

- Stable prism guides
- Automatic locking of sample position
- Compact dimensions
- Identical rotational centre of circle movements
- Corrosion resistant chrome coating
- Standard mount according to ACA/IUC

4.1.3.1 Manual versions

	Axes	Height [mm]
1001	X, Y, Ry, Rx	64
1002	Rx, Ry, Y, X	64
1003	X, Y, Ry, Rx	107
1004	X, Y, Z	49...64
1005	Ry, Rx, Y, X	49
1006	X, Y, Rx, Ry	70
1007	X, Y, Tilt	64
1007-S	X, Y	26

4.1.3.2 Motorised versions

	Motor
1003-MS/-MG	step/DC motor
1006-MS/-MG	step/DC motor

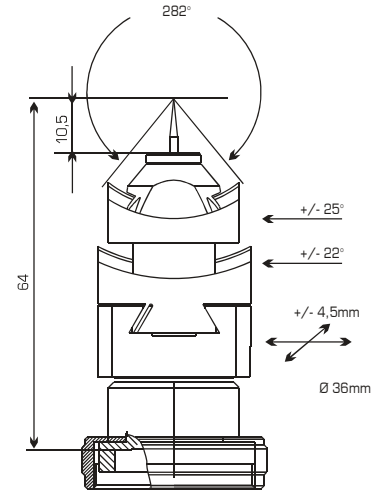
4.1.3.3 Special versions with greater angle range

	Axes	Height [mm]
1002.01	Rx, Ry, Y, X	64
1002.02	Rx, Ry, Y, X	64
1005.01	Ry, Rx, Y, X	49
1005.02	Ry, Rx, Y, X	49



Goniometer head 1001

Adjustable axes:	X, Y Ry, Rx
Range X, Y [mm]:	$\pm 4,5$
Range Ry [°]:	± 22
Range Rx [°]:	± 25
Height [mm]:	64
Read-out accuracy [°]:	0,1
Weight [kg]:	0,2



Accessories

Supports:	1055 1412 1413
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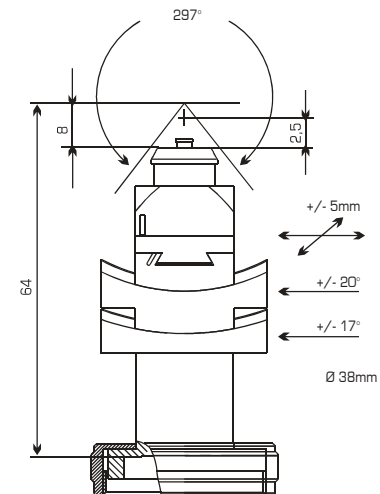
Included:

- storage container
- adjustment pin
- spanner
- adhesive wax



Goniometer head 1002

Adjustable axes:	Rx, Ry Y, X, Z
Range X, Y [mm]:	± 5
Range Z [mm]:	$\pm 1,25$
Range Ry [°]:	± 20
Range Rx [°]:	± 17
Height [mm]:	64
Read-out accuracy [°]:	0,1
Weight [kg]:	0,16

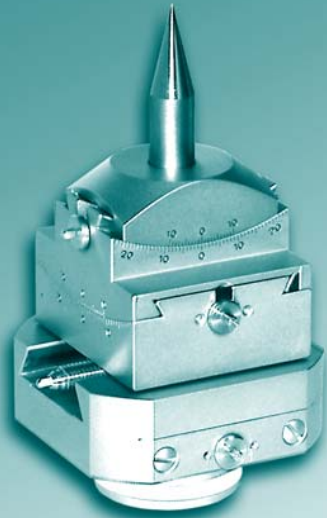


Accessories

Supports:	1055 1412 1413
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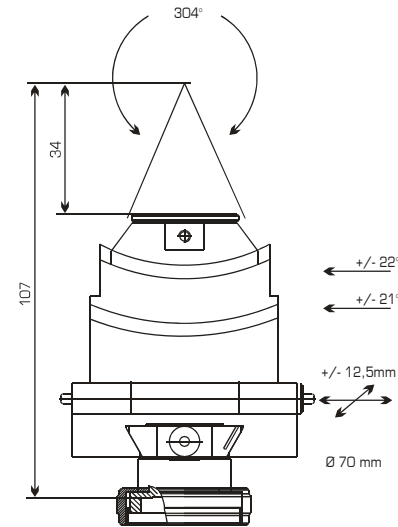
Included:

- storage container
- adjustment pin
- spanner
- adhesive wax



Goniometer head 1003

Adjustable axes:	X, Y Ry, Rx
Range X, Y [mm]:	$\pm 12,5$
Range Ry [°]:	± 21
Range Rx [°]:	± 22
Height [mm]:	107
Read-out accuracy [°]:	0,1
Weight [kg]:	1,0



Accessories

Supports:	1055 1412 1413
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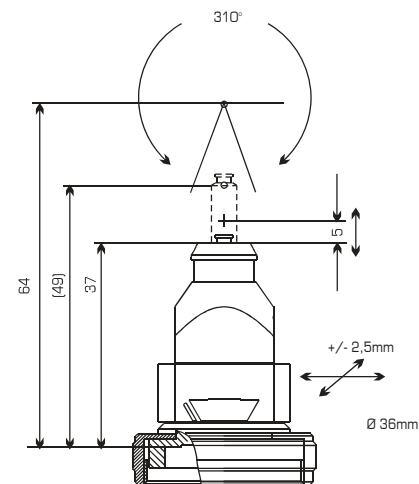
Included:

- storage container
- adjustment pin
- spanner
- adhesive wax



Goniometer head 1004

Adjustable axes:	Y, X, Z
Range X, Y [mm]:	$\pm 2,5$
Range Z [mm]:	$\pm 2,5$
Height [mm]:	49/64
Weight [kg]:	0,12

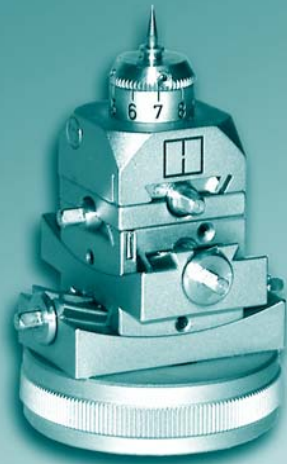


Accessories

Supports:	1055 1412 1413
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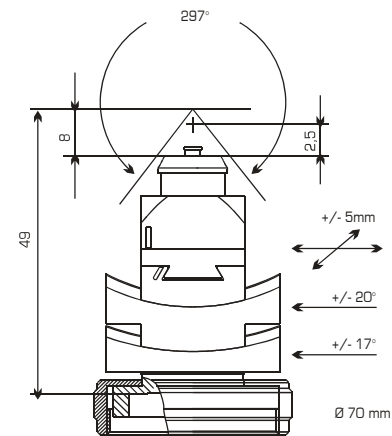
Included:

- storage container
- adjustment pin
- spanner
- adhesive wax
- extension 49/64



Goniometer head 1005

Adjustable axes:	X, Y, Z Rx, Ry
Range X, Y [mm]:	±5
Range Z [mm]:	2,5
Range Ry [°]:	±20
Range Rx [°]:	±17
Height [mm]:	49
Read-out accuracy [°]:	0,1
Weight [kg]:	0,14



Accessories

Supports:	1055 1412 1413
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Included:

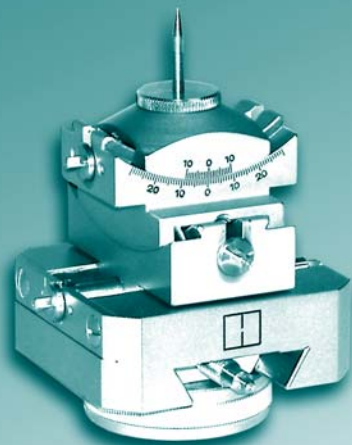
- storage container
- adjustment pin
- spanner
- adhesive wax

Accessories

Supports:	1055 1412 1413
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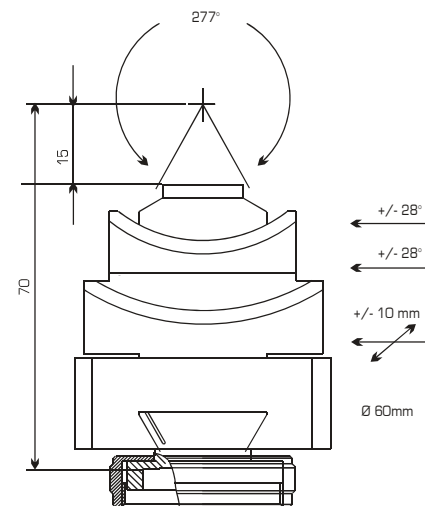
Included:

- storage container
- adjustment pin
- spanner
- adhesive wax



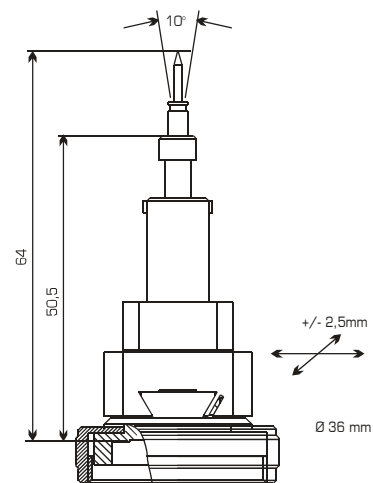
Goniometer head 1006

Adjustable axes:	Ry, Rx X, Y
Range X, Y [mm]:	±10
Range Rx, Ry [°]:	±28
Height [mm]:	70
Read-out accuracy [°]:	0,1
Weight [kg]:	0,5




Goniometer head 1007

Adjustable axes:	X, Y Tilt
Range X, Y [mm]:	$\pm 2,5$
Tilt [°]:	± 10
Height [mm]:	64
Weight [kg]:	0,11


Accessories

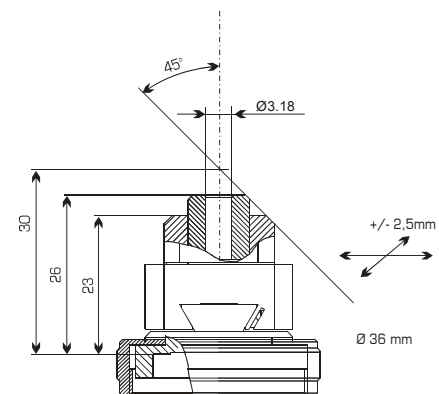
Supports:	1055 1412 1413
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Included:

- storage container
- adjustment pin
- spanner
- adhesive wax


Goniometerkopf 1007-S

Adjustable axes:	X, Y
Range X, Y [mm]:	$\pm 2,5$
Height [mm]:	26
Weight [kg]:	0,10


Accessories

Supports:	1055 1412 1413
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Included:

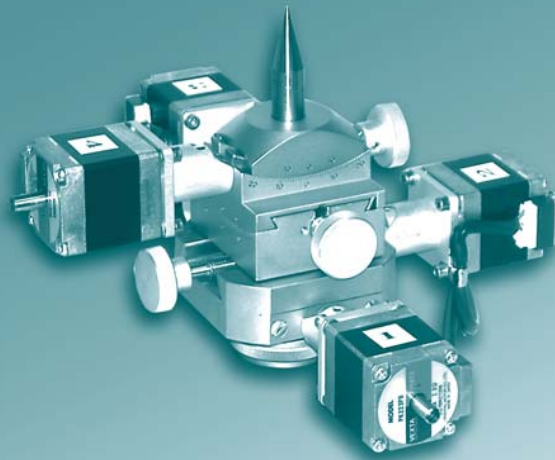
- storage container
- adjustment pin
- spanner
- adhesive wax

Goniometer head 1003-MS

Adjustable axes:	X, Y, Ry, Rx
Range X [mm]:	±12,5
Range Y [mm]:	±12,5
Range Ry [°]:	±18
Range Rx [°]:	±18
Height [mm]:	107
Read-out accuracy [°]:	0,1
Max. load [N]:	50
Weight [kg]:	2,5
Resolution X, Y [µm]:	2,5
Resolution Rx ["]:	9
Resolution Ry ["]:	9

Technical data motor:

Type:	PK 223
Number of phases:	2
Cable length [m]:	0,5
Connectors:	SUB D15
Number of steps/rev.:	200/400
Rated current [A/phase]:	0,95
Holding torque [Nm]:	0,05
Insulation class:	B

