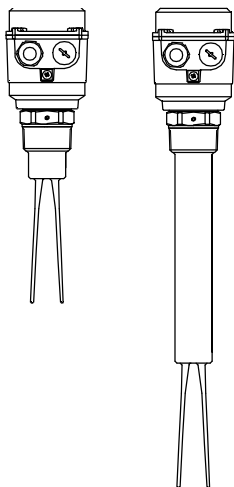


**Vibranivo®**

系列

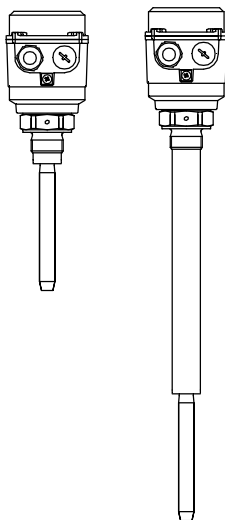
**VN 4000**



**Mononivo®**

系列

**MN 4000**



说明手册

010516

UWT GmbH  
Westendstraße 5  
D-87488 Betzigau

Tel.: +49 (0)831 57123-0 Internet:www.uwt.de  
Fax: +49 (0)831 76879 E-Mail: info@uwt.de

此说明手册的范围:	类型	VN 4020 4030 MN 4020 4030
	认证	CE / TR-CU ATEX 1/2D IEC-Ex t IIIC
	电子模块	继电器 (DPDT) PNP

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安装、维护和试运行只能由合格的技术人员来完成。

设备的终端连接必须遵从本地法规或 VDE 0100 (德国电气技术工程师法规)。

现场所有布线必须至少在 250V AC 下适当绝缘。温度额定值必须至少为 90° C (194° F)。

如果操作不熟练或不当, 设备的安全将无法得到保证。

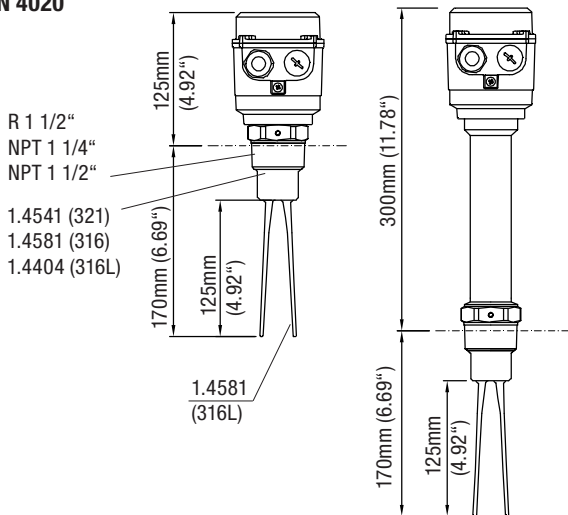
## 应用领域






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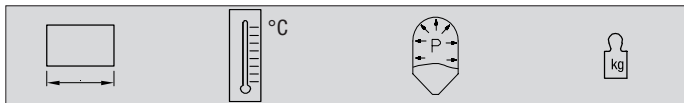
用于电源和散装材料物位限制检测的物位限制开关。



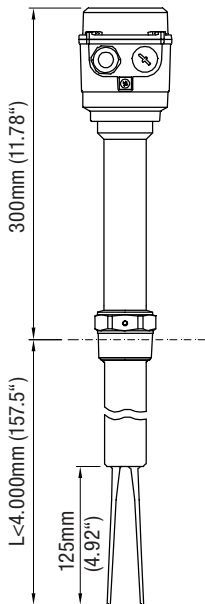
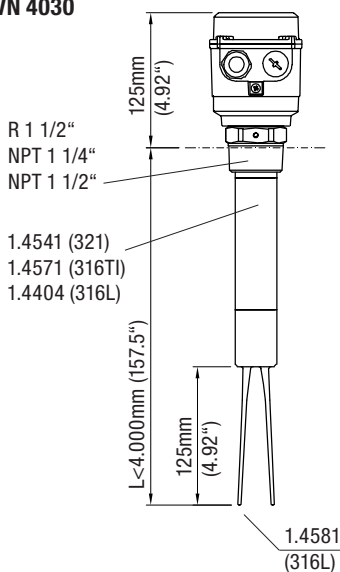
## VN 4020



