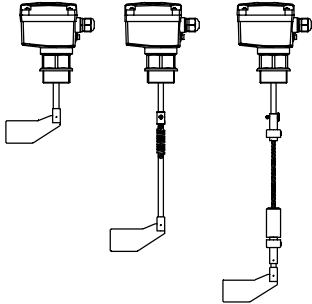


Table of contents

	Page
Overview / Specification / Applications	P2

Selection	P3
	

Options	P4
Dimensions	P6
Electrical connections	P7
Spare parts	P8

Subject to change.

All dimensions in mm (inches).

All prices in Euro, excluding VAT.

All prices are EXW Betzigau, excluding packaging costs.

Valid: From 01.04.2011 until 31.03.2012, unless otherwise agreed.

By publishing this selection list all other lists become invalid.

We assume no liability for typing errors.

Different variations to those specified are possible.
Please contact our technical consultants.

Overview / Specification / Applications

- Level limit detection in bulk goods / solids
- Compact unit
- Wide range of applications, no maintenance
- Full-, demand-, empty detector
- ATEX and IEC-Ex approvals (Dust Ex)
- GOST-R Ex und RTN Ex approvals (Dust Ex)
- Flexible extensions (kits)

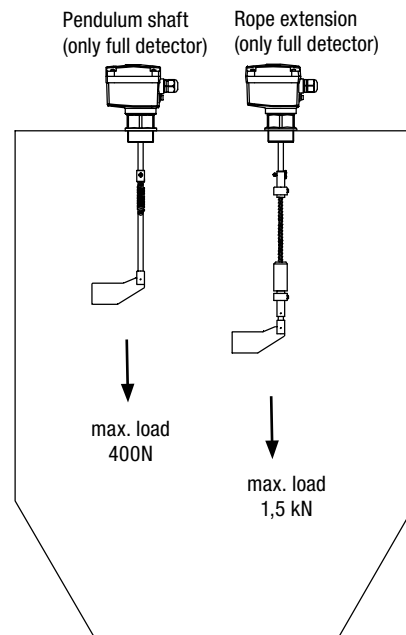
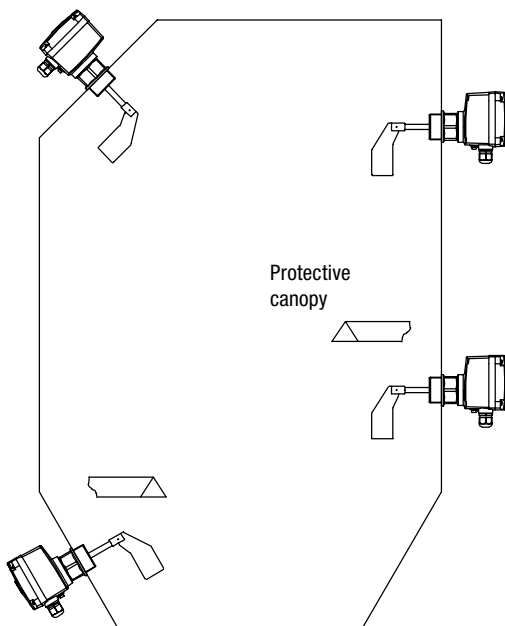


Approvals	CE	
	ATEX /IEC-Ex	Zone 20/21 (Dust Ignition Proof)
	GOST-R Ex und RTN Ex	Dust Ignition Proof

Electronics	Supply:	
	AC version	24V or 48V or 115V or 230V AC
	DC version	24V DC
	Multivoltage	24V DC / 115V AC / 230V AC
	Universal voltage	24V DC / 20...230V AC
	Output signal:	
Microswitch or Relais with SPDT contact. Adjustable delay for version with universal voltage.		

