

DATASHEET

More valve in less space



"H+ Effect" - high availability

100% manufactured in the region. Assembly and distribution on site



"H+ Method" - modular design

Reduced assembly and repair times due to optimised design



Durability - high number of switches

Mature manufacturing process and 100% EOL in-house testing



Wide temperature & pressure ranges

Wide range of media and ambient temperatures as well as large pressure ranges



Small, light and easy to service

Low vibration and easy installation in confined spaces

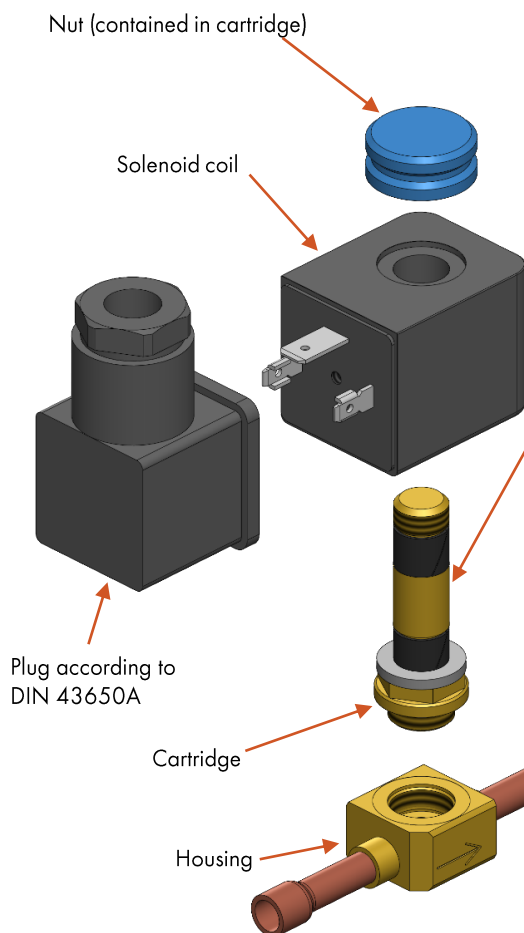


Low noise

Quiet gear changes, thus low noise emissions

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Structure of the valve

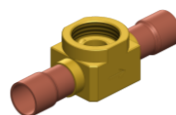


Different variants and sizes

- NO (Normally Open)
- NC (Normally Closed)
- Various minimum opening pressures
- Sizes 10, 15, 20, 30, 40

Various connection types

- Soldering tube



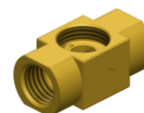
- Flared tube



- O-ring connection (external thread)



- Internal thread



General technical data

Media data

Permissible mediums	Released for more than 20 media, others on request
Medium temperature	-70° to +150°C

Product properties

Lifetime	up to 30 million switching operations ¹⁾
Ventil-Werkstoffe	Stainless steel, brass, PTFE seal, EPDM O-Rings

