

## 气液翻转单元 RP80.2

## Pneumo-hydraulic swivel unit RP80.2

### 主要特点:

- 铝制壳体
- 钢制夹臂和外部位
- 2 个安装面 (前面和背面)
- 气缸缸径: 80 mm
- 2 个可调末端行程气动缓冲器
- 4 个气源接口
- 新型电感式传感器 (接口 M12x1)



### Main characteristics:

- Aluminum flanks
- Steel arms and external arms hard stop
- 2 mounting areas (front and back)
- Pneumatic cylinder bore: 80 mm
- 2 adjustable end stroke pneumatic cushioning
- 4 feeding ports (GAS)
- New inductive proximity switch (connection M12x1)



[PDF](#)



[3D Step](#)

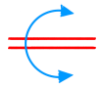


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## 订货举例

### Ordering example

**RP80.2 - 45 - V - PX - I - G - Z**

**翻转单元类型和气缸缸径:**  
Swivel unit type and cylinder bore:

**RP80.2**  
气缸缸径 80mm  
cylinder bore 80mm

**传感器类型:**  
Inductive sensor type:

**I** = Vep 传感器带红色 LED  
Vep with red LED  
**P** = Pepperl+Fuchs 传感器带红色 LED  
Pepperl+Fuchs with red LED

**夹臂打开角度: \***  
Opening angle of swivel arms\*:

RP80.2		45°	90°	120°	135°
V		45°	90°	120°	135°
V/LS		45°	90°	120°	135°
O		45°	90°	120°	---
O/LS		45°	90°	---	

**气源接口类型:**  
Feeding ports type:

**G** = 接口 G...  
ports type G...\*

**夹臂类型 (请参见尺寸页码):**  
Type of swivel arms (see dimensional pages):

**V** = 垂直夹臂  
vertical arms  
**O** = 水平夹臂  
horizontal arms  
**V/LS** = 垂直对称夹臂  
symmetric vertical arms  
**O/LS** = 水平对称夹臂  
symmetric horizontal arms

**气源接口位置和缓冲限位:**  
Feeding ports position and cushion adjustment:

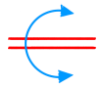
**W:** 在 W 方向(正面)  
on the W side (front)      **Z:** 在 Z 方向(背面)  
on the Z side (rear)

气源接口位置  
feeding port position  
带堵头气源接口位置  
port with plug position  
缓冲限位  
cushion adjustment

**传感器位置**  
Inductive sensor position

**PO** = 无传感器  
without  
**PX** = 传感器在 X 侧  
on the X side  
**PY** = 传感器在 Y 侧

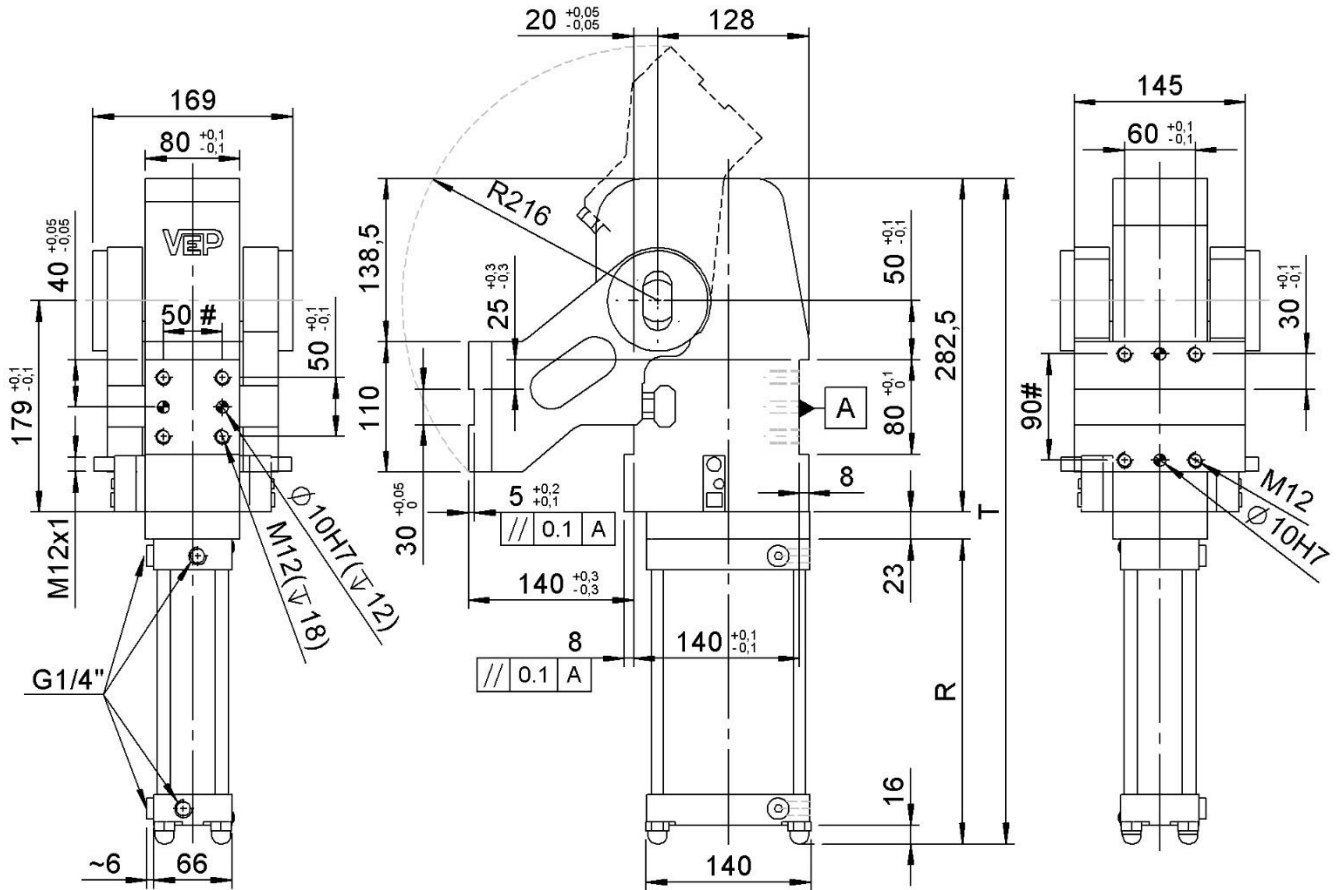
**\*备注.** 对每间隔 15 规格的翻转单元可以定制不同的打开角度。  
在技术应用允许下也可定制角度大于 > 120°的翻转单元。  
**\*NOTE:** It's possible to order different angles from those suitable to intervals of 15.  
It's also possible order angles > 120° only previous approval of the applications by our technical service.



## RP80.2-V...

翻转单元, D.80, 标准垂直夹臂

Swivel unit, D.80, Standard vertical arm



# 公差: 定位销孔:  $\pm 0.02$  | 螺纹孔:  $\pm 0.1$

#Tolerances: dowel holes:  $\pm 0.02$  | screw holes:  $\pm 0.1$

类型 Type	缸径 Cylinder bore	打开角度 Opening angle	R	T	重量 Weight	耗气量 (6 bar) Air consumption (6 bar)	保持力 Holding moment	工作气压 Working pressure
	[ mm ]	[ ° ]	[ mm ]	[ mm ]	[ Kg ]	[ l ]	[ Nm ]	[ bar ]
RP80.2-45V...	80	45°	197	510.5	~ 26.5	~5.2	2000	4 – 8
RP80.2-90V...		90°	242	555.5		~8.2		
RP80.2-120V...		120°	271.5	585		~10.2		
RP80.2-135V...		135°	282	603.5		~10.9		

最大摆动扭矩. (5 bar)

Max. torque by load (5 bar)

打开角度  $\leq 90^\circ$

Opening angle  $\leq 90^\circ$

**80 Nm**

打开角度  $> 90^\circ / \leq 120^\circ$

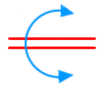
Opening angle  $> 90^\circ / \leq 120^\circ$

