

SERIES 63

FULL PORT THREE-PIECE BALL VALVE



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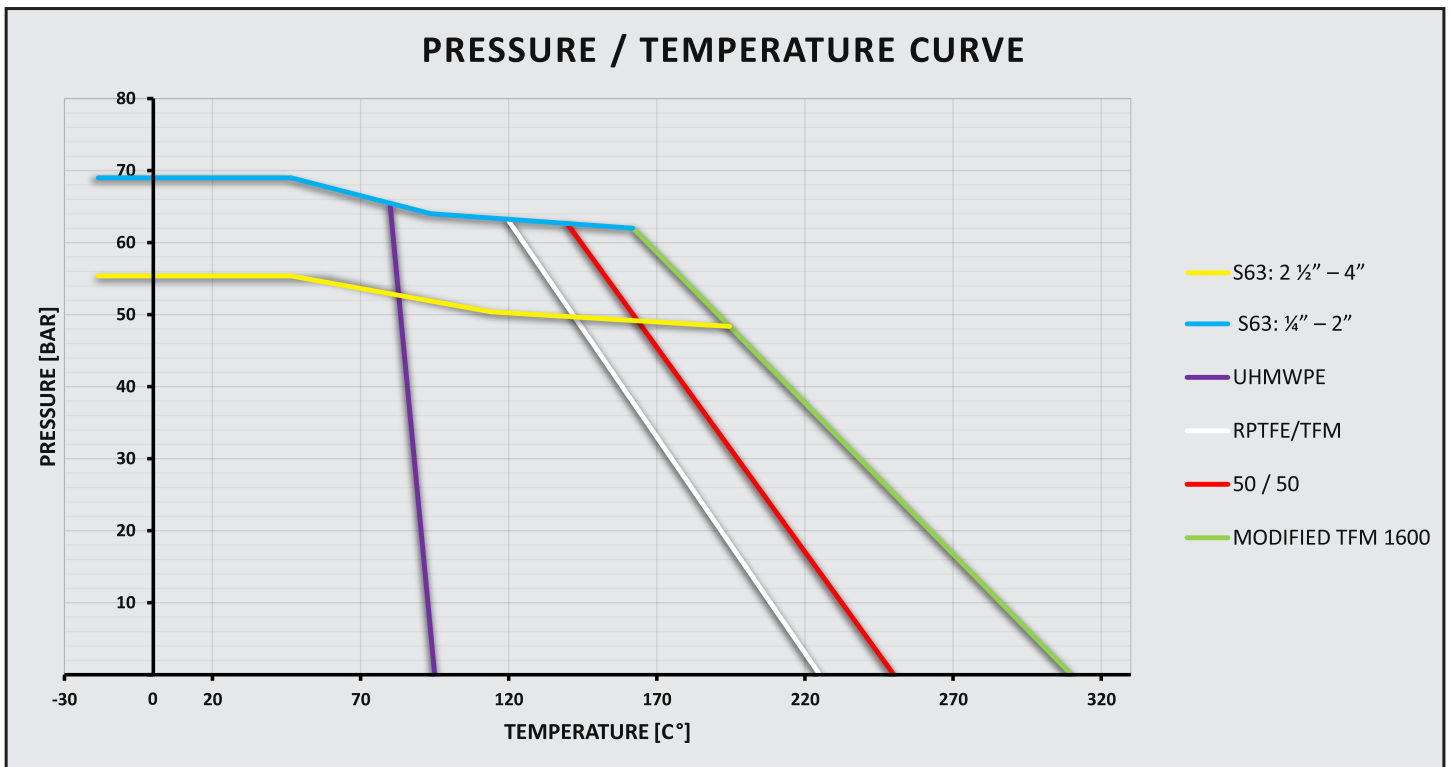
SUMMARY