	① →  9	② →  9
	-1 .. +16bar (-14.5 .. +232psi)	-1 .. +16bar (-14.5 .. +232psi)
	~ 1,7kg (3.7 lbs)	~ 2,4kg (5.3 lbs)



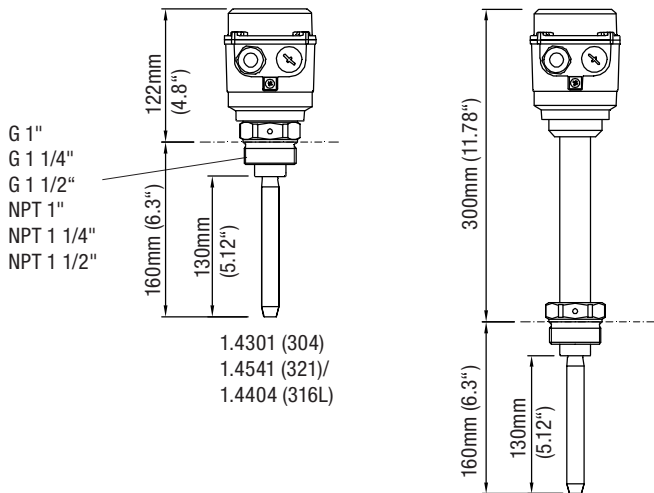
## VN 4030



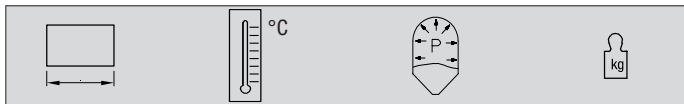
	① / ② → ⑨	② → ⑨
	-1 .. +16bar (-14.5 .. +232psi)	-1 .. +16bar (-14.5 .. +232psi)
	~1,7kg (3.7lbs) +1,9kg/m (+4.2 lbs per 39.9" (L))	~2,4kg (5.3lbs) +1,9kg/m (+5.5 lbs per 39.9" (L))



## MN 4020

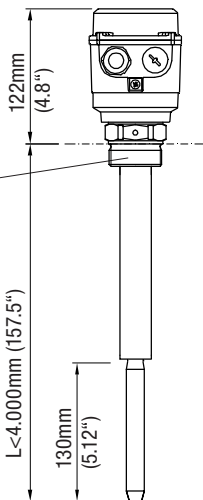


	① →	② →
	-1 .. +16bar (-14.5 .. +232psi)	-1 .. +16bar (-14.5 .. +232psi)
	~ 1,3kg (2.9 lbs)	~ 2,0kg (4.5 lbs)

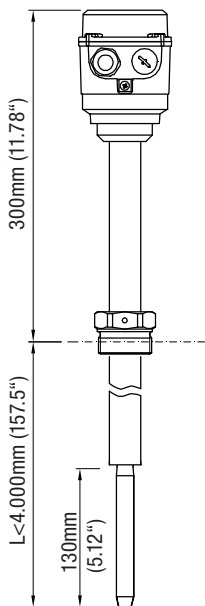


## MN 4030

G 1"  
 G 1 1/4"  
 G 1 1/2"  
 NPT 1"  
 NPT 1 1/4"  
 NPT 1 1/2"



1.4301 (304)  
 1.4541 (321)/  
 1.4404 (316L)



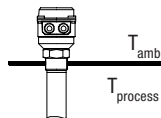
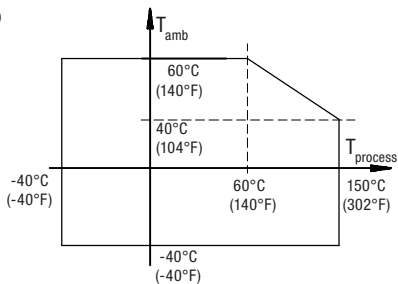
	① / ② → ⑨	② → ⑨
	-1 .. +16bar (-14.5 .. +232psi)	-1 .. +16bar (-14.5 .. +232psi)
	~1,3kg (2.9lbs) +1,3kg/m (+2.9 lbs per 39.9" (L))	~2,0kg (4.5lbs) +1,3kg/m (+2.9 lbs per 39.9" (L))



