



ELECTRONIC MEASURING INDUCTIVