



RD10

PN16 - PN25 - PN40

Self-acting pressure reducers

Single seat self-acting pressure reducers for steam, water, air and other types of non-hazardous fluids (Group 2 Directive 2014/68/EU)

Equipped with balancing bellows and a large section driven plug, they allow an accurate regulation in any process condition.

Adjustment of the calibration range is extremely simple as it can be carried out with a common spanner wrench without the aid of special tools.

The "Quick-change" actuator makes the reducer setting range extremely fast even if already mounted on the plant.



EUROPEAN DIRECTIVE PRESSURE EQUIPMENT 2014/68/EU

PN16	PN25	PN40	CATEGORY	FLUID
DN15÷DN50	DN15÷DN40	DN15÷DN32	Art. 4 Par.3	Group 2
DN65÷DN100	DN50÷DN100	DN40÷DN100	1	Group 2



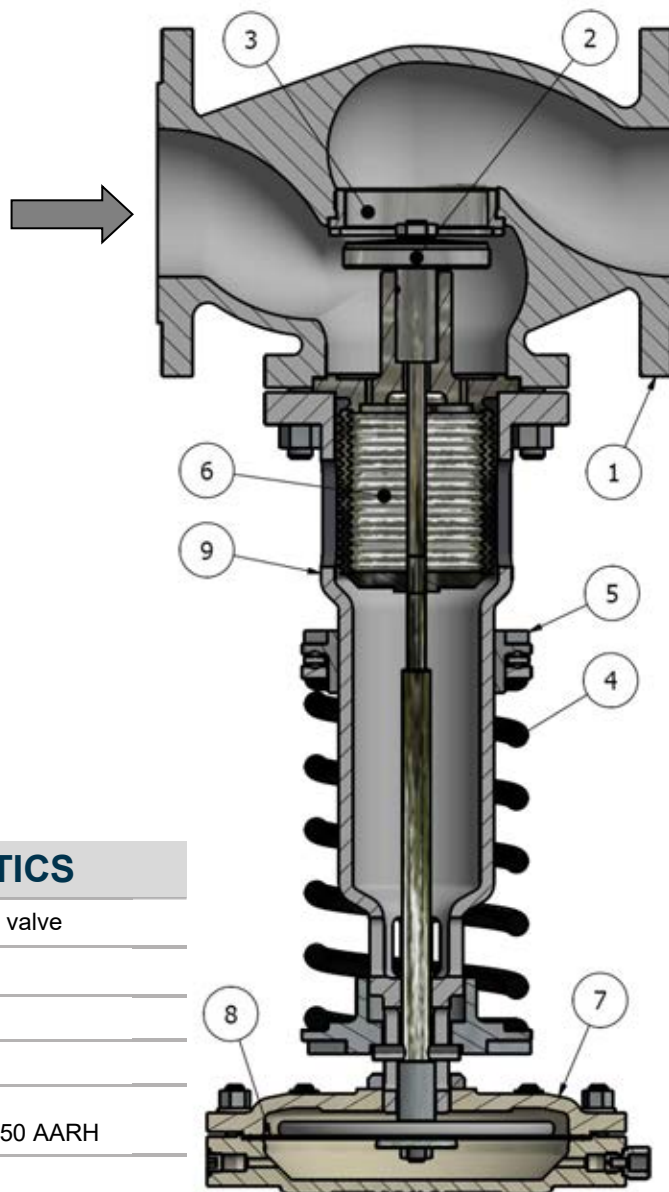
14/34/EU (ATEX)



Safety Integrity Level
IEC EN 61508 - TÜV

- ◆ From DN15 to DN100 PN16/25/40
- ◆ Modular design
- ◆ "Top Guide" construction to ensure plug stability
- ◆ "Quick-change" actuator
- ◆ Seat/plug leakage: metallic (std.) or soft PTFE (on request)
- ◆ Available in: Spheroidal cast iron, Carbon steel and Stainless steel

1. Body valve
2. Plug
3. Seat
4. Spring
5. Pressure regulation ring
6. Compensation bellows
7. "Quick-change" actuator
8. Diaphragm actuator
9. Bonnet (not in contact with the fluid)



REDUCER BODY CHARACTERISTICS

Type	Top entry, single seat, globe valve
Sizes	from DN15 to DN100
Pressure rating	PN16 / PN25 / PN40
Design std.	EN12516-2
Flange connection	EN 1092- Raised Face Phonographic Groove 125-250 AARH
Face to face dimensions	EN 558-1

REDUCER BODY PROJECT CONDITIONS

	PN16	PN25	PN40
Maximum upstream pressure	16 bar	25 bar	25 bar
Maximum downstream pressure	See actuator	See actuator	See actuator
Minimum downstream pressure	See actuator	See actuator	See actuator
Maximum temperature with metallic seat	300°C	300°C	300°C
Maximum temperature with soft seat	200°C	200°C	200°C
Maximum reduction ratio	10:1	10:1	10:1

ACTUATOR PROJECT CONDITIONS

	AR265	AR205	AR150	AR120	AR100	AR085
Maximum pressure	2 bar	3 bar	10 bar	16 bar	17 bar	18 bar
Maximum temperature with EPDM diaphragm	125°C	125°C	125°C	125°C	125°C	125°C
Maximum temperature with nitrile Rubber	90°C	90°C	90°C	90°C	90°C	90°C

REDUCER BODY& TRIM MATERIALS COMBINATION

BODY REDUCER	BONNET	TRIM	STUD	NUTS
Spheroidal graphite cast iron: EN-GJS-400-18 RT (5.3104)	Spheroidal graphite cast iron: EN-GJS-400 -18 RT (5.3104)	Seat: ASTM A182 F316 Plug: ASTM A182 F304 Bellows: ASTM A240 Tp.316L	ASTM A193 B7	ASTM A194 H2
Carbon steel A216 WCC (1.0619)	Spheroidal graphite cast iron: EN-GJS-400 -18 RT (5.3104)	Seat: ASTM A182 F316 Plug: ASTM A182 F304 Bellows: ASTM A240 Tp.316L	ASTM A193 B7	ASTM A194 H2
Stainless steel A351 CF8M (1.04408)	Spheroidal graphite cast iron: EN-GJS-400 -18 RT (5.3104)	Seat: ASTM A182 F316 Plug: ASTM A182 F304 Bellows: ASTM A240 Tp.316L	ASTM A193 B8M	ASTM A194 8M

SU RICHIESTA

Acciaio INOX A351 CF8M EN 10213-4 1.04408	ASTM A182 F304 or F316	ASTM A182 F304 or F316	ASTM A193 B8M	ASTM A194 8M
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ACTUATOR COMBINATION

CASING	DIAPHRAGM	INTERNAL PARTS	SCREWS	NUTS
Spheroidal graphite cast iron: EN-GJS-400-18 RT	EPDM (max 125°C) (others on request)	ASTM A105 + Electrolytic galvanizing Fe/Zn 8 c1A - UNI ISO 4520	Classe 8.8	ASTM A194 2H

ON REQUEST

Stainless steel ASTM A182 F304 / F316 (ONLY WET PARTS)	EPDM (max 125°C) (others on request)	ASTM A182 F304 / F316	Classe A2-70	ASTM A194 8M
Stainless steel ASTM A182 F304 / F316 (FULL PARTS)	EPDM (max 125°C) (others on request)	ASTM A182 F304 / F316	Classe A2-70	ASTM A194 8M

RELATION BETWEEN PRESSURE / TEMPERATURE (EN1092.1)

TEMPERATURE	ASTM A216 WCC			A351 CF8M / EN10273 1.04408		
	PN16 (bar)	PN25 (bar)	PN40 (bar)	PN16 (bar)	PN25 (bar)	PN40 (bar)
°C						
RT	16.0	25.0	25.0	16.0	25.0	25.0
100	16.0	25.0	25.0	16.0	25.0	25.0
150	16.0	25.0	25.0	14.5	22.7	22.7
200	16.0	25.0	25.0	13.4	21.0	21.0
250	15.6	24.5	24.5	12.7	19.8	19.8
300	14.0	22.0	22.0	11.8	18.5	18.5

RELATION BETWEEN PRESSURE / TEMPERATURE (EN1092.2)

TEMPERATURE	EN-GJS-400-18 RT (5.3104)	
°C	PN16 (bar)	PN25 (bar)
0 ÷ 120	16.0	25.0
150	15.5	24.3
200	14.7	23.0
250	13.9	21.8
300	12.8	20.0

STANDARD PROTECTING COATING

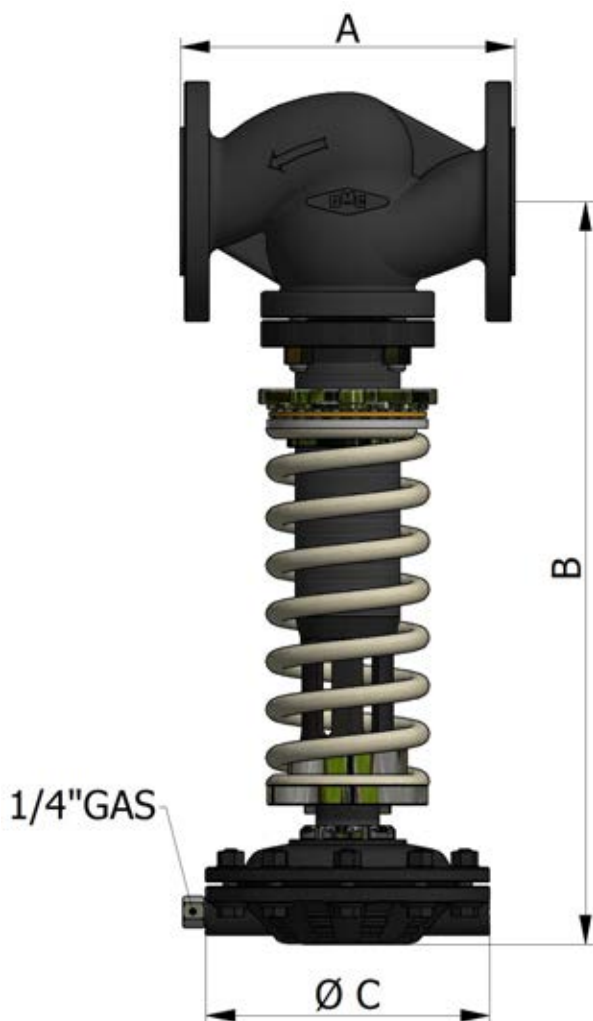
VALVE BODY	ACTUATOR	BONNET	SPRING
<ul style="list-style-type: none"> Siliconic primer Finish with siliconic enamel RAL 9005 	<ul style="list-style-type: none"> Siliconic primer Finish with siliconic enamel RAL 9005 	Black Electrolytic zinc coatings Fe/Zn 12 BK UNI EN ISO 4042	Powder coat Polyester RAL 7032

DIMENSIONS

DN	A mm	B mm	C mm					
			AR85	AR100	AR120	AR150	AR205	AR265
DN15	130	406	155	170	195	220	283	343
DN20	150	406						
DN25	160	425						
DN32	180	425						
DN40	200	510						
DN50	230	510						
DN65 (*)	290	550						
DN80	310	544						
DN100	350	670						

* According to standard EN1092-2 DN65 valves in cast iron flanged PN16 must be provided with 4 holes. They can be supplied with 8 holes only at the specific request of the customer.

* According to standard EN1092-1 DN65 valves in steel flanged PN16 must be provided with 8 holes. They can be supplied with 4 holes only at the specific request of the customer.



SP40
 Available on request
 WATER SEAL POT FOR USE ON
 STEAM
 PN40 - ASTM A216 WPB Material

AVAILABLE ENDS CONNECTIONS



RAISED FACE



RING JOINT



MALE FACE



FEMALE FACE



FLAT FACE



BUTT-WELDING



SOCKET-WELDING



GROOVE FACE

REDUCER WEIGHT (Kg)

1/2"	9.5
3/4"	10.0
1"	11.0
1" 1/2	20.5
2"	23.0
2" 1/2	36.0
3"	39.5
4"	50.0

ACTUATOR WEIGHT (Kg)

AR085	4.5
AR100	5.0
AR120	7.5
AR150	8.5
AR205	14.5
AR265	20.5

The contents of this publication are presented for information purpose only. OMC reserve the modify or improve the designs or specifications of such products at any time without notice



OMC S.p.A.

Via Galileo Galilei, 18 - 20060
Cassina de Pecchi (MI) - ITALY
Tel.: (+39) 02.95.28.468
Fax: (+39) 02.95.21.495
info@omcvalves.com
www.omcvalves.com