

→ **Series 684**



■ SUITABLE FOR

Liquids	neutral and non-neutral	
Air, gases and vapours	neutral and non-neutral	

■ EXAMPLES OF USE

For the protection of:
- commercial and industrial plants against too high supply pressure.
Use of pressure reducing valves, when in a piping system inspite of varying pressures on the inlet side a specific pressure on the outlet side must be kept.

- Compressed air supply plants
- Pneumatic control units
- Pressure booster plants air-side
- Shipbuilding industry and offshore plants
- Industrial gas plant construction
- PET blow moulding machines
- Blasting plants

■ APPROVALS

European Pressure Equipment Directive	
TR ZU 032/2013 - TR ZU 010/2011	
Requirements	
PED 2014/68/EU	
Classification society	
Germanischer Lloyd	GL
Lloyd's Register EMEA	LR EMEA
Russian Maritime Register of Shipping	RS



■ MATERIAL



■ SPECIFICATION



1/4" – 2"



– 40°C to + 120°C
depending on
version



Inlet pressure:
up to 60 bar
Outlet pressure:
0,5 to 50 bar
depending on version

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Gunmetal	CC499K	CC499K
Outlet body	Gunmetal	CC499K	CC499K
Internal parts	Brass	CW617N	CW617N
Spring	Spring steel with anti-rust protection	1.1200	ASTM A228

■ VALVE VERSION

m	with diaphragm	High-quality heat-resistant elastomere, fabric reinforced diaphragm. Adjustment by means of non-rising spindle. Balanced single seat valve, pressure gauge connection G1/4" on both sides of body. Please take note of the outlet pressure range.
k	with piston	Brass piston with seal and support ring. Adjustment by means of non-rising spindle. Balanced single seat valve, pressure gauge connection G1/4" on both sides of body. Please take note of the outlet pressure ranges.

■ MEDIUM

GS	gaseous with secondary venting	Compressed air and gases. Non-neutral, poisonous gases only in combination with ducted exhaust.
GFO	gaseous and liquid without secondary venting	for water and non-sticking liquids, compressed air and gases

■ OUTLET PRESSURE RANGES

SM	Standard version with diaphragm	Inlet pressure: up to 60 bar	Outlet pressure: 0,5 to 15 bar
SK	Standard version with piston	Inlet pressure: up to 60 bar	Outlet pressure: 5 to 30 bar
HK	High-pressure version with piston	Inlet pressure: up to 60 bar	Outlet pressure: 10 to 50 bar
Fixed setting at a required outlet pressure against surcharge			

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	8	10	15	20	25	40	50
Inlet female connection	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/2" (40)	2" (50)
Outlet female connection	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/2" (40)	2" (50)

■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

f / f	Standard	Female thread BSP-P / Female thread BSP-P	DIN EN ISO 228-1 / DIN EN ISO 228-1
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■ SEALS

FKM	Fluorocarbon	Elastomere moulded diaphragm and seals	-10°C to +120°C
EPDM	Ethylene propylene diene	Elastomere moulded diaphragm and seals	-40°C to +120°C

■ OPTIONS AGAINST SURCHARGE

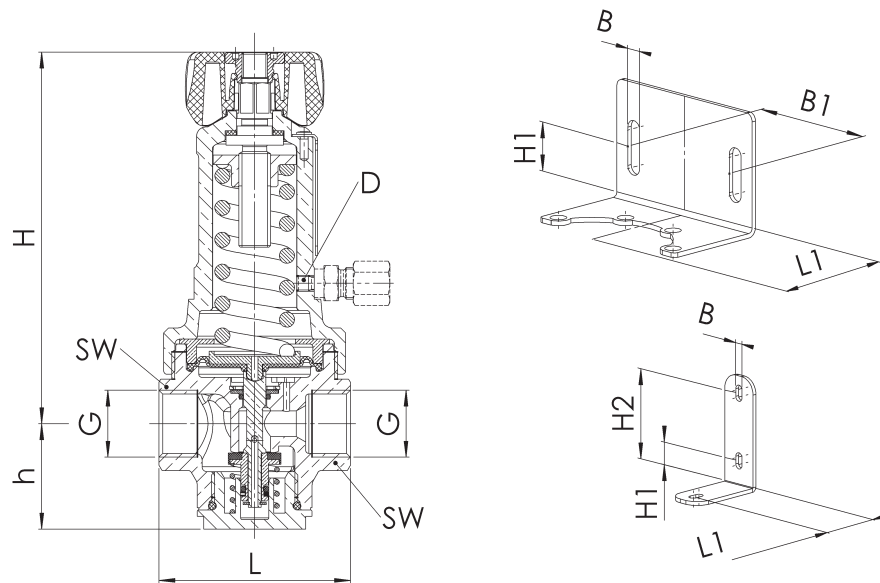
Pressure gauge 40, 42, 44, 45, 46 and 47	Chapter Accessories
GA: ducted exhaust air in case of medium GS (specific ducting of secondary venting)	
GA - SV	Cutting ring threaded connection according to EN ISO 8434-1 for pipe diameter 6mm.
GA - CK	CK-Quick connector for pipe diameter 6mm up to 10 bar.
Wall mount	Order code: 684 Wall mount -DN
Service parts:	
Service Pack (seals and disc) 684 piston version k ; FKM or EPDM	Order code: 684k-DN... <FKM or EPDM> Service Pack
Service Pack (seals and disc) 684 diaphragm version mGS ; FKM or EPDM	Order code: 684mGS-DN... <FKM or EPDM> Service Pack
Service Pack (seals and disc) 684 diaphragm version mGFO ; FKM or EPDM	Order code: 684mGFO-DN... <FKM or EPDM> Service Pack

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 684: Connection, installation dimensions, ranges of adjustment								
Nominal diameter	DN	8	10	15	20	25	40	50
Connection DIN EN ISO 228	G	1/4" (8)	3/8" (10)	1/2" (15)	3/4" (20)	1" (25)	1 1/2" (40)	2" (50)
Inlet pressure up to	bar	60	60	60	60	60	60	60
Outlet pressure:	SM	0,5-15	0,5-15	0,5-15	0,5-15	0,5-15	0,5-15	0,5-15
	SK	5-30	5-30	5-30	5-30	5-30	5-30	5-30
	HK	10-50	10-50	10-50	10-50	10-50	10-50	10-50
Installation dimensions in mm	L	68	68	60	78	102	136	136
	H	120	120	120	180	215	260	270
	h	33	33	33	40	56	63	70
	SW	26	26	26	32	44	58	70
Ducted exhaust connection	D	M5	M5	M5	M5	1/8"	1/8"	1/8"
Dimensions of optional wall mount	L1	38	38	38	51	61	85	85
	H1 / H2	18 / 62	18 / 62	18 / 62	18 / 58	22 / 80	15	15
	B / B1	5,5	5,5	5,5	6,5	8,5	10,5 / 90	10,5 / 90
Weight	kg	1,2	1,2	1,2	2,8	5,3	9,4	10,2
Coefficient of flow K_{vs}	m ³ /h	1,6	1,6	1,6	3,4	5,5	12,7	12,7

The K_{vs} value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capacity are to be found under section 2.

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Outlet pressure	Nominal diameter DN	Connection type		Connection size		Seal	Option	Optional feature	Quantity
					Inlet	Outlet	Inlet	Outlet				
684	m	GS	SM	20	f	f	20	20	FKM	Pressure Gauge 40	GA-SV	5
684	k	GFO	SK	40	f	f	40	40	EPDM			1
684					f	f						
684					f	f						

In this table you can configure a valve according to your individual requirements (similar to the *example* shown, which should be deleted before you enter your own data). Please complete the table by hand using the abbreviations in this datasheet and then fax it to: +49(0)7141.4889488
Please do not forget to add your personal data so that our sales team can contact you.

Name _____

First Name _____

Company _____

Telephone _____

E-Mail _____