



Solenoid valves  
Control valves  
Special valves and systems

A.u.K. Müller GmbH & Co. KG  
Dresdener Str. 162  
D-40595 Düsseldorf/Germany

Tel.: +49(0)211-7391-0  
Fax: +49(0)211-7391-281

e-mail: info@akmueller.de  
Internet: www.akmueller.de

#### Series 04.040.116



Valve body: PPE



Valve body: PVDF



Valve body: Stainless steel

#### Description

2/2-way direct acting drain valve of nominal diameter DN 40 for controlling low aggressive media, such as cleaning or disinfection agents, with normally closed operation mode NC (normally closed).

Valves of this type are medium separated having a single chamber valve body with the inlet at ninety degrees to the outlet. They can be manufactured in various materials and equipped with threaded or hose connections. Electrical operating safety is achieved by insulation class F and supported by an integrated protective circuit.

Protection type IP 68 is achieved in conjunction with cable connection, IP 65 by using a mounted connector.

The valves can be equipped with an emergency manual override, to ensure the drainage of tanks even in the case of a voltage breakdown.

Valve housing made of PPE or stainless steel are suitable for hot water. Valve housing made of PVDF have a higher resistance to chemicals where stainless steel has both features.

The smooth internal shape improves liquid flow and avoids dirt traps. The valve bodies can be equipped with an additional flush spout.

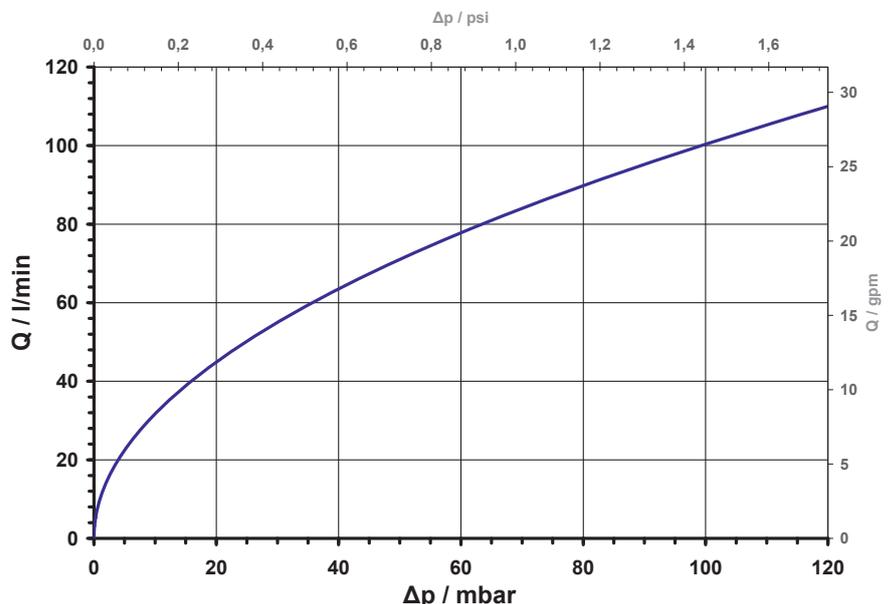
#### Applications

- Industrial washing machines and dishwashers
- Cleaning devices for medical equipment
- Cleaning and disinfection systems in the dairy industry and process engineering

#### Characteristics

- Direct acting
- Protection type IP 68 using cable, respectively IP 65 using connector
- Normally closed (NC)
- Potted coil
- Coil system protected against corrosion by separation to medium by membrane
- Optional valve body made of PVDF or stainless steel and FKM membrane for higher resistance to chemicals
- Optional flush spout on valve body
- Optional manual emergency override
- Long term performance capability
- Maximum medium temperature 98 °C (208 °F)
- No minimal pressure required
- Suitable for spray- and jet water
- UL approved versions available
- High operating safety by the use of high quality materials and 100% final testing of the products

Typical performance curve





**Series 04.040.116**

**Optional flush spout**



Valve body: PPE

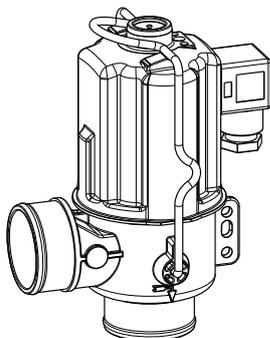
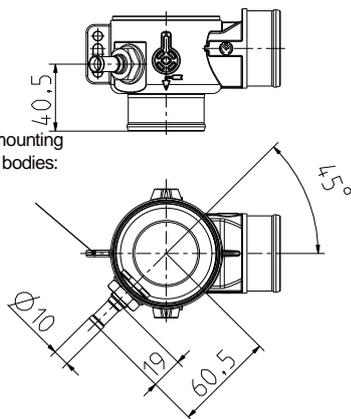