- **PRESSURE RATING** | DN 8 - DN 50: 69 bar (1000 psi) ; DN 65 - DN 100: 55 bar (800 psi)
- **MOUNTING PAD** | ISO 5211
- **BODY MATERIALS** | STAINLESS STEEL & CARBON STEEL
- **STANDARD SEAT MATERIAL** | RPTFE
- **BLOW-OUT PROOF STEM**
- **ANTI-STATIC DEVICE**
- **FULL PORT**
- **INTERCHANGEABLE SEATS WITH PRESSURE RELIEF GROOVES**
- **STANDARD LOCKABLE HAND LEVER**
- **END CONNECTIONS**

ISO 228 / DIN 259 / DIN 2999 (BSPT) | ANSI B1.20.1 (NPT) | SOCKET WELD END | BUTT WELD END

- **OPTIONAL SEAT MATERIALS TO SUIT VARIOUS APPLICATIONS**

PTFE | RPTFE (15% GLASS FIBRE REINFORCED) | PFA | PEEK | UHMWPE | 50/50 (316 SS + RPTFE) |



OPERATORS

GEAR OPERATORS

We offer the INCOVALVE® Series 63 with a standard epoxy coated ductile iron gearbox. The gearbox is available with an acid resistant or offshore coating on request as well as in full ASTM A351 Gr. CF8M Stainless Steel on request.

HAND LEVERS

The INCOVALVE® Series 63 has a standard lockable stainless steel hand lever. Simply lift the locking pad to adjust the valve position. A hole is provided for a padlock for secure lockout during maintenance.

PNEUMATIC ACTUATORS

The INCOVALVE® Series 63 can be fitted with an INCOAIR™ rack & pinion or scotch yoke actuator. INCOAIR™ rack & pinion actuators are both hard anodized and epoxy coated as standard and can deliver up to 13,000 Nm torque. INCOAIR™ scotch yoke actuators can deliver up to 257,000 Nm torque and the standard material offered is epoxy coated ductile iron. For additional corrosion resistance INCO® actuators can be supplied in ASTM 351 Gr. CF8M or with a PTFE protective coating on request.



ACCESORIES

INCO VALVE AND CONTROLS® specialises in the specification and fitment of actuators and control accessories. Consult us for all your control and monitoring requirements.

INCO® offers a wide variety of valve accessories that are compatible with INCOVALVE® Series 63 ball valves including:

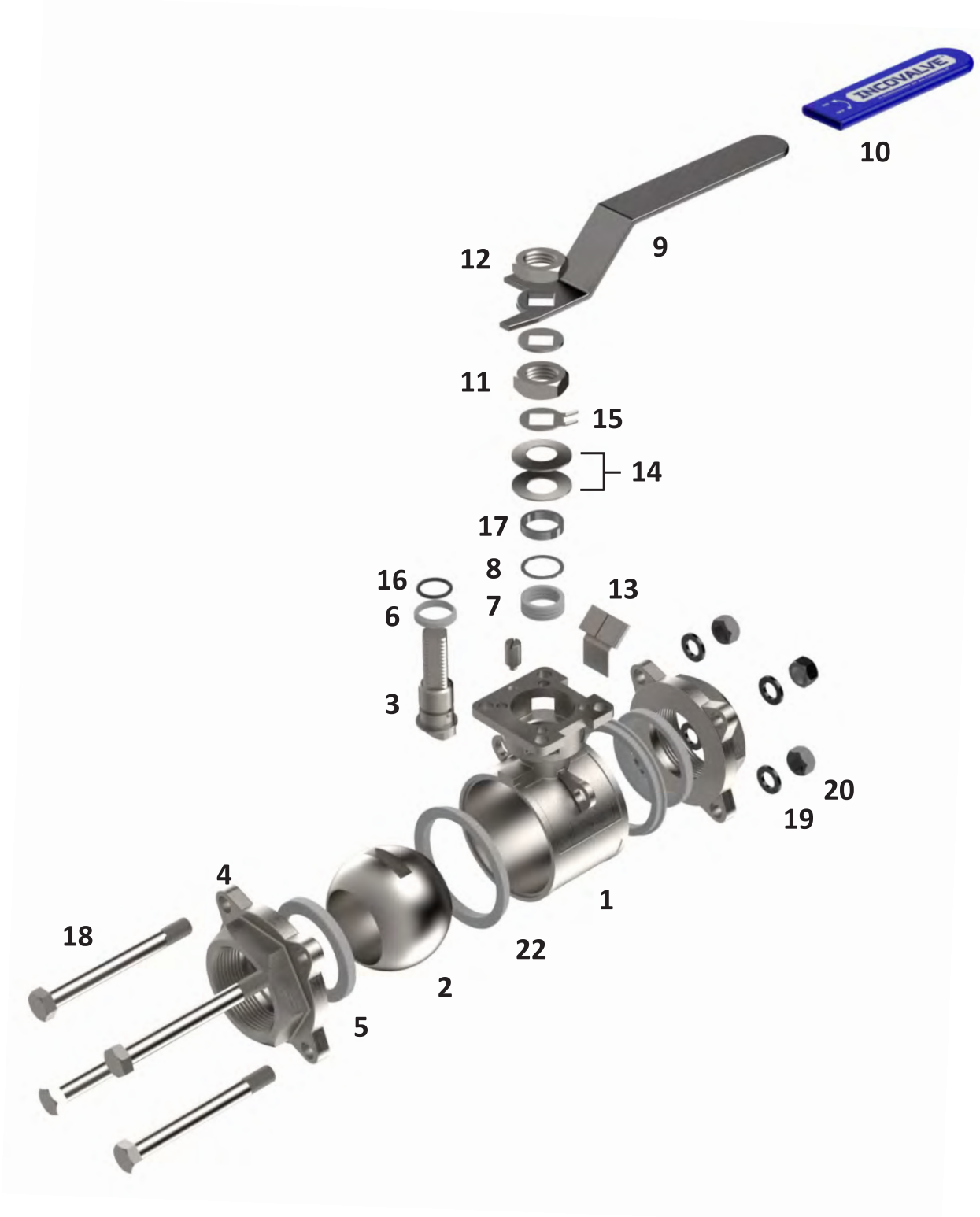
- Limit switch boxes
- Valve status monitors
- Solenoid valves
- Valve positioners
- Speed controllers
- Air Filter regulators
- Control panels
- Pneumatic enclosures



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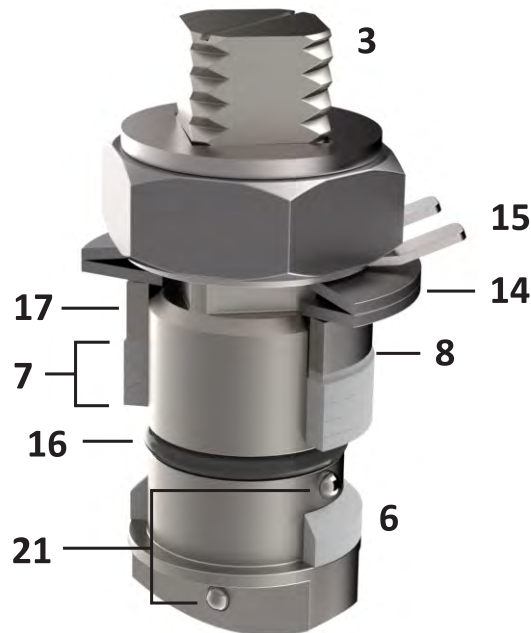
MATERIALS OF CONSTRUCTION



BILL OF MATERIALS

NO.	PART NAME	STAINLESS STEEL	CARBON STEEL
1	BODY	CF8M	WCB
2	BALL	CF8M	CF8M
3	STEM	SS316	SS316
4	END CAP	CF8M	WCB
5	SEAT		RPTFE
6	THRUST WASHER		RPTFE
7	STEM PACKING		RPTFE V-RINGS
8	PACKING PROTECTOR		RPTFE
9	HANDLE		SS304
10	HANDLE COVER		PLASTIC
11	STEM NUT		SS304
12	HANDLE NUT		SS304
13	LOCKING PAD		SS304
14	BELLEVILLE WASHER		SS301
15	STOP WASHER		SS301
16	O-RING		VITON
17	PACKING FOLLOWER		SS304
18	BODY BOLT		A193 Gr.B8
19	BOLT WASHER		SS304
20	BODY NUT		A194 Gr.8
21	ANTI-STATIC DEVICE		SS316
22	BODY GASKET/SEAL		RPTFE

