

2/2-Way, G 1/2 - G 2, Flange connection
 两位三通, G1/2-G2, 法兰连接



Advantages/Benefits
 优点/特性

- ▶ Zero differential pressure
零压差
- ▶ Body material: brass, grey cast iron
阀体材料: 黄铜, 灰铸铁
- ▶ Fluid temperature up to 180 °C
流体温度可高达180 °C
- ▶ High reliability
可靠性高
- ▶ Erosion resistant
耐腐蚀

Design/Function 设计/功能

Type 407 is a normally-closed servo-assisted on-off solenoid valve with a coupled armature / servo piston (circuit function A). 407型常闭伺服辅助开/关电磁阀带有复式电磁铁/伺服活塞(回路功能A)。

When de-energized, the spring acts on the armature to close the pilot channel in the piston. 断电时, 弹簧作用在电磁铁上, 关闭活塞的控制通路

When energized, the armature lifts to open the pilot channel to relieve the pressure. Even if there is no pressure differential, the armature lifts the coupled piston to open the valve. 通电时, 电磁铁抬起, 打开控制通道释放压力。即使无压差, 电磁铁也能抬起复式活塞, 打开阀门。

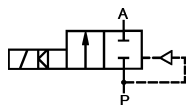
Applications 应用

- Fluids at higher temperatures, e.g. hot air, steam
高温流体, 如热空气和蒸汽
- Vacuum
真空
- Autoclaves (vacuum side)
高压灭菌器(真空方面)
- Relief of steam systems
蒸气排放系统
- All industrial areas
所有工业领域

Technical Data 技术参数

Circuit Function 回路功能

A 2/2-way valve, normally closed, with 2-way pilot control
两位两通阀, 常闭, 带两通先导控制



Body Material 阀体材料

Threaded: Body of brass, seat 1.4303
螺纹连接: 黄铜阀体, 底座1.4303
Flanged: Body of grey cast iron, seat 1.4305
法兰连接: 灰铸铁阀体, 底座1.4305
Internal parts: Solenoid system 1.4105
Servo piston of brass
电磁铁系统1.4105, 伺服活塞黄铜
阀内件: 电磁铁系统1.4105, 伺服活塞黄铜
Cover: Brass (also for grey cast iron body)
机罩: 黄铜(也适用于灰铸铁阀体)

Specifications 规格

| Orifice 内孔 DN [mm] | Kv-Value Kv-值 Water 水 [m³/h] | QnN-Value QnN-值 Air 空气 [l/min] | Pressure 压力 Range 范围 [bar] | Weight 重量 | |
|--------------------------|------------------------------------|--------------------------------------|----------------------------------|--------------------|--------------------|
| | | | | Thread 螺纹式 [kg] | Flange 法兰式 [kg] |
| 13 | 3,7 | 4000 | 0-10 | 1,0 | - |
| 20 | 5,0 | 5400 | 0-10 | 1,4 | - |
| 25 | 10,0 | 10800 | 0-10 | 1,9 | - |
| 32 | 16 | 17200 | 0-10 | 3,2 | - |
| 40 | 16 | 17200 | 0-10 | 3,65 | - |
| 50 | 36 | 36800 | 0-10 | 7,8 | 12,8 |

The pressure range is also valid for technical vacuum. All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.
压力范围也适用于真空。所有的压力参数均为相对于大气压的表压。

Operating Data (Valve) 工作参数 (阀门)

Seal Materials/Fluids Handled/Temp.- Range

密封材料/受控流体 /温度范围

PTFE Neutral fluids, e.g. hot water, steam
0 to +180 °C
中性流体, 如热水, 蒸汽
0至+180 °C

For more detailed information, please refer to resistance chart (Leaflet No. 1896009).

如需更多信息, 请参见耐腐蚀表(说明书号码1896009)

Max. ambient temperature +55 °C

最高环境温度

Max. viscosity 21 mm²/s

最大粘度

Response times DN opening closing
[ms] [ms]

反应时间 通径 打开 关闭
(毫秒) (毫秒)

13-25 0,1 - 0,2 0,3 - 0,5
32-50 0,2 - 1,2 1,0 - 3,0

Measured at outlet port A from switching on until pressure rise to 90 % / pressure drops to 10 % at a working pressure of 1.5 bar.

