

Technical Data Flue Gas/Air Damper 668M2210 (Stainless Steel)



Fig. 1 Flue gas/air damper 668M2210, up to 650 °C / 1,202 °F

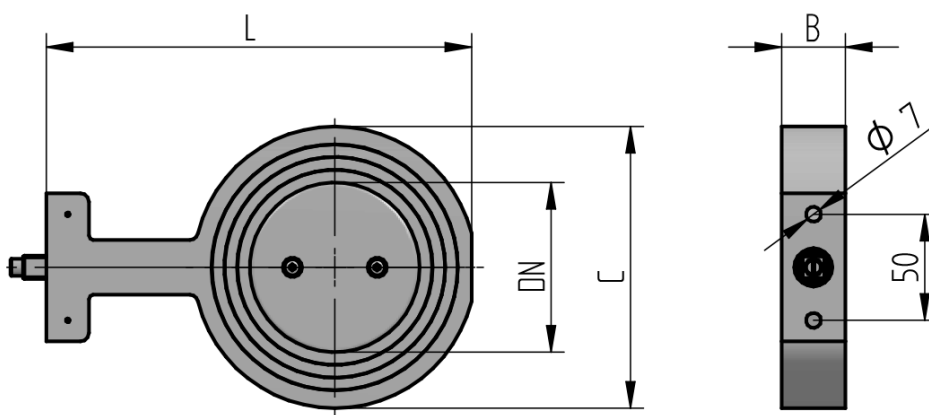
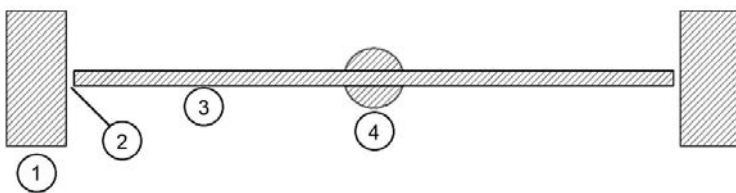
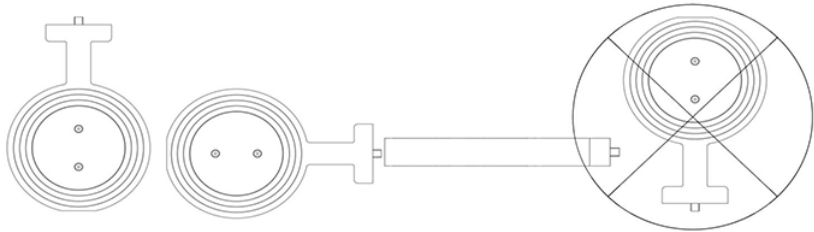


Fig. 2 Dimensional drawing flue gas/air damper 668M2200, 668M2205, 668M2210



- 1 Damper housing
- 2 Leakage
- 3 Damper disc, without stop bar
- 4 Damper shaft

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Designation	Actuator for control in the entire combustion technology, without zero flow
DN	40 ...200, reduction by 2 nominal diameters possible
Gas type	for flue gas or air damper Stainless steel version suitable for biogas up to max. 0.1% H ₂ S by volume. The gas must be dry under all circumstances and must not condense.
Test basis	DIN EN 13611:2019 and DIN EN161:2013
Operating pressure max.	500 mbar
Drive type	can be used for electric actuator 668M2006, 668M2020, 668M2040 with inner square 11.1x11.1 mm / 0.44x0.44" in (IVK11)
Adjusting speed	max. 5 s/90°
Position indicator	since the damper does not have a position indicator, we recommend using an actuator with position indicator (POS1)
Mounting position	horizontal to vertical, not hanging downwards 
Version	butterfly disc without limit stop
Flow rate	non linear

Designation	Actuator for control without zero flow in the entire combustion technology
Mounting	Intermediate flange damper clamp-in design
Mounting of tubing	Intermediate flange damper – for clamping between flange PN6...PN40 according to EN 1092-1. For pressure stages PN10 ... PN40, mounting sleeves are enclosed with the damper to help with mounting.
Mounting of actuator	No separate connector/console is needed. The console is a component of the damper. Delivery including mounting material, without flange seal If no actuator with square drive 11.1x11.1 mm / 0.44x0.44" in is available, the flue gas/air damper can also be mounted on actuators with output shaft.

