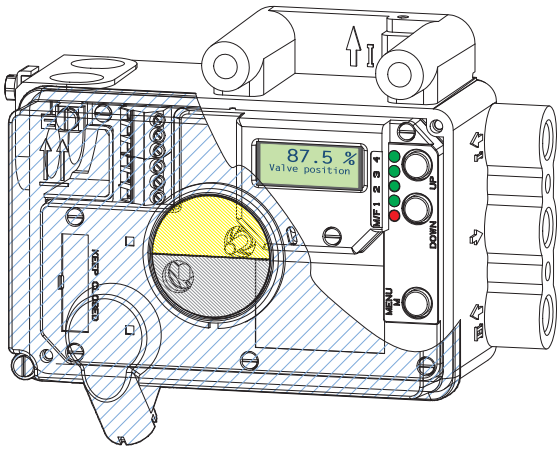
SRD991 型智能阀门定位器

Life Is On Foxboro by Schneider Electric

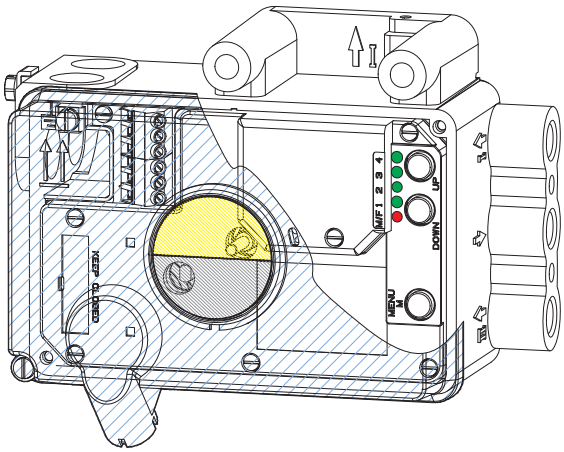
SRD991 型智能阀门定位器

此说明书是用于使定位器快速启动的指导。如果需要更多具体的信息，请参见标准文件“主说明书”和“产品规格单”。这些文件可以在我公司的网站找到。

带有 LCD 的型号（和 LEDs）：
SRD991 –HART, -PA, -FF, FoxCom

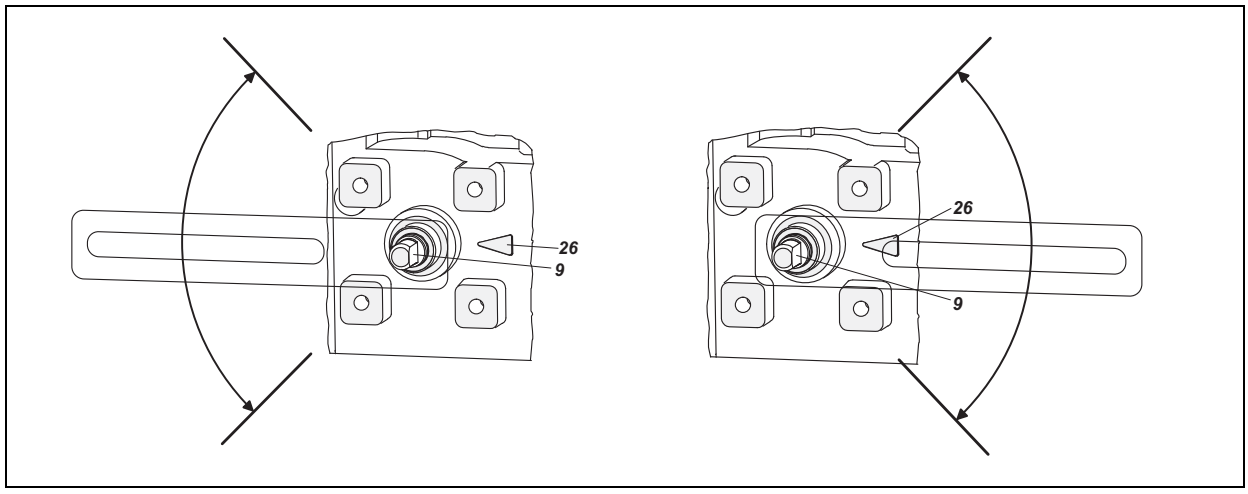


仅带有 LEDs:的型号
SRD991 - 所有类型–



1. 安装到执行机构上

在操作中，在定位器背后的轴 9 的平面必须**总是**面向箭头 26。围绕此方向的操作角度是 45º。



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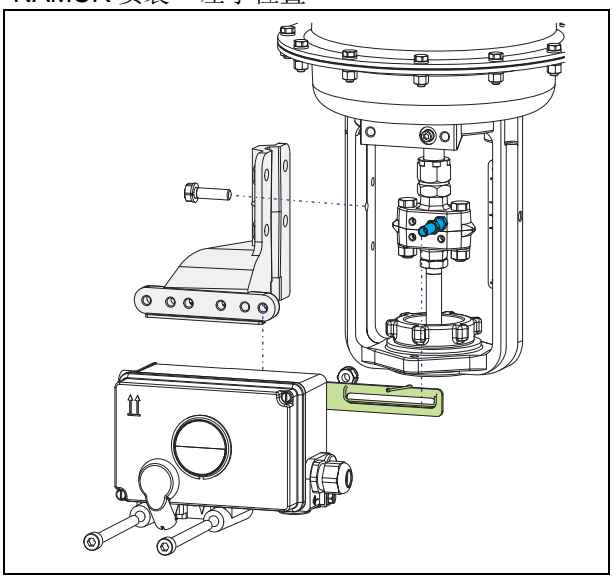
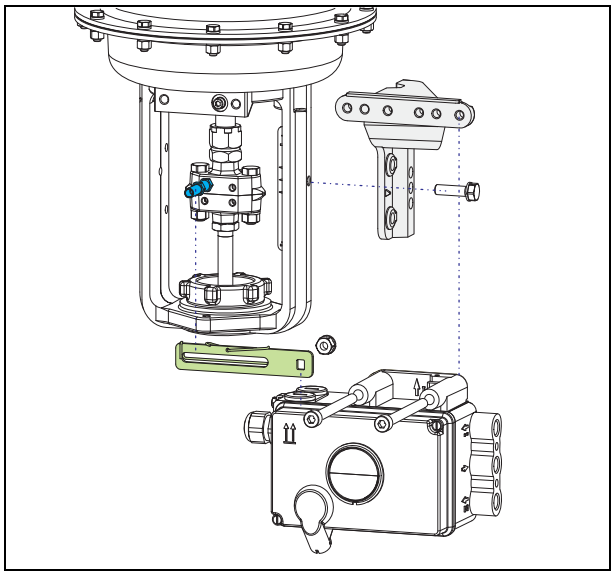
安装到线形执行机构上

