Neles™ R-series segmented ball valve for on-off applications

New Neles segmented ball valve for on-off applications combines the material efficient control valve design with the high capacity and proven performance of Neles on-off valve seating technology.

Standard units are equipped with cylinder or manual actuators and intelligent on-off valve controllers to ensure excellent and reliable isolating performance.

Benefits

- Safe and reliable construction
- Material efficient valve design
- High capacity
- Suitable for harsh environments

Features

Specially designed and tested reliable on-off seat

- Metal seated construction developed with years of experience
- Ball to seat contact with materials and coatings maximizing the lifetime
- Suitable also for fibrous flow medias
- ISO 5208 RATE D tightness by standard metal seated construction
- Soft seated constructions available for applications requiring extreme tightness

High operational efficiency

- High capacity with v-port On-off design
- Low friction on ball-seat connection enables selection of smaller actuators
- Material efficient valve body construction to assure competetiviness

Materials specially developed for harsh environments

- Corrosion resistance with special materials CG8M, Titanium, Hastelloy C, 254 SMO Super Duplex
- Metal and soft seated constructions
- Ceramic coatings available for metal seated valves for corrosive environments

Safety and environment

- Rotary operation minimizes fugitive emissions.
- Fire-safe design available with metal seat and graphite packing.

Technical specifications

Type

Integrally flanged V-port segmented ball, quarter-turn valve for uni-directional on-off duty.

Body pressure ratings

PN 10-40, ASME 150-300. Maximum operating differential pressure according to PN25. Full rated according to PN25.

Sizes

DN 300, 350, 400, 500, 600, 700, 800
Inch 4”, 6”, 8”, 10”, 12”, 14”, 16”, 20”, 24”, 28”, 32”

End-connections

Flanged

Face-to-face dimensions

ASME/ISA 75.08.02, IEC 60534-3-2.

Temperature range

-52…+260 °C / -60…+500 °F, with soft bearings
-52…+315 °C / -60…+599 °F, with metal bearings

Fire safety

Fire safe design to meet ISO 10497:2010 - API 607, seventh edition.

Shut-off classification

ISO 5208 Rate D with metal seat. Rate C with soft seat.

Flow capacity

See bulletin 3R24.

Valve trim rotation

Clockwise to close.

Valve body and seat test

Each valve is tested for body integrity and seat tightness. The body test pressure is 1.5 x PN. The seat test pressure is 1.1 x maximum operating pressure of the valve. Test medium is inhibited water. Air test upon request.

How to order

Example: The following example is for an RE flanged valve, with an ASME Class 300 body (D), standard construction 12" with WCB carbon steel body (D), duplex stainless steel V-port segment with HCr chromium coating (J), duplex stainless steel shaft and pins, PTFE bearings on SS316 net (J), metal seats P live loaded PTFE V-ring packing (T), flange facing roughness Ra 3.2 - 6.3, smooth finish (/-).

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.		11.
-	RE	D	A	12	D	J	J	P	T	/	-

1. Sign	Trim codes
-	Standard V-port (no sign)

2. Sign	Product series
RE	Flanged one piece body, V-port segment, face-to-face acc. to ISA 75.08.02 and IEC 60534-3-2.

3. Sign	Pressure rating and flange drilling
C	ASME 150 (1" - 32")
D	ASME 300 (1" - 32")
F	ASME 600 (1")
J	PN 10 (DN 200 - DN 800)
K	PN 16 (DN 100 - DN 800)
L	PN 25 (DN 200 - DN 800)
M	PN 40 (DN 25 - DN 600)
R	JIS 10K flanges, based on body casting of ASME 300 (1" - 28")
S	JIS 16K flanges, based on body casting of ASME 300 (1" - 28")
T	JIS 20K flanges, based on body casting of ASME 300 (1" - 28")
Y	Special, to be spcified

4. Sign	Construction
A	Standard, drive shaft with ANSI keyway to actuator.

5. Sign	Size
	Inch 4" - 32" DN 300 - 800

6. Sign	Body & screw materials	
D	ASTM A216 gr. WCB / 1-0619	(Blind flange & gland bolting SS A4-80/B8M)
A	ASTM A351 gr. CF8M / 1.4408	(Blind flange & gland bolting SS A4-80/B8M)
T	Titanium	(Blind flange & gland bolting of Titanium)

7. Sign	Segment materials
J	Type AISI 329+HCr
C	CG8M + HCr
S	Type AISI 329
K	CG8M + CrC
T	Titanium + ceramic coating
V	Titanium without coating

8. Sign	Shaft, pin & bearing materials
J	Type AISI 329 & PTFE on SS316 net
S	17-4 PH / Cobalt based alloy (NPS 2" - 10" / DN 50 - 250) (max +425 °C)
T	Titanium / PVDF

9. Sign	Seat
P	On-off seat 316 SS + Cobalt based hard facing, back seal PTFE lip seal.
P2	On-off seat SS 316 + CrC hard facing (with K segment)
P5	On-off titanium metal seat
T	PTFE+C25 %, metal body, back seal PTFE lip seal, size 12"- 32"
T5	Titanium soft seat

10. Sign	Stem packing & blind flange seal
T	PTFE V-rings, live loaded
G	Graphite rings, live loaded (fire-safe)

11. Sign	Model code
-	Version 0

12. Sign	Flange facing
/ -	ASME B16.5 (Ra 3.2 – 6.3 / RMS 125-250) Cover EN1092-1 Type B1

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