时间在管口A处测得, 从开关动作到压力增加到工作压力1.5巴的90%/压力下降到工作压力1.5巴的10%的有段时间。

Port connection G 1/2, 3/4, 1, 1 1/4, 1 1/2, 2
Flanged

连接口 G1/2, 3/4, 1, 1 1/4, 1 1/2, 2
法兰连接

Operating Data (Actuator) 工作参数 (执行机构)

Operating voltages 240, 230, 110, 24 V/50
工作电压 110 V/60 Hz
24 V/= 110, 220, 240 V/UC
(universal current)
(通用电流)

Voltage tolerance ±10 %

电压允差

Power consumption AC 100 VA (inrush)
35 VA/16 W (hold)
DC 28 W at DN 50
AC 100 VA (吸合)
35 VA/16 W (保持)

功率消耗

Duty cycle 100 % continuously rated

负载周期 100% 连续工作

Cycling rate 10-60 c.p.m.

工作频率 10-60次/分

Rating with IP 65 cable plug

防护类型 电缆插头IP65

Installation / Accessories 安装/附件

Installation

安装

Electrical connection

电气接口

as required, but preferably with solenoid system upright
可根据需要安装, 但最好将电磁系统直立放置

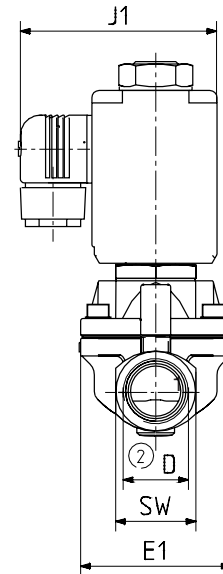
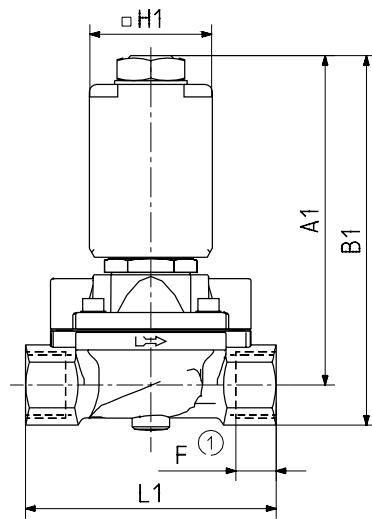
• cable plug for 6-7 mm ø cable (supplied as standard)

• cable plug 1051-2007 with integrated single-phase bridge (standard for universal current versions)

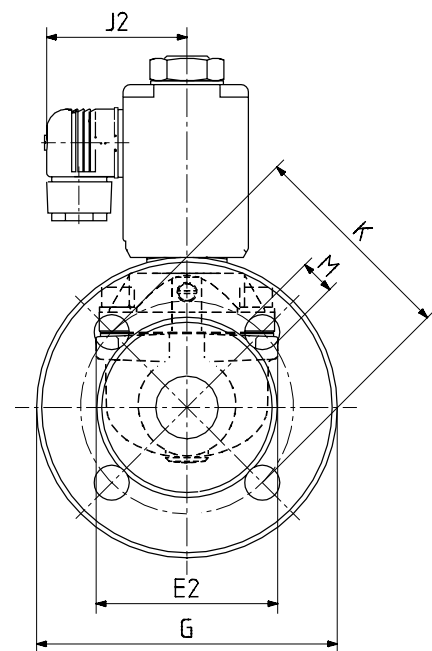
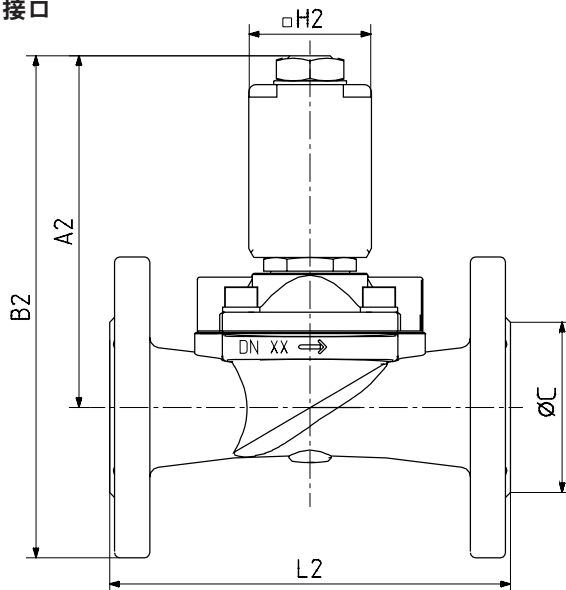
用于ø6-7mm 电缆的电缆插头(按标准供货)
电缆插头1051-2007, 带整流器(通用电流型标准配置)

Dimensions in mm 尺寸(mm)

