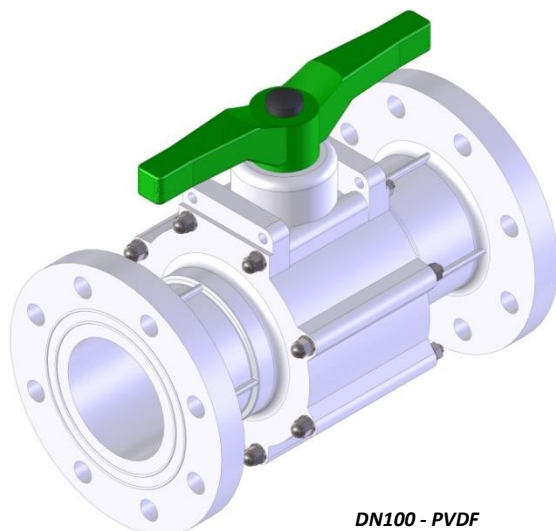


2-way PPGF Ball Valve, Flanged Compact DN80 (3") to DN100 (4") – PPGF, PVDF, PP-EL

Conform to the 2014/68/EU Directive



DN100 - PVDF



DN80 - PPGF

MAIN FEATURES

- 3-Piece construction Flanged Ball Valve.
- Solid Flanges for an Optimize Resistance.
- Full Bore.
- Color Handle indicating type of Seals (Red = EPDM, Green = FPM, blue = FEP/FFPM)
- Inner Shape promoting flow and limiting retention zones.
- Moulded Sealing rings on Flanges. (Prevents the deformation of the Gasket).
- Easy to actuate manual valve by interchangeable handle to desired control. (Electric or Pneumatic).
- The PP-EL version is electro conductive due to a load of graphite (Electric Surface's Resistance inferior to 10^5 Ohm).

STANDARDS & APPROVALS



DGS/SD7A N°571 : Circular on the terms and conditions for the verification of the sanitary conformity of the constituent materials of accessories or subassembly accessories, consisting of organic elements in contact with water intended for human consumption (Food Grade Approval)



Industrial valves — Measurement, test and qualification procedures for fugitive emissions — Part 1: Classification system and qualification procedures for type testing of valves



NR320 : Certification scheme of materials and equipment for the classification of marine units

