



# Model I301/I302



Doc: CH-I301/02

Nov 2007

## Air operated 3 way brass ball valve

Full bore 3 way nickel plated brass BSP ball valve, designed for automation with integrally cast ISO5211 actuator mounting platform allowing direct mounting of actuators, fitted with CH-air 'A' type pneumatic actuator. Supplied assembled and dry bench function tested. Minimum of 80 psi (5.5 bar) air supply pressure to the actuator is required.

I301 With double acting actuator

I302 With spring return actuator

Size range 1/4" to 2" in both 'L' and 'T' port.

### Applications:

Water, oil, air and most non-corrosive media, subject to compatibility with wetted parts in contact with media. Actuators sized on a maximum differential pressure of 10 bar wet service, if the intended duty is above this differential, or dry (air or gas) call to check actuator sizing as a larger output actuator may be required.

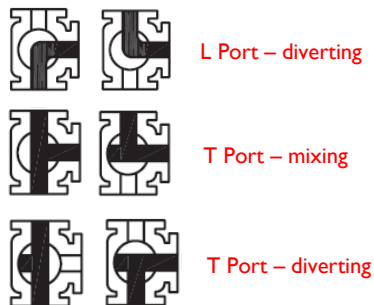
Maximum working temperature of valve & actuator assembly is +70C. If the intended duty is at a higher temperature than this, select Model I311/ I312 which has a mounting kit fitted between the valve and actuator which uses air cooling to dissipate the heat away from the actuator (maximum +130C).

### Valve Specifications:

Body	Nickel plated brass
Ball	Hard chromed brass
Seats	PTFE
Pressure rating	UTI 3/4" 30bar, 1" 16bar, rest 10bar
Valve temp limits	-20 to +160°C
Actuator temp limits	-20 to + 70°C



### 3 Way ball valves –flow patterns:



### Accessories:

Solenoid control:

This provides electrical control of the valve. The air is constantly supplied to the solenoid which in turn controls the air to and from the actuator. The solenoid direct mounts to the actuator using the actuator's Namur connection.

Position Confirmation:

Remote end of travel confirmation can be provided by adding a top mounted limit switch box. A variety of switch options and housings are available. See our LSB range for details.

Position control:

The standard on/ off function can be converted to modulating function, using either a 3-15psi or 4-20mA control signal, by adding a pneumatic or electro-pneumatic positioner. See our YT range for details.

### Quick guide to the CH-air A Type actuator standard features :

*Robust rack and pinion construction*

*High accuracy machining of components*

*ATEX Ex II 2 GD approved for use in hazardous areas*

*CE Approved*

*Guaranteed for 1,000,000 cycles*

*Balanced air & spring strokes in spring return version*

*Safe to dismantle for routine maintenance*

*Compliant with all actuator standards*

*Accessories are easy to mount*

*Hard anodised aluminium body*

*ENP coated option (Extra cost)*

*Teflon® coated option (Extra cost)*

*Stainless steel version (Extra cost)*



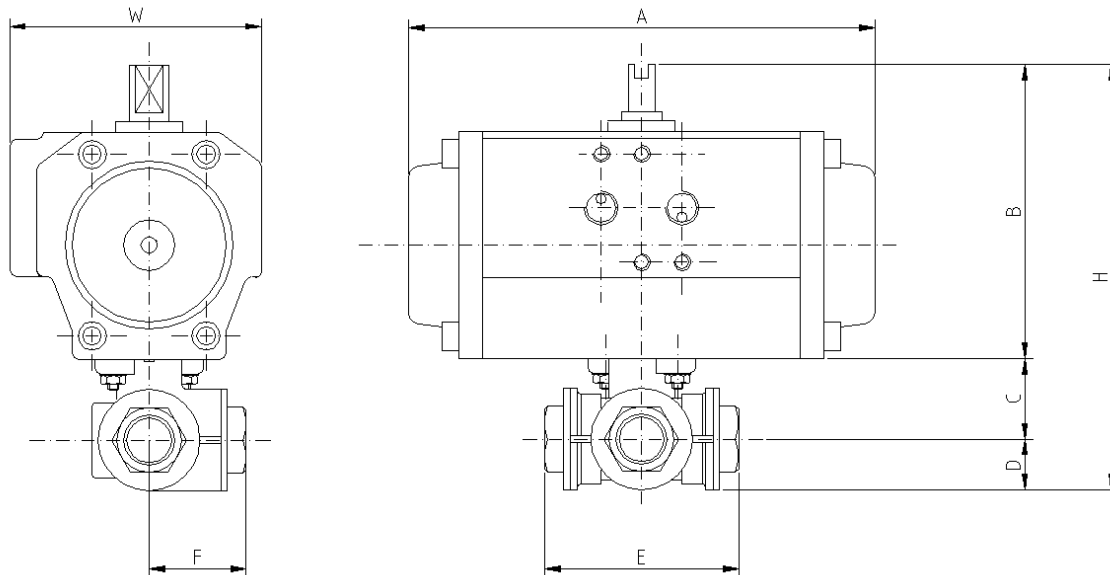
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## Air operated 3 way brass ball valve - Dimensions (to nearest mm)