NAMUR 安装 – 左手位置 -

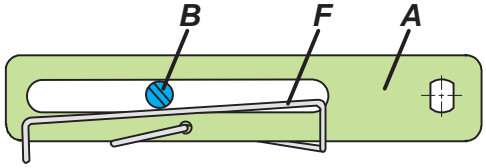


NAMUR 安装 –右手位置 -

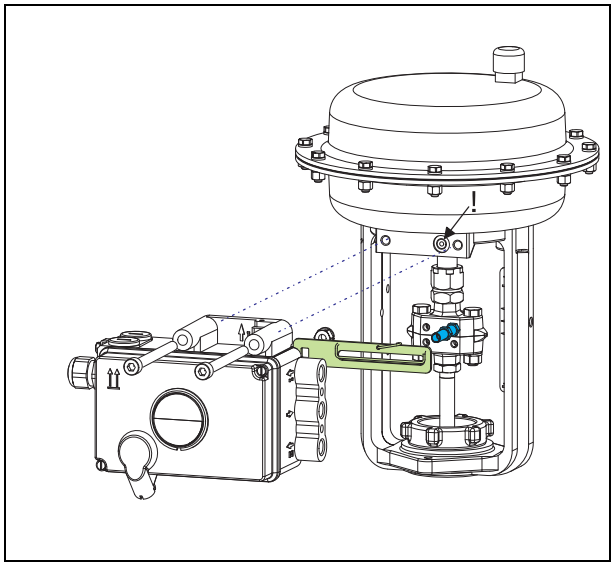


用于线形执行机构的反馈杆：

承载螺栓 B 在反馈杆 A 的长孔之中，并且补偿弹簧要接触到承载螺栓。

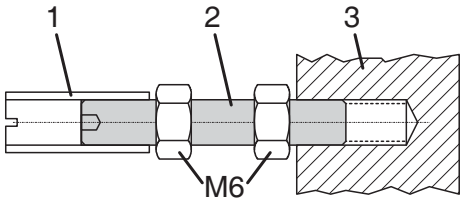


直接安装



承载螺栓 B:

1 螺套 2 柱头螺栓 3 接合件

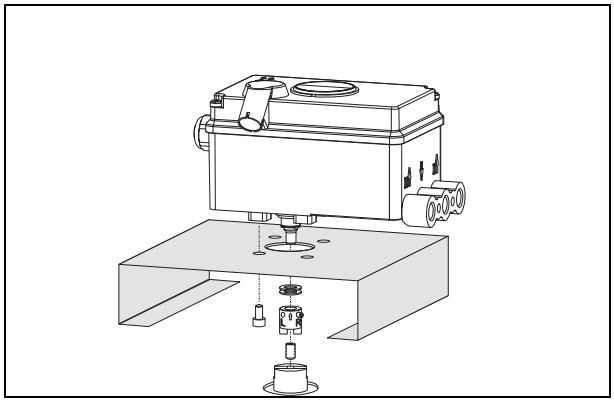


安装到角行程执行机构上

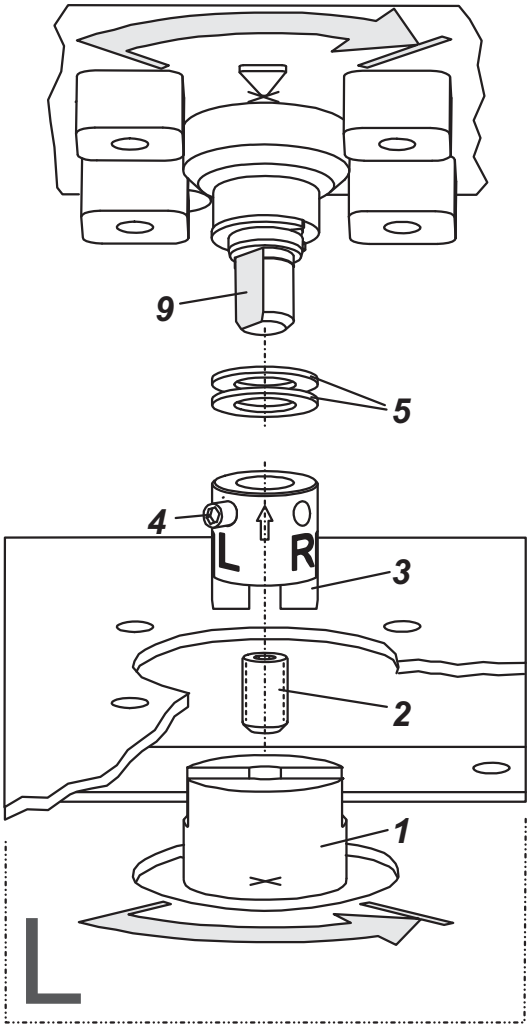
•不要将埋头螺钉 4 与轴 9 的螺纹拧紧。

•当在使用中，轴 9 的平面必须在箭头 26 的前面移动(0 ↔ 100%)。

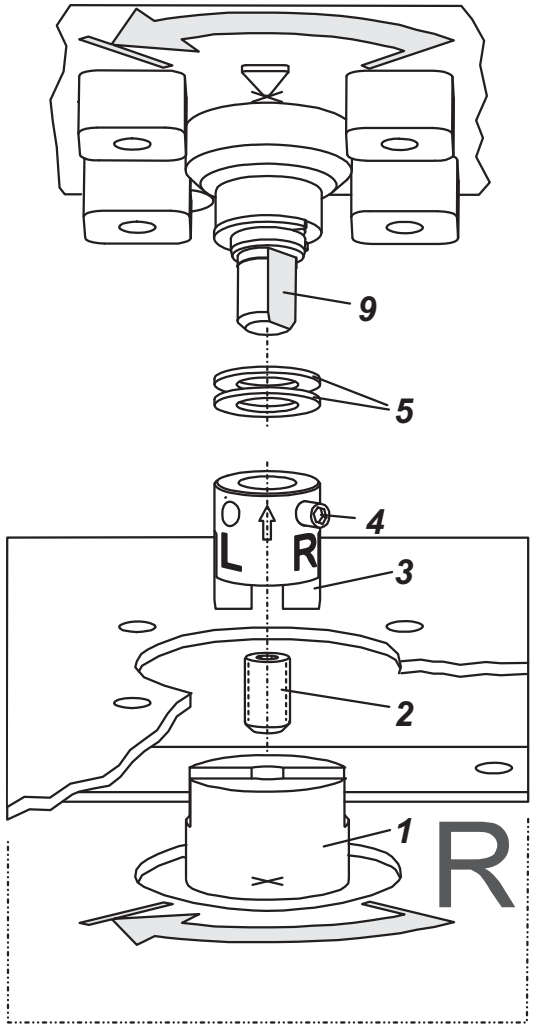
• 当产品的温度上升时，传动轴 1 的长度增加。因此，必须安装旋转适配器 3，以便于在传动轴 1 和旋转适配器 3 之间留有大约 1mm(0.04in.)的间隙。在安装旋转适配器之前，通过在反馈杆 9 上加上适当数量的垫圈 5 来实现此目的。2 个垫圈可形成 1mm 的间隙。



执行机构, 向左旋转



执行机构, 向右旋转

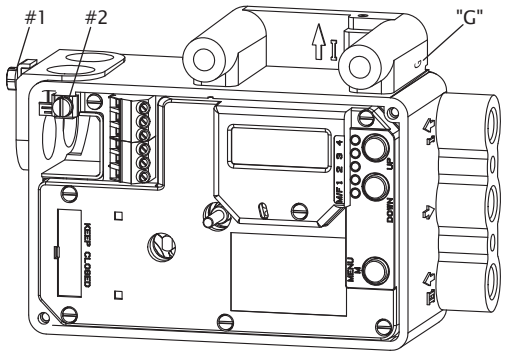


2. 连接

在安装配件和电缆密封管之前检查螺纹是否匹配，如果不匹配，外壳会被损坏。在外壳上的字母“G”表明气动接头是 G1/4（其他的是 NPT）。

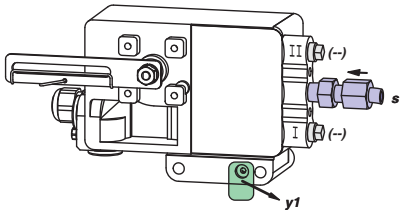
接地

将接地电缆与螺钉#1 或#2 连接（在电动连接部位）

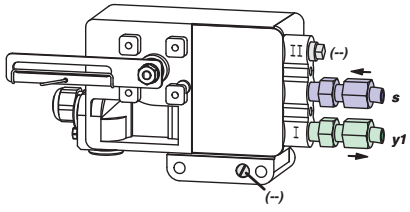


气动连接

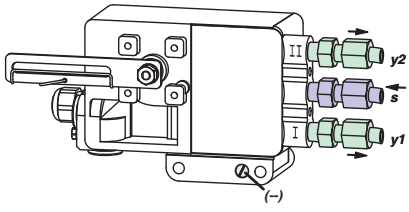
气源：1.4 to 6 bar（但不能大于执行机构的最大压力），无油、灰尘和水！