Flue gas/air damper 668M2210

Housing material	stainless steel 1.4305
Damper shaft material	stainless steel 1.4305
Damper disc material	stainless steel 1.4301
Shaft seal	graphite, silicate fabric/tungsten sheath

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Environmental conditions flue gas/air damper 668M2210 (stainless steel housing)

Operation	permissible temperature range	-20 ... +100 °C / -4 ... +212 °F	(without temperature barrier)
		-20 ... +450 °C / -4 ... +842 °F	(with temperature barrier, length 100 mm / 3.94" in)
		-20 ... +650 °C / -4 ... +1,202 °F	(with temperature barrier, length 200 mm / 7.87" in)
Transport	permissible temperature range	-20 ... +60 °C / -4 ... +140 °F	
Storage	permissible temperature range	-20 ... +60 °C / -4 ... +140 °F	

NOTICE

The limits of the technical data must be strictly adhered to.

NOTICE

The flue gas/air damper is not suitable for pure hydrogen (> 98 %) or pure oxygen.

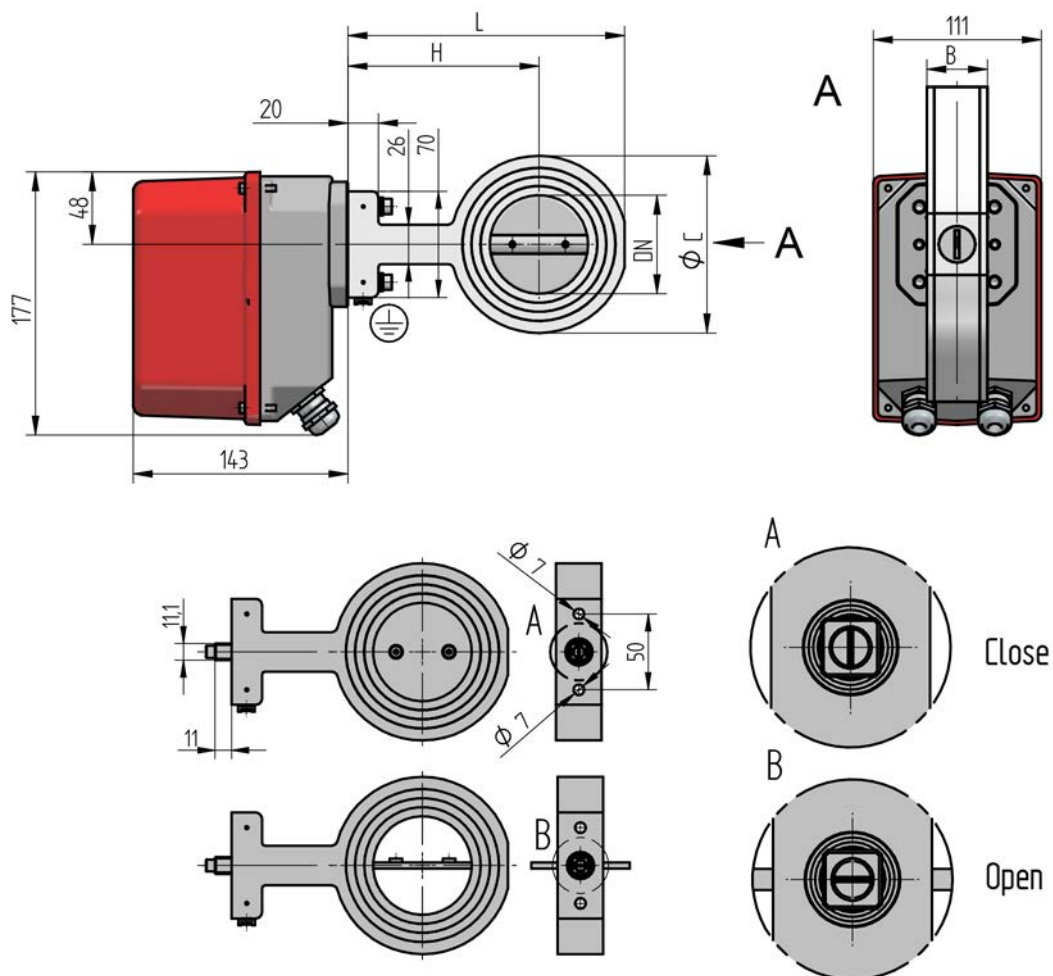


Fig. 3 Flue gas/air damper mounted on actuator 668M20... with Internal square

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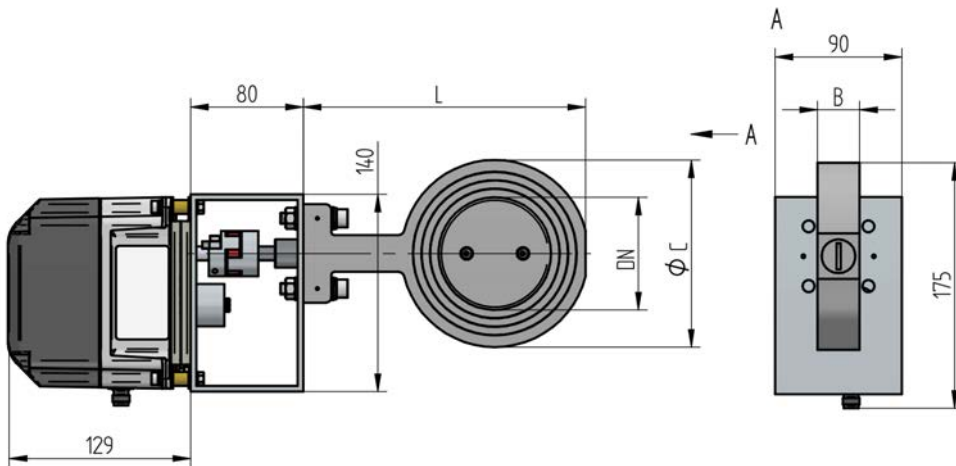


Fig. 4 Flue gas/air damper with console and coupling mounted on actuator controlled by BT300 662R500..., with output shaft

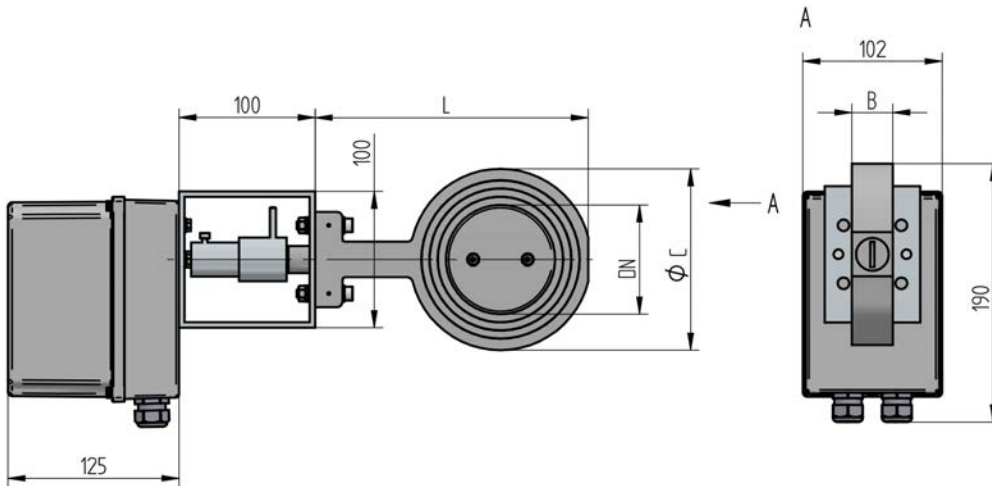


Fig. 5 Flue gas/air damper with console and coupling mounted on actuator 20 Nm 662R2111, with output shaft

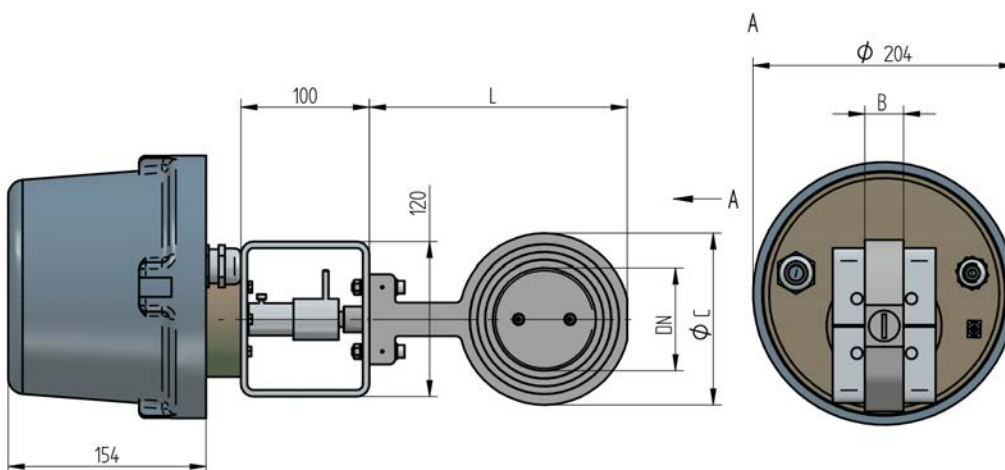


Fig. 6 Flue gas/air damper with console and coupling mounted on actuator Ex 662R214..., with output shaft