**55 Nm**

打开角度  $> 120^\circ / \leq 135^\circ$

Opening angle  $> 120^\circ / \leq 135^\circ$

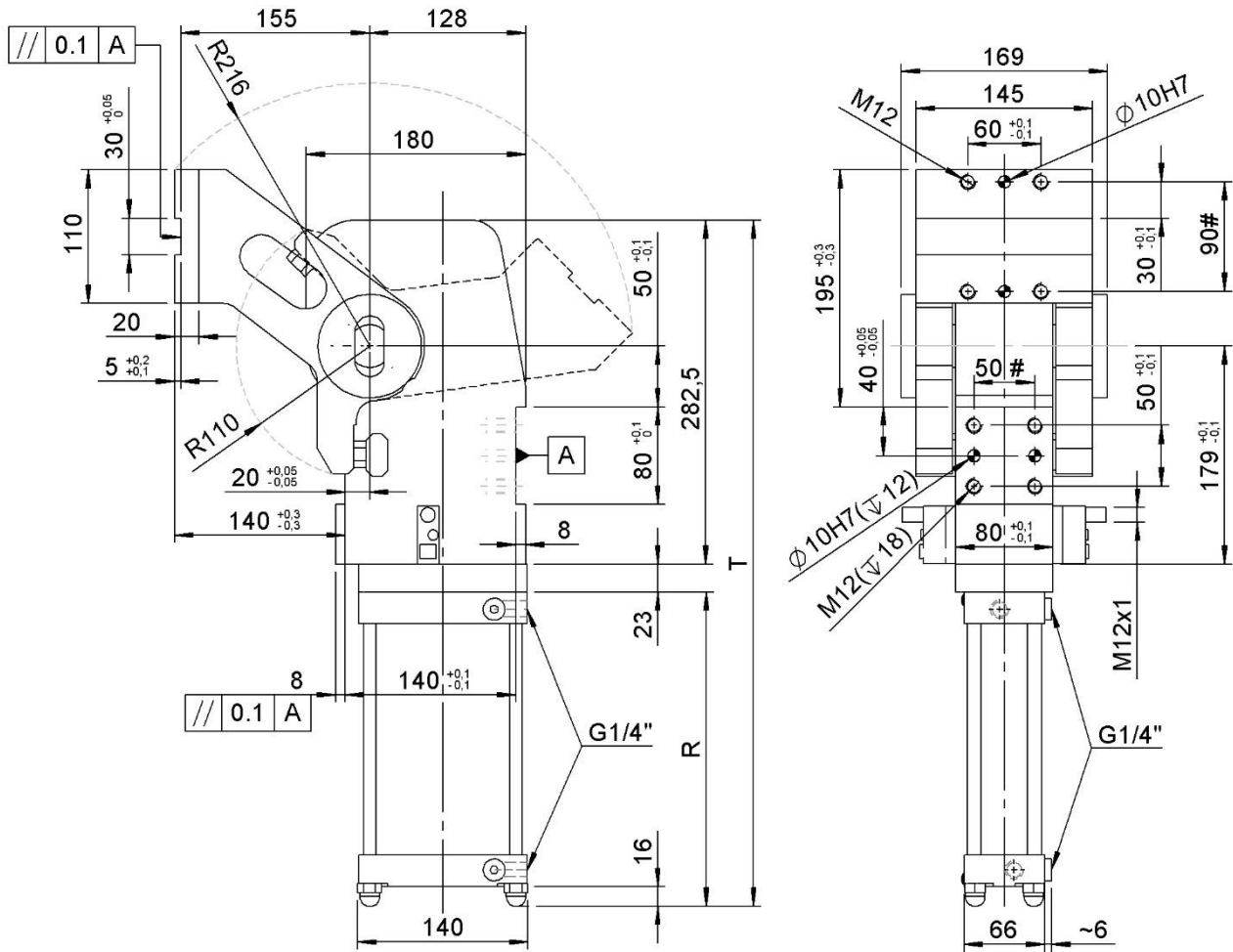
**40 Nm**



## RP80.2-V/LS...

翻转单元, D.80, 标准垂直夹臂

Swivel unit, D.80, Standard symmetric vertical arm



# 公差: 定位销孔:  $\pm 0.02$  | 螺纹孔:  $\pm 0.1$

#Tolerances: dowel holes:  $\pm 0.02$  | screw holes:  $\pm 0.1$

类型 Type	缸径 Cylinder bore	打开角度 Opening angle	R	T	重量 Weight	耗气量 (6 bar) Air consumption (6 bar)	保持力 Holding moment	工作气压 Working pressure
	[ mm ]	[ ° ]	[ mm ]	[ mm ]	[ Kg ]	[ l ]	[ Nm ]	[ bar ]
RP80.2-45V/LS...	80	45°	197	510.5	~ 26.5	~5.2	2000	4 - 8
RP80.2-90V/LS...		90°	24	555.5		~8.2		
RP80.2-120V/LS...		120°	271.5	585		~10.2		
RP80.2-135V/LS...		135°	282	603.5		~10.9		