Technical data	Ambient temperature	-20 .. +60°C (-4 .. +140°F) -40 .. +60°C (-40 ..+140°F) with *heating *for certificate CE
	Process temperature	-20 .. +80°C (-4 .. +176°F) -40 .. +80°C (-40 ..+176°F) with *heating *for certificate CE
	Process pressure	-0.5 .. +0,8 bar (-6.8 .. 11.6psi)
	Material housing	Plastics PA6
	Material process connection	Aluminum or plastics PA6
	Material of measuring vane / shaft / extensions	1.4301 (SS304) / 1.4305 (SS303)

Applications



Options

- pos. 15 **Flat gasket**
 - a for process connection thread G 1 1/2" aluminium (pos.4.A, pos.5.2), incl. sealing face
 - b for all other process connections

- pos. 21 x **Weather protection cover**

- pos. 24 **Hexagon nut**
 - a aluminium 1 piece
 - b aluminium 2 pieces
 - e stainless steel (1.4305/303) 1 piece
 - f stainless steel (1.4305/303) 2 pieces

- pos. 26 x **Heating of housing**¹ 2,5 watt for ambient-/process temperature to -40°C (-40°F)

- pos. 28 x **Second screwed cable gland M20x1,5** (not mounted)

- pos. 39 **Kit "rope extension"** (only applicable as full detector)
 - x L = 2m

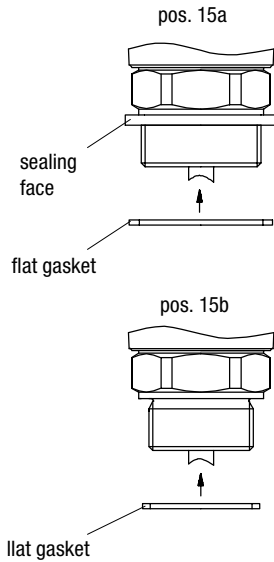
- pos. 40 **Kit "pendulum shaft"** (only applicable as full detector and vertical installation)
 - a L=500mm (drilled holes also for 300 and 400mm)
 - b L=1000mm (drilled holes also for 600, 700, 800 and 900mm)

¹ Available with CE (pos.2 0) and universal voltage (pos.3 F,X). Consider reduced switching sensitivity (see technical data).

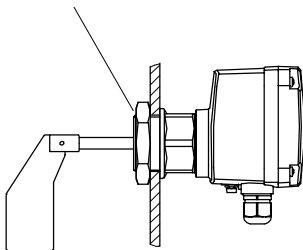
Note: For temperatures down to -20°C (-4°F) the electronic "universal voltage" has a "heating of housing" implemented by default (in this case option pos. 26x is not needed).

Options

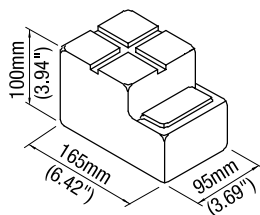
pos. 15
Flat gasket



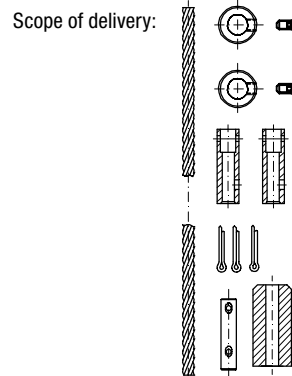
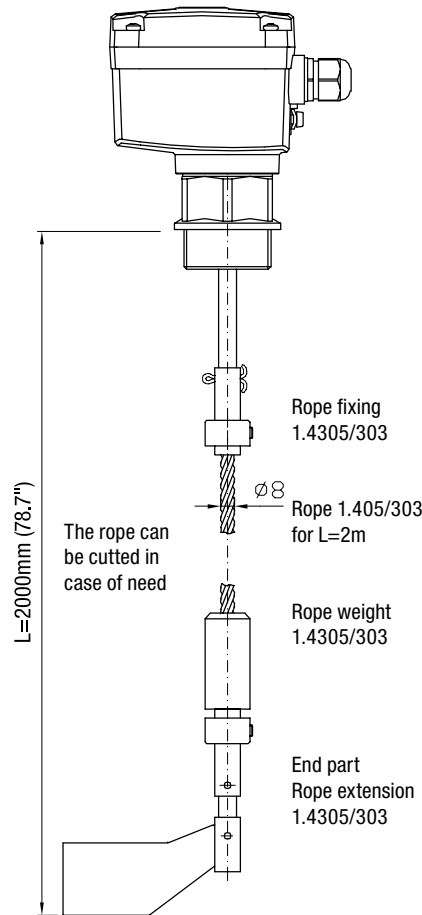
Pos. 24
Hexagon nut