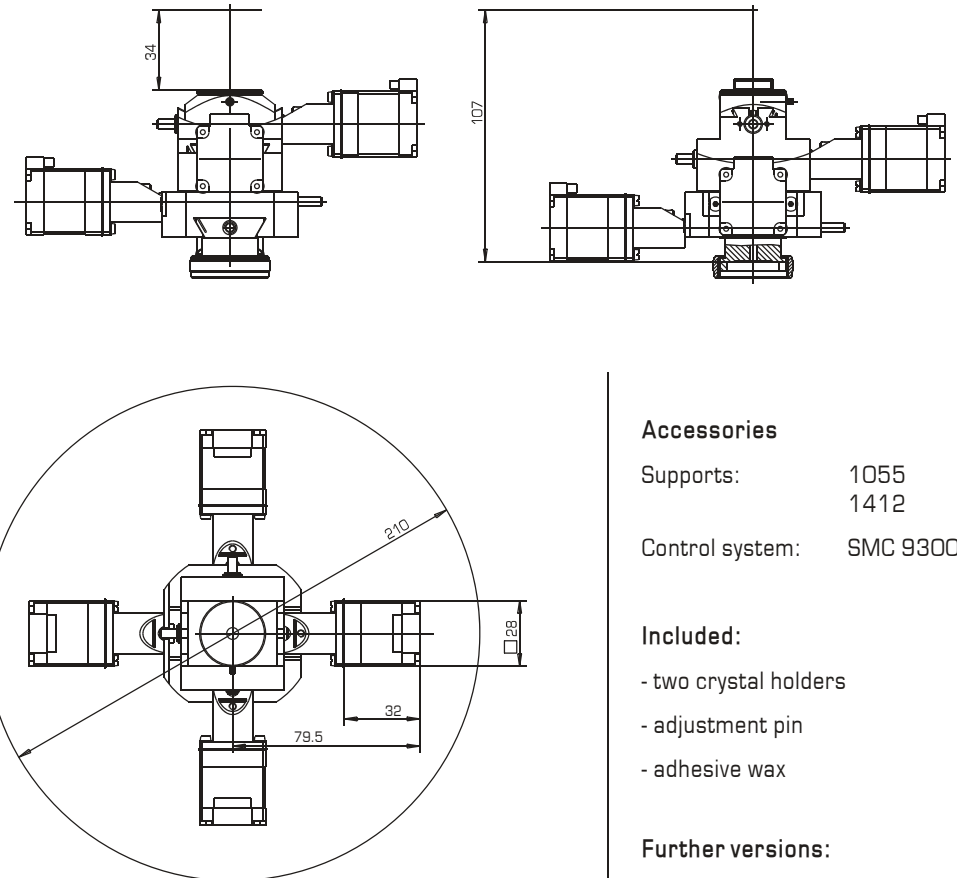


General information

The goniometer head 1003-MS is driven by four step motors.

Limit switches can be optionally equipped to limit the operational range.

This unit is also available with other types of motor. There is also a wide range of different versions. We would be happy to incorporate customer-specific alterations, if technically possible.



Accessories

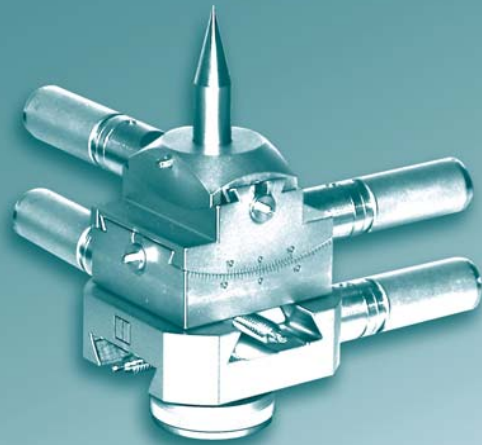
Supports:	1055 1412
Control system:	SMC 9300

Included:

- two crystal holders
- adjustment pin
- adhesive wax

Further versions:

- vacuum suitable
- radiation resistant
- antimagnetic



General information

The goniometer head 1003-MG is driven by four DC motors.

Limit switches can be optionally equipped to limit the operational range.