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DIMENSIONS

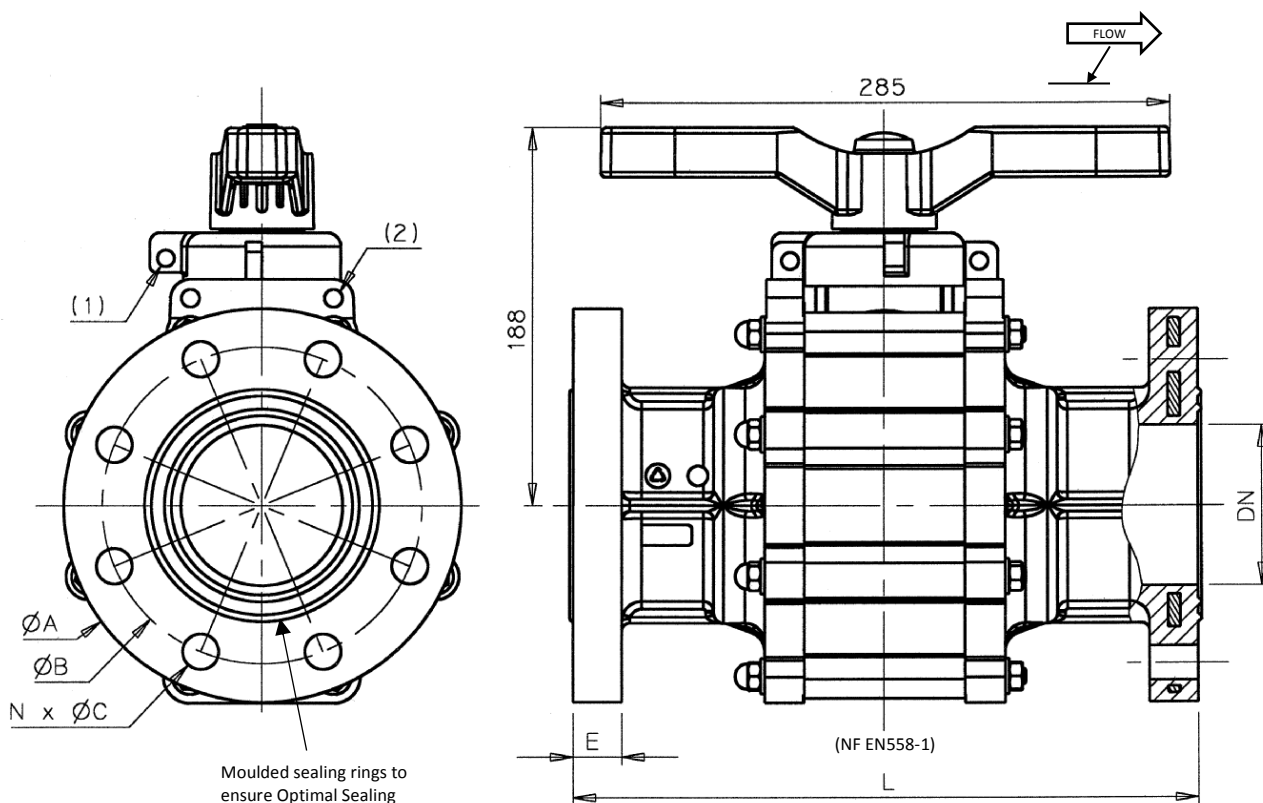


Diagram representing a DN80

(1): LOCKING HOLES Ø8.8

(2): HOLES FOR ACTUATION

	ØA		ØB		ØC				N		WEIGHT (KG)		
DN	DIN	ANSI	DIN	ANSI	DIN	ANSI	E	L	DIN	ANSI	PPGF	PVDF	PP-EL
80	200	200	160	152,4	18	19	22	310	8	4	6,7	8,7	6
100	220	229	180	190,5	18	19	24	350	8	8	7,3	9,4	6,8

DIN = Drilling in accordance with EN 1092-1 PN10/PN16

ANSI = Drilling in accordance with EN1759-1/ASME B16.5 Class 150

PARTS LIST

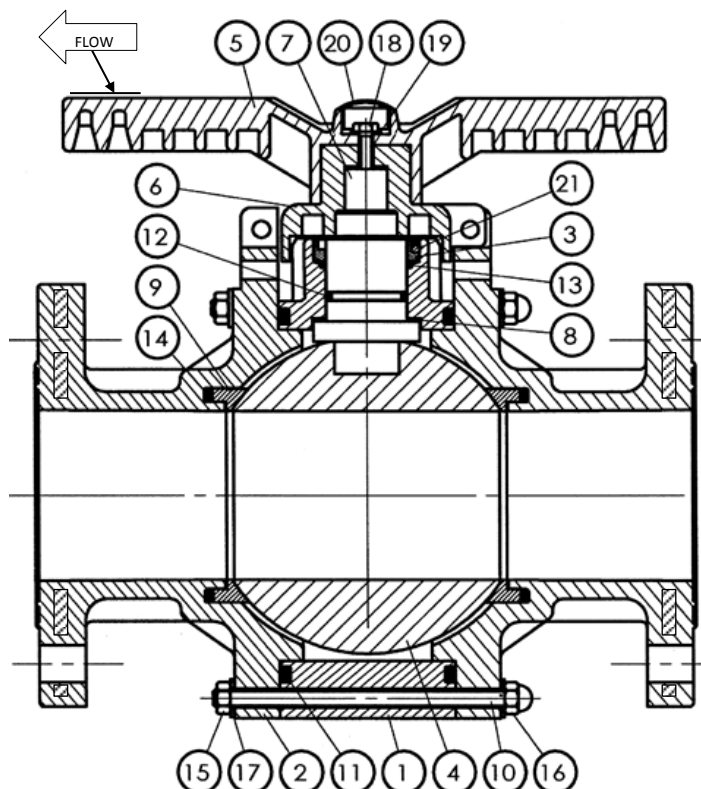


Diagram representing a DN80

N°	QTY	DESCRIPTION	MATERIAL
1	1	Body	PPGF/PVDF/PP-EL
2	2	Steel Reinforced DIN Flange	PPGF/PVDF/PP-EL
		Steel Reinforced ANSI Flange	PPGF/PVDF/PP-EL
3	1	Packing Gland	PVDF
4*	1	Ball	PPGF/PVDF/PP-EL
5	1	Red Handle (EPDM Seals)	PPGF
		Green Handle (FPM Seals)	PPGF
		Blue Handle (FEP Seals)	PPGF
		Black Handle (PP AS Version)	PP-EL
6	1	Handle Protection	PPGF/PP-EL
7*	1	Reinforced Spindle	PPGF/PVDF/PP-EL
8*	1	Friction Washer	PTFE
9*	2	Seat	PTFE
10	8	Threaded Rod M8	SS 316
11*	2	O-ring	EPDM
			FPM**
			FEP
12*	1	O-ring	EPDM
			FPM**
			FEP
13*	1	O-ring	EPDM
			FPM**
			FEP

(*) Spare parts (**) FPM type SAFKM5

N°	QTY	DESCRIPTION	MATERIAL
14*	2	O-ring	EPDM
			FPM**
			FEP
15	8	Nut H M8	SS 316
16	8	Cap Nut M8	SS 316
17	16	Washer M8x2	SS 316
18	1	Screw H M6x25	SS 316
19	1	Washer M6	SS 316
20	1	Handle Cap	PE
21	1	Set Screw HC M4x6	SS 316