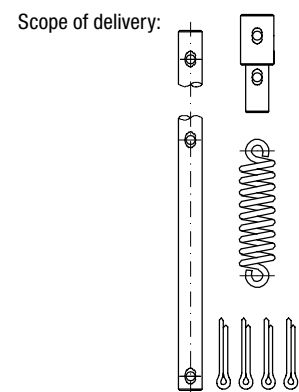
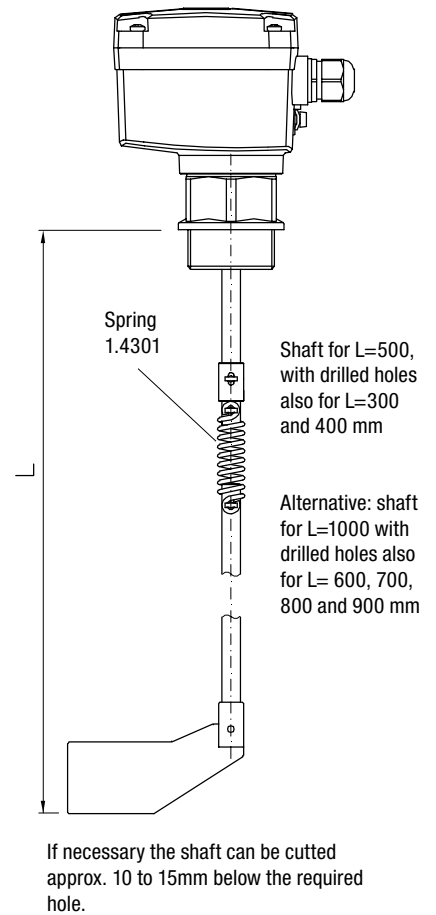
pos. 21
Weather protection cover



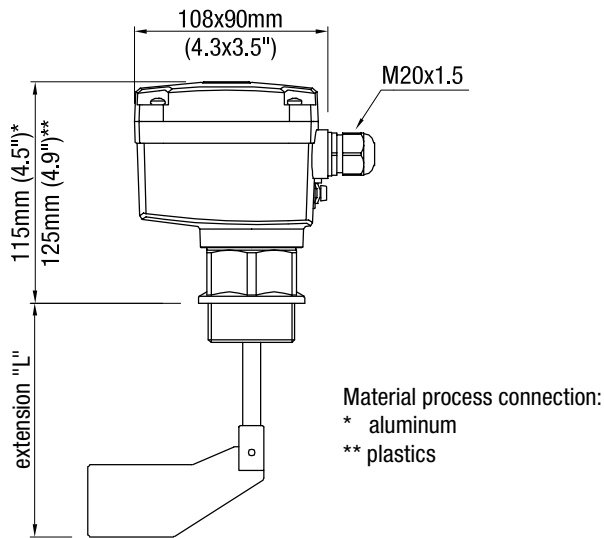
pos. 39
Kit „rope extension“



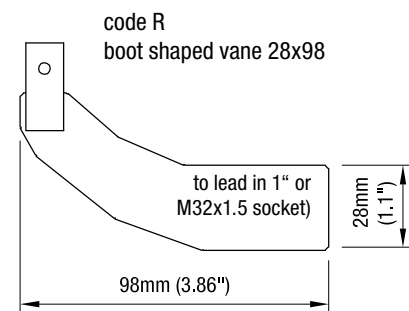
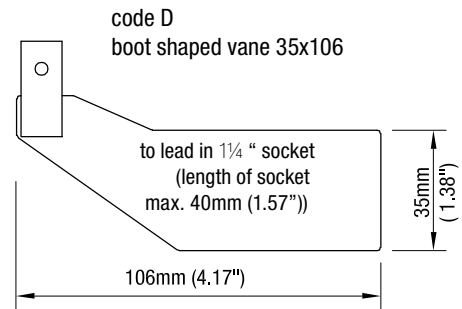
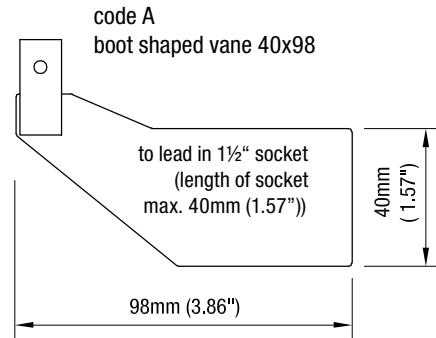
pos. 40
Kit „pendulum shaft“



