



**Montageanleitung /
Mounting instructions**

Elektronisches Digitalmanometer
Electronic Pressure Gauge
Elektronischer (Differenz-) Druckschalter
Electronic (Differential) Pressure Switch

PS 101, PS 130, PS 112, PS 140,
PS 102, PS 100,
PS 103, PS 131, PS 113



**VOR GEBRAUCH SORGFÄLTIG LESEN
AUFBEWAHREN FÜR SPÄTERES NACHSCHLAGEN
READ THOROUGHLY BEFORE USING THE DEVICE
KEEP FOR FUTURE REFERENCE**

ID: MA_PS_XX_D-E | Version: 07.2021.0

Diese Montageanleitung stellt einen Auszug aus der ausführlichen Betriebsanleitung dar. Laden Sie sich diese auf unserer Homepage herunter, falls Sie nicht mit dem Produkt vertraut sind.



These mounting instructions are an excerpt from the complete operating manual. It may be downloaded from our homepage, if you are not familiar with the device.

<http://www.bdsensors.de>

– Technische Änderungen vorbehalten –
– Technical modifications reserved –

English

WARNING - In order to avoid hazards to operators and damages to the device, the following instructions have to be performed by qualified technical personnel.

WARNING - Adhere to the safety and operating instructions stated in the operation manual. Effective regulations on occupational safety, accident prevention as well as national installation standards and approved engineering techniques must in addition be complied with.

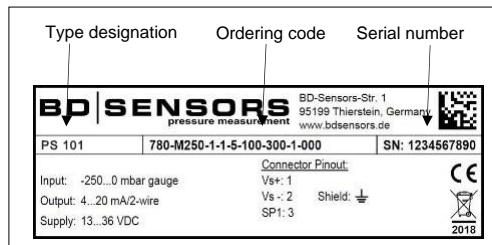
Limitation of liability and warranty

Failure to observe mounting instructions / operating manual or technical regulations, improper use and use not as intended, and alteration of or damage to the device will result in the forfeiture of warranty and liability claims.

Intended use

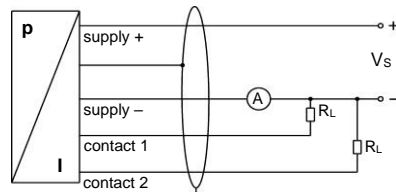
Ensure that the medium is compatible with the media-wetted parts and that the device is suitable for the application without restrictions. The technical data listed in the current data sheet is binding.

Product identification

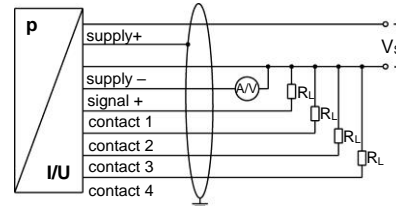


Wiring diagrams

2-wire-system (current)



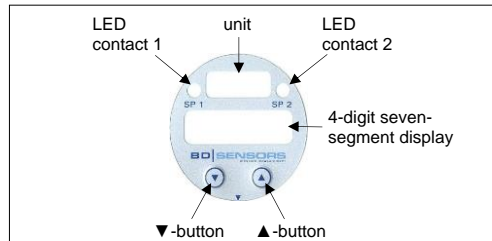
3-wire-system (current/voltage)



NOTE - For the electrical connection, a shielded and twisted multicore cable is recommended

Operating and display elements

(e.g. for PS XX with two contacts)



- ▲-button:** enter operating mode
move forward in the menu system
increase the displayed value
- ▼-button:** enter operating mode
move backward in the menu system
decrease the displayed value

both buttons simultaneously:
confirm the menu items and set values

Pin configuration

Electrical connections	M12x1, plastic (5-pin)	M12x1, metal (5-pin)	M12x1, plastic (8-pin)	Binder series 723 (5-pin)	ISO 4400	cable colours (DIN 47100)
Supply +	1	1	1	1	1	WH (white)
Supply -	3	3	3	3	2	BN (brown)
3-wire: Signal +	2	2	2	2	3	GN (green)
Contact 1	4	4	4	4	3	GY (grey)
Contact 2	5	5	5	5	-	PK (pink)
Contact 3	-	-	6	-	-	-
Contact 4	-	-	7	-	-	-
Shield	via pressure port	plug-housing/pressure port	via pressure port	plug-housing/pressure port	ground pin ⊕	GNYE (green / yellow)

NOTE - The pin configuration for different electrical connections can be found on the manufacturing label.