最大摆动扭矩 (5 bar)

Max. torque by load (5 bar)

打开角度  $\leq 90^\circ$

Opening angle  $\leq 90^\circ$

**80 Nm**

打开角度  $> 90^\circ / \leq 120^\circ$

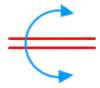
Opening angle  $> 90^\circ / \leq 120^\circ$

**55 Nm**

打开角度  $> 120^\circ / \leq 135^\circ$

Opening angle  $> 120^\circ / \leq 135^\circ$

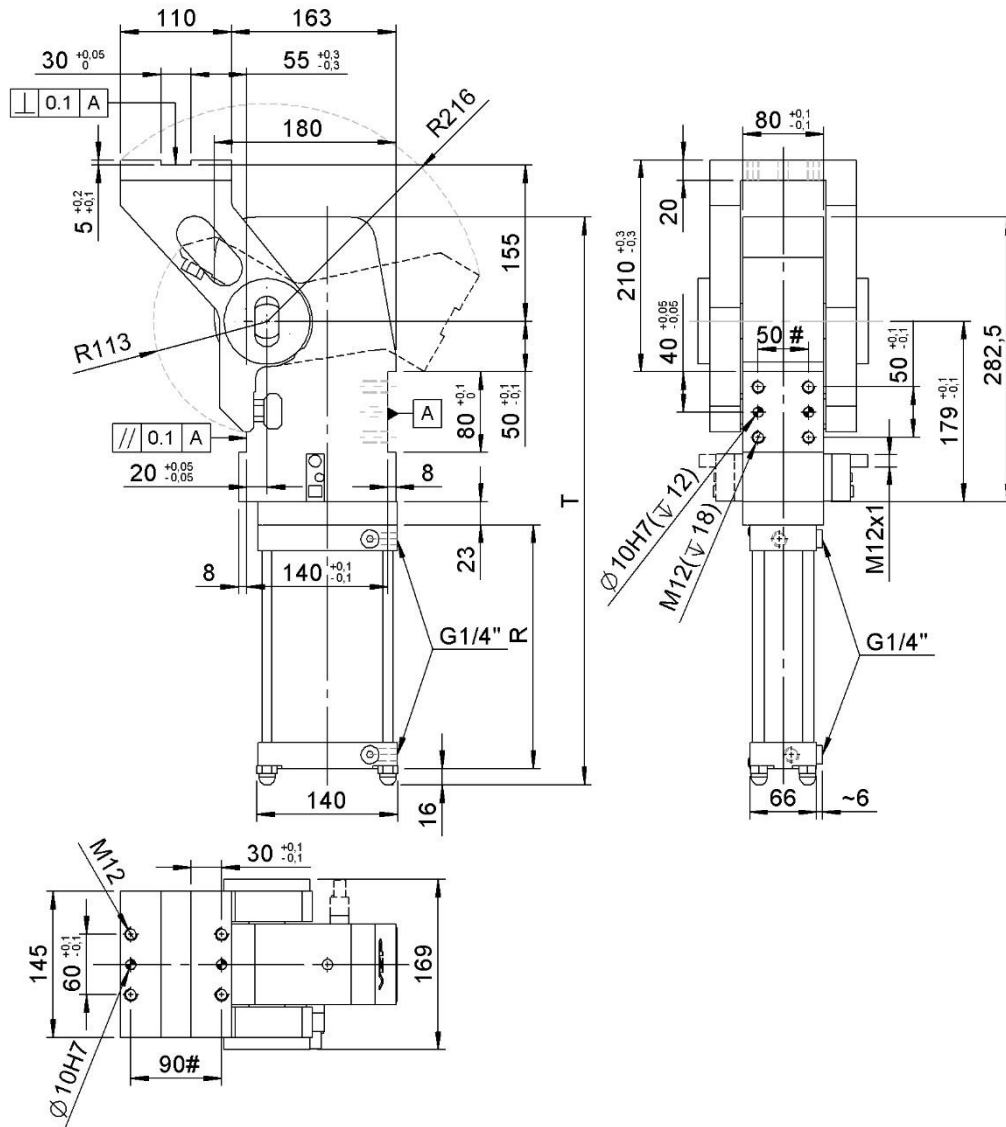
**40 Nm**



## RP80.2-O...

翻转单元, D.80, 标准水平夹臂

Swivel unit, D.80, Standard horizontal arm



# 公差: 定位销孔:  $\pm 0.02$  | 螺纹孔:  $\pm 0.1$

#Tolerances: dowel holes:  $\pm 0.02$  | screw holes:  $\pm 0.1$

类型 Type	缸径 Cylinder bore	打开角度 Opening angle	R	T	重量 Weight	耗气量 (6 bar) Air consumption (6 bar)	保持力 Holding moment	工作气压 Working pressure