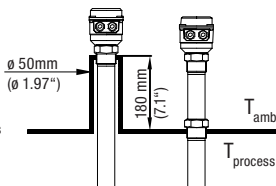
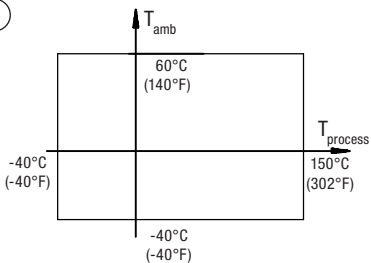


°C

1

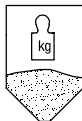


2



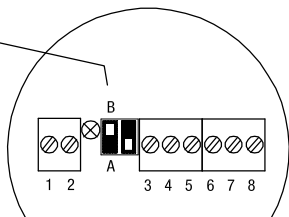
## 敏感度

### VN 4000

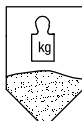


>30 g/l	B
>150 g/l	A

$$1\text{g/l} = 0.06 \text{ lb/ft}^3$$

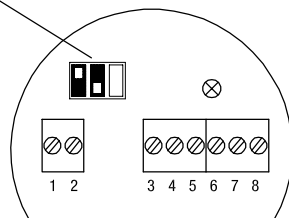


### MN 4000

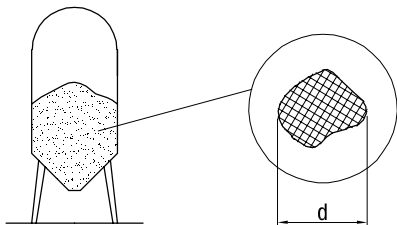


>20 g/l	
>80 g/l	
>150 g/l	
>300 g/l	

$$1\text{g/l} = 0.06 \text{ lb/ft}^3$$



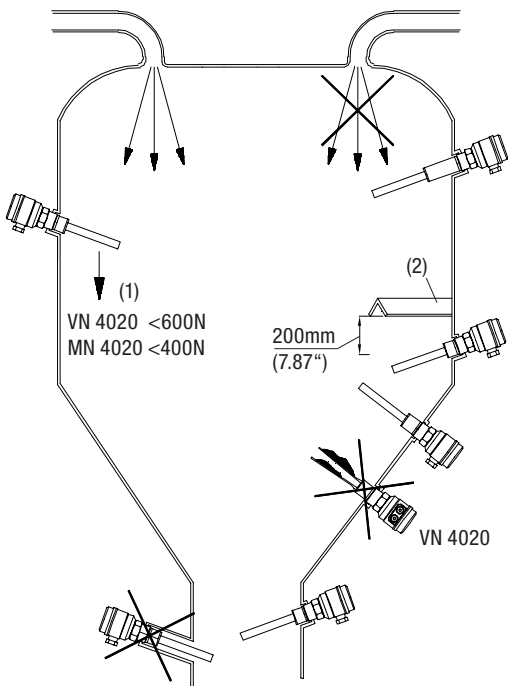
## 散装材料



VN 4000:  
d < 8mm (0.31")