Ported Version
 螺纹接口



Flanged Version
 法兰接口



| Orifice 内孔 [mm] | Ported Version 螺纹接口 | | | | | | | | | Flanged Version 法兰接口 | | | | | | | | | |
|-----------------------|---------------------|-----|---------|----|-----|-----|----|-------|----|----------------------|-------|-----|-----|-----|-----|----|-----|-------|----|
| | A1 | B1 | D | F | E1 | L1 | SW | J1 | H1 | A2 | B2 | ØC | E2 | G | L2 | M | K | J2 | H2 |
| 13 | 113 | 127 | G 1/2 | 14 | 40 | 65 | 27 | 73 | 40 | | | | | | | | | | |
| 20 | 131 | 147 | G 3/4 | 16 | 60 | 100 | 32 | 80,5 | 49 | | | | | | | | | | |
| 25 | 136,5 | 157 | G 1 | 18 | 70 | 115 | 41 | 80,5 | 49 | | | | | | | | | | |
| 32 | 161 | 186 | G 1 1/4 | 20 | 85 | 126 | 50 | 80,5 | 49 | | | | | | | | | | |
| 40 | 165 | 195 | G 1 1/2 | 22 | 85 | 126 | 60 | 80,5 | 49 | | | | | | | | | | |
| 50 | 225 | 260 | G 2 | 24 | 115 | 164 | 70 | 104,5 | 72 | 225 | 307,5 | 102 | 115 | 165 | 230 | 18 | 125 | 104,5 | 72 |

Ordering Chart (Other Versions on Request) 订购表 (其他型号按需提供)

| Circuit Function 回路功能 | Orifice 内孔 DN通径 [mm] | Flow Rate 流速 | | Port Connection 连接口 | Pressure Range 压力范围 [bar] | Body Material 阀体材料 | Seal Material 密封材料 | Weight 重量 [kg] | Voltage/ Frequency 电压/频率 [V/Hz] | Order-No. 订货号 |
|--------------------------|-------------------------------|-------------------------------|---------------------------|------------------------|---------------------------------|-----------------------|-----------------------|----------------------|--|------------------|
| | | Water 水 Kv-Value [m³/h] | Air 空气 Q/Nn [l/min] | | | | | | | |
| A | 13,0 | 3,7 | 4000 | G 1/2 | 0-10 | Brass | PTFE | 1,0 | 024/50 | 021 598 J |
| | | | | | | | | | 110/50 | 024 411 H |
| | | | | | | | | | 110/60 | 077 089 X |
| | | | | | | | | | 230/50 | 615 637 Y |
| | | | | | | | | | 240/50 | 021 791 K |
| | 20,0 | 5,0 | 5400 | G 3/4 | 0-10 | Brass | PTFE | 1,4 | 024/50 | 022 032 E |
| | | | | | | | | | 110/50 | 021 792 L |
| | | | | | | | | | 110/60 | 078 549 R |
| | | | | | | | | | 230/50 | 615 157 X |
| | | | | | | | | | 240/50 | 021 880 R |
| | 25,0 | 10,0 | 10800 | G 1 | 0-10 | Brass | PTFE | 1,9 | 024/50 | 021 620 T |
| | | | | | | | | | 110/50 | 024 412 A |
| | | | | | | | | | 110/60 | 077 625 U |
| | | | | | | | | | 230/50 | 615 638 H |
| | | | | | | | | | 240/50 | 021 793 M |
| | 32,0 | 16,0 | 17200 | G 1 | 0-10 | Brass | PTFE | 3,2 | 024/50 | 085 385 M |
| 110/50 | | | | | | | | | 085 386 N | |
| 230/50 | | | | | | | | | 064 919 W | |
| 240/50 | | | | | | | | | 085 387 P | |
| 40,0 | 16,0 | 17200 | G 1 | 0-10 | Brass | PTFE | 3,65 | 024/50 | 085 392 L | |
| | | | | | | | | 110/50 | 085 393 M | |
| | | | | | | | | 230/50 | 085 394 N | |
| | | | | | | | | 240/50 | 085 395 P | |
| 50,0 | 36,0 | 36800 | Flanged | 0-10 | Cast iron | PTFE | 12,8 | 220/UC ¹⁾ | 085 406 K | |
| | | | G 2 | 0-10 | Brass | PTFE | 7,8 | 024/= | 085 400 Z | |
| | | | | | | | | | 110/UC ¹⁾ | 085 401 N |
| | | | | | | | | | 220/UC ¹⁾ | 085 402 P |
| | | | | | | | | 240/UC ¹⁾ | 085 403 Q | |

¹⁾ UC universal current, cable plug with integrated single-phase rectifier bridge.

¹⁾ UC通用电流, 电缆插头带整流器