	[ mm ]	[ ° ]	[ mm ]	[ mm ]	[ Kg ]	[ l ]	[ Nm ]	[ bar ]
RP80.2-45O...	80	45°	197	510.5	~ 26.5	~5.2	2000	4 - 8
RP80.2-90O...		90°	242	555.5		~8.2		
RP80.2-120O...		120°	271.5	585		~10.2		

最大摆动扭矩 (5 bar)  
Max. torque by load (5 bar)

打开角度  $\leq 90^\circ$

Opening angle  $\leq 90^\circ$

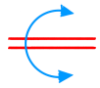
**80 Nm**

打开角度  $> 90^\circ / \leq 120^\circ$

Opening angle  $> 90^\circ / \leq 120^\circ$

**55 Nm**



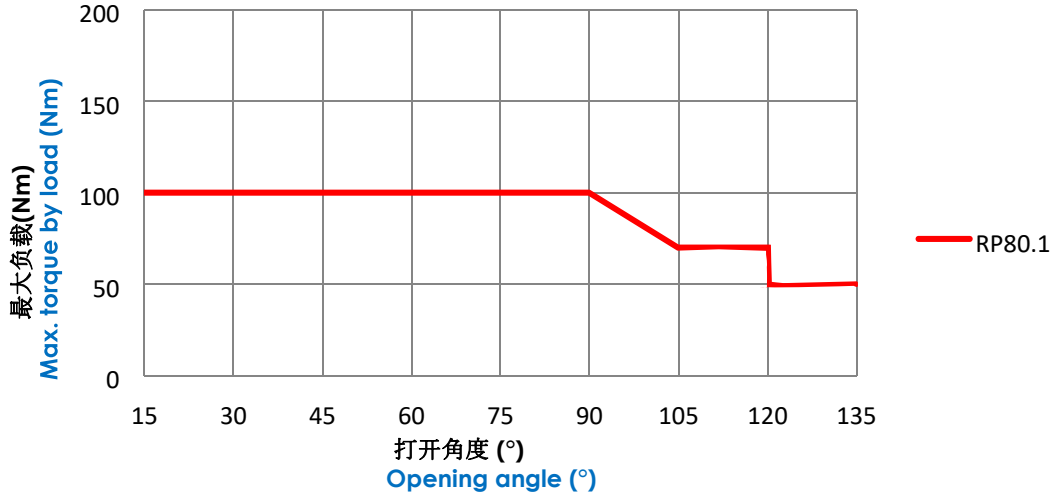


图表.

## Diagrams.

### 最大负载 (6 bar)

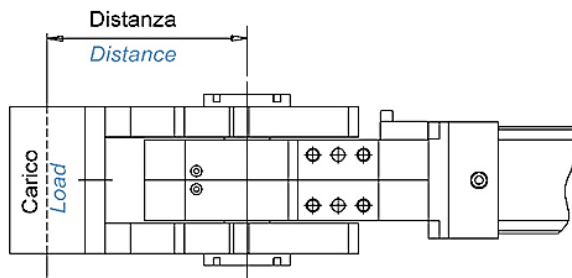
#### Diagrams of max. load. (6 bar)