单作用, 直接安装



单作用

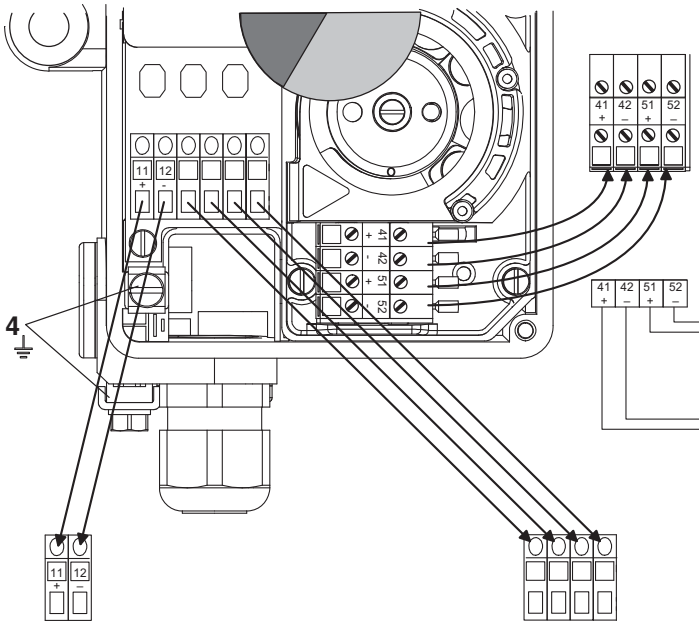


双作用

s 气源　y1, y2 气动输出　(--) 关闭

3. 电动连接

必须遵守文件 EX EVE0001 的安全要求和 PSS EVE0105 文件和 MI EVE0105 for SRD991 文件中的要求!



3.2 感应限位开关

SRD991-xxxT or U
遵照 DIN 19234 or NAMUR 的两线制传感器
供给电压 DC 8 V

带有本安控制电路的开关放大器

带有本安控制电路的开关放大器

SRD991-xxxV
警告: 对于连接微动开关，请参见主说明书并参考在文件 EX EVE0001 中所描述的安全要求。

3.1 设定点

对于 SRD991-xD (w/o 通讯)
对于 SRD991-xH (HART)
对于 SRD991-xE (FoxCom it1)

输入 4 to 20 mA

对于 SRD991-xF (FoxCom it2)

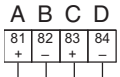
供给电压 DC 13 to 48 V *

对于 SRD991-xP (PROFIBUS-PA)
对于 SRD991-xQ (FOUNDATION F. H1)

遵照 IEC 1158-2 的总线连接
供给电压 DC 9 to 32 V*

3.3 可选电路板

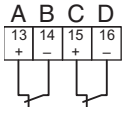
二进制输出 (SRD991-xxP)
两线制, 遵照 DIN 19234
供给电压 DC 8 to 48 V*



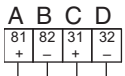
带有本安控制电路的开关放大器

带有本安控制电路的开关放大器

二进制输入 (SRD991-xxB)
内部供给的二进制输入用于连接传感器或开关
(用于正常操作的开关关闭!)



位置反馈 4 to 20 mA 和 1 个警报器 (SRD991-xxQ)



4 to 20 mA 模拟输出,
两线制,
供应电压 DC 8 to 48 V*

带有本安控制电路的开关放大器

*.对于本安电路，请参照认证/最大操作压力的数据标签等等。

4. 启动 (通过现场按键和 LCD / LEDs 的方式设定)

在定位器安装到执行机构、气源以及电输入连接完成后，您就可以开启 SRD 型定位器了。
注意：在按键操作过程中，请勿接触定位器外壳后面！有受伤危险！

显示描述

过程参数

```
  87.5 %
Valve position
```

过程参数和诊断

```
  87.5 %
Valve position
Ctrl diff error
```

在组态中: 主菜单

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```

在组态中，被选项目加深背景显示。
显示更多菜单需按（向上）键。

通过按键来组态和操作

通过 LCD 显示:

已组态的设备会有如下显示：

```
  87.5 %
Valve position
```

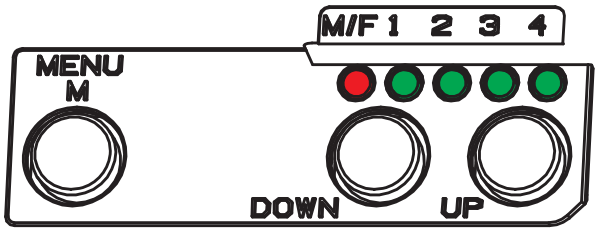
如组态，请按(M)键，主菜单将显示出来。
如果 SRD 定位器还没有被组态，主菜单*)将在开启后自动显示出来：

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```

在菜单 1 中，您可以选择安装方式。

*)
交付使用时，显示的菜单语言为英语。
菜单语言可以改变成其他存储的语言。为此，可选择 9.8.2 [德语] 或 9.8.3 [根据订单]，并通过 （向上）+（向下）键（同时）按下来确定。
通过重复按(M)键来离开菜单。

按键



(M)
进入或退出主菜单

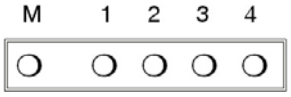
(向下)
上一个菜单或参数

(上)
下一个菜单或参数

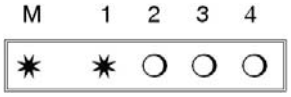
|-两个同时按下:-|
进入 / 存储

通过 LED 显示

在开启后，一个已组态的设备在运转中，所有 LEDs 指示灯将熄灭。



如组态，请按（M）键，LEDs 指示灯‘M/F’和‘1’将闪烁。（=菜单 1 被提供出来）
如果 SRDD 定位器还没有被组态，菜单 1 将在开启后自动提供出来：



在菜单 1 中，您可以选择安装方式。

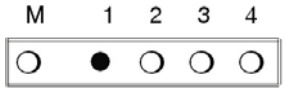
... LCD 显示:

... LED 显示:

同时按（向上）+（向下）键进入‘安装方式’菜单。通过按（向上）或（向下）键选择‘安装方式’。

```
1  Mounting
1.1 Lin left
1.2 Lin right
1.3 rot cclockw
```

(更多菜单请按（向上）键。)



