:	max. 700 l/min
Inlet-ø:	2"
Outlet-ø:	2"
Ball valve:	POM+PTFE
Nominal voltage:	12 Volt
Switch time:	360°/3,0 s
Material:	POM GF 25, PA, FPM and NBR seals

#### Options:

- Adapter for special connectors (z.B. mit Gewinden kleiner G2)
- configurations of several ball valves are available upon request



Article-No.	Type
83451	Electrical ball valve 5-way 2", 15 bar Smart Series
<b>Recommended fittings</b>	
47713	Adapter for connector KH2/D1=47 cpl
47883	Adapter for connector KH2/D1=63 cpl
47737	Fitting G2/female cpl
47735	Fitting G2/male/L=47,5 cpl
47736	Fitting G2/male/L=75 cpl
82648	Nut G2 ¾ for Fitting G2 Di=68 mm
More Fittings: see section AS Fittings	

A	B	C	D	E	F	G
175	175	270	220	93	93	M10
Specified in mm						





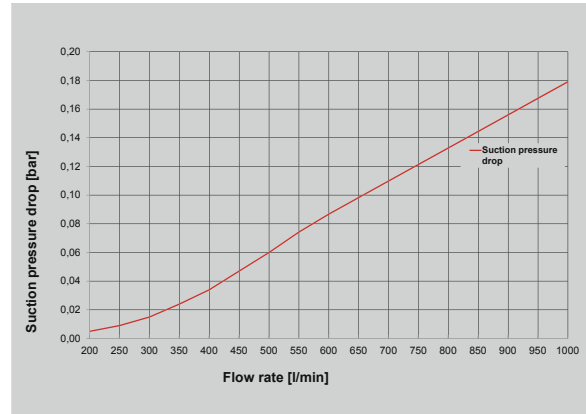
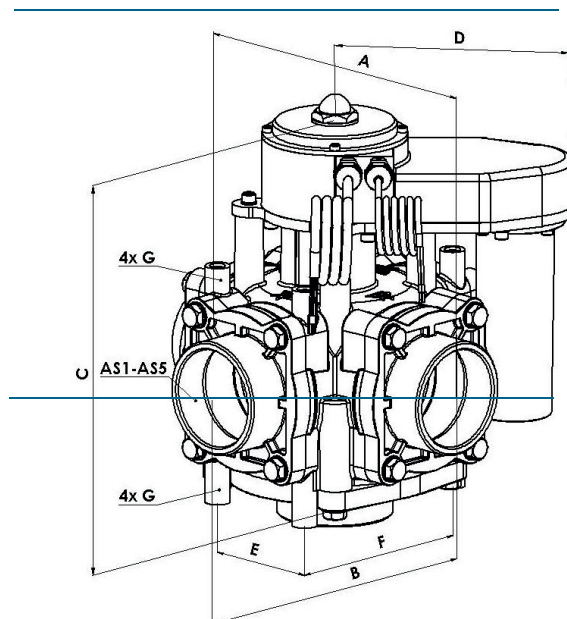
## Electrical 5-way ball valve 3" Smart Series

- Programmable Right and Left turning direction or both ways with the option to have two ports open for flushing the systems.
- To avoid deposit on the ball is it possible to change the direction of turning manually or automatically.
- In case of slow or rough-running of the drive the vibration mode can be used to free the ball. The choice can be either manual or automatic
- Network via CAN- or ISO-Bus systems, with the advantage of very high precision and the possibility for online-diagnoses. It is simple to integrate the ball valve operating electronic in the Hardware of OEM's

Operating time pressure: max. 3 bar  
 Flow rate: max. 1.000 l/min  
 Inlet-ø: 3"  
 Outlet-ø: 3"  
 Ball valve: POM+PTFE  
 Nominal voltage: 12 Volt  
 Switch time: 360°/3,0 s  
 Material: POM GF 25, PA, FPM and NBR seals

### Options:

- Adapter for special connectors
- configurations of several ball valves are available upon request



Article-No.	Type
83452	Electrical 5-way ball valve 3" Smart Series
82011	Flange KH3" cpl G3/male
82542	Flange KH3" cpl G2/female
<b>Recommended fittingsEinlass (AS1-AS5)</b>	
All fittings of the series of standard BSP fittings can be used	
More fittings: see section AS Fittings	

A	B	C	D	E	F	AS1-AS5	G
263	263	310	140	93	158	G3 male	M10
Specified in mm							