Environment and installation

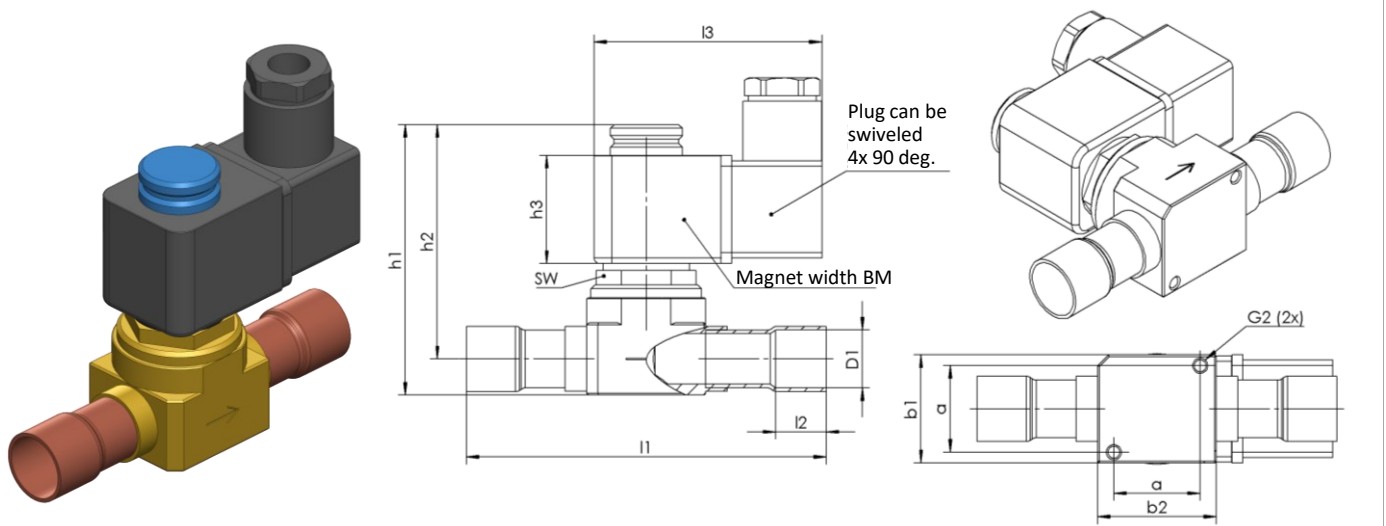
Ambient temperature	-40° to +70°C
Mounting position	arbitrary
Solder joint	The copper tubes are soldered into the brass housing with silver solder (melting range 640-680°)
Tightness to environment	He-leakage rate < 1.0x10 ⁻⁶ mbar x l/s tested according to DIN 1779 B6

1) May vary depending on medium

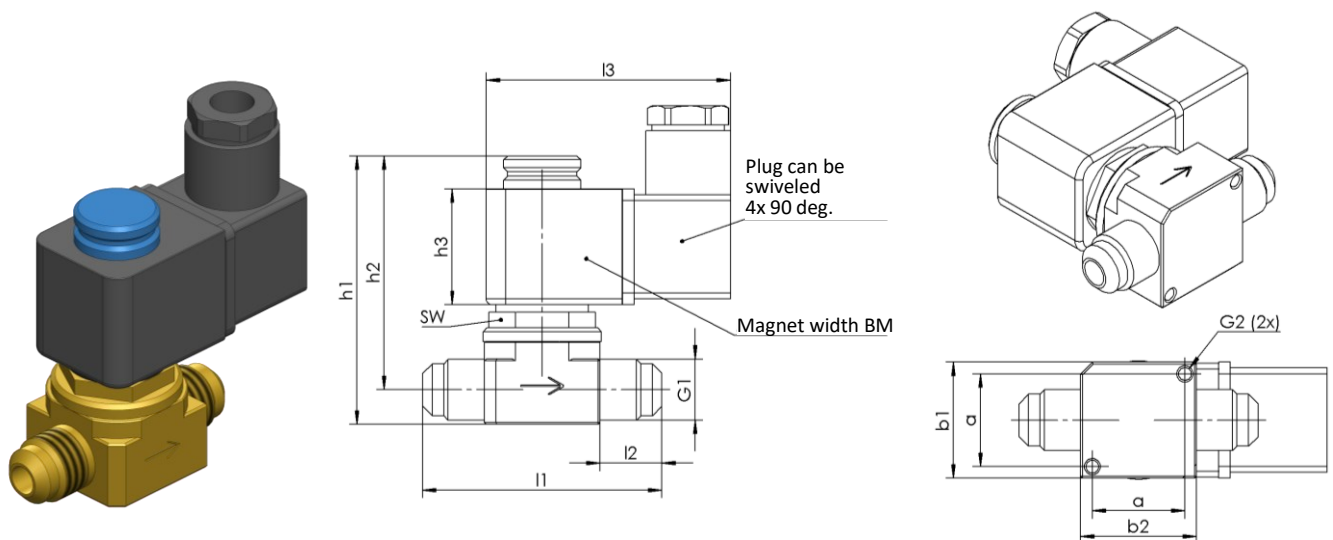
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Technical drawings