线形执行机构，左手方向安装。

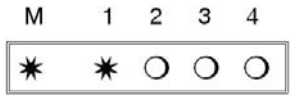
线形执行机构，右手方向安装。

角行程执行机构，逆时针开启

角行程执行机构，顺时针开启

同时按（向上）+（向下）键来确定并保存。
SRD 定位器将回到第 1 级菜单并再次进入主菜单。

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```



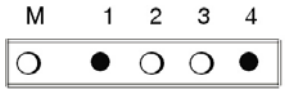
进入下一个菜单（=菜单 2，自动启动）
按（向上）键一次。

进入下一个菜单（=菜单 2，自动启动）
按（向上）键一次，LEDs ‘M’ 和 ‘2’指示灯将闪烁。

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```

同时按（向上）+（向下）键进入‘自动开启’菜单。通过按（向上）或（向下）键选择全部或短时间自动启动。

```
2  Autostart
2.1 Endpoints
2.2 Standard
2.3 Enhanced
```



全部自动启动

可选择的不同的自动启动：

2.1 终点
只决定执行机构/阀门的机械停止

2.2 标准
被推荐的自动开启，用于标准应用。

2.3 增强的
增强的自动启动。与标准自动启动相比，控制动作被优化。

2.4 平稳
延长的自动开启. 衰减的控制动作，例如较小的执行机构。

2.5 快速
延长的自动开启. 非衰减的控制动作，例如较大的执行机构。

同时按（向上）+（向下）键来确定并执行自动开启。

自动适用到阀门上由一系列的步骤组成，在LCD上说明或通过LEDs指示。

在最后一步完成后，设备进入运转状态。

带有LCD的SRD991/SRD960定位器的菜单结构

SRD主菜单

Menu	工厂组态	描述
1 Mounting		安装
1.1 Lin left	✓	线形执行机构, 左手方向或直接安装
1.2 Lin right		线形执行机构, 右手方向安装
1.3 Rot cclockw		角行程执行机构, 逆时针方向开启
1.4 Rot clockw		角行程执行机构, 顺时针方向开启
2 Autostart		自动开启
2.1 Endpoints		只适合机械停止
2.2 Standard		推荐的自动开启,标准应用
2.3 Extended		延长的自动开启,快速响应并可能过度动作
2.4 Smooth resp.		延长的自动开启, 衰减响应以避免过度动作
2.5 Fast resp.		延长的自动开启,非常快速的响应并限制过度动作
3 Valve Action		阀门动作
3.1 Direct	✓	阀门开启,设定点值递增
3.2 Reverse		阀门关闭,设定点值递增
4 Character		特性
4.1 Linear	✓	线形特性
4.2 Eq Perc 1:50		等比特性 1:50
4.3 Quick open		反转等比特性 1:50 (快开)
4.4 Customer		自定义特性
5 Limits/alarms		*不能在现场使用具有FF 和Profibus 通讯的LED 型*
5.1 Lower limit	0 %	设定关闭限制的输入值
5.2 Cutoff low	1 %	设定0%-紧密封点输入值
5.3 Cutoff high	100 %	设定100%-紧密封点输入值
5.4 Upper limit	100 %	设定开启限制的输入值
5.5 Splitr 0 %	4 mA	分程 0 %: 输入值对应 0 %
5.6 Splitr 100 %	20 mA	分程 100 %: 输入值对应 100 %
5.7 Lower Alarm	-10 %	为输出1低位报警设定输入值
5.8 Upper Alarm	110 %	为输出2高位报警设定输入值
5.9 Valve 0%	4 mA	组态在4mA时额定行程为0%
5.10 Valve 100%	20 mA	组态在20 mA时额定行程为100%
5.11 Stroke Range	x° / 20mm	公称行程组态
5.12 Temp unit	°C	温度单位为°C or °F的组态
6 Parameters		参数
6.1 Gain closing	15	P: 用于'关阀'的比例增益
6.2 Gain closing	2	P: 用于'开阀'的比例增益
6.3 Res time cl	7.5	I: 用于'关阀'的整体时间
6.4 Res time op	2.4	I: 用于'开阀'的整体时间
6.5 Rate lim cl	0.35	T63:设定'关阀'的时间
6.6 Rate lim op	0.35	T63:设定'开阀'的时间
6.7 Control gap	0.1	可允许的中性区用于控制差异
7 Output		手动设置IP-模块用于测试气动输出
8 Setpoint		手动设置阀位
8.1 12.5% Steps		通过使用向上或向下按键使设定点每步变化12.5%
8.2 1% Steps		通过使用向上或向下键使设定点每步变化1%

下一页继续...

8.2 12.5% Steps		Setpoint springs of 12.5% at each druck on Up or Down
8.2 1% Steps		Setpoint springs of 1% at each druck on Up or Down
9 Workbench		
9.1 Reset Config		Resetting of configuration to setting “ex factory”
9.2 Calib. 4 mA		Calibrate input current to 4 mA
9.3 Calib. 20 mA		Calibrate input current to 20 mA
9.4 Calib. -45°		Calibrate position measuring value to –45°
9.5 Calib. +45°		Calibrate position measuring value to +45°
9.6 Reset all 1		Resetting of configuration and Calibration (!) to “ex factory” setting for **single-acting** output
9.7 Reset all 2		Resetting of configuration and Calibration (!) to “ex factory” setting for **double-acting** output
9.8 Menu Lang		
9.8.1 English	✓	Standard
9.8.2 Deutsch		Standard
9.8.3 Français		Preselected / Freely Defiable
9.9 LCD orient		
9.9.1 Normal	✓	Normal orientation of writing on LCD
9.9.2 Flipped		Reverse orientation of writing on LCD
9.10 Cal. Feedbk		Calibration of output current of position transmitter
9.10.1 Cal 4mA		Calibration of 0% at 4mA
9.10.2 Cal. 20mA		Calibration of 100% at 20mA
10 - not available - for HART		
10 Profibus PA - Bus Address		
10.1 Address LSB		Ratio from Dec. 0 / Hex 00 to Dec. 15 / Hex 0F
10.2 Address MSB		Ration from Dec. 0 / Hex 00 to Dec. 112 / Hex 70
10.3 Address	126	Display of Bus Address from Dec. 1 to 127 (Hex 00 to 7F)
10 FOUNDATION Fieldbus H1		
10.1 Simulate		
Disabled	✓	Simulate disabled
Enabled		Simulate enabled
10.2 Profile		

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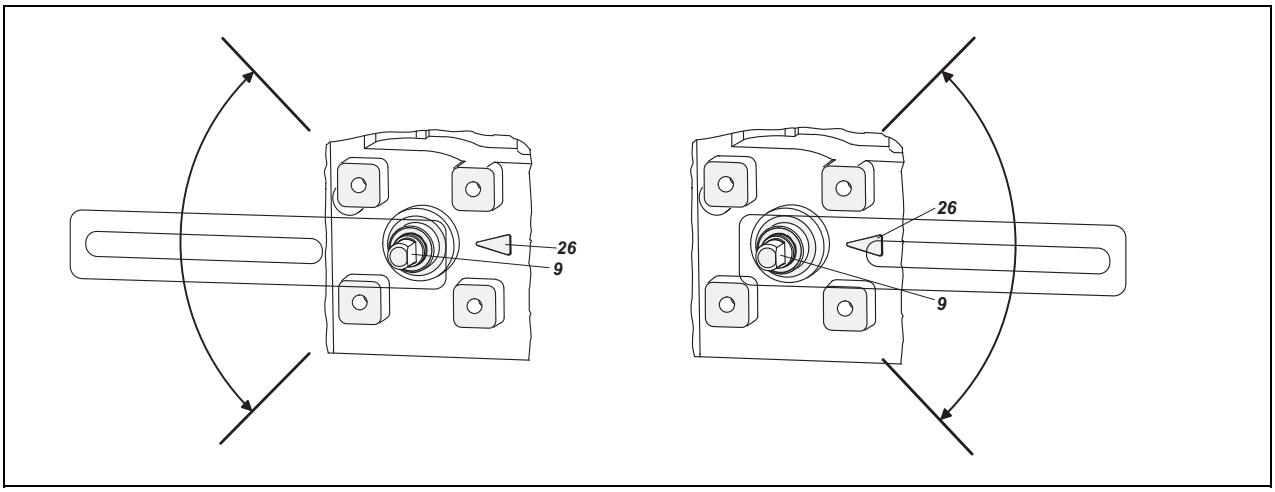
DOKT 534 022 428
FD-QG-PO-002-CH 0316

SRD991 Intelligent Positioner

These instructions are to be used as a guide for quick start-up. For more detailed information, please refer to the standard documents “Master Instructions” and “Product Specification Sheet”. These can be found on our Website.

