

**Montageanleitung /
Mounting instructions**

Druckmessumformer / *Pressure Transmitter*,
Einschraubsonde / *Screw-in Transmitter*
OEM-Druckmessumformer / *OEM Pressure Transmitter*

PMC 110, PMC 120, PMC 130, PMC 121, PMC 132,
PMS 130, PMS 117, PMS 110, PMS 111, PMS 120,
PMS 122, PMS 140, PMS 142, PMS 115, PMS 116,
PMS 125, PMS 114, PMS 111, PMC 131, PMS 112,
PMS 113,
PM 101, PM 102, PM 121, PM 122,
PM 130, PM 131



PMS 110



PMS 120:
74-

**VOR GEBRAUCH SORGFÄLTIG LESEN
AUFBEWAHREN FÜR SPÄTERES NACHSCHLAGEN**

**READ THOROUGHLY BEFORE USING THE DEVICE
KEEP FOR FUTURE REFERENCE**

ID: MA_DMU-ES-OEM_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 occupa-
tional safety, accident prevention as well as national installation
standards and approved engineering techniques must in addition
be complied with.

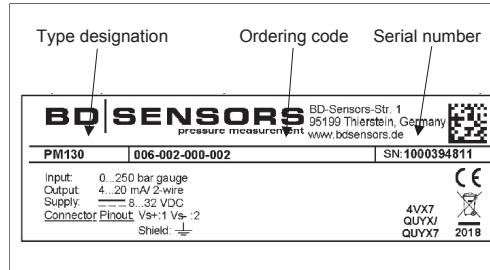
Limitation of liability and warranty

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

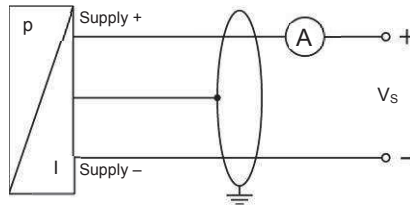
Ensure that the medium is compatible with the media-wetted
parts and that the device is suitable for the application without
restrictions. The technical data listed in the current data sheet is
binding.

Product identification

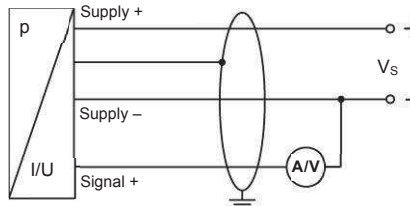


Wiring diagrams

2-wire-system (current)



3-wire-system (current / voltage)



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

Pin configuration

optionally with communication interface RS232 for
PMS 111 / PMS 122/ PMS 142/ PMS 113:

Electrical connection	Binder 723 (7-pin)
Supply +	3
Supply -	1
Signal + (for 3-wire)	6
Shield	2
RxD	4
TxD	5
GND	7


NOTE - The communication interface RS232 may not be
connected directly to the PC. A suitable adapter is available as
an accessory.

Electrical connection	ISO 4400	Binder 723 (5-pin)	cable colours (IEC 60757)	field housing	Buccaneer (4-pin)	TRIM TRIO® (4-pin)	Bayonet MIL-C-26482 (10-6)	
							2-wire	3-wire
Supply +	1	3	WH (white)	IN +	1	1	A	A
Supply -	2	4	BN (brown)	IN -	2	2	B	D
Signal + (for 3-wire)	3	1	GN (green)	OUT +	3	3	-	B
Shield	ground contact	5	GYNE (green-yellow)	⊕	4	4	pressure port	

Electrical connection	M12x1 metal (4-pin)		Micro		
	Code	M10 / M20	M13 (17.620G)	C10	CB0 (17.620G)
Supply +	1	1	1	1	1
Supply -	2	3	2	2	3
Signal + (for 3-wire)	3	2	3	3	2
Shield	4	plug housing	ground contact	ground contact	ground contact

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 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 transmitters and must not be exceeded!


connection according to DIN 3852



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


G1/4": approx. 5 Nm
G1/2": approx. 10 Nm
G3/4": approx. 15 Nm
G1": approx. 20 Nm
G1 1/2": approx. 25 Nm
wrench size of plastic: max. 3 Nm

connection according to EN 837




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

NPT connections



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


1/4" flare



max. 10 Nm


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

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.

Clamp- und 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.

flange connections



Install the flange with 4 resp. 8 screws (depending on flange version) on the counter flange.


G1" cone



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

internal threads M20x1.5 and 9/16" UNF (for PMS 140/ PMS 142)

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



WARNING

Danger of injury due to wrong installation
- Do not use any seal!

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Mounting instructions / 安装说明

Pressure Transmitter / 压力变送器
Screw-in Transmitter / 旋入式变送器
OEM Pressure Transmitter / OEM 压力变送器

PMC 110, PMC 120, PMC 130, PMC 121, PMC 132,
PMS 130, PMS 117, PMS 110, PMS 111, PMS 120,
PMS 122, PMS 140, PMS 142, PMS 115, PMS 116,
PMS 125, PMS 114, PMC 111, PMC 131, PMS 112,
PMS 113,
PM 101, PM 102, PM 121, PM 122,
PM 130, PM 131



PMS 110



**READ THOROUGHLY BEFORE USING THE DEVICE
KEEP FOR FUTURE REFERENCE**

使用本设备前请仔细阅读

ID: MA_DMU-ES-OEM_D-E | Version: 07.2021.0

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.