最大负载扭矩 [Nm] Max. torque by load [Nm]								
打开角度 ≤ 90° Opening angle ≤ 90°			打开角度 > 90° / ≤ 120° Opening angle > 90° / ≤ 120°			打开角度 > 120° / ≤ 135° Angolo d'apertura > 120° / ≤ 135°		
4 bar	5 bar	6 bar	4 bar	5 bar	6 bar	4 bar	5 bar	6 bar
60	80	100	40	55	70	30	40	50

### 水平旋转最大负载(6 bar)

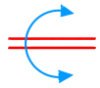
#### Max. applicable load with swivel unit positioned on its side (6 bar)



水平旋转

Swivel unit positioned on its side

最大负载扭矩 (Nm) Max. torque by load (Nm)	
	6 bar
RP80.2	80



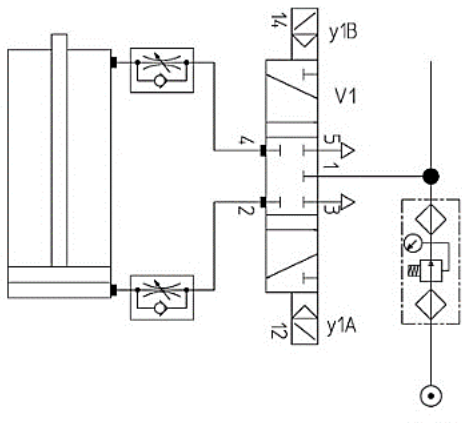
## 耗气量

### Air consumption.

	打开角度 Opening angle	耗气量 Air consumption (5 bar)	耗气量 Air consumption (6 bar)
	[°]	[l]	[l]
RP80.2	15	2,56	2,99
	30	3,57	4,16
	45	4,5	5,5
	60	5,25	6,13
	75	6,11	7,13
	90°	7,0	8,5
	105	7,91	9,23
	120°	9,0	10,5
	135°	9,5	11,0

## 气路图.

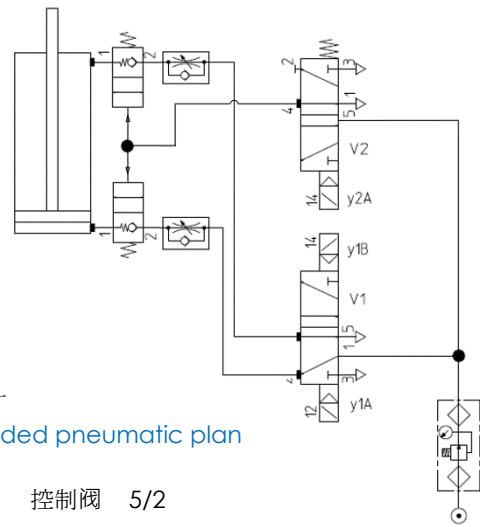
### Pneumatic system.



控制阀 5/3

Control valve

5/3



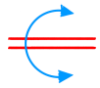
推荐的气动计

Recommended pneumatic plan

控制阀 5/2

Control valve

5/2



## 传感器图表.

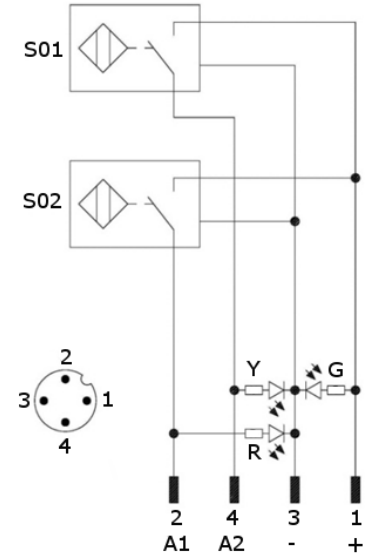
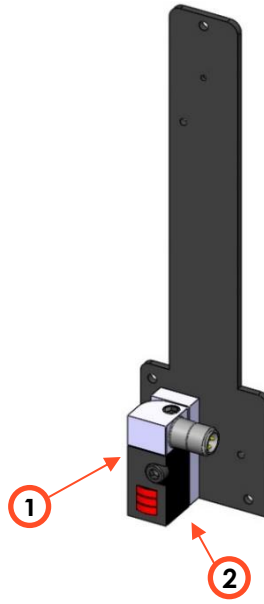
### Diagram for inductive sensor.