1. MOUNTING TO ACTUATORS

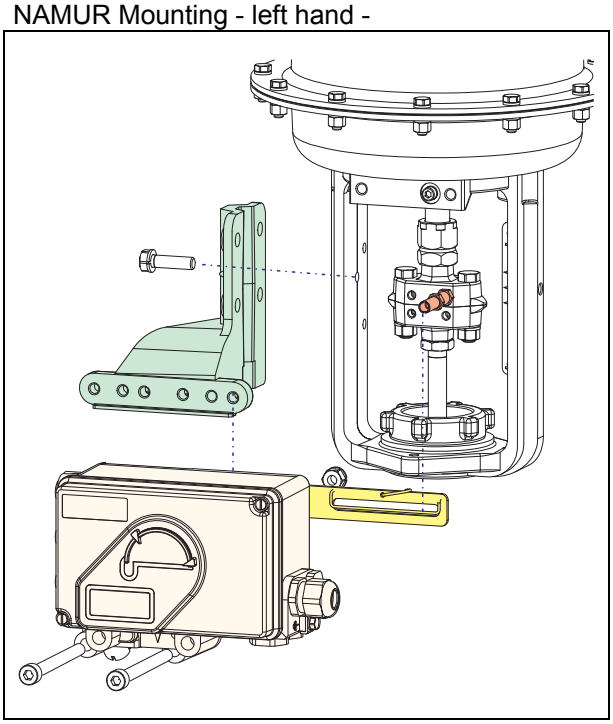
During operation, the flat side of the spindle ***9*** on the back of the positioner must **always** point towards the arrow ***26***. The working angle around this position is ±45º.



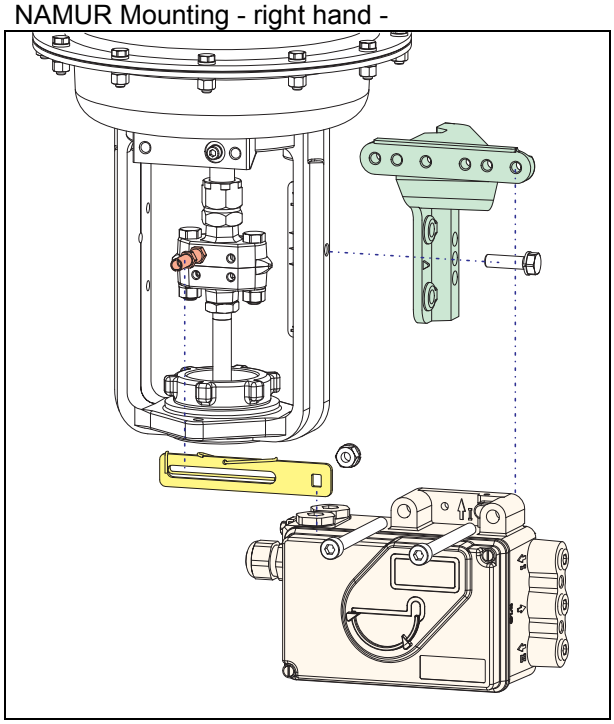
Any mechanical backlash may be source of poor control, oscillation and hunting as well as long duration of Autostart. Please use only original mounting parts and ensure that they are correctly mounted and tighten. By not using the original feedback lever or by using them in an inappropriate way, the performance of the positioner may be compromised.

MOUNTING TO LINEAR ACTUATORS

NAMUR Mounting - left hand -



NAMUR Mounting - right hand -



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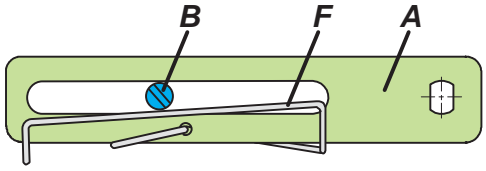
MOUNTING TO LINEAR ACTUATORS (cont'd)

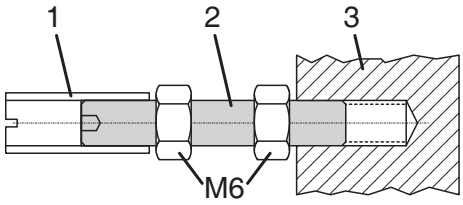
Feedback lever for linear actuators :

The carrier bolt ***B*** is in the slot of the feedback lever ***A*** and the compensating spring ***F*** touches the carrier bolt.

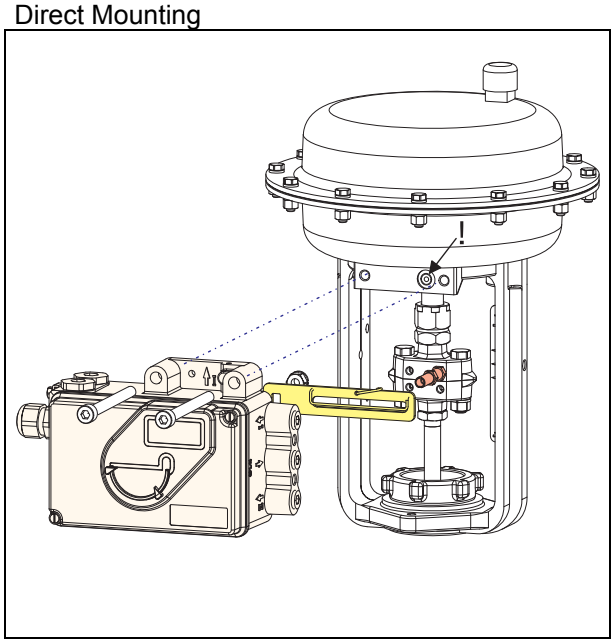


Carrier bolt B:

1 threaded sleeve 2 Stud 3 coupling piece



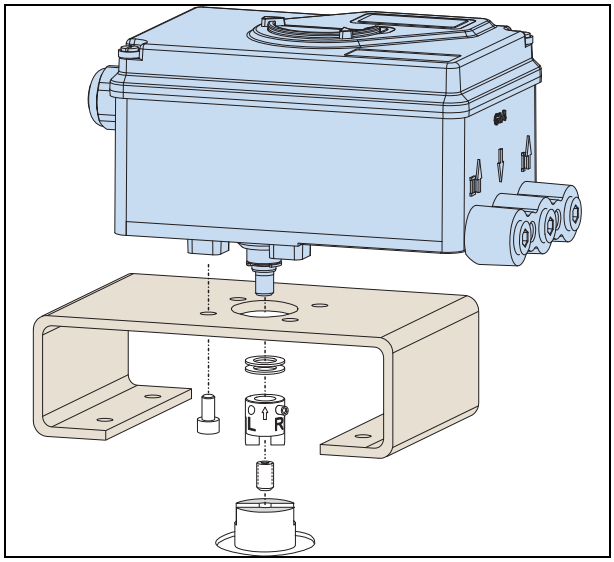
Direct Mounting



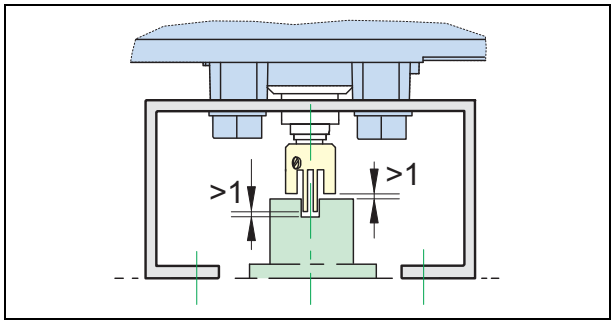
MOUNTING TO ROTARY ACTUATORS

• Do not tighten grub screw ***4*** against the thread of spindle ***9*** ! (see next page).