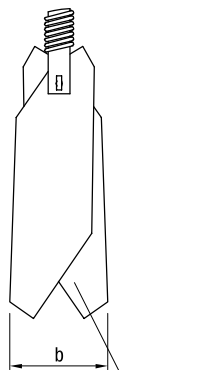
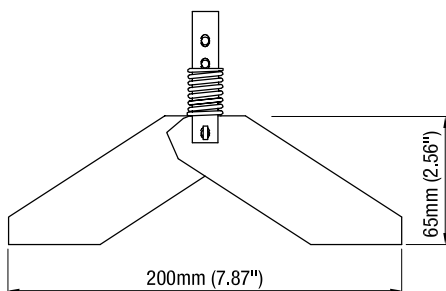
Dimension



Measuring vanes

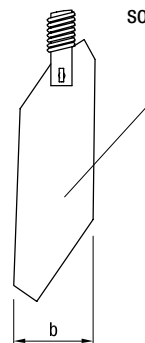
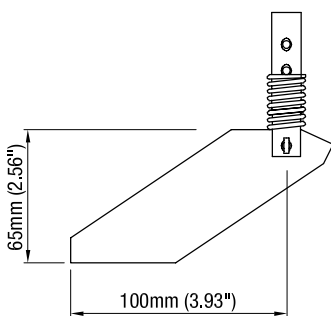


code K
 hinged vane 98x200 double sided



can be folded for insertion in a long socket

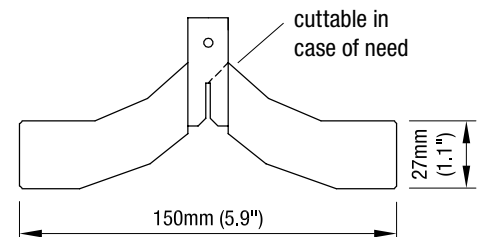
code S
 hinged vane 98x100 single sided



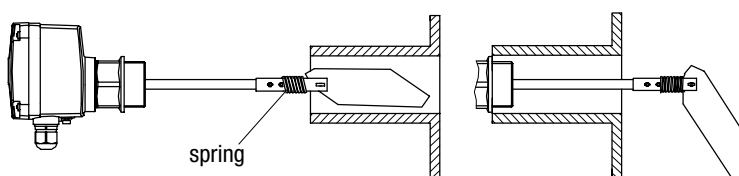
socket	b*
1½" / 1¼"	37mm (1.46")
1" / M32x1.5	28mm (1.1")

*delivery according to selected thread size

code U
 universal vane (plastics)



Example: Insertion of the hinged vane through a long socket



Electrical connection

Version:
 - AC
 - DC
 - Universal voltage

Power supply AC version:
 24V or 48V or 115V or 230V 50/60Hz
 max. 4VA

Supply voltage as selected.
 All voltages $\pm 15\%$ ⁽¹⁾
 Fuse on power supply: max 10A

