顶部控制单元

优点

- 模块式设计
- 通用性接口
- 线路连接简易方便

附加功能

- 减压阀
- 可配直线型感应器
- 可感应阀板之间的隔离
- 各种电子模块

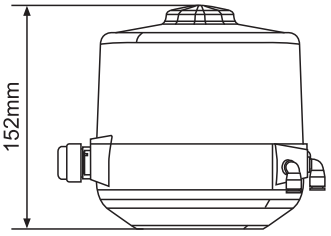
多种类阀门的配置

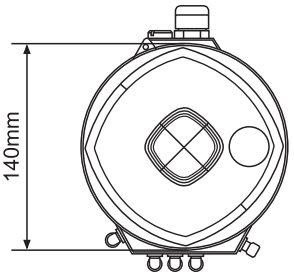
- ACS（高级控制系统）
- ICS（综合控制系统）

  可用于各种阀门，行程不超过80毫米的阀门

ACS型控制盒

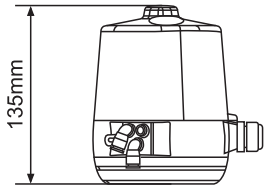


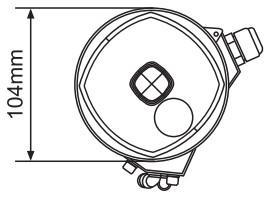




ICS型控制盒







技 术 参 数	ACS型控制盒	ICS型控制盒
减压阀	可配置	可配置
点对点式连接	24-48V AC/DC	24-48V AC/DC
多种电压模块	信息反馈PNP/NPN	信息反馈PNP/NPN
AS-i式连接	AS-i 2.1	AS-i 2.1
感应器	2个TOP可调节感应器或直线型感应器（范围80mm)	2个TOP感应器
直线型感应器	分解0.2mm 手动调节 范围80mm	不可配置
外感应器	可配置	不可配置
耗电量（1个电磁阀及一个启动的感应器）	AS-i型＜70mA 24V DC＜50mA	AS-i型＜70mA 24V DC＜50mA
电磁阀EV	1至3EV 3/2	1EV 3/2至1EV 5/2
气动功能	常闭式，常开式（仅限于1个电磁阀）	常闭式，常开式及双密封式
阀门开关速度调节	可配置	不可配置
气动连接配件	快速接口4/6	快速接口4/6
空气质量	过滤后的干燥空气10mm 5至7巴	过滤后的干燥空气10mm 5至7巴
工作温度	0℃或70℃	0℃或70℃

Top Control Units

Advantages

- A modular design
- A user-friendly interface
- Quick-fi tting electric and pneumatic connections

Additional Functions

- A relief valve
- A linear sensor option
- Shut-off valve open sensor
- Various electronic modules

2 Ranges For Different Types of Valves

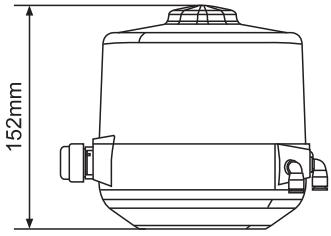
- ACS (Advanced Control System)

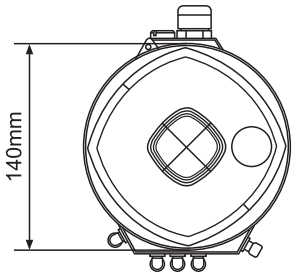
  The ACS unit covers all the range of DEFINOX valves(excluding DCX3/4 fractional changeover valves and diaphragm valves with a fastening interaxial = 32)
- ICS (Integrated Control System)