* VARIOUS MATERIALS AVAILABLE



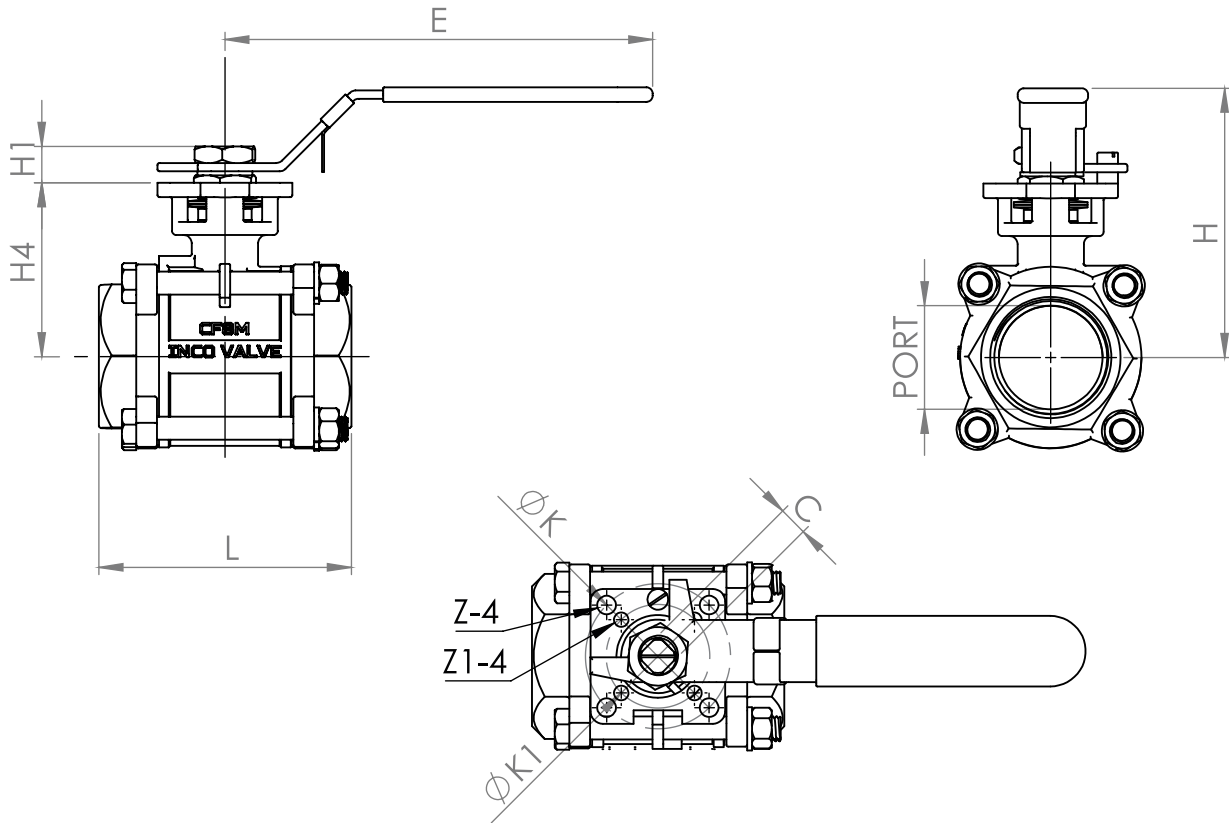
INCOVALVE® SERIES 63 STEM ASSEMBLY



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DIMENSIONS



SERIES 63 DN 8 - DN 100 (1/4" - 4")