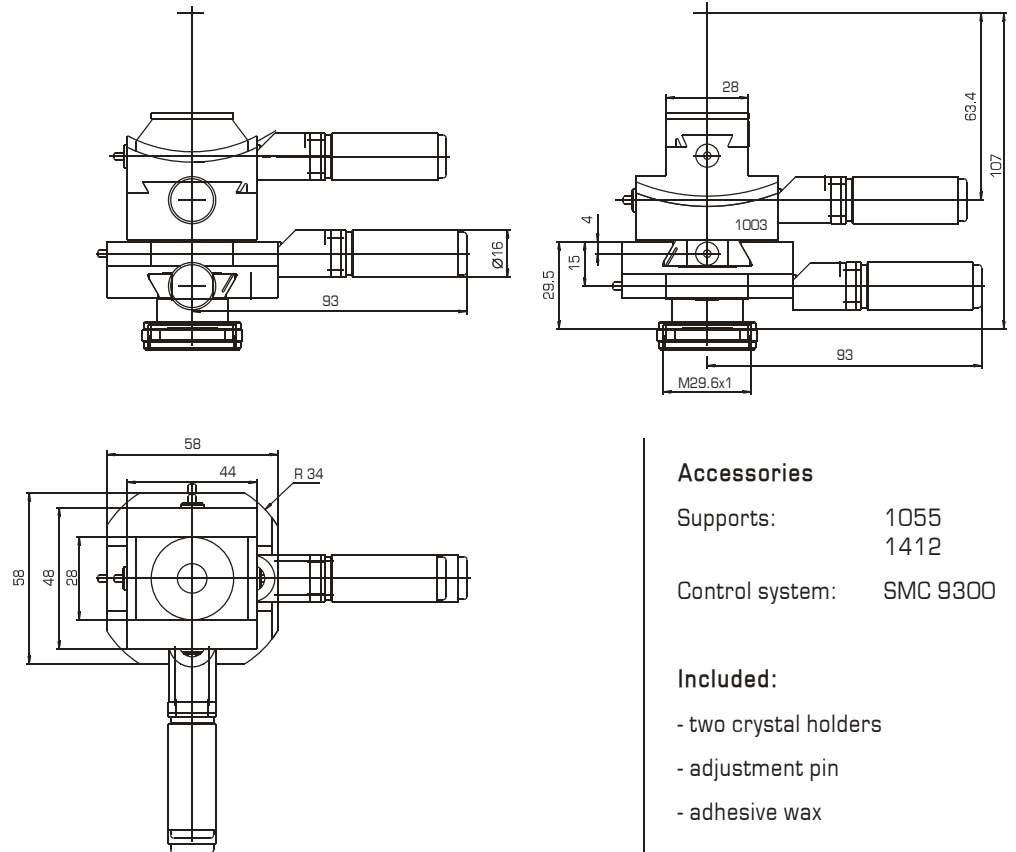
It is possible to equip the goniometer head with encoders enabling a defined positional movement.

Goniometer head 1003-MG

Adjustable axes:	X, Y, Ry, Rx
Range X [mm]:	±12,5
Range Y [mm]:	±12,5
Range Ry [°]:	±18
Range Rx [°]:	±18
Height [mm]:	107
Read-out accuracy [°]:	0,1
Max. load [N]:	50
Weight [kg]:	2,0

Technical data motor:

Type:	1516-012S
Voltage [V]:	12
Power [W]:	0,31
Resistance [Ohm]:	115
Gear box type:	15/5
Gear box ratio:	1670:1



Accessories

Supports:	1055 1412
Control system:	SMC 9300

Included:

- two crystal holders
- adjustment pin
- adhesive wax

Further versions:

- vacuum suitable
- radiation resistant
- antimagnetic

Goniometer head 1006-MS

Adjustable axes:	X, Y, Rx, Ry
Range X [mm]:	±10
Range Y [mm]:	±10
Range Ry [°]:	±28
Range Rx [°]:	±28
Height [mm]:	70
Read-out accuracy [°]:	0,1
Max. sample weight [N]:	5
Weight [kg]:	2
Resolution [µm]	2,5
Resolution Rx ["]:	9,54
Resolution Ry ["]:	14,58

Technical data motor:

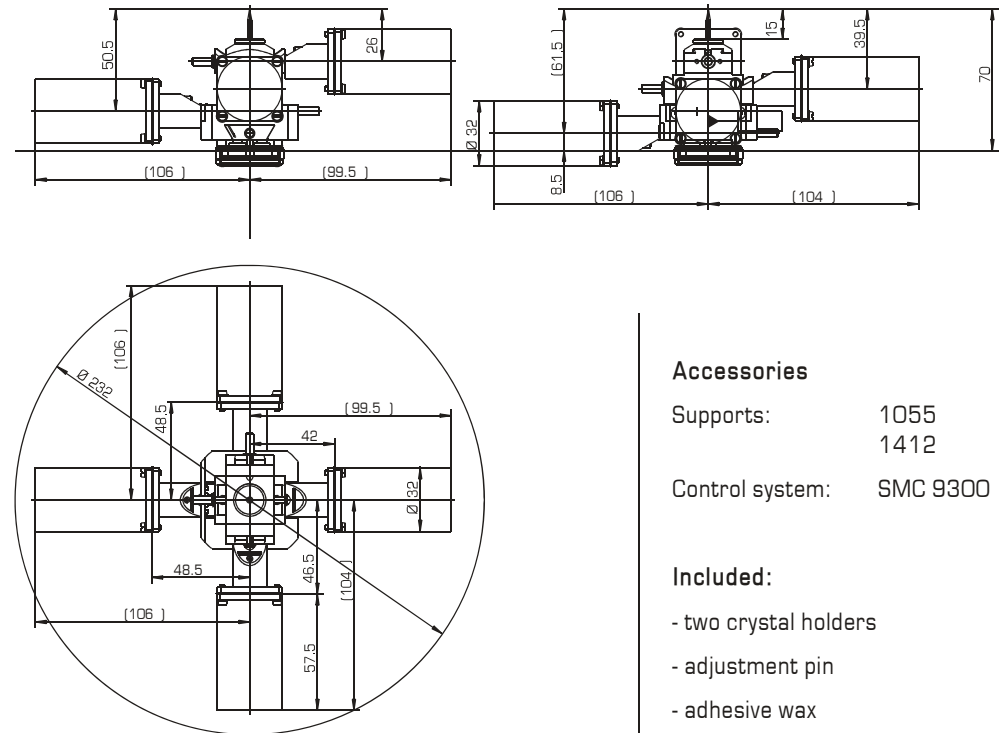
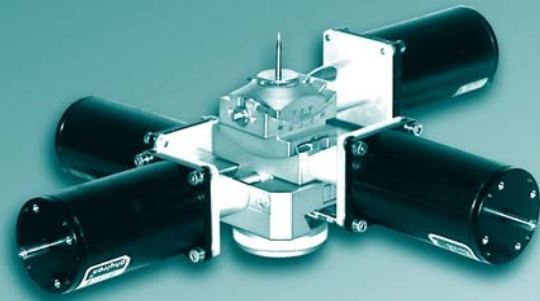
Type:	ZSS 33
Number of phases:	2
Cable length [m]:	0,5
Connectors:	SUB D15
Number of steps/rev.:	200/400
Rated current [A/phase]:	1,8
Holding torque [Nm]:	0,04
Insulation class:	F