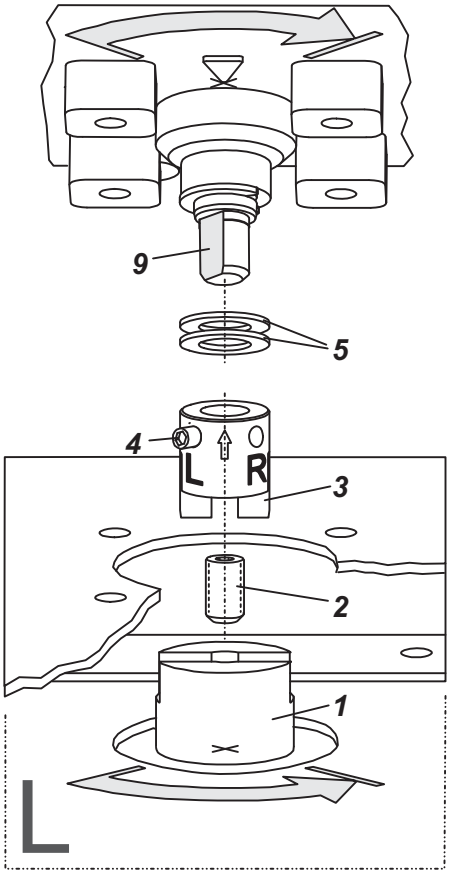
• When in use the flat side of the spindle ***9*** must move (0 ↔ 100%) in front of the arrow ***26***.



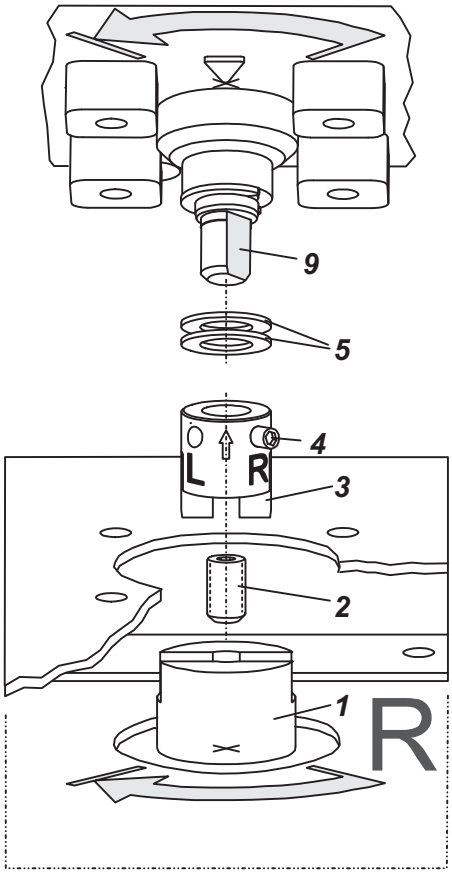
• When the product temperature rises, the drive shaft ***1*** increases in length. Therefore, the rotary adapter ***3*** must be mounted so that approx. 1 mm (0.04 in.) of clearance results between the drive shaft ***1*** and the rotary adapter ***3***. This is achieved by placing an appropriate number of washers ***5*** on the feedback spindle ***9*** before attaching the rotary adapter. Two washers should result in a clearance of 1 mm.



Actuator, left turning

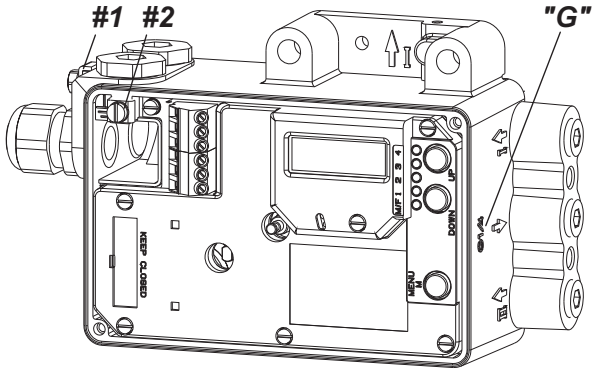


Actuator, right turning



2. CONNECTIONS

Check before mounting fittings and cable glands that the threads are matching; otherwise the housing can be damaged. The letter "***G***" on the housing marks where the pneumatic connections are in G 1/4 (otherwise NPT).



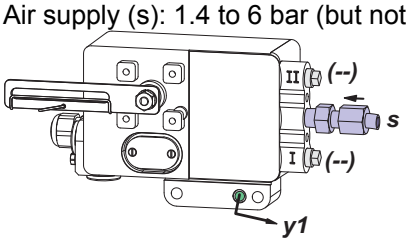
Ground
Connect earth cable to screw ***#1*** (or screw ***#2*** in the electrical connection compartment).

PNEUMATIC CONNECTIONS

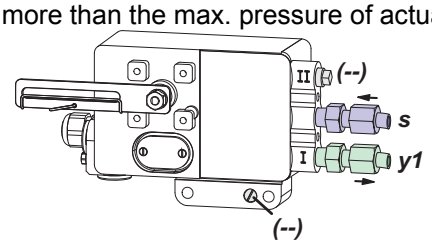
WARNING

To avoid any personal injury resulting from bursting of parts, do not exceed maximum supply pressure of positioner and actuator. To avoid any personal injury or property damage from sudden or fast movement, during air connection: ***Do not put your finger or other part at any time inside the valve or in any moving part of the actuator or in the feedback lever mechanism. Do not touch the rear part of the positioner at any time.*** *Connect air supply only after connections y1 (and y2 for double acting) are done.*

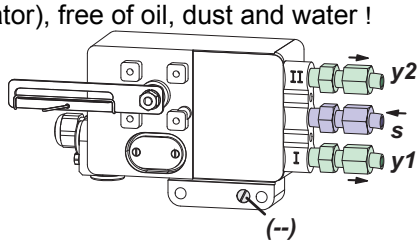
Air supply (s): 1.4 to 6 bar (but not more than the max. pressure of actuator), free of oil, dust and water !