Soldering tube (LR)



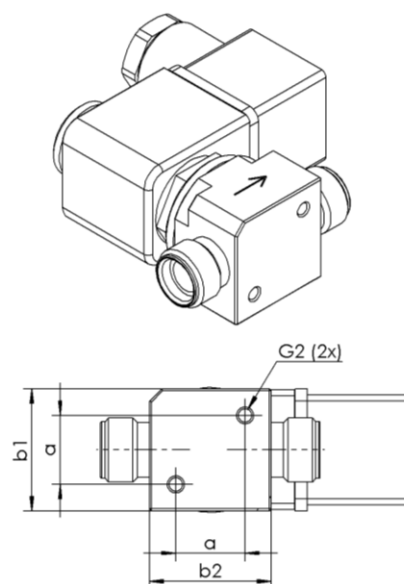
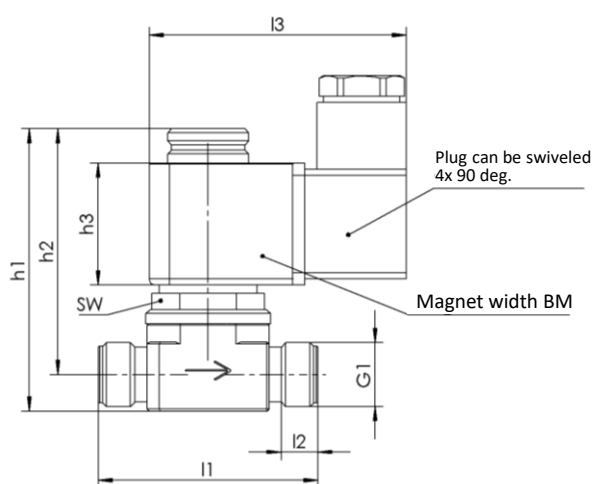
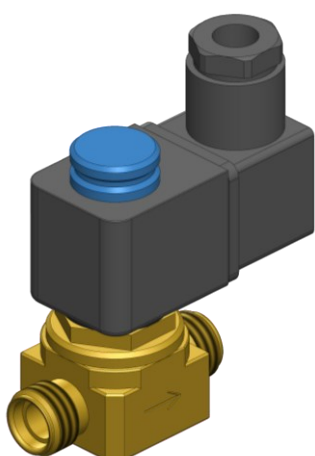
Flared tube (BR)



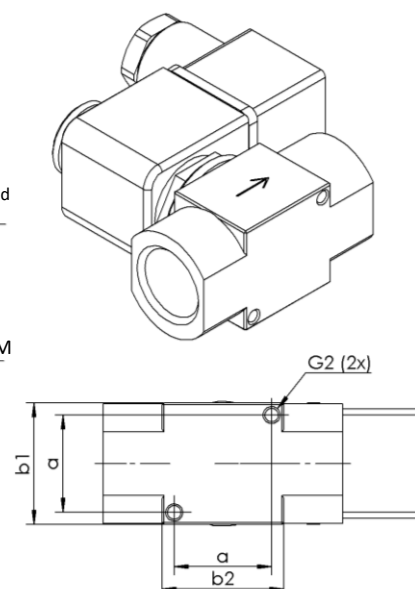
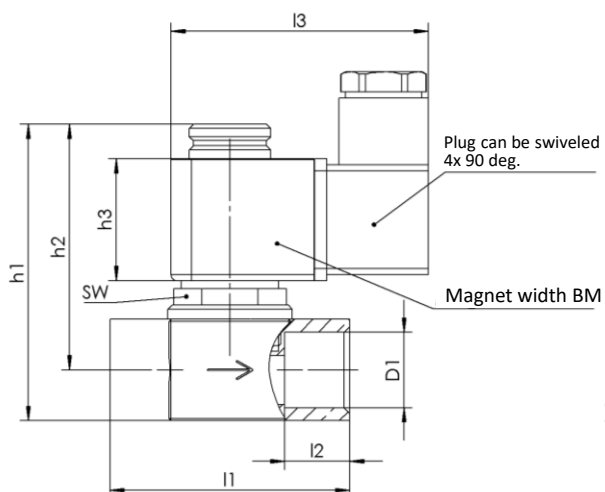
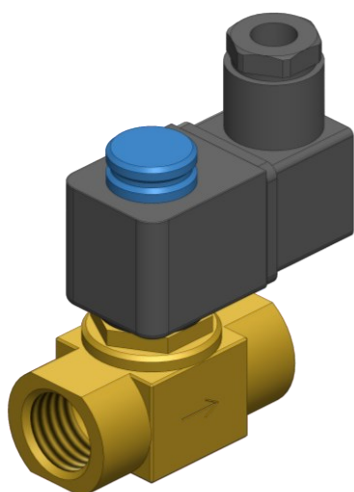
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Technical drawings