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Type not linear	DN	L (mm/" in)	Ø C (mm/" in)	B (mm/" in)	Weight (kg/lb)	Material
668M2200/040/ ... /B30	40	155/6.10	87/3.43	30/1.18	0.7/1.54	Aluminium
668M2250/040/ ... /B30	40	152/5.98*	77/3.03	30/1.18	1.56/3.44	Grey cast iron
668M2210/040/ ... /B30	40	155/6.10*	87/3.43	30/1.18	1.75/3.86	Stainless steel
668M2200/040/ ... /B40	40	155/6.10	87/3.43	40/1.57	0.85/1.87	Aluminium
668M2210/040/ ... /B40	40	155/6.10*	87/3.43	40/1.57	2.25/4.96	Stainless steel
668M2200/050/ ... /B30	50	165/6.5	97/3.82	30/1.18	0.8/1.76	Aluminium
668M2205/050 ... /B30	50	162/6.38*	87/3.43	30/1.18	1.75/3.86	Grey cast iron
668M2210/050 ... /B30	50	165/6.5*	97/3.82	30/1.18	2/4.4	Stainless steel
668M2200/050/ ... /B40	50	165/6.5	97/3.82	40/1.57	1/2.2	Aluminium
668M2210/050/ ... /B40	50	165/6.5*	97/3.82	40/1.57	2.25/4.96	Stainless steel
668M2200/065/ ... /B30	65	183/7.2	117/4.61	30/1.18	1/2.2	Aluminium
668M2205/065/ ... /B30	65	179/7.05*	105/4.13	30/1.18	2/4.41	Gray cast iron
668M2210/065/ ... /B30	65	183/7.2*	117/4.61	30/1.18	2.5/5.51	Stainless steel
668M2200/065/ ... /B40	65	183/7.2	117/4.61	40/1.57	1.25/2.76	Aluminium
668M2210/065/ ... /B40	65	183/7.2*	117/4.61	40/1.57	3.2/7.06	Stainless steel
668M2200/080/ ... /B30	80	201/7.91	133/5.24	30/1.18	1.2/2.65	Aluminium
668M2205/080/ ... /B30	80	197/7.76*	122/4.80	30/1.18	2.5/5.51	Gray cast iron
668M2210/080/ ... /B30	80	201/7.91*	133/5.24	30/1.18	3/6.62	Stainless steel
668M2200/080/ ... /B40	80	201/7.91	133/5.24	40/1.57	1.5/3.31	Aluminium
668M2210/080/ ... /B40	80	201/7.91*	133/5.24	40/1.57	3.8/8.38	Stainless steel
668M2200/100/ ... /B30	100	221/8.7	153/6.02	30/1.18	1.45/3.2	Aluminium
668M2205/100/ ... /B30	100	216/8.5*	140/5.51	30/1.18	2.75/6.06	Gray cast iron
668M2210/100/ ... /B30	100	221/8.7*	153/6.02	30/1.18	3.4/7.5	Stainless steel
668M2200/100/ ... /B40	100	221/8.7	153/6.02	40/1.57	1.8/3.97	Aluminium
668M2210/100/ ... /B40	100	221/8.7*	153/6.02	40/1.57	4.4/9.7	Stainless steel
668M2200/125/ ... /B30	125	248/9.76	183/7.2	30/1.18	1.9/4.19	Aluminium
668M2205/125/ ... /B35	125	244/9.61*	170/6.7	35/1.38	3.85/8.49	Gray cast iron
668M2210/125/ ... /B30	125	248/9.76*	183/7.2	30/1.18	4.4/9.7	Stainless steel
668M2200/125/ ... /B40	125	248/9.76	183/7.2	40/1.57	2.3/5.07	Aluminium
668M2210/125/ ... /B40	125	248/9.76*	183/7.2	40/1.57	5.65/12.46	Stainless steel
668M2200/150/ ... /B30	150	273/10.75	208/8.19	30/1.18	2.3/5.07	Aluminium
668M2205/150/ ... /B40	150	269/10.6*	196/7.72	40/1.57	5.5/12.13	Gray cast iron
668M2210/150/ ... /B30	150	273/10.75*	208/8.19	30/1.18	5.2/11.46	Stainless steel
668M2200/150/ ... /B40	150	273/10.75	208/8.19	40/1.57	2.75/6.06	Aluminium
668M2210/150/ ... /B40	150	273/10.75*	208/8.19	40/1.57	6.6/14.55	Stainless steel

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Type not linear	DN	L (mm/" in)	Ø C (mm/" in)	B (mm/" in)	Weight (kg/lb)	Material
668M2200/200/ ... /B40	200	324/12.76	256/10.08	40/1.18	4.4/9.70	Aluminium
668M2205/200/ ... /B40	200	324/12.76*	256/10.08	40/1.18	8.5/18.74	Grey cast iron
668M2210/200/ ... /B40	200	324/12.76*	256/10.08	40/1.18	10.1/22.27	Stainless steel

- * For a temperature range up to 450 °C the dimension increases by 100 mm
 For a temperature range up to 650 °C the dimension increases by 200 mm

All listed nominal diameters of aluminium or stainless steel are available with reduction.

Ordering example for reduction DN100 to DN80: 668M2200/100/080

Order Information

Flue Gas/Air Damper stainless steel bis 100 °C, 450 °C, 650 °C / 212 °F, 842 °F, 1,202 °F

Description / Type	Order no.
Flue Gas/Air Damper : - shaft end squared 11.1x11.1x11.5 mm / 0.44x0.44x0.45" in - for clamping between flanges in acc. to PN6 ... PN40 - suitable for inlet air / flue gas - flow rate non linear - valve disc without stop bar - operating pressure: max. 500 mbar - for the pressure ratings PN10 ... PN40 the flap is supplied with mounting sleeves as installation aid Suitable for electric actuator 668M2006, 668M2020, 668M2040 with square socket 11x11 mm / 0.43x0.43" in (IVK11). Incl. installation material and mounting sleeves. No separate coupling / console is required. The console is part of the valve. As the damper does not have a position indicator, we recommend using an actuator with position indicator.	668M2210

A10 "INTERNAL DIAMETER"	Selection
INTERNAL DIAMETER DN40	040
INTERNAL DIAMETER DN50	050
INTERNAL DIAMETER DN65	065
INTERNAL DIAMETER DN80	080
INTERNAL DIAMETER DN100	100
INTERNAL DIAMETER DN125	125
INTERNAL DIAMETER DN150	150
INTERNAL DIAMETER DN200	200
A20 "REDUCTION"	Selection
WITHOUT	000
DN40 REDUCED TO DN25	025
DN40/DN50 REDUCED TO DN32	032
DN50/DN65 REDUCED TO DN40	040
DN65/DN80 REDUCED TO DN50	050
DN80/DN100 REDUCED TO DN65	065
DN100/DN125 REDUCED TO DN80	080
DN125/DN150 REDUCED TO DN100	100
DN150/DN200 REDUCED TO DN125	125
DN200 REDUCED TO DN150	150

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A30 "TEMPERATURE RANGE"	Selection
-20 ::: +100 °C/-4 ... +212 °F, without temperature barrier	100
-20 ::: +450 °C/-4 ... +842 °F, with temperature barrier, length 100 mm/3.94" in	450
-20 ::: +650 °C/-4 ... +1,202 °F, with temperature barrier, length 200 mm/7.87" in	650
A 40 "SEALING OF THE FLAP DISC"	Selection
NON-TIGHT CLOSING, leakage appr. 1 % of Kvs-value 90°	0
TIGHT CLOSING, without leakage	D
A 50 "MATERIAL"	Selection
HOUSING STAINLESS STEEL, SHAFT / DISC STAINLESS STEEL	E
A60 "MANUAL ADJUSTMENT"	Selection
WITHOUT MANUAL ADJUSTMENT, for installation on actuator	0
WITH MANUAL ADJUSTMENT, infinitely adjustable locking lever	H
A 70 "CONSTRUCTION LENGTH"	Selection
CONSTRUCTION LENGTH 30 mm / 1.18" in	B30
CONSTRUCTION LENGTH 40 mm / 1.57" in	B40

The information in this publication is subject to technical changes.



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