Power supply DC version:
 24V DC max. 2.5W

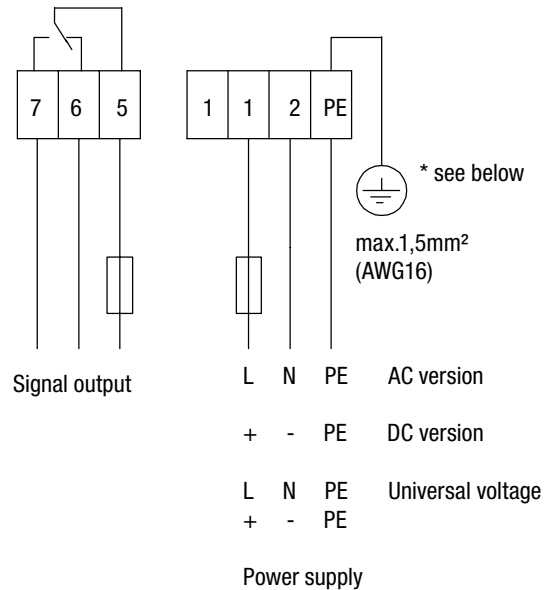
Voltage $\pm 15\%$ ⁽¹⁾
 Fuse on power supply: not necessary

Power supply Universal voltage:
 24V DC max.4W
 20 .. 230V 50/60Hz max.10VA

Voltages:
 24V DC $\pm 15\%$ ⁽¹⁾ , 20 .. 230V AC $+10\%$ ⁽¹⁾
 Fuse on power supply: not necessary

Signal output:
 Micro switch (with universal voltage: relay) SPDT contact:
 max. 2*50V AC, 2A, 500VA ($\cos\varphi = 1$)
 max. 300V DC, 2A, 60W
 Fuse on signal output: max 10A

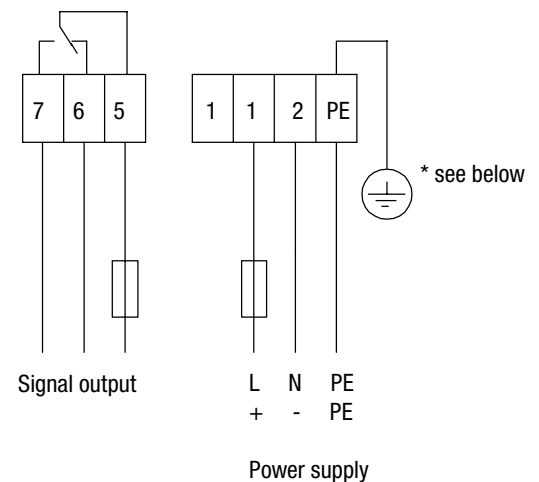
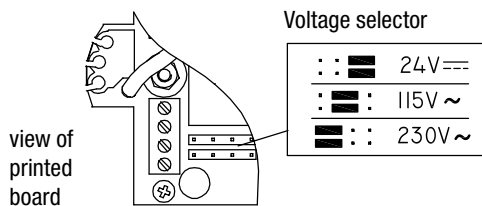
⁽¹⁾ including 10% of EN 61010



Version
Multivoltage

Power supply:
 24V DC max. 2.5W or
 115V 50/60Hz max. 4VA or
 230V 50Hz max. 6VA

Set the voltage-selector on the PCB to the desired voltage.

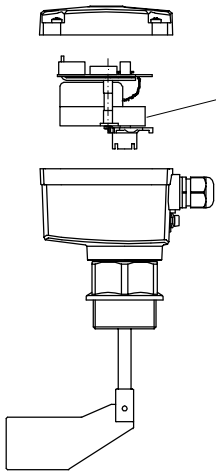


Signal output:
 Micro switch SPDT contact:
 max. 250V AC, 2A, 500VA ($\cos\varphi = 1$)
 max. 300V DC, 2A, 60W

Fuse on signal output: max 10A

*** Protection against static charging:**
 The PE terminal of the unit must be grounded to avoid static charging of the unit.
 This is particularly important for applications with pneumatic conveying.

Spare parts



Motor / PCB

Article number		
Motor Speed		
1/min	5/min	
gm402000	gm403000	230V 50-60Hz
gm402005	gm403005	115V 50-60Hz
gm402015	gm403015	48V 50-60Hz
gm402010	gm403010	24V 50-60Hz
gm402020	gm403020	24V DC
gm402025	gm403025	230V AC/115V AC/24V DC Multivoltage
gm402028	gm403028	24V DC / 20 .. 230V AC Universal voltage

* This module requires a higher housing lid than the other modules.
 Therefore it can not be mounted into a housing, where a different module was present before.