  All the range valves with a nominal diameter less than 80 mm

ACS UNIT

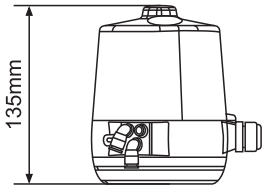


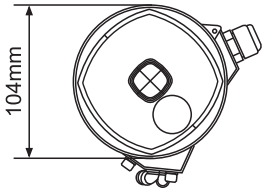




ICS UNIT







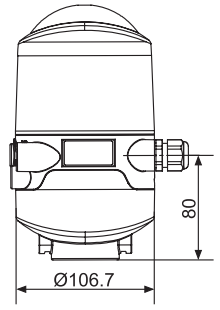
SPECIFICATIONS	ACS UNIT	ICS UNIT
Relief valve	Yes	Yes
Point-to-point connections	24-48V AC/DC	24-48V AC/DC
Multi-voltage modules	PNP/NPN retro data	PNP/NPN retro data
AS-i connections	AS-i 2.1	AS-i 2.1
Sensors	Two TOR sensors with fine adjustment(range 80 mm) or one linear sensor	2 TOR sensors
Linear sensor	Resolution 0.2 mm Manual calibration Stroke 80 mm	NO
External sensor	Yes	NO
Electrical consumption (1 SV and 1 sensor activated)	< 70 mA in AS-i < 50 mA in 24V DC	< 70 mA in AS-i < 50 mA in 24V DC
Solenoid valves	One to three SV 3/2	One SV 3/2 or one SV 5/2
Pneumatic functions	NC, NO (only in one SV)	NC, NO and SE
Valve open/close speed control	Yes	NO
Pneumatic connections	Quick 4/6	Quick 4/6
Air quality	Dry air filtered to 10µm 500 to 700 kPa (5 to 7 bar)	Dry air filtered to 10µm 500 to 700 kPa (5 to 7 bar)
Operating temperature	0°C - 70°C	0°C - 70°C

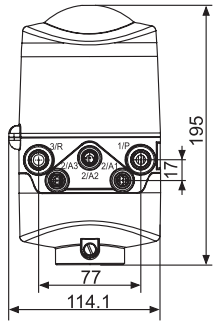
顶部控制单元 Top Control Units

burkert 8681型控制头

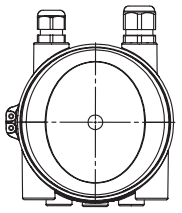
优点

- 通用型控制头，适用于卫生型阀门控制
- 非接触式位置测量系统，具有 3 个开关点 (Teach-In 功能)
- 最多可分别控制 3 个执行机构腔室
- 彩色状态显示器
- 手动开关，用于封闭的外壳
- AS-I 通讯接口(选项)



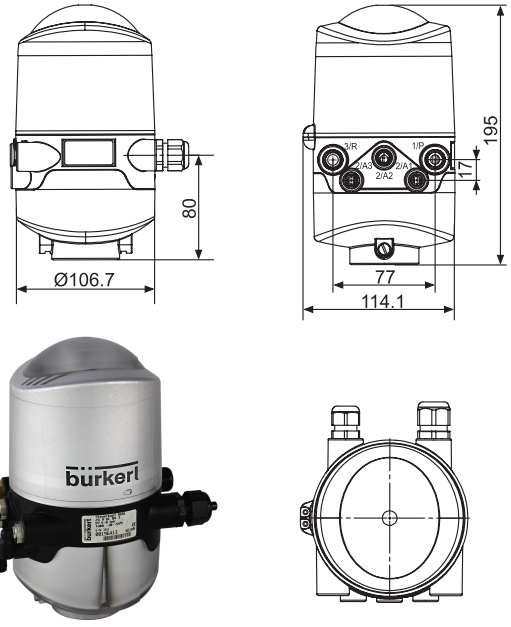






技术参数		不带现场总线接口	
控制介质	中性气体,空气DIN ISO 8573-1(建议采用5µm过滤器)	工作电源	12 to 28 VDC
含尘量	class 5 (<40 µm 粒子直径)	余波DC	10 %
颗粒物含量	class 5 (<10 mg/m3)	功耗	< 5W(取决于形式和工作状态，参见操作手册)
露点	class 3 (<-20°C)		
含油量	class 5 (<25 mg/m3)	阀门控制输入 (**Y1 - Y3**)	
气源压力	2,5 ... 8 bar	信号电压 – 打开	U > 10 V, max. 24 V DC + 10%
		信号电压 – 关闭	U < 5 V
电磁阀流量	110IN/min - 进气和排气	阻抗	U > 30 kOhm
	110IN/min - 交付状态		
	200IN/min - max. 典型流量 (节流状态)	输出 / 二进制反馈信号	S1 out - S4 out
先导气源接口		结构	常开触点，PNP 输出短路保护带自定时短路保护
气源入口和出口	G 1/4	切换输出电流	max. 100 mA 每个反馈信号
工作口	G 1/8	输出电压 –打开	≥ (工作电压 - 2 V)
		输出电压 –关闭	max. 1 V 无负载情况下
位置传感器	非接触式位置传感器：3个可自由调整的开关点 PNP （Teach-In 功能）接近开关（常开触点）：PNP 输出短路保护，带自定时短路保护	输入/接近开关(外部触发器:**S4 in**)	
		电源	控制头上标注的电压 - 10 %
输出电流	max. 100 mA 每个反馈信号	载流能力，传感器电源	max. 90 mA 短路保护
行程范围	0 to 80 mm	结构	DC2- 和 3-线, NO or NC (工厂设置 NO), PNP 输出
分辨率	≤ 0,1 mm	输入电流为 1	I_{Sensor} > 6.5 mA, 内部限制到 10 mA
总误差	± 0,5 mm - 采用不锈钢 1.4021 的靶和不锈钢 1.4301 的活塞杆（Ø 22 mm）时，(误差是指对示教位置的可重复性)	输入电压为 1	U_{Sensor} > 10 V
		输入电流为 0	I_{Sensor} < 4 mA
		输入电压为 0	U_{Sensor} < 5 V
环境温度	-10 to +55°C		
安装方式	可根据需要安装，最好将执行机构朝上	电气连接	
防护等级	IP 65/67 acc. to EN 60529	多针	M12,12针,带 8 cm 电缆;1 x M16 x 1.5 电缆接头,用于外部触发器 (夹紧范围 3 ... 6 mm)
保护等级	3 acc. to VDE 0580		
现场总线通讯	AS-Interface, DeviceNet (in preparation)	电缆接头	M16 x 1.5 (Ø 5 ... 10 mm 电缆， 螺钉端子 0.14 ... 1.5 mm2),1 x M16 x 1.5电缆接头，用于外部触发器 (夹紧范围 3 ... 6 mm)
一致性	符合CE标准，符合EMV2004/108/EG		
点火保护类型	II 3G Ex nA IIC T4		
	II 3D Ex tD A22 T135°C		