Single acting, Direct mounting



Single acting

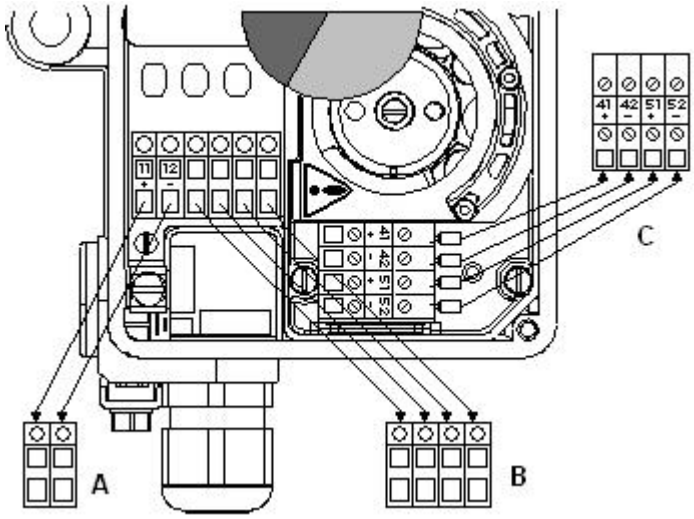


Double acting

s supply y1, y2 pneumatic outputs (--) closed

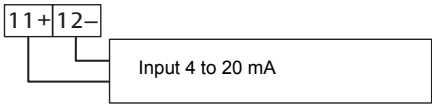
3. ELECTRICAL CONNECTIONS

The safety requirements of document EX EVE0001 as well as the requirements of PSS EVE0105 and MI EVE0105 for SRD991 must be observed!

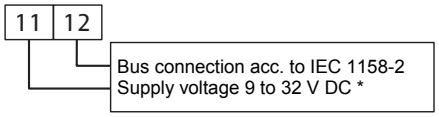


3.1 Setpoint Electric Terminal A

3.1.1 SRD991-xD (w/o communication)
SRD991-xH (HART)

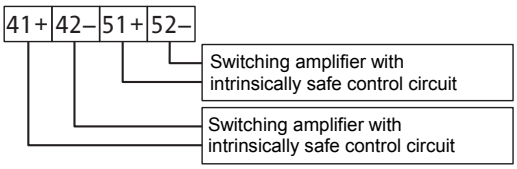


3.1.3 SRD991-xP (PROFIBUS PA)
SRD991-xQ (FIELDBUS FF)

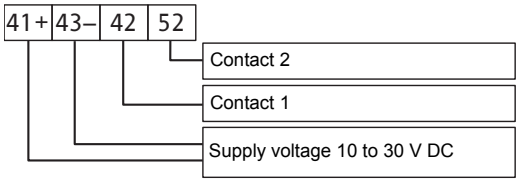


3.2 Inductive Limit Switch Electric Terminal C

3.2.1 SRD991-xxxT or U
Two-wire proximity sensors,
acc. to DIN 19234 or NAMUR



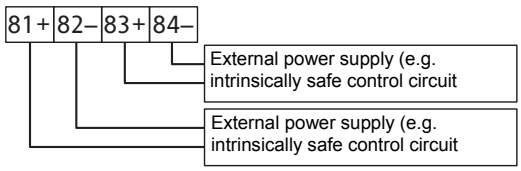
3.2.2 SRD991-xxxR



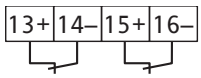
3.2.3 SRD991-xxxV
Warning: For connection of micro switches please refer to MI (Master Instruction) and obey the safety requirements described in document EX EVE0001.

3.3 Option Board Electric Terminal B

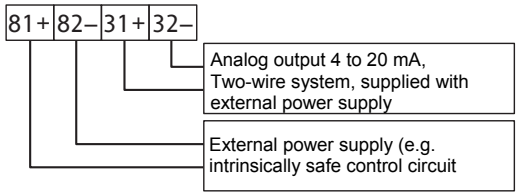
3.3.1 Two binary outputs (SRD991-xxP)
Two-wire system, acc. to DIN 19234
or switched output.



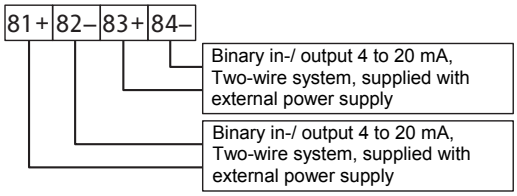
3.3.2 Two binary inputs (SRD991-xxB)
Binary inputs with internal supply for connection of sensors or switches (switch **closed** for a normal operation!)



3.3.3 Position feedback 4 to 20 mA and 1 Alarm (SRD991-xxQ ou SRD991-xxF)
Analog output 4-20 mA and Binary output Two-wire system acc. to DIN 19234 or switched.



3.3.4 Two binary in-/outputs (SRD991-xxE)
Two-wire system acc. to DIN 19234 or switched in-/output.



* For intrinsically safe circuits please refer to certificate / data label for max. operating voltages etc.

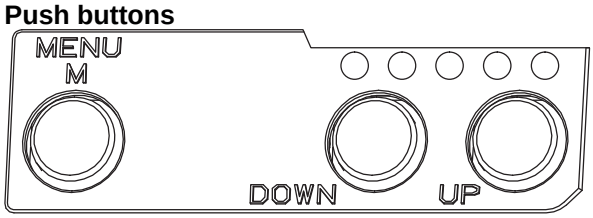
4. START UP (Setting by means of local keys and LCD)

After mounting the positioner on the actuator, air and electrical input connected, you can start-up the SRD. The positioner can be adjusted by means of a local key-pad and LCD.

WARNING

To avoid any personal injury or property damage from sudden or fast movement, during configuration: ***Do not put your finger or other part at any time inside the valve or in any moving part of the actuator or in the feedback lever mechanism. Do not touch the rear part of the positioner at any time.***

Push buttons



(M) Enter or exit Main menu

(DOWN) Previous menu or Parameter

(UP) Next menu or Parameter

|-both simultaneously:-| Enter / store

IN OPERATION:

An already configurated device may show the following display:

```
  87.5 %
Valve position
```

Process variable

For configuration press (M) and Main menu appears.

CONFIGURATION with push buttons and LCD:

If the SRD wasn't configurated yet, the Main menu*) appears automatically after power-up:

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```

(The selected item is displayed with dark background.)

In menu 1 you select the type of mounting: Press keys **(UP)+(DOWN)** simultaneously to enter this menu.

Select your 'Type of mounting' by pressing **(UP)** or **(DOWN)**.

```
1  Mounting
1.1 Lin left
1.2 Lin right
1.3 rot cclockw
```

Press keys **(UP)+(DOWN)** simultaneously to confirm and save. The SRD moves back to Main menu again.

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```

To enter next menu (= menu 2, Autostart) press **(UP)** once:

```
SRD Main Menu
1  Mounting
2  Autostart
3  Valve Action
```

Now press keys **(UP)+(DOWN)** simultaneously to enter menu 'Autostart'.

(Continued on next page.)

*) On delivery the menu language in the display is English. The menu language can be changed over to another stored language. For this select 9.8.2 [German] or 9.8.3 [as ordered] and confirm with keys (UP)+(DOWN) (simultaneously). Leave menu by repeated pressing of (M) key.

Several Autostart options are available . Select relevant Autostart by pressing **(UP)** or **(DOWN)**:

```
2  Autostart
2.1 Endpoints
2.2 Standard
2.3 Enhanced
2.4 Smooth resp.
2.5 Fast resp.
```

→ Determines only the mechanical stops of actuator / valve
→ **Recommended for standard applications**
→ Optimized control behaviour compared to Standard Autostart
→ Dampened control behaviour for e.g. smaller actuators
→ Undampened control behaviour for e.g. larger actuators

Press keys **(UP)+(DOWN)** simultaneously to confirm and to launch Autostart. The automatic adaptation to the actuator is composed of a sequence of steps indicated on the LCD.