General information

The goniometer head 1006-MS is driven by four step motors.

Limit switches can be optionally equipped to limit the operational range.

This unit is also available with other types of motor. There is also a wide range of different versions. We would be happy to incorporate customer-specific alterations, if technically possible.



Accessories

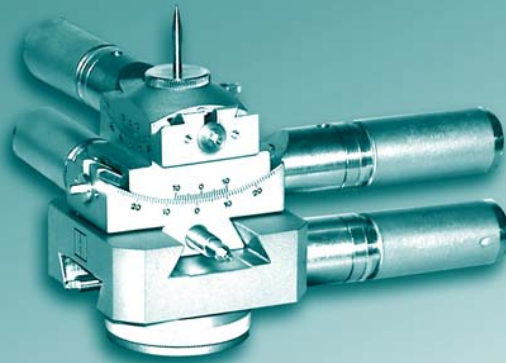
Supports:	1055 1412
Control system:	SMC 9300

Included:

- two crystal holders
- adjustment pin
- adhesive wax

Further versions:

- vacuum suitable
- radiation resistant
- antimagnetic



General information

The goniometer head 1006-MG is driven by four DC motors.

Limit switches can be optionally equipped to limit the operational range.

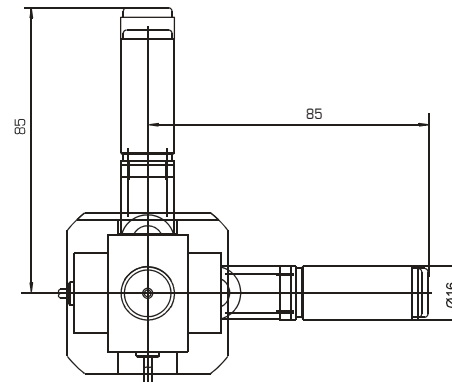
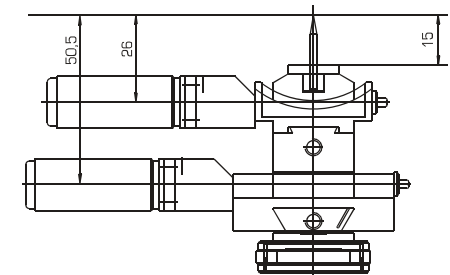
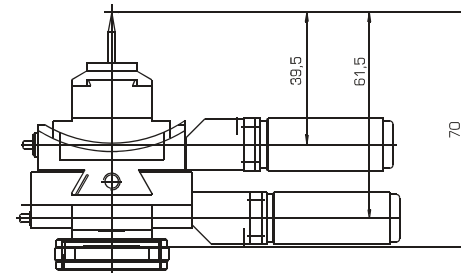
It is possible to equip the goniometer head with encoders enabling a defined positional movement.