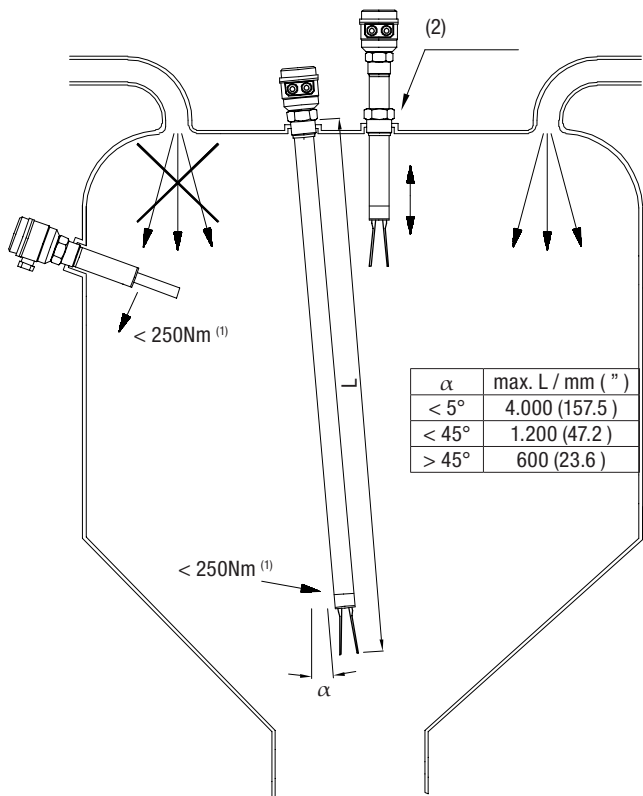
MN 4000:  
d < 20mm (0.79")

**VN 4020**  
**MN 4020**



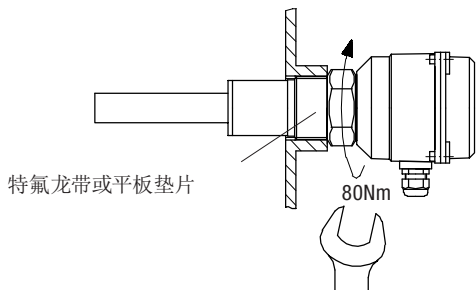
- (1) 传感器的最大负荷
- (2) 能承受高机械负载的三角架（遮篷）

**VN 4030**  
**MN 4030**

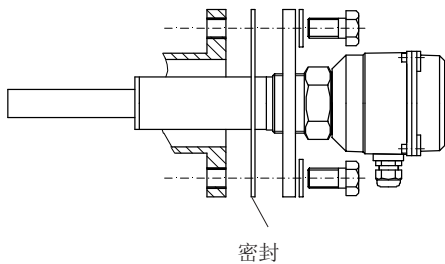


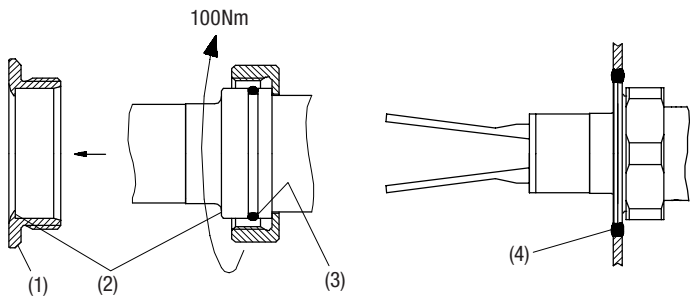
- (1) 传感器的最大负荷  
(2) 能承受高机械负载的三角架（遮篷）

## 固定线圈

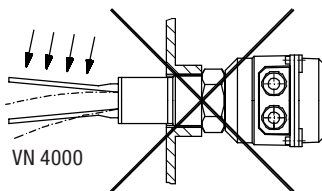
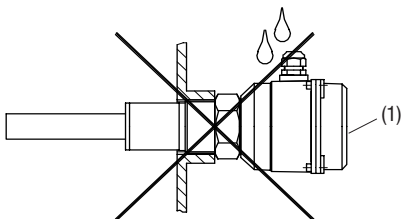
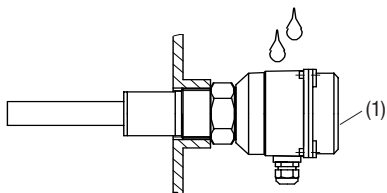