Valve body: PVDF



Valve body: Stainless steel

Thickness of the mounting flange for all valve bodies: 5 mm (0.197 in)



**Technical Data**

<b>Type</b>	drain valve	
<b>Construction</b>	2/2-way-solenoid valve, direct acting	
<b>Function</b>	NC (normally closed)	
<b>Fitting position</b>	solenoid pointing upwards	
<b>Media</b>	low aggressive media, such as cleaning or disinfection agents within potable water	
<b>T-Medium</b>		
PPE	98 (208)	°C (°F) max.
Stainless steel	98 (208)	°C (°F) max.
PVDF	50 (122)	°C (°F) max.
<b>T-Ambient</b>	60 (140)	°C (°F) max.
<b>DN</b>	40 (1.575)	mm (in)
<b>p-Operating</b>	0 - 120 (0 - 1.74)	mbar (psi)
<b>Coil type</b>	MS.010 integrated protection circuit (high voltage peak limitation) and rectifier	
<b>Nominal voltage</b>	12	V DC
	24	V DC
	24	V AC/DC *)
	110	V AC/DC
	200-240	V AC/DC
	400	V AC/DC
<b>Voltage tolerance</b>	±10%	
<b>Duty cycle</b>	100 % 50 % of 10 min. at 400 V AC/DC	
<b>Nominal power</b>	24	W
<b>Protection Type</b>	IP 68	With cable according to EN 60529
	IP 65	With plug socket according to EN 175301-803
<b>Insulation class</b>	F	According to EN 60730
<b>Protection class</b>	I	According to EN 60730 (for incorporation in class I)

**Materials**

<b>Valve body</b>	PPE, PVDF, stainless steel
<b>Plunger guide</b>	Stainless steel
<b>Plunger and spring</b>	Stainless steel
<b>Flush spout</b>	Stainless steel
<b>Membrane and sealings</b>	EPDM FKM
<b>Coil coating</b>	PBT PU potting

The combination of stainless steel valve body and FKM diaphragm is particularly recommended for use in sterilization and disinfection equipment.



\*) Exception:

Depending on the required connection type, the rectifier for version 24 V AC/DC is located within a grey plug or within a sealed housing in line with the cable.

	<b>KL</b>
<b>standard cable length (IP 68 only)</b>	1000 mm (39.370 in)
other cable length on request	