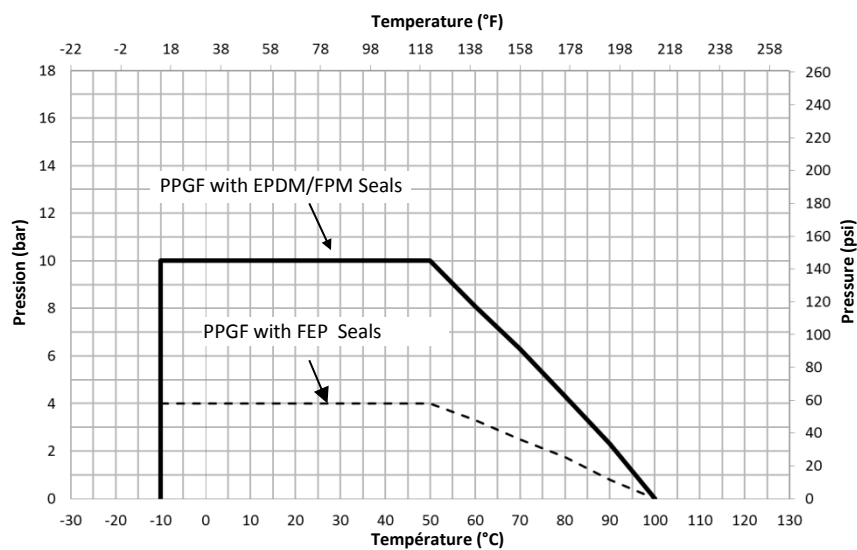
(*) Spare Parts (**) FPM type SAFKM5

DIN = Drilling in accordance with EN 1092-1 PN10/PN16

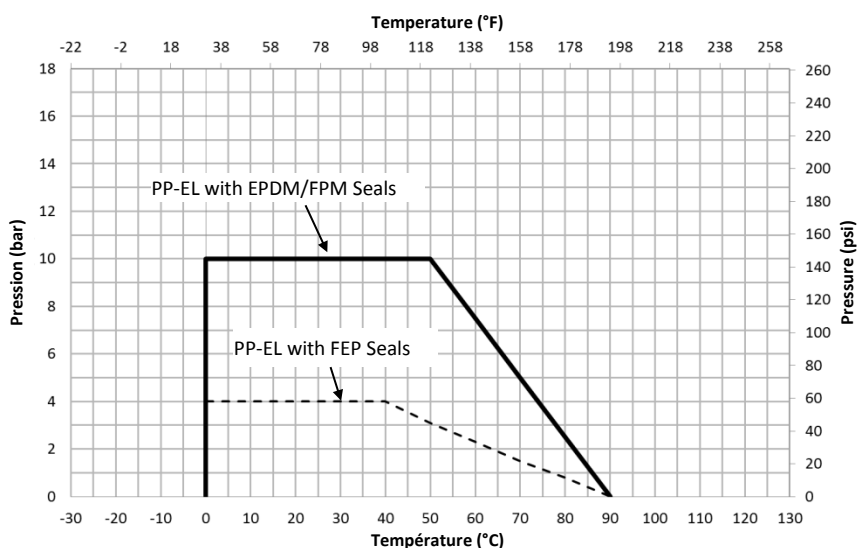
ANSI = Drilling in accordance with EN1759-1/ASME B16.5 Class 150

PP-EL Version = Black handle regardless of the type of seals.

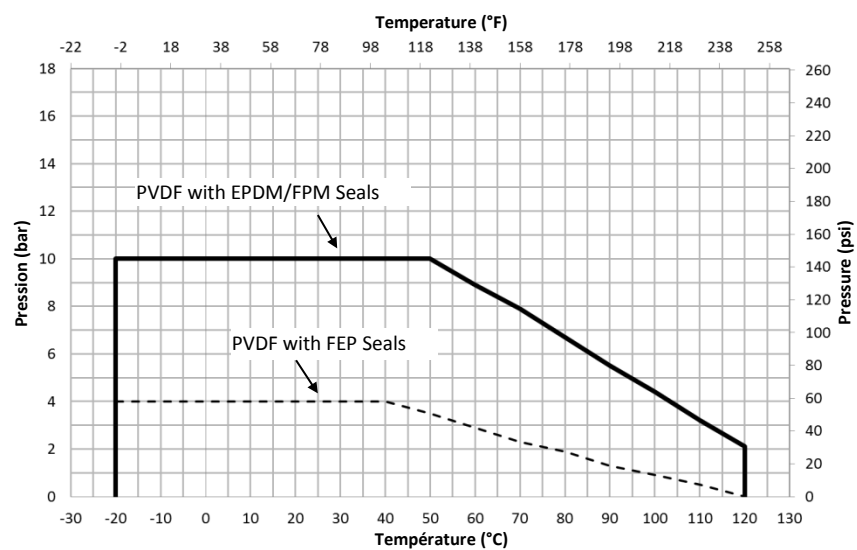
PRESSURE / TEMPERATURE CURVES



PPGF



PP-EL



PVDF

Pressure/Temperature Summary

Type of Seals	Working Pressure	Working Temperature		
		PPGF	PP-EL	PVDF
EPDM	10 bars at 20°C	- 10°C to +100°C	0°C to +90°C	- 20°C to +120°C
FPM	10 bars at 20°C	- 10°C to +100°C	0°C to +90°C	- 20°C to +120°C
FEP	4 bars at 20°C	- 10°C to +100°C	0°C to +90°C	- 20°C to +120°C