Mounting

DANGER

Danger of death from airborne parts, leaking fluid, electric shock

- Always mount the device in a depressurized and de-energized condition!
- Operate the device only within the specification! (according to data sheet)

Danger of death from improper installation

- Installation must be performed only by appropriately qualified persons who have read and understood the operating manual.

Danger of death from explosion in oxygen applications when used improperly

- Follow the instructions in the operating manual!

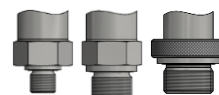
NOTE - For devices with **3-A symbol**, **EHEDG certificate** or **UL marking** the corresponding specifications in the complete operating manual must be observed.

NOTE - Use a suitable seal for the medium and the pressure to be measured, if necessary.

NOTE - For connections according to DIN 3852 do not use any additional sealing material such as yarn, hemp or Teflon tape.

NOTE - The permissible tightening torque depends on the conditions on site (material and geometry of the mounting point). The specified tightening torques are valid for the pressure gauge / pressure switch and must not be exceeded!

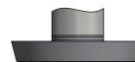
connection according to DIN 3852



knurled ring: only tighten by hand
wrench size of steel:

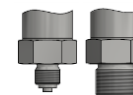
- G1/4": approx. 5 Nm
 - G1/2": approx. 10 Nm
 - G3/4": approx. 15 Nm
 - G1": approx. 20 Nm
- wrench size of plastic: max. 3 Nm

dairy pipe connection



- Centre the dairy pipe connection in the counterpart.
- Screw the cup nut onto the mounting part.
- Then tighten it using a hook wrench.

connection according to EN 837



- G1/4": approx. 20 Nm
- G1/2": approx. 50 Nm

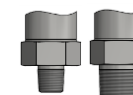
NOTE - note the permitted pressure and material acc. to EN 837

Clamp- and Varivent® connections



- Centre the connection above the counterpart with seal.
- Fit the device with a suitable fastening element (e. g. semi-ring or retractable ring clamp) according to the supplier's instructions.

NPT connections



- 1/4" NPT: approx. 30 Nm
- 1/2" NPT: approx. 70 Nm

G1" cone



- p_N < 10 bar: 30 Nm
- p_N ≥ 10 bar: 60 Nm

internal thread M20x1.5 (for high-pressure devices)

Screw the high-pressure fitting into the internal thread of the pressure measuring device and tighten it properly. (permissible tightening torque for device: max 120 N)

WARNING

Danger of injury due to wrong installation

- Do not use any seal!

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安装说明

Mounting instructions

电子压力表

Electronic Pressure Gauge

电子压力 (差压) 开关

Electronic (Differential) Pressure Switch

PS 101, PS 130, PS 112, PS 140,
PS 102, PS 100,
PS 103, PS 131, PS 113



PS 101

PS 103



PS 101/ PS 103:



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READ THOROUGHLY BEFORE USING THE DEVICE KEEP FOR FUTURE REFERENCE

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此安装说明截取自完整的操作手册。
如果您不熟悉该设备，可以从我们的主页下载。



These mounting instructions are an excerpt from the complete operating manual. It may be downloaded from our homepage, if you are not familiar with the device.

<http://www.bdsensors.de>

- 保留技术修改权利 -
- Technical modifications reserved -

中文

警告! 为了避免操作人员的危险和设备的损坏，必须由合格的技术人员执行以下操作!

警告! 请严格遵守操作手册中的安全和操作说明。
此外，还必须遵守有关职业安全性、事故预防以及国家安装标准和工程技术的有效规定。

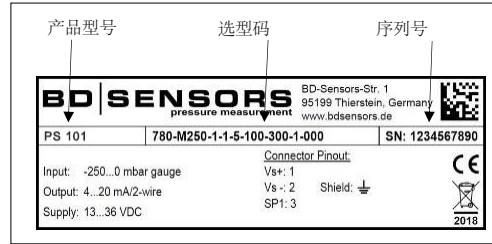
责任限制

如果没有遵守操作手册中的说明，不当使用、自行改动和损坏导致仪器损坏的，本公司不承担赔偿责任并不提供保修服务。

用途

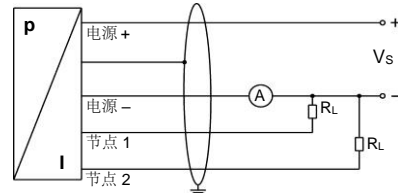
确保介质与介质浸润部件兼容，且该设备不受限制地适用于应用。数据表格中所列的技术数据是由约束力的，必须严格执行。