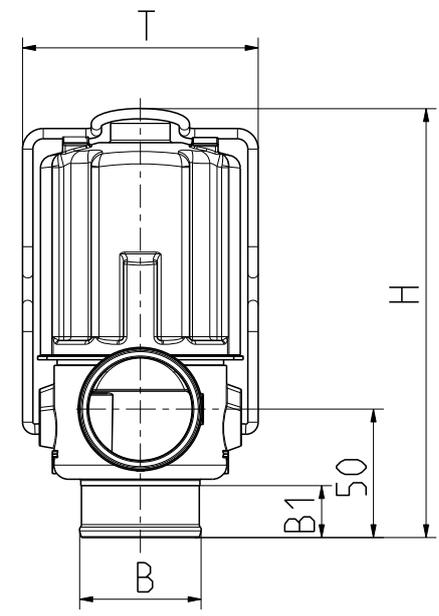
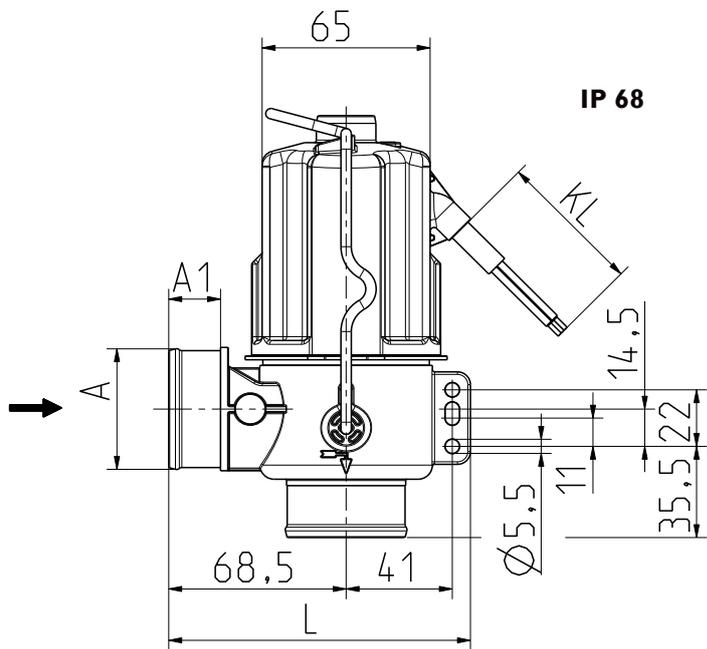
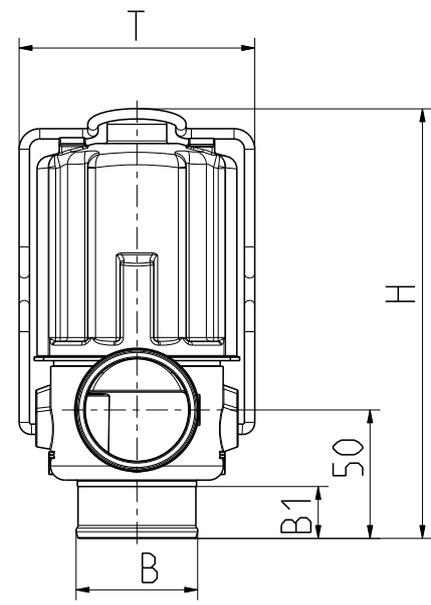
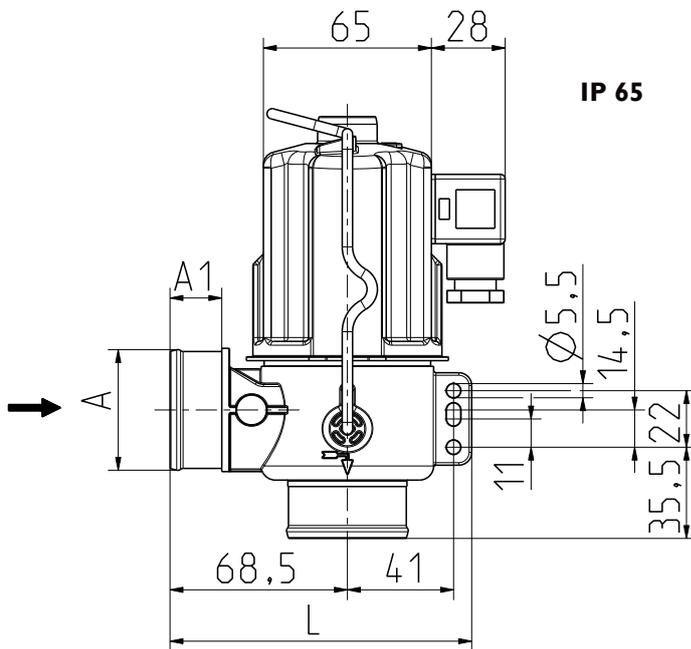
#### Series 04.040.116

without emergency manual override



#### Options

Material	Ø A	A1	Ø B	B1	L	H	H	T
						without emergency manual override	with emergency manual override	
PPE/PVDF	G 1 1/2		G 1 1/2					
	G 1 1/2	21	nozzle1 1/2"	21	117	170	190	91
	nozzle 1 1/2"	(0.827 in)	G 1 1/2	(0.827 in)	(4.606 in)	(6.693 in)	(7.480 in)	(3.583 in)
	nozzle1 1/2"		nozzle1 1/2"					