O-ring connection (male thread) (OR)



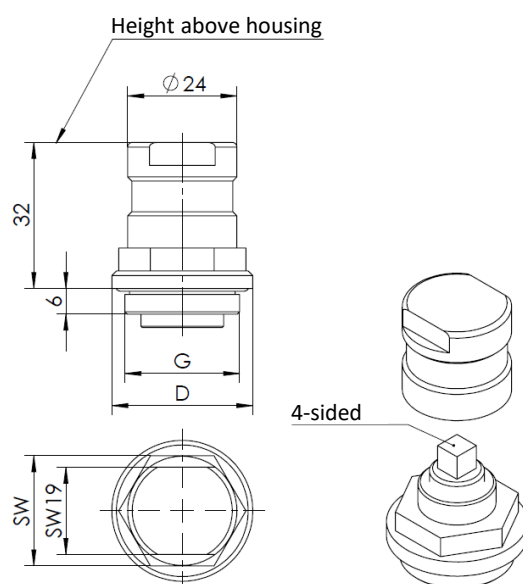
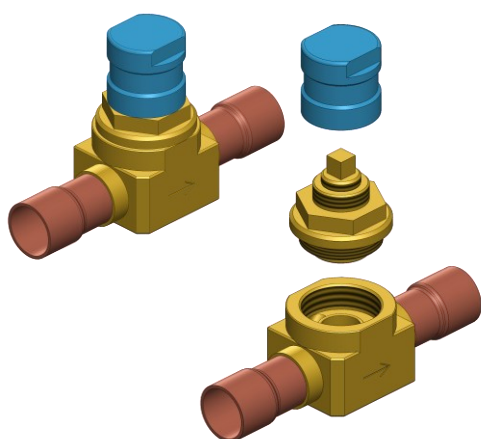
Internal thread (IG)



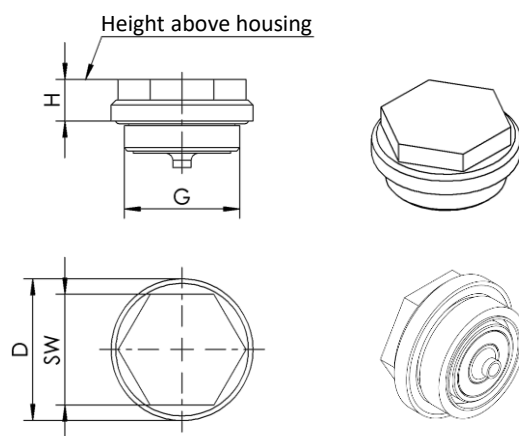
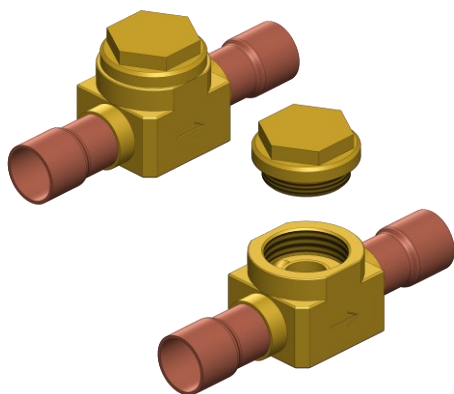
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Technical drawings