产品标识

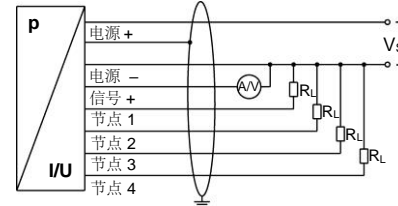


接线图

2 线制系统 (电流)

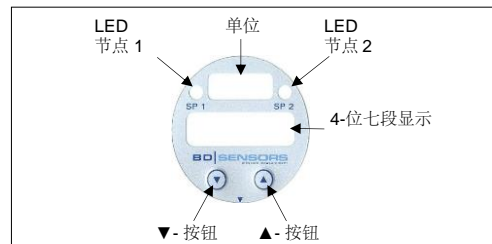


3 线制系统 (电流/电压)



提示 - 对于电气连接，建议使用屏蔽和绞装多芯电缆。

操作和显示元件 (例如: PS XX 带2个节点)



▲-按钮: 进入工作模式
在菜单系统中向前移动，增加显示值

▼-按钮: 进入工作模式
在菜单系统中向前移动，减少显示值

2个按钮同时: 确认菜单项和设置值

管脚定义

电气连接	M12x1, 塑料 (5针)	M12x1, 金属 (5针)	M12x1, 塑料 (8针)	Binder series 723 (5针)	ISO 4400	线缆颜色 (DIN 47100)
电源 +	1	1	1	1	1	白
电源 -	3	3	3	3	2	棕
3线制: 信号+	2	2	2	2	3	绿
节点 1	4	4	4	4	3	灰
节点 2	5	5	5	5	-	粉
节点 3	-	-	6	-	-	-
节点 4	-	-	7	-	-	-
屏蔽	压力接口	插头外壳 / 压力接口	压力接口	插头外壳 / 压力接口	接地	黄/绿

注意 - 不同电气连接的管脚定义可以在标签上查阅!

安装

	空气传播部件、泄漏液体、触电造成死亡危险! - 始终在无加压和断电状态下安装设备! - 在规格范围内操作设备! (参照样本)
	安装不当有导致死亡的危险! - 安装必须由具有相应资质且已阅读并理解操作手册的人员进行!
	如果使用不当，氧气应用中有爆炸致死的危险! - 请遵循操作手册中的说明!

注意 - 对于带有 3-A 认证, EHEDG 认证或 UL 认证的产品，必须遵守完整操作手册中的相应规范。

注意 - 如有必要，对要测量的介质和压力使用合适的密封件。

注意 - 对于 DIN 3852 的连接，不要使用任何额外的密封材料，如纱、麻和生料带等。

注意 - 允许的拧紧力矩取决于现场条件 (安装点的材料和形状)。不得超过规定的拧紧力矩!

<p>DIN 3852 连接</p> <p>带六角的设备: 手动正常力量拧紧即可 钢制扳手:</p> <p>G1/4": 约 5 Nm G1/2": 约 10 Nm G3/4": 约 15 Nm G1": 约 20 Nm 塑料扳手尺寸: 最大 3 Nm</p>	<p>EN 837 连接</p> <p>G1/4": 约 20 Nm G1/2": 约 50 Nm</p> <p>注意 - EN 837 规定的允许的压力和材料!</p>	<p>NPT 连接</p> <p>1/4" NPT: 约 30 Nm 1/2" NPT: 约 70 Nm</p>
<p>乳制品管连接</p> <p>- 把乳制品管置于对应连接的中心。 - 将螺母旋到安装部件上 - 然后用钩型扳手拧紧。</p>	<p>卡箍和 Varivent® 连接</p> <p>- 将密封件置于相应的安装部位 - 根据供应商的说明，用合适的密封件 (例如 (例如半环或可伸缩环夹) 安装设备。</p>	<p>G1" 锥体</p> <p>p_N < 10 bar: 30 Nm p_N ≥ 10 bar: 60 Nm</p>
<p>内螺纹 M20x1.5 (高压设备)</p> <p>将高压接头拧入压力测量装置的内螺纹并适当拧紧。 (装置允许的拧紧扭矩: 最大 120 N)</p>		
<p>警告</p> <p>错误的安装可能导致人身伤害</p> <p>- 不要使用任何密封!</p>		