## 固定凸缘



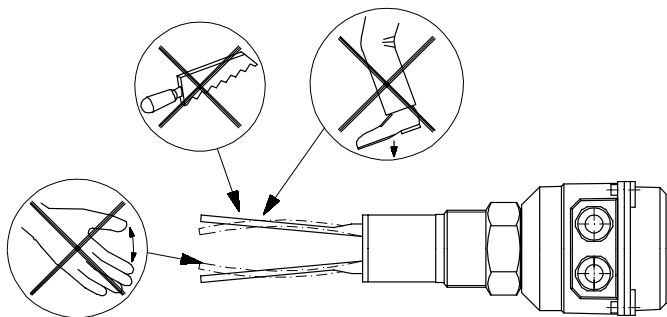


- (1) 规定使用已认证的焊入套筒
- (2) 金属与金属镀层之间无缝隙
- (3) 密封
- (4) 焊接（遵守卫生规定）

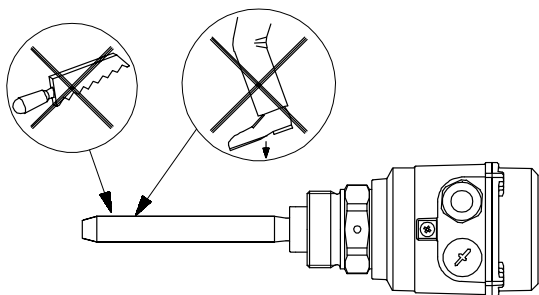


(1) 入口保护 IP67

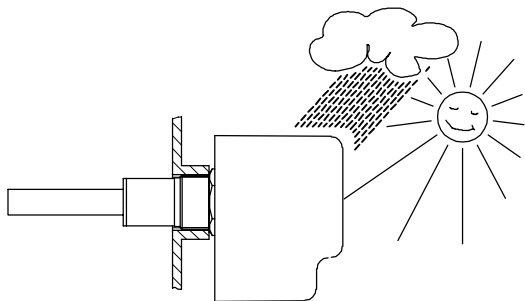
**VN 4000**



**MN 4000**

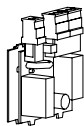






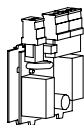
Ex, 只许可22区

## VN 4000



19...230V 50/60 Hz 19...40V DC	pl408265
18...50V DC PNP	pl408266

## MN 4000



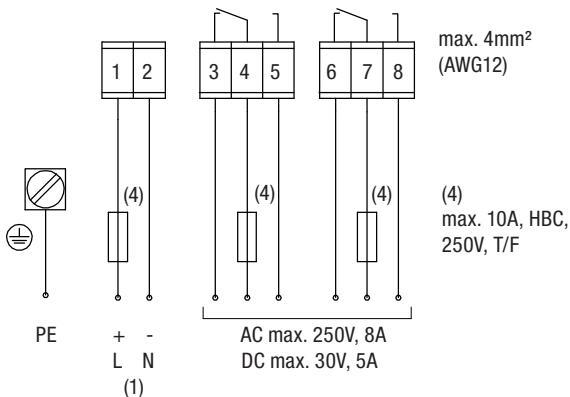
21...230V 50/60 Hz 22...45V DC	pl405265
18...50V DC PNP	pl405266

所有电子模块: 过压类别II

## 继电器 DPDT

**VN 4000**

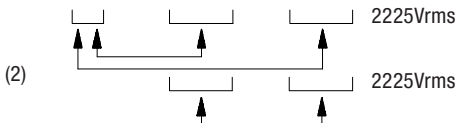
**MN 4000**



(1)

VN 4000: 19...230V  $\pm 10\%$  <sup>(3)</sup> 50-60Hz 22VA 19... 40V  $\pm 10\%$  <sup>(3)</sup> DC 2W

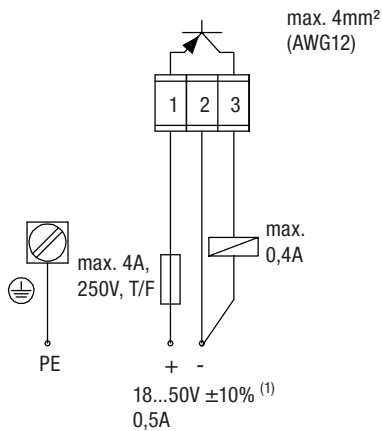
MN 4000: 21...230V  $\pm 10\%$  <sup>(3)</sup> 50-60Hz 22VA 22... 45V  $\pm 10\%$  <sup>(3)</sup> DC 2W