With the last step the device is **IN OPERATION**:

```
87.5 %
Valve position
```

Process variable

```
87.5 %
Valve position
Ctrl diff error
```

Diagnostic messages see following table.

5 TROUBLE SHOOTING (For more details see MI EVE0105 E)

Autostart err 1	
Description of message / LCD text	Remedy
Air supply too low	Check air supply
Feedback lever (linear actuator) or Coupling (rotary actuator) incorrectly linked. Potentiometer moves out of operating range of ± 47° of 0° position	Check mounting. Flat area points to arrow on housing
Coupling (rotary actuator) incorrectly linked (R and L interchanged)	Check mounting
Pneumatic output to actuator closed or untight. When direct mounting onto FlowTop or FlowPak, the screw plug y1-d is not removed	Check pneumatic connections
Mechanical stops not determinable	Check spring movement of actuator / check air supply / Check mounting
When using a booster or spool valve, no control parameters can be determined, since air capacity is too high	Device version is not suitable for this actuator; select version with smaller air capacity or remove booster
Control parameter too high since air capacity is too high (in general, oscillation in valve movement)	Use a booster or the version with spool valve. Reduce control parameter prop.-gain (Menu 6.1 and 6.2) to Code 10 = value 26.6.
Possibly incomprehensible configuration data	Reset configuration, see Menu 9.1

Optionboard err	
Description of message / LCD text	Remedy
Configured status of the SRD deviates from existing version (e.g. Option board has been inserted subsequently)	Check if correct option board has been connected Confirm message by pressing keys **(UP)+(DOWN)** simultaneously
Bad contact	Connections to terminals interchanged Check connections Tighten electronics
Defective	Exchange option board

Ctrl diff error	
Description of message / LCD text	Remedy
Actuator problems (high friction or blocked)	Check actuator
Insufficient air supply	Check air supply / air filter
Insufficient parametes for position controls, for example, amplification too small	Check control paramter, check pneumatic components
IP module or pneumatic amplifier defect	Check with Menu 7; replace if necessary

6 MENU STRUCTURE FOR SRD991 / SRD960

SRD Main Menu

Menu	Factory configuration	Description
1 Mounting		
1.1 Lin left	✓	Linear actuator, left-hand or direct mounting
1.2 Lin right		Linear actuator, right-hand mounting
1.3 Rot cclockw		Rotary actuator, opening counter-clockwise
1.4 Rot clockw		Rotary actuator, opening clockwise
1.5 Linear		For Top Mounting (only for SRD991)
2 Autostart		
2.1 Endpoints		Adaptation of the mechanical stops only
2.2 Standard		Autostart recommended for standard application
2.3 Enhanced		Enh. Autostart. Optimized control behaviour compared to Standard Autostart
2.4 Smooth resp.		Enh. Autostart. Dampened control behaviour for e.g. smaller actuators
2.5 Fast resp.		Enh. Autostart. Undampened control behaviour for e.g. larger actuators
3 Valve Action		
3.1 SRD		Action of Positioner:
3.1.1 Direct	✓	Valve opens with increasing setpoint value
3.1.2 Reverse		Valve closes with increasing setpoint value
3.2 Feedback		Action of Feedback Unit:
3.2.1 Direct	✓	Increasing Current with increasing valve position
3.2.2 Reverse		Decreasing Current with increasing valve position
4 Character		
4.1 Linear	✓	Linear characteristic
4.2 Eq Perc 1:50		Equal percentage characteristic 1:50
4.3 Quick open		Inverse equal percentage characteristic 1:50 (quick opening)
4.4 Customer		Custom characteristic (Configuration via DTM)
5 Limits/alarms		*(Not locally available with LED versions of communication FF and Profibus)*
5.1 Lower limit	0 %	Closing limit is set to input value
5.2 Cutoff low	1 %	0%-tight sealing point is set to input value
5.3 Cutoff high	100 %	100%-tight sealing point is set to input value
5.4 Upper limit	100 %	Opening limit is set to input value
5.5 Splitr 0 %	4 mA	Split range 0 %: input value corresponds to 0 %
5.6 Splitr 100 %	20 mA	Split range 100 %: input value corresponds to 100 %
5.7 Lower Alarm	-10 %	Lower position alarm on output 1 is set to input value
5.8 Upper Alarm	110 %	Upper position alarm on output 2 is set to input value
5.9 Valve 0%	4 mA	Configuration of rated-stroke of 0% at 4 mA
5.10 Valve 100%	20 mA	Configuration of rated-stroke of 100% at 20 mA
5.11 Stroke Range	x° / 20 mm	Configuration of nominal travel
5.12 Units	SI	Configuration of temperature and pressure unit SI or Anglo US
6 Parameters		
6.1 Gain closing	15	P: Proportional gain for ‘close valve’
6.2 Gain opening	2	P: Proportional gain for ‘open valve’
6.3 Res time cl	7.5	I: Integration time for ‘close valve’
6.4 Res time op	2.4	I: Integration time for ‘open valve’
6.5 Rate lim cl	0.35	T63: Setting time for ‘close valve’
6.6 Rate lim op	0.35	T63: Setting time for ‘open valve’
6.7 Control gap	0.1	Permitted dead band for control difference
7 Output		Manual setting of IP-Module for testing of pneumatic output
8 Setpoint		Manual setting of valve position
8.1 12.5% Steps		Setpoint changes of 12.5% steps by using push buttons Up or Down
8.2 1% Steps		Setpoint changes of 1% steps by using push buttons Up or Down
8.3 Do PST		Start Partial Stroke Test

Continued on the next page

9 Workbench		
9.1 Reset Config		Resetting of configuration to setting “ex factory”
9.2 Calib. 4 mA		Calibrate input current to 4 mA
9.3 Calib. 20 mA		Calibrate input current to 20 mA
9.4 Calib. -45°		Calibrate position measuring value to –45°
9.5 Calib. +45°		Calibrate position measuring value to +45°
9.6 Reset all 1		Resetting of configuration and Calibration (!) to “ex factory” setting for **single-acting** output
9.7 Reset all 2		Resetting of configuration and Calibration (!) to “ex factory” setting for **double-acting** output
9.8 Go Online		Setting position into mode Online (Service function only)
9.9 Menu Lang		Language on LCD:
9.9.1 English	✓	Standard English
9.9.2 Deutsch		Standard German
9.9.3 Français		Preselected / freely definable
9.10 LCD orient		LCD Orientation:
9.10.1 Normal	✓	Normal orientation of writing on LCD
9.10.2 Flipped		Reverse orientation of writing on LCD
9.11 Cal. Feedbk		Calibration of output current of position transmitter
9.11.1 Cal. 4 mA		Calibration of 0% at 4 mA
9.11.2 Cal 20mA		Calibration of 100% at 20 mA
10 Profibus PA - Bus Address		Profibus only.
10.1 Address LSB		Ratio from Dec. 0 / Hex 00 to Dec. 15 / Hex 0F
10.2 Address MSB		Ration from Dec. 0 / Hex 00 to Dec. 112 / Hex 70
10.3 Address	126	Display of Bus Address from Dec. 1 to 127 (Hex 00 to 7F)
10 FOUNDATION Fieldbus H1		FF only.
10.1 Simulate		
Disabled	✓	Simulate disabled
Enabled		Simulate enabled
10.2 Profile		
Link Master	✓	Link Master active
Basic Device		Link Master de-activated

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