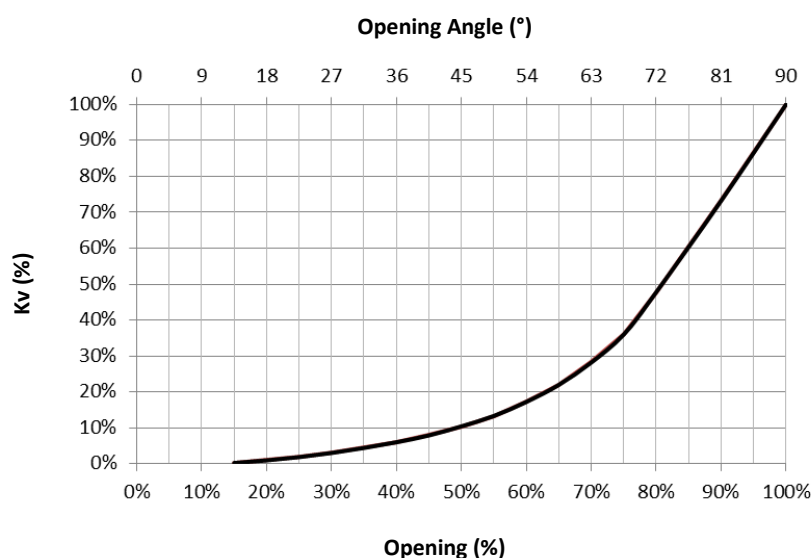
The mechanical characteristics of the FPM and FFPM seals subjected to an ambient temperature below -5°C require the implementation of proper insulation on the valves equipped with such seals. Contact us for more information.

PRESSURE LOSS

DN	Kv (m^3/h)
80	410,8
100	603,7

Kv defined according to NF EN 1267

Our valves are guaranteed for an average fluid velocity in the pipeline of $\leq 2 \text{ m/s}$. Please contact us with the working conditions for any higher speed.



CHEMICAL RESISTANCE

The chemical resistance of the valve is subject to the type of fluid, the temperature, the pressure, as well as the materials and seals of the valve.

Please contact us to have a personalized analysis of the resistance of one of our products to a given fluid

You can also consult, for information only, the table given in ISO 10358. However, this table cannot be considered as a recommendation by SAFI who could not be held liable for the use of this document.

OPTION: MOUNTING KIT (ISO 5211)

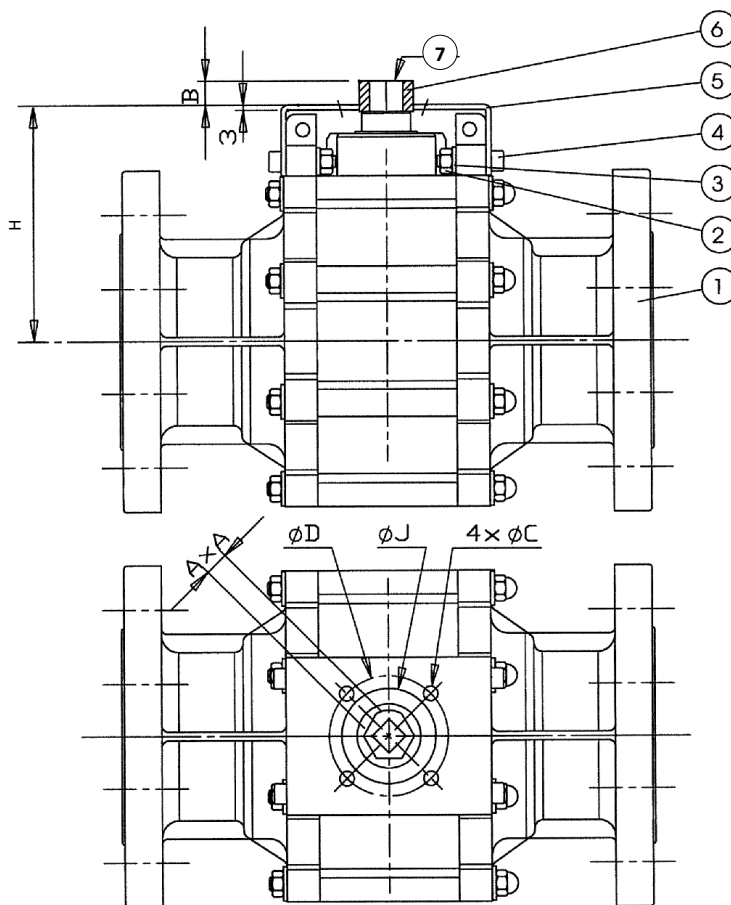


Diagram representing a DN80

N°	QTY	DESCRIPTION	MATERIAL
1	1	DN80 and DN100 Ball Valve	PPGF, PVDF, PP-EL
2	2	Nut HU M8	SS 316
3	2	Washer HU M8	SS 316
4	2	Screw TCHC M8	SS 316
5	1	F05 Bracket for a DA (Double Acting) Pneumatic Actuator	SS 304+Epoxy
		F07 Bracket for a SA (Single Acting) Pneumatic Actuator	SS 304+Epoxy
		F10 Bracket for an Electric Actuator	SS 304+Epoxy
6	1	Square Drive Spindle 17	SS 304
		Square Drive Spindle 22	SS 304
7	1	Spindle (Square of 14)	SS 304