burkert 8681Control Head



Advantages

- Universal attachment for hygienic process valves
- Contactless position measurement system with 3 switching points (Teach-In function)
- Depending on the process valve type, up to 3 pneumatic actuator chambers
- Coloured status display
- Manual override to be used with closed housing
- Communication AS-Interface (option)

TECHNICAL DATA	
Control medium	neutral gases, air DIN ISO 8573-1 (fi lter 5 µm recommended)
Dust concentration	class 5 (<40 µm particle size)
Particle density	class 5 (<10 mg/m3)
Pressure condensation point	class 3 (<-20°C)
Oil concentration	class 5 (<25 mg/m3)
Supply pressure	2,5 ... 8 bar
Air capacity solenoid valve	110lN/min - for pressurization and exhaust, lifting device 110lN/min - delivery condition 200lN/min - max. typical fl ow rate (throttle)
Pilot air ports	
Air inlet and outlet	G 1/4
Service ports	G 1/8
Position sensor	non-contact Position Sensor , 3 self-regulated switching points PNP (Teach-In-function) closer (normally open), PNP-output short-circuit proof , with clocking short-circuit protection
Outlet current	max. 100 mA per feedback signal
Stroke range	0 to 80 mm
Resolution	≤ 0,1 mm
Total error	± 0,5 mm - when using a target for the dimensional drawing, material 1.4021 and a piston rod (Ø 22 mm, material 1.4301) (error refers to the reproducibility of a teach-position)
Ambient temperature	-10 to +55°C
Installation	As required, preferably with actuator in upright position
Type of protection	IP 65/67 acc. to EN 60529
Protection class	3 acc. to VDE 0580
Fieldbus communication	AS-Interface, DeviceNet (in preparation)
Conformity	acc. to CE in compliance with EMV2004/108/EG
Ignition protection	II 3G Ex nA IIC T4 II 3D Ex tD A22 T135°C

WITHOUT FIELDBUS COMMUNICATION	
Operating voltages	12 to 28 VDC
Residual ripple with DC	10 %, no technical direct current
Power consumption	< 5 W (acc. to version and operating status see instruction manual)
Valce control inputs (Y1 – Y3)	
Signal level - active	U < 5 V, max. 24 V DC + 10%
Signal level - inactive	U < 5 V
Impedance	U > 30 kOhm
Outputs / binary feedback signals	S1 out - S4 out
Design	Normally open contact, PNP output short-circuit proof with self-clocking short circuit protection
Switchable output current	max. 100 mA per feedback signal
Output voltage -active	≥ (operating voltage - 2 V)
Output voltage -inactive	max. 1 V in unloaded state
Input / proximity switches (external initiator : S4 in)	
Power supply	Voltage present at control head - 10 %
Current carrying capacity, sensor power supply	max. 90 mA short-circuit protection
Design	DC 2- and 3-conductor, NO or NC (factory setting NO), PNP output
Input current 1 signal	I_{Sensor} > 6.5 mA, limited internally to 10 mA
Input voltage 1 signal	U_{Sensor} > 10 V
Input current 0 signal	I_{Sensor} < 4 mA
Input voltage 0 signal	U_{Sensor} < 5 V
Electrical connection	
Multipole	M12 12-pin with cable 8 cm, 1 x M16 x 1.5 cable glands for external initiator (clamping range 3 ... 6 mm)
Cable gland	M16 x 1.5 (cable-Ø 5 ... 10 mm, screw terminals 0.14 ... 1.5 mm2), 1 x M16 x 1.5 cable glands for external initiator (clamping range 3 ... 6 mm)