(1) 电源

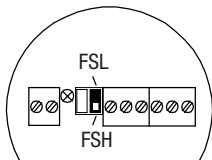
(2) 绝缘电压

(3) 从EN 61010包括10%

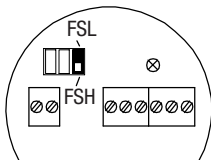
VN 4000  
MN 4000

(1) 电源，从EN 61010包括10%

## VN 4000



## MN 4000



	FSL	FSH	
			(1)
			(2)
			(1)
			(2)

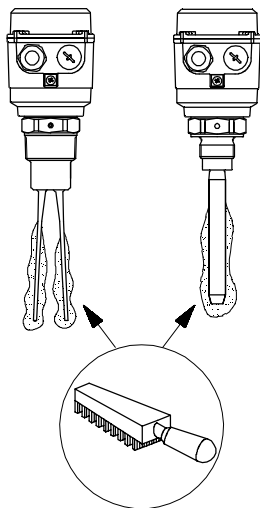
(1) = 继电器 DPDT

(2) = PNP

Cleaning

VN 4000

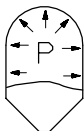
MN 4000



# ATEX II 1/2D + IEC-Ex t IIIC Da/Db

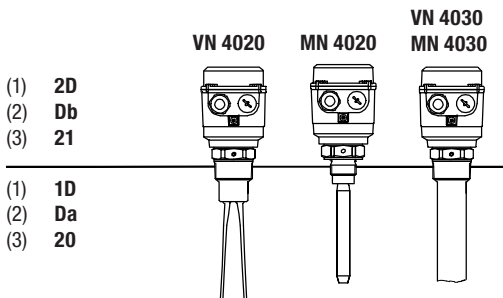
## 说明

### 许可 相关压力



-0,2...+0,1bar  
(-2.9...+1.45psi)

### 区域界限



(1) 类别      (2) EPL (IEC-Ex)      (3) 区域

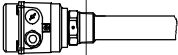
环境温度

最大表面温度

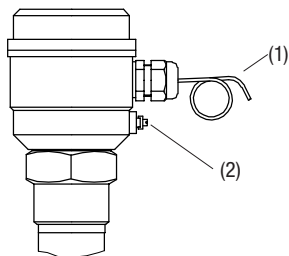


**VN 4000**  
**MN 4000**

60°C (140°F)	110°C (230°F) 120°C (248°F) 130°C (266°F) 140°C (284°F) 150°C (302°F)	115°C (239°F) 120°C (248°F) 130°C (266°F) 140°C (284°F) 150°C (302°F)
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## 安装



- (1) 电缆及连接缆应避免受到拉力
- (2) 连接工厂的等电位连接



安装和现场布线必须分别遵从各自国家的合格安装法规。

盖子关闭时才能进行试运行。

有电流通过时，不要将盖子（罩）挪开。

开启盖子之前要确保没有粉尘沉积或涡流。

必须这样进行安装，以避免由于打击或摩擦 以避免由于打击或摩擦而使铝外壳与钢之间产生火花。

如果把整个装置安装在区域20中（即：没有区域20与区域21之间的隔离墙），那么电源电压的短路电流就不允许超过10千安（要遵守EN60079-14的细节）

电缆旋接：

必须按照安装该设备所在国家的规定对电缆进行旋接。

不再使用的电缆接线必须用允许的绝缘塞给锁起来。

如果可以的话，必须使用由制造商提供的部件。对于由制造商提供的电缆旋接装置，必须预先规定一个拉力卸载。

连接电缆的直径必须符合电缆旋接装置的接头区域。

如果使用了非制造商所提供的部件，就必须确保下列事项：

这些部件必须具有一个许可，该许可符合物位信号器的许可（证书和防护级）。

所允许的工作温度必须符合物位信号器的最低环境温度，以及提高了10K的最大环境温度。这些部件必须按照制造商的使用说明书进行安装。