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。

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

中文

警告 - 为避免对操作人员造成危险或损坏设备，必须由合格的技术人员执行以下操作！

警告 - 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、事故预防以及国家安装标准和工程技术的有效规定。

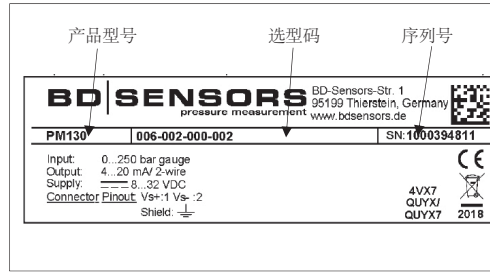
责任限制

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

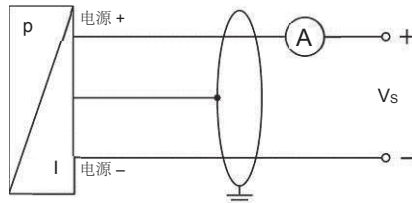
确保介质与介质浸润部件兼容，且该设备不受限制地适用于应用。样本中所列的技术数据是有约束力的，必须严格执行。

产品标识

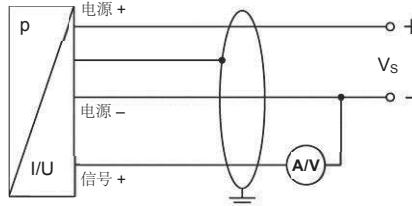


接线图

2-线制系统 (电流)



3 线制系统 (电流/电压)



注意 - 对于电气连接，建议使用屏蔽较合多芯电缆。

信号线定义

可选带通讯接口 RS232 :

PMS 111 / PMS 122/ PMS 142/ PMS 113:

电气连接	Binder 723 (7 针)
电源 +	3
电源 -	1
信号+ (3线制)	6
屏蔽	2
RxD	4
TxD	5
GND	7

注意 - 通讯接口 RS232 不能直接连接到电脑上，选择合适的转接头作为附件。

电气连接	ISO 4400	Binder 723 (5 针)	线缆色 (IEC 60757)	防护壳体	Buccaneer (4针)	TRIM TRIO® (4针)	Bayonet MIL-C-26482 (10-6)	
							2 线制	3 线制
电源 +	1	3	白	IN +	1	1	A	A
电源 -	2	4	褐	IN -	2	2	B	D
信号+ (3线制)	3	1	绿	OUT +	3	3	-	B
屏蔽		5	黄/绿	⊕	4	4	压力接口	

电气连接	M12x1 金属 (4针)		Micro		
	代码	M10 / M20	M13 (17.620G)	C10	CB0 (17.620G)
电源 +	1	1	1	1	1
电源 -	2	3	3	2	3
信号+ (3线制)	3	2	2	3	2
屏蔽	4		插头外壳	接地 ⊕	接地 ⊕

注意 - 不同电气连接的引脚配置可以在制造标签上找到。

安装

空气传播部件、液体泄漏、触电有导致死亡的危险!

- 请确认在无加压、断电的状态下安装设备!
- 仅在规范范围内操作设备! (请依据技术参数)

安装不当有死亡危险!

- 安装必须由具有适当资格的人员执行，他们必须阅读和理解操作手册。

不当使用氧气时，有爆炸致死的危险!

- 请按照操作手册中的说明进行操作!

注意 - 对于带有3-A、EHEDG 或 UL 认证的产品，必须遵守操作手册中的相应规范。

注意 - 如有必要，为待测介质和压力使用合适的密封件。

注意 - 对于压力接口为 DIN 3852 标准连接的产品，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！

DIN 3852 连接

圆形旋环: 仅用手拧紧
金属材料接口拧紧力矩:

- G1/4": 约 5 Nm
- G1/2": 约 10 Nm
- G3/4": 约 15 Nm
- G1": 约 20 Nm
- G1 1/2": 约 25 Nm

塑料材质接口拧紧力矩: 最大 3 Nm

EN 837 连接

G1/4": 约 20 Nm
G1/2": 约 50 Nm

NPT 连接

1/4" NPT: 约 30 Nm
1/2" NPT: 约 70 Nm

1/4" flare

最大 10 Nm

乳制品管连接

- 把乳制品管置于对应连接的中心
- 把环形螺母旋到安装部件上
- 用钩形扳手拧紧

卡箍- 和 Varivent® 连接

- 将连接件置于密封件上方的中心位置
- 根据供应商的说明，为设备安装合适的紧固元件(例如半环或可伸缩环夹)。

法兰连接

通过4 - 8 组螺栓 (取决于法兰的型号) 把设备安装在对应的法兰连接上

G1" 锥体

$p_N < 10 \text{ bar}$: 30 Nm
 $p_N \geq 10 \text{ bar}$: 60 Nm

内螺纹 M20x1.5 和 9/16" UNF (PMS 140/ PMS 142)

将高压接头拧入压力变送器的内螺纹并拧紧 (变送器允许拧紧力矩: 最大120 Nm)

警告 安装错误有造成人身伤害的危险!
- 不要使用任何密封!

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