Valve Size		Dimensions (mm)											
inch	DN	PORT	L	E	H	H1	H4	C	K	K1	Z-4	Z1-4	Weight (kg)
1/4"	8	11.5	63.5	112	73	8.5	37	9	50	36	7	6	0.6 kg
3/8"	10	12.5	63.5	112	73	8.5	37	9	50	36	7	6	0.6 kg
1/2"	15	15	63.5	112	73	8.5	37	9	50	36	7	6	0.6 kg
3/4"	20	20	72.5	112	80.8	8.5	45	9	50	36	7	6	0.7 kg
1"	25	25	81	136	90.5	9.5	53.5	9	50	36	7	6	1.0 kg
1 1/4"	32	32	94.5	185	98.7	9.5	59	9	50	36	7	6	1.5 kg
1 1/2"	40	38	108	197.9	115.3	14	74.8	14	70	50	9	7	2.5 kg
2"	50	50	121	197.9	124	13.7	83.5	14	70	50	9	7	3.7 kg
2 1/2"	65	65	157.5	267	155	18	108.8	17	102	70	12	9	7.5 kg
3"	80	80	190	267	164.5	18	118.3	17	102	70	12	9	11.0 kg
4"	100	100	225	322	216.7	18	153.8	17	102	70	12	9	21.7 kg

TORQUE FIGURES

The torque requirement of an INCOVALVE® Series 63 is dependant on the valve size, working pressure, type of media, valve configuration, operation frequency and seat material. The valve torque requirement can be calculated using the below formula:

$$T_T = T_{WP} \times (S_F + M_F + C_F + F_F)$$

T_T = Total Torque Requirement
 T_{WP} = Torque at Working Pressure
 S_F = Seat Factor

M_F = Media Factor
 C_F = Configuration Factor
 F_F = Frequency Factor

Torque at Working Pressure (T_{WP})

Valve Size		Torque [Nm] @ Working Pressure			
NPS	DN	10 Bar	20 Bar	40 Bar	60 Bar
1/2	15	6	6	6	7
3/4	20	6	6	6	8
1	25	10	10	10	12
1 1/4	32	14	14	14	19
1 1/2	40	18	18	18	26
2	50	14	16	24	32
2 1/2	65	30	38	52	60
3	80	30	44	70	86
4	100	70	74	94	142

Torque Factors

Media Factor		Configuration Factor	
Media	Factor	Configuration	Factor
Clean lubricating fluid	0,0	Through Port	0,0
Clean non-lubricating fluid	0,0	V-Port	0,3
Chilled water	0,3	Modulating Service	0,3
Low temperature service (< 0°C)	0,3	Frequency Factor	
Raw water	0,4	Frequency	Factor
Steam	0,4	Cycled Daily	0,0
Clean Gas	0,4	Cycled Weekly	0,1
Slurry	0,8	Cycled Monthly	0,2
Dry media	0,8	Cycled Bi-monthly	0,3
Seat Factor			
Seat Material	Factor	Seat Material	Factor
TFM 1600, Modified TFM 1600, PTFE	0,90	UHMWPE	1,35
RPTFE	1,00	PEEK, 50/50	1,50





A SUBSIDIARY OF AR CONTROLS®

PRODUCT WARRANTY

AR Controls will at its discretion repair or replace without charge or refund the purchase price for products supplied, which prove to be defective in matter or workmanship provided that, in each case the product has been properly installed and is used in the service for which it was recommended, and that the written claim, specifying the alleged defect is presented to AR Controls within 18 months from the date of shipment or within 12 months from date of installation, whichever date occurs first. AR Controls shall in no event be liable for the following cost, which includes but is not limited to costs associated with; consequential damages, labour, equipment or engineering costs related to the repair or replacement of defective equipment.

The warranty stated in this paragraph is in lieu of all other warranties, either express or implied. With respect to warranties, this paragraph states the buyer's exclusive remedy and AR Controls' exclusive liability."

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