Manual shut-off valve



Check valve



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Housing

GE – Housing

Housing material: Brass (Ms) or Aluminium (Al), Solder tube: Copper (Cu)

Size	Housing No.	Connection type	Material	Pipe- Ø D1 [mm]	G1	Kv ²⁾ [m³/h]	l1 [mm]	l2 [mm]	b1 [mm]	b2 [mm]	a [mm]	G2	M ³⁾ [g]	For Magnet-Ø10		For Magnet-Ø15		
														h1 [mm]	h2 [mm]	h1 [mm]	h2 [mm]	
10	1001	LR	Ms/Cu	6		0,28	78	7	19	19	14	M3	38	59,5	55,5	-	-	
	1004 ⁴⁾												37,5					
	1002			10		0,30	88	11					53,5					
	1005 ⁴⁾												51,5					
15	1001	LR	Ms	6		0,37	78	6	22	22	14	M4	63	63	56,5	-	-	
	1002			10		0,58	88	9					69					
20	1001	BR	Ms	6	7/16"-20UNF	0,30	57	7	30	30	24	M4	105,5	65,5	58,5	79	72	
	1002			10	5/8"-18UNF	1,00	62	8,5					141	69,5	60,5	83	74	
	1003			12	3/4"-16UNF	1,35	66	10					167	72	62	85,5	75,5	
	1004			16	7/8"-14UNF	1,80	70	11					204	75	63	88,5	76,5	
	1005	OR	Ms	10	5/8"-18UNF	1,05	54	9	30	30	17	M4	130	69,5	60,5	83	74	
	1025 ⁴⁾		Ms/Cu										132,5					
	1006		Ms										12					3/4"-16UNF
	1007			16	7/8"-14UNF	1,75	66	15			187		74,5	63	88	76,5		
	1008		22	1 1/16"-14UNF	1,92	74	19	268			77,5		64	91	77,5			
	1009	IG	Ms		G1/4"	0,80	59	12	30	30	24	M4	189	68	58	81,5	71,5	
	1026				G3/8"	1,85	59	14					135	72,5	61	86	74,5	
	1010				G1/2"	2,00	59	14					190	73	60,5	86,5	74	
	1011	LR	Ms/Cu	6		0,28	78	7	30	33	24	M4	99	65	60	78,5	73,5	
	1021 ⁴⁾								31				98					
	1022 ⁴⁾			12		1,24	88	11	124,5				69	62	72,5	75,5		
	1013					1,60	94	12	30				71	63	84,5	76,5		
	1023 ⁴⁾								31									
	1014					16	2,00	100	14				30	164,5	75	65	88,5	78,5
	1024 ⁴⁾	31																
	1015	LR	Al	22		1,70	110	16	30	30	24	M4	199	81	68	94,5	81,5	
	1018												12	1,40	62	16	42,5	72
	1016			16		1,90	62	16			-		5)	65,5	85	65	98,5	78,5
	1017												-	47	75	65	88,5	78,5
30	1001	LR	Ms/Cu	16		3,15	120	14	40	40	30	M4	287	-	-	100	90	
	1002			22		3,60		16					338			104	91	
	1003			28		4,00		18					419			110	94	
40	1001	LR	Ms	28		8,75	140	22	55	55	42	M8	784	-	-	120	104	
	1002			35		9,50							1024			123	103	
	1003			42		10,00							1120			123	105	

2) The Kv value corresponds to the water flow through a valve (in m³/h) at a pressure difference of 1 bar according to DIN EN 60534-2-3 at full stroke