DN	H	ØJ	ISO 5211 FIXINGS											
			F05				F07				F10			
			A	B	ØC	ØD	A	B	ØC	ØD	A	B	ØC	ØD
80 & 100	138	35,5	14*	14	Ø6,5	50	14	14	Ø8,5	70	-	-	-	-
	138	35,5	17	15	Ø6,5	50	17*	15	Ø8,5	70	-	-	-	-
	138	35,5	22	21	Ø6,5	50	22	21	Ø8,5	70	22*	21	Ø10,5	102

Other Dimensions : On Request *Suggested Assembly

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Available Kits

DN	ISO 5211 FIXINGS		WEIGHT OF KIT	PRODUCT CODE
	BRACKET	DRIVE (SQ*)		
DN80-100	F05/F07	17	Contact us	KIT0020
	F05/F07	22		KIT0022
	F10	22		KIT0153

*SQ = Square Drive 45°

Minimum operating torque required to actuate valve

MINIMUM REQUIRED TORQUE (Safety Coefficient x2 included)			
DN	PPGF	PP-EL	PVDF
DN80	40 N.m	40 N.m	40 N.m
DN100	40 N.m	40 N.m	60 N.m

OPTION: PNEUMATIC ACTUATION

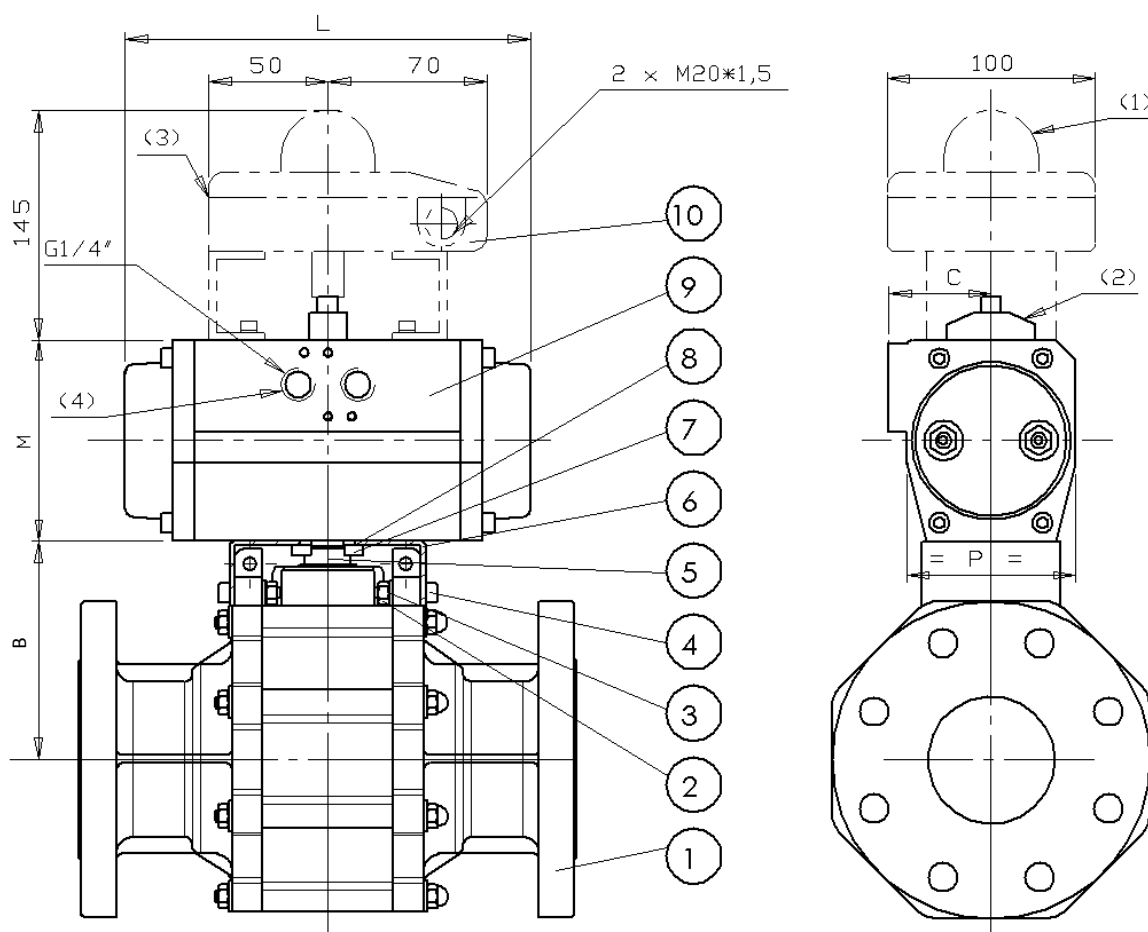


Diagram representing a DN80

Item	QTY	DESCRIPTION	MATERIAL
9	1	Actuator Double Acting or Fail Safe	Polyamide or Aluminium or Stainless Steel
10	1	Limit Switch Box (option)	Aluminium or Stainless Steel

- (1) Visual position indicator of Limit Switch Box.
- (2) Visual position indicator of Actuator
- (3) Limit Switch Box (option)
- (4) NAMUR mounting pattern for electro pneumatic control

Pneumatic Actuators recommendation according to DN and Material of the Valves

POLYAMIDE Actuator

DN	ACTUATOR	ISO 5211 FIXINGS CONNECTION/DSS*		H	C	L	M	P	WEIGHT of Actuator in Kg	PRODUCT CODE	MATERIAL
DN80 and DN100	Double Acting (DA)	F07	17	See dimensions for each DN on page 6	66	175	111,5	70	1,97	2007-73C	Actuator in Polyamide
	Fail Safe	Passage on Actuator aluminum obligatory									

*DSS = Double Square Socket

ALUMINIUM Actuator

DN	ACTUATOR	ISO 5211 FIXINGS CONNECTION/DSS*		H	C	L	M	P	WEIGHT of Actuator in Kg	PRODUCT CODE	MATERIAL
DN80 and DN100	Double Acting (DA)	F07	17	See dimensions for each DN on page 6	54	186	98	76,5	2,15	2007-83D	Actuator in Aluminium
	Fail Safe	F07	17		62	241	117	90,5	4,88	2007-84F (NC) 2007-85F (NO)	

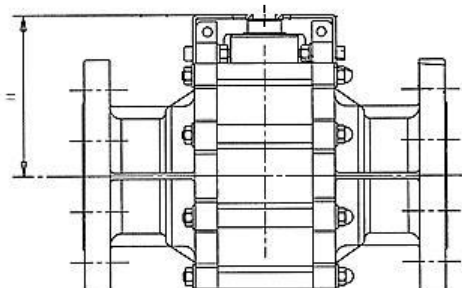
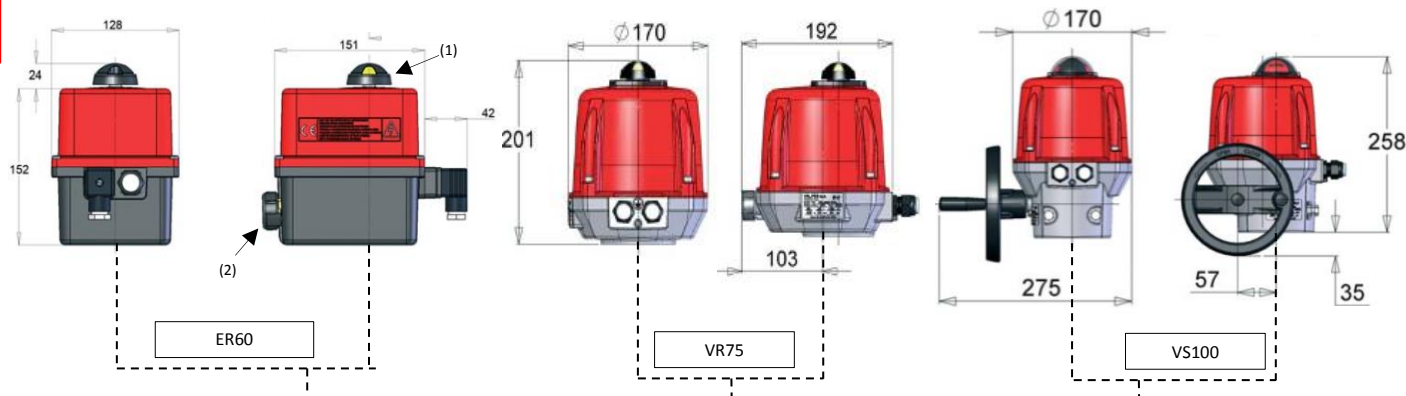
*DSS = Double Square Socket

NC= Normally Closed – NO = Normally Open

Find all the information concerning these actuators by consulting our TDS-ACTPN-0001 product sheet.

Contact us, for other type of Actuators or Limit Switch Boxes

OPTION: ELECTRIC ACTUATION



- (1) Visual position indicator
(2) Unlock button for manual operation

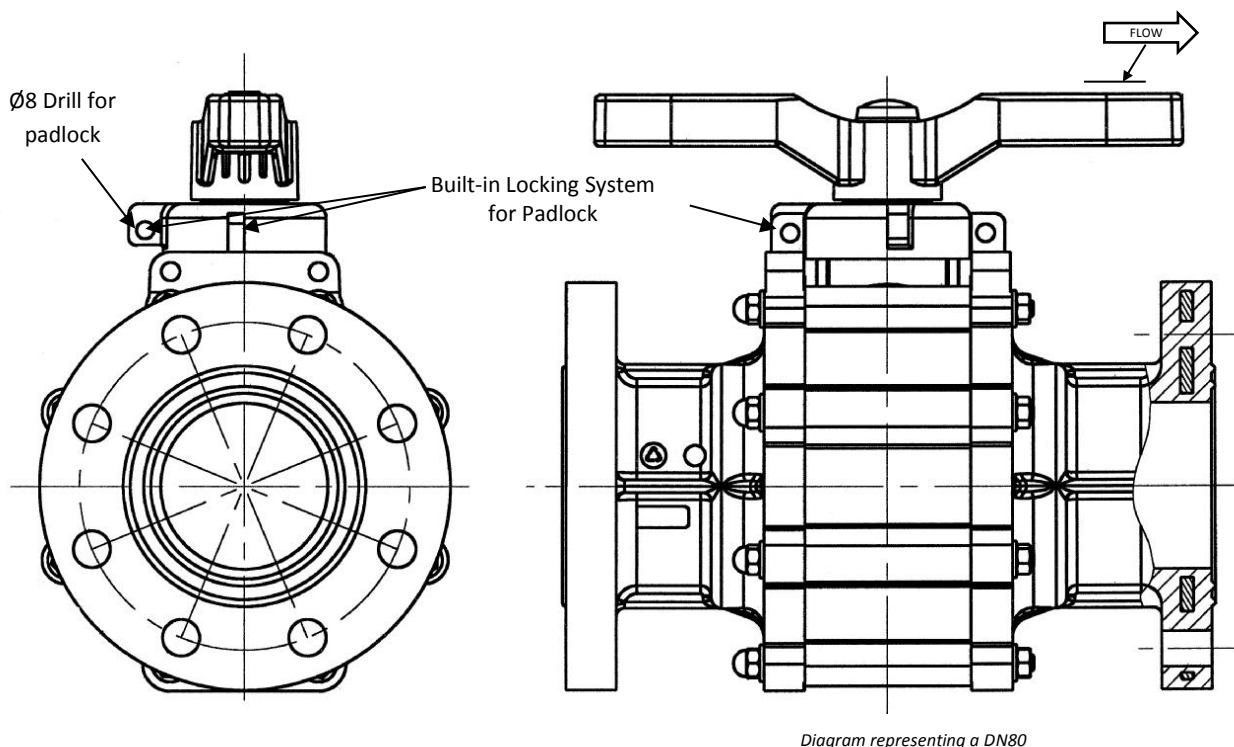
Diagram representing assembly on a DN80

DN	MODEL	ISO 5211 FIXINGS Connection/DSS*		H	WEIGHT KG	PRODUCT CODE	MATERIAL	ROTATION 90°
DN80 and DN100	ER60 (15-30V AC 12-48VDC)	F05-F07	22	See dimensions for each DN on page 6	1 to 2,1	2907-43F	PA6	12s
	ER60 (90-240V AC 90-350VDC)	F05-F07	22		1 to 2,1	2907-43B	PA6	12s
	VR75 (15-30V AC 12-48VDC)	F05-F07	17		3,1 to 3,5	2907-44A	Alu + PA6	20s
	VR75 (90-240V AC 90-350VDC)	F05-F07	17		3,1 to 3,5	2907-44J	Alu + PA6	20s
	VR75 (400V three phase)	F05-F07	17		3,1 to 3,5	2907-44D	Alu + PA6	20s
	VS100 (15-30V AC 12-48VDC)	F07-F10	22		5,1 to 6,4	2907-45M	Alu + PA6	15s
	VS100 (90-240V AC 90-350VDC)	F07-F10	22		5,1 to 6,4	2907-45B	Alu + PA6	15s
	VS100 (400V three phase)	F07-F10	22		5,1 to 6,4	2907-45I	Alu + PA6	15s

*DSS = Double Square Socket

Find all the information concerning these actuators by consulting our TDS-ACTEL-0001 product sheet

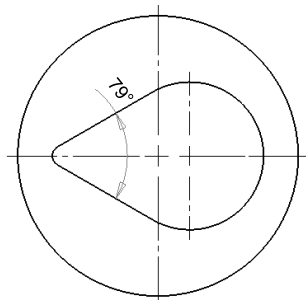
OPTION: LOCKING SYSTEM



Information:

- 1) The Locking system is directly built-in the DN80 and DN100 Ball Valves.
- 2) The Locking system does not include Padlock.