Goniometer head 1006-MG

Adjustable axes:	X, Y, Rx, Ry
Range X [mm]:	±10
Range Y [mm]:	±10
Range Ry [°]:	±28
Range Rx [°]:	±28
Height [mm]:	70
Read-out accuracy [°]:	0,1
Max. sample weight [N]:	5
Weight [kg]:	1,7

Technical data motor:

Type:	1516-012S
Voltage [V]:	12
Power [W]:	0,31
Resistance [Ohm]:	115
Gear box type:	15/5
Gear box ratio:	1670:1



Accessories

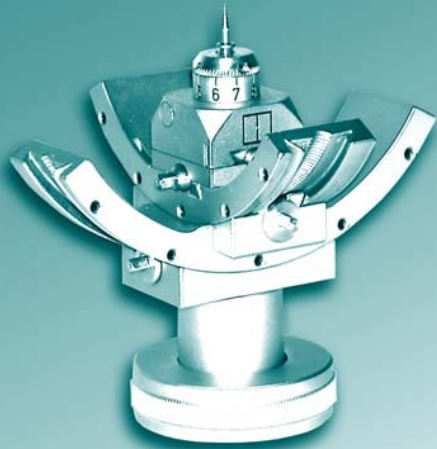
Supports:	1055 1412
Control system:	SMC 9300

Included:

- two crystal holders
- adjustment pin
- adhesive wax

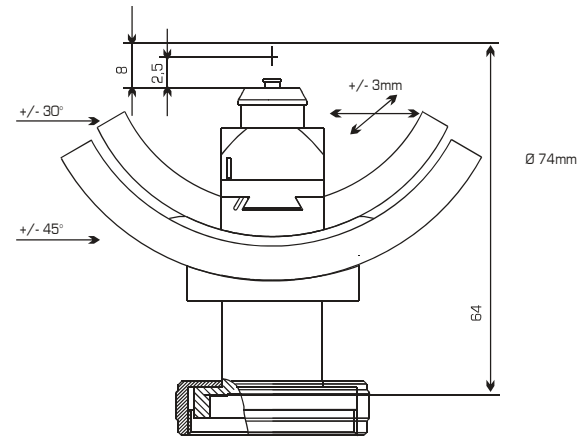
Further versions:

- vacuum suitable
- radiation resistant
- antimagnetic



Goniometer head 1002.01

Adjustable axes:	Y, X, Z Rx, Ry
Range X, Y [mm]:	±3
Range Z [mm]:	2,5
Range Ry [°]:	±30
Range Rx [°]:	±45
Height [mm]:	64
Read-out accuracy [°]:	0,1
Weight [kg]:	0,22



Accessories

Supports:	1055 1412 1413
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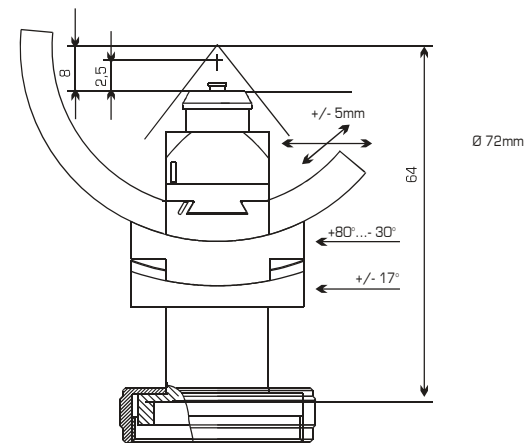
Included:

- adjustment pin
- spanner
- adhesive wax



Goniometer head 1002.02

Adjustable axes:	Rx, Ry Y, X, Z
Range X, Y [mm]:	±5
Range Z [mm]:	2,5
Range Ry [°]:	+80...-30
Range Rx [°]:	±17
Height [mm]:	64
Read-out accuracy [°]:	0,1
Weight [kg]:	0,23

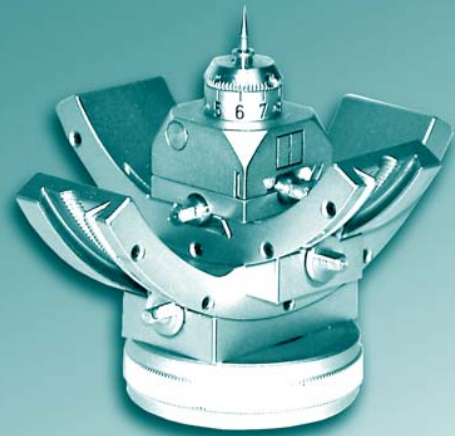


Accessories

Supports:	1055 1412 1413
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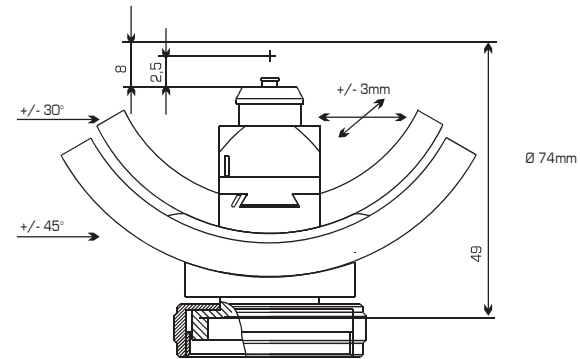
Included:

- adjustment pin
- spanner
- adhesive wax



Goniometer head 1005.01

Adjustable axes:	Y, X, Z Rx, Ry
Range X, Y [mm]:	±3
Range Z [mm]:	2,5
Range Ry [°]:	±30
Range Rx [°]:	±45
Height [mm]:	49
Read-out accuracy [°]:	0,1
Weight [kg]:	0,23

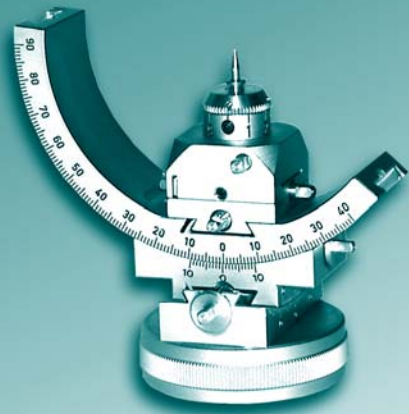


Accessories

Supports:	1055 1412 1413
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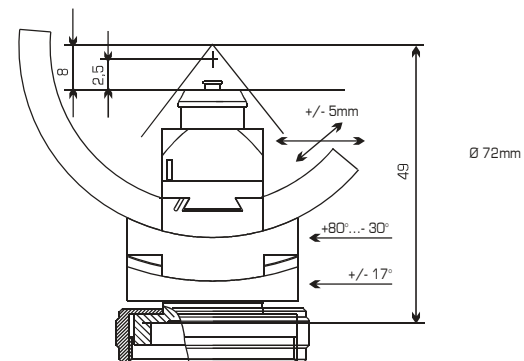
Included:

- adjustment pin
- spanner
- adhesive wax



Goniometer head 1005.02

Adjustable axes:	Y, X, Z Rx, Ry
Range X, Y [mm]:	±5
Range Z [mm]:	2,5
Range Ry [°]:	+80...-30
Range Rx [°]:	±17
Height [mm]:	49
Read-out accuracy [°]:	0,1
Weight [kg]:	0,23



Accessories

Supports:	1055 1412 1413
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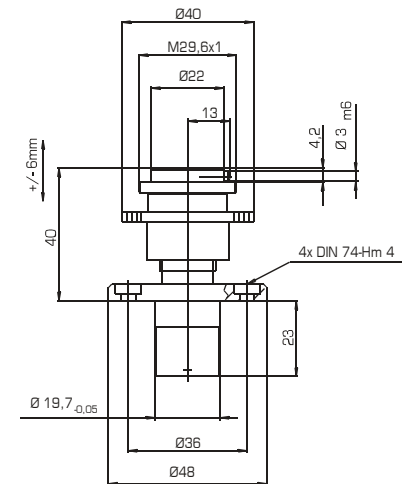
Included:

- adjustment pin
- spanner
- adhesive wax



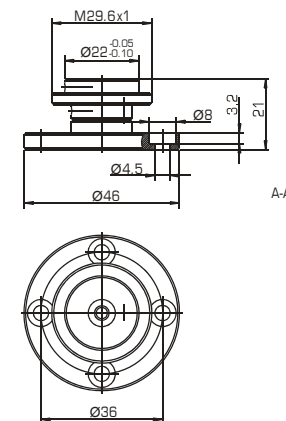
Goniometer head support 1412

For mounting:	series 1000
Fits goniometers:	408, 409 410, 411 414, 415 423
Adjustment range [mm]:	±6
Weight [kg]:	0,2



Goniometer head support 1413

For mounting:	series 1000
Fits goniometers:	408, 409 410, 411 414, 415 423
Adjustment range [mm]:	0
Weight [kg]:	0,1



Product Groups

4.
Accessories

4.1.
Mechanical

4.1.4.
Head Supports

1055

HUBER
Diffraction and Positioning Equipment

Vers. A_1



Spacer 1055

For mounting: series 1000
Extension [mm]: 15
Weight [kg]: 0,1