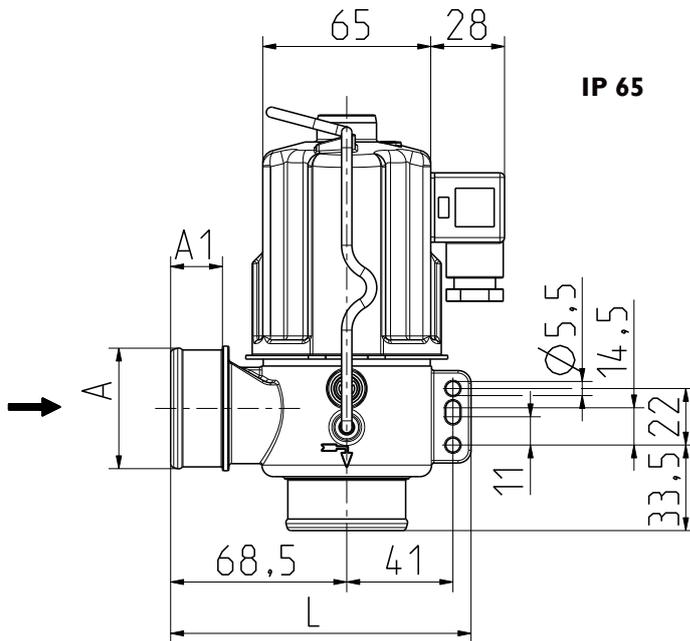
**Series 04.040.116**

without emergency manual override

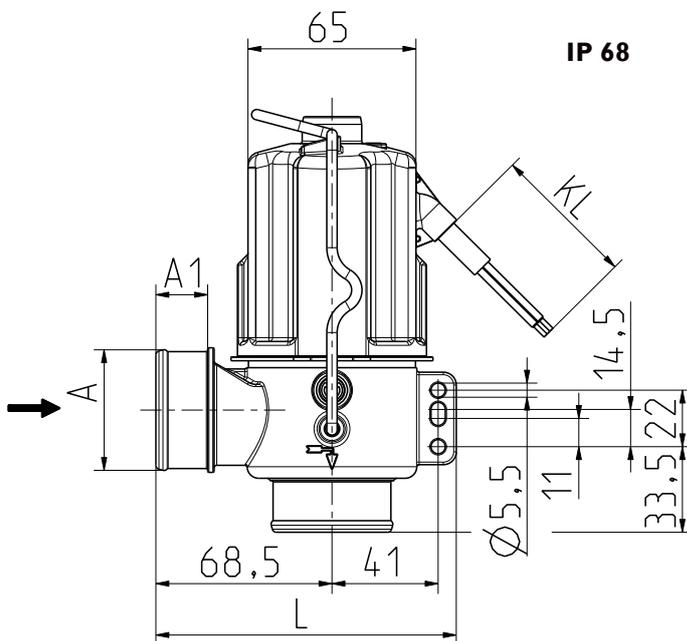
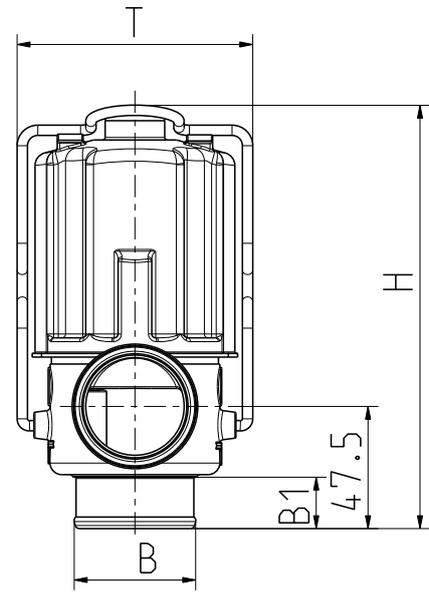


**Options**

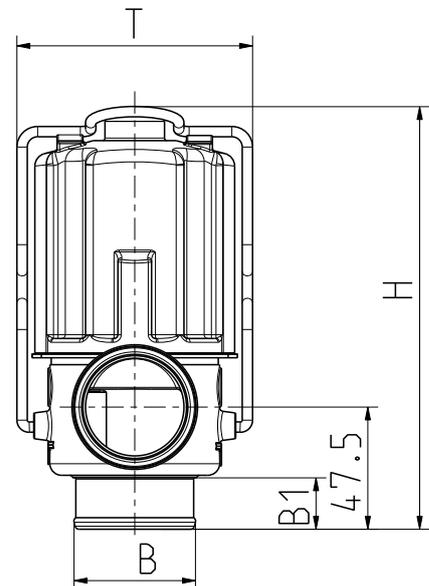
Material	Ø A	A1	Ø B	B1	L	H	H	T
	G 1 1/2		G 1 1/2			Without emergency manual override	With emergency manual override	
Stainless steel on request	G 1 1/2	21 (0.827 in)	nozzle 1 1/2"	21 (0.827 in)	117 (4.606 in)	168 (6.614 in)	188 (7.402 in)	91 (3.583 in)
	nozzle 1 1/2"		G 1 1/2					
	nozzle 1 1/2"		nozzle 1 1/2"					



**IP 65**



**IP 68**





Series 04.040.116

with emergency manual override

Pull ball handle to open the valve