OPTION: FLOW REGULATION PLATE



Example of a regulation plate

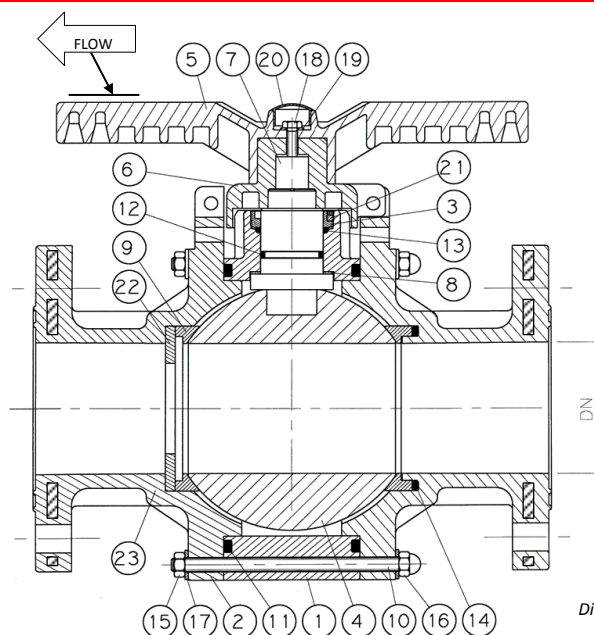
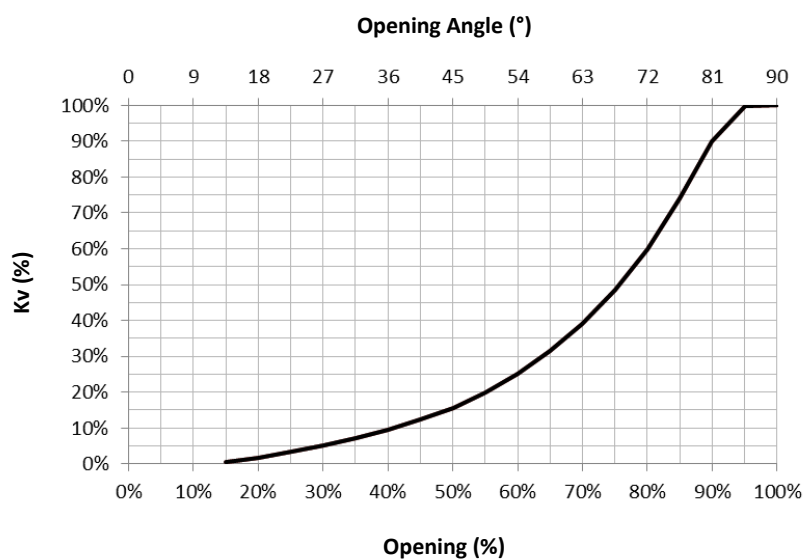


Diagram representing an assembly on a DN80
For Items 1 to 23: see page 2

Item	DESCRIPTION	MATERIAL	QUANTITY
22	REGULATION PLATE	PVDF	1

DN	Kv (m ³ /h)
80	219,1
100	322,1

Kv defined according to NF EN 1267



OTHER AVAILABLE OPTIONS

- . Manual Operation with Spring Return
- . Extended Stem
- . Thermal Insulation Extension
- . Limit Switch Box

Contact us, for more information on the Available Options.

DETERMINING A PRODUCT CODE

TYPE	SPECIFICATION	DN	FLANGE DRILLS	TYPE OF SEALS
1003 = Ball Valve PPGF version 2027 = Ball Valve PVDF version 2091 = Ball Valve PP-EL version	- = Standard O = Regulation Plate	<u>For 1003 & 2091 type</u> 27 = DN80 28 = DN100 <u>For the 2027 type</u> 17 = DN80 18 = DN100	FF : Flanges with drilling in accordance with EN 1092-1 PN10/PN16 (DIN) GG : Flanges with drilling in accordance with EN1759-1/ASME B16.5 Class 150 (ANSI)	E = EPDM V = FPM (for 1003 & 2091 type) Z = FPM (for the 2027 type) PP = FEP A = EPDM (Food Grade Approval)

Example: 1003-28FFE

1003	-	28	FF	E
PPGF Ball Valve	Standard	DN100	Flanges with drilling in accordance with EN 1092-1 PN10/PN16 (DIN)	EPDM Seals

Example: 2027-17GGZ

2027	-	17	GG	Z
PVDF Ball Valve	Standard	DN80	Flanges with drilling in accordance with EN1759-1/ASME B16.5 Class 150 (ANSI)	FPM Seals

Example: Ball Valve + ACTUATOR: 2027-17FFZ + KIT0020 + 2007-83D

2027-17FFZ	+	KIT0020	+	2007-83D
PVDF Ball Valve, STANDARD DN80 With Flanges drilling in accordance with EN 1092-1 PN10/PN16 (DIN) FPM Seals	+	MOUNTING KIT FOR ACTUATOR	+	Pneumatic Actuator Double Acting (DA)

Example: 1003-28FFE + 1102-04C (lg=100mm)

PPGF Ball Valve, DN100, with Flanges drilling in accordance with EN 1092-1 PN10/PN16 (DIN) EPDM seals, PN10, with a 100 mm Extended Stem.