Double Acting											
	Model	A	B	C	E	F	H	W	Kilos	Kv	PN
1/4"	CH032	117	65	31	67	34	96	48	1.0	2.8	30
3/8"	CH032	117	65	31	67	34	96	48	1.0	3.0	30
1/2"	CH032	117	65	33	77	39	99	48	1.1	3.9	30
3/4"	CH063	156	103	42	87	44	145	86	2.7	7.9	30
1"	CH063	156	103	47	105	53	150	86	3.4	13.0	16
1 1/4"	CH063	156	103	60	123	61	163	86	4.4	20.7	10
1 1/2"	CH075	210	120	74	139	69	194	94	7.5	38.7	10
2"	CH075	210	120	85	166	83	205	94	11.3	54.0	10
Spring Return											
1/4"	CH050SR	138	87	31	67	34	118	75	1.8	2.8	30
3/8"	CH050SR	138	87	31	67	34	118	75	1.8	3.0	30
1/2"	CH050SR	138	87	33	77	39	120	75	1.9	3.9	30
3/4"	CH075SR	210	120	42	87	44	162	94	4.4	7.9	30
1"	CH075SR	210	120	47	105	53	167	94	5.2	13.0	16
1 1/4"	CH075SR	210	120	60	123	61	180	94	6.1	20.7	10
1 1/2"	CH085SR	228	130	74	139	69	204	104	9.5	38.7	10
2"	CH085SR	228	130	85	166	83	215	104	13.2	54.0	10

Kv is in m<sup>3</sup>/hr, based on water at ambient temperature with a 1 bar pressure drop across the valve

Subject to alteration without notice. Uncontrolled copy, not subject to automatic updates



# Valve Data Sheet



Doc: BBV3W/02

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## Full bore nickel plated 3 way brass direct mount ball valve



3 Way ball valves – flow patterns:



L Port – diverting



T Port – mixing



T Port – diverting

### Specifications:

Construction	3 Way full bore direct mount ball valve
Size Range (Full)	1/4" to 2" BSP
Pressure Rating	30 Bar 1/4" - 3/4", 16 Bar 1", rest 10 Bar
Valve Body Material	OT58 Nickel plated brass
Trim Material	OT58 Chrome plated brass
Seat Material	4 x PTFE
Seal Material (Options)	Viton
Inspection & Test	Manufacturer's own
Standards	ISO5211, DIN3337
Certification	Certificate of Conformity
Temperature Range	-20 to +160C

### Approvals:

Approved ?



PED/97/23/EC



ATEX 94/9/EC  
II 2 GD



API 607 4th Ed'n /  
BS6755 Pt 2



TA-Luft



### Dimensions:

SIZE DN	BORE	n	R	h	L	m	ISO5211
1/4"	8	9	120	63	67	34	F03
3/8"	10	9	120	63	67	34	F03
1/2"	15	9	120	64	77	39	F03
3/4"	20	11	170	75	87	44	F05
1"	25	11	170	80	105	53	F05
1 1/4"	32	11	170	93	123	61	F05
1 1/2"	40	14	230	114	139	70	F07
2"	50	14	230	124	166	83	F07