3) Weight of housing - total weight of valve can be determined by summing the article weights used (housing + cartridge + solenoid + plug)

4) Housing brass forging

5) M16x1.0 for sight glass centered in underside

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Cartridges

KA – Cartridges									
Size	Cartridge-No.	NO / NC ⁶⁾	Power supply	Min. opening pressure [bar]	Max. opening pressure [bar] ⁷⁾	Magnet-Inner-Ø [mm]	SW [mm]	M [g]	Tightening torque ⁸⁾ [Nm]
10	101	NC	AC + DC	0,00	45	10	14	36	10-15
	102	NC	AC + DC	0,05				37,5	
	103	NO	DC	0,05				36	
15	101	NC	AC + DC	0,10			18	41	15-20
	102	NO	DC	40					
	103			40					
20	101	NC	AC + DC	0,05		15 10	24	74,5	25-30
	102	NC	DC	0,05				74,5	
	103	NC	DC	0,10				128,5	
	104	NO	DC	0,05				73,5	
	105	NO	DC	0,10				124,5	
30	101	NC	AC + DC	0,10		15	36	243	55-60
	102	NO	DC	0,10				241,5	
40	101	NC	DC	0,20			32	405	55-65
	102	NO	DC	0,20				397	

KA – Manual shut-off valve								
Size	Cartridge-No.	G	Max. opening pressure [bar]	D [mm]	L [mm]	E [mm]	SW [mm]	Tightening torque ⁷⁾ [Nm]
20	106	M25x1,0	45	30,7	32	6	24	25-30
30	103	M34x1,0		40,0	35,2		36	

KA – Check valve								
Size	Cartridge-No.	G	Max. opening pressure [bar]	Min. opening pressure [bar]	D [mm]	H [mm]	SW [mm]	Anzugsmoment ⁷⁾ [Nm]
20	108	M25x1,0	45	0,20	30,7	9	24	25-30

6) NO (Normally Open) | NC (Normally Closed)

7) Tightening torque for mounting the cartridge in the housing

8) Higher operating pressures on request

9) Min. opening pressures on request

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Solenoid coils and plugs

MA – Solenoid coils (Properties: Duty cycle 100%)

Magnet-No.	AC/DC	Voltage	Power	Magnet-Inner-Ø [mm]	BM [mm]	h3 [mm]	I3 [mm]	M [g]
00	without Magnet						36	
10	DC	12 V	6 W			14	37,5	10-15
11		24 V	9 VA				36	
14	AC	110 V	5 VA	10	29,5	18	41	15-20
15		230 V	8 VA				40	
16			6 VA				40	
17							74,5	
18							74,5	
19	DC	220 V	6 W			24	128,5	25-30
20		230 V	10 W				73,5	
50		12 V					124,5	
51		24 V					243	
52	AC	24 V	10 VA	15	41	36	241,5	55-60
53		110 V					405	
54		230 V				32	397	55-65

SK - Plug according to DIN 43650A

Plug-No.	Version	M (g)	Protection class	Cable input
0	without plug			
1	Standard plug	22		
2	Plug with diode	23	IP65	PG9
3	Plug with rectifier	30		

Order code

VE – **XX** – **XXXX** – **XXX** – **XX** – **X**

Size Housing-No.. Cartridge-No. Magnet-No. Plug-No.

Spare part orders: Simply place a "GE" in front of the housing number, a "KA" in front of the cartridge, a "MA" in front of the solenoid, or "SK" in front of the connector (e.g. GE20-1001, KA20-101, MA-10, or SK-1).

Disclaimer: All values given are based on our experience and are only indicative values for guidance. The product specifications as well as expressly agreed performance characteristics/application purposes do not release the customer from the obligation to test and validate the suitability for the intended use of the products himself.

Our valves are supplied **unassembled** as standard.

A professional assembly is available on separate request. Please contact our sales department for this.



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