技术参数 (P+F):

- 输出类型: PNP;
- 输入电压: 10-30 VDC;
- 最大换向电流: 200 mA;
- 耗电电流: < 20 mA;
- 电压差: < 2 V
- 工作温度: -25° / 70° C.

Technical data (P+F):

- Output type: PNP;
- Supply voltage: 10-30 VDC;
- Max. commutating current: 200 mA;
- Power supply: < 20 mA;
- Voltage drop: < 2 V;
- Temperature range: -25° / 70° C.

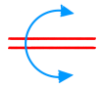


S01 = 打开信号  
S01 = opening signal  
S02 = 关闭信号  
S02 = closing signal

Y = 黄色 LED / yellow LED  
G = 绿色 LED / green LED  
R = 红色 LED / red LED

1 = 棕色系 / brown wire  
2 = 黑色线 / black wire  
3 = 蓝色线 / blue wire  
4 = 白色线 / white wire

RP80.1			
传感器类型 Inductive sensor type	功率放大器 Power amplifier 1	传感器卫星件 Sensor's satellite 2	完整传感器 Complete inductive sensor
Vep 传感器带红色 LED Vep sensor with red LED	3/472		RFSI - 1.2/L - 打开角度 RFSI - 1.2/L - opening angle
Pepperl + Fuchs 传感器带红色 LED Pepperl+Fuchs sensor with red LED	3/413	3/417	RFSI - 1.2/A - 打开角度 RFSI - 1.2/A - opening angle



## 减震，外部停止向导.

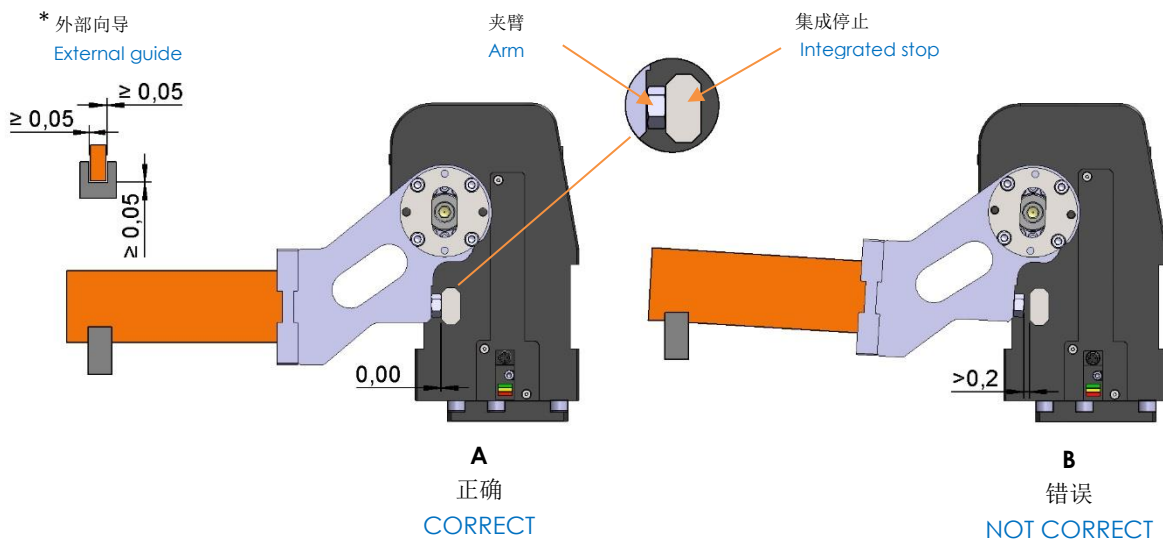
### Shock absorber, external stop guide.

请确保翻转单元完成了整个气缸行程直到关闭位置 (0°). 任何外部物体的干涉可能对翻转单元及安装在单元上的装备造成严重损坏.

Make sure that the swivel unit makes the complete stroke until the closing position is reached (0°). Any interference with external bodies can cause serious damage to the device and to the equipment mounted on it.

不建议使用外部限位器和减震器，因为它们会对装置的使用寿命产生负面影响。

The use of external stops and shock absorber is not recommended because they can have negative effects on the life of the unit.



**正确使用 (图 A):**

**CORRECT USE (picture A):**

正确使用集成限位块。夹臂到限位块的距离 = 0。

The integrated stop is used. The distance between the arm and the integrated stop = 0.

**错误使用 (immagine B):**

**WRONG USE (picture B):**

使用外部限位达不到 0° 位置。(夹臂到限位块的距离大于 0,2mm)。

External stops are used, that do not allow to reach the 0° position. (The distance between the arm and the integrated stop is greater than 0,2mm).

如果要使用外部导向, 变形保证以下机构要素:

- 翻转单元已经完全达到夹紧位置
- 必须保持以上措施 (\* 外部向导)
- 禁止将其当作外部限位使用

If external guides are used, the following points must be guaranteed:

- The swivel unit must fully reach the closed position
- The above measures must be maintained (\* external guides)
- They must not be used as external stops

如果不遵守上述要点, 我们保留取消质保的权利.

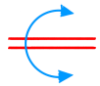
If the points indicated above are not respected, we reserve the right to void the warranty.


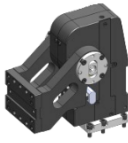





## 备件

### Spare parts.

配套元件 # Kit	图片 Picture	描述 Description	代号 Article
机械单元 Mechanical unit		机械单元RP80.2 Powerplant mechanical RP80.2	MP1.2
限位开关 Proximity switch		电感式限位开关 Vep 仅用于 RP80.2 Proximity switch Vep for RP80.2	RFSI - 1.2/L - ...°
		电感式限位开关 P+F 仅用于 RP80.2 Proximity switch P+F for RP80.2	RFSI - 1.2/A - ...°
功率放大器 Power amplifier		功率放大器带红色 LED Power amplifier red LED	3/413
传感器卫星件 Sensor's satellite		传感器卫星件 Sensor's satellite	3/417
夹紧器 Clamping block		夹紧器 RP80.2 Clamping block RP80.2	3/377
夹臂组装 Arm assembly		夹臂组装类型 V 仅为 RP80.2 Arm assembly type V for RP80.2	SPML-1V
		夹臂组装类型 V/LS 仅为RP80.2 Arm assembly type V/LS for RP80.2	SPML-1V/LS
		夹臂组装类型 O 仅为 RP80.2 Arm assembly type O for RP80.2	SPML-1O
		夹臂组装类型 O/LS 仅为 RP80.2 Arm assembly type O/LS for RP80.2	SPML-1OLS
密封套装 Seals kit		气缸密封组件仅用于RP80.2 Kit pneumatic cylinder seals RP80.2	SCR-CIL80
打开角度组件 Kit open angle		翻转单元 RP80.2打开角度组件 Pneumatic-Hydraulic unit RP80.2	KRP80-...°



<p><b>气缸</b> <b>Pneumatic cylinder</b></p>		<p>气缸 RP80.2 Pneumatic-Hydraulic unit RP80.2</p> <p>GW o GZ = 气源接口位置请参见第2页 GW or GZ = feeding position ports see page 2</p>	<p><b>SPR-80-...° -GW (GZ)</b></p>
<p><b>机械单元带夹臂和气缸连接适配器</b> <b>Mechanical unit with arms and cylinder adapter</b></p>		<p>机械单元带夹臂类型 <b>V</b> 和气缸连接适配器仅用于 RP80.2 Mechanical unit with arms and cylinder adapter type <b>V</b> for RP80.2</p>	<p><b>MP1.2-V-80</b></p>
		<p>机械单元带夹臂类型<b>V/LS</b> 和气缸连接适配器仅用于 RP80.2 Mechanical unit with arms and cylinder adapter type <b>V/LS</b> for RP80.2</p>	<p><b>MP1.2-V/LS-80</b></p>
		<p>机械单元带夹臂类型<b>O</b>和气缸连接适配器仅用于RP80.2 Mechanical unit with arms and cylinder adapter type <b>O</b> for RP80.2</p>	<p><b>MP1.2-O-80</b></p>
		<p>机械单元带夹臂类型<b>O/LS</b>和气缸连接适配器仅用于 RP80.2 Mechanical unit with arms and cylinder adapter type <b>O/LS</b> for RP80.2</p>	<p><b>MP1.2-O/LS-80</b></p>

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