→ Series 684

684

Pressure reducing valves made of gunmetal with female threaded connections

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

CE EAC

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

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
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS

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

Series 684 ■ 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 **HK**	Standard version with piston High-pressure version with piston	Inlet pressure: up to 60 bar Inlet pressure: up to 60 bar	Outlet pressure: 5 to 30 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

■ 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

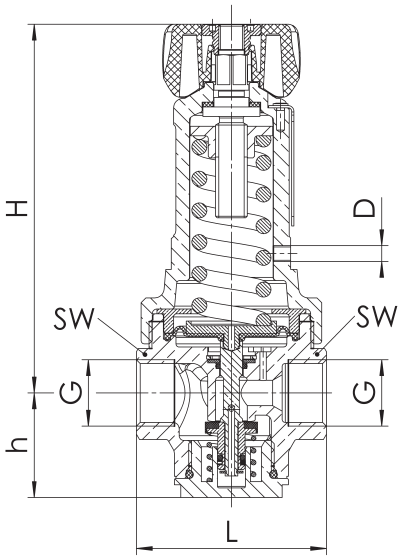
Pressure gauge 40, 42, 44, 45, 46 and 47	Chapter Accessories
GA: ducted exhaust air in case of medium GS (specific ducting of secondary venting)	
GA - SV	Cutting ring threaded connection according to EN ISO 8434-1 for pipe diameter 6mm.
GA - CK	CK-Quick connector for pipe diameter 6mm up to 10 bar.
Wall 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

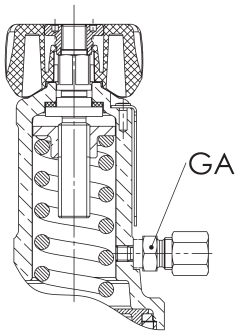
Series 684: Connection, installation dimensions, ranges of adjustment								
Nominal diameter	**DN**	**8**	**10**	**15**	**20**	**25**	**40**	**50**
Connection DIN EN ISO 228	**G**	1/4“ (8)	3/8“ (10)	1/2“ (15)	3/4“ (20)	1“ (25)	1 1/2“ (40)	2“ (50)
Inlet pressure up to	**bar**	60	60	60	60	60	60	60
Outlet pressure: SM	**bar**	0,5-15	0,5-15	0,5-15	0,5-15	0,5-15	0,5-15	0,5-15
SK	**bar**	5-30	5-30	5-30	5-30	5-30	5-30	5-30
HK	**bar**	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}	**m³/h**	1,6	1,6	1,6	3,4	5,5	12,7	12,7

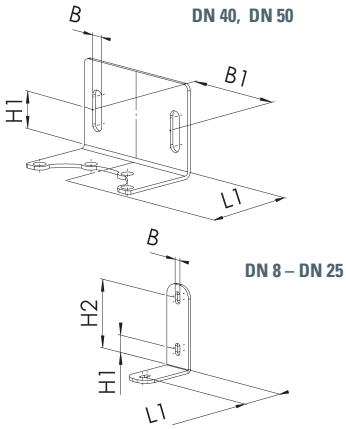
The K_{VS} value was determined according to DIN EN 60534-2-3. Instructions on how to determine size and capacity are to be found under section 2.

MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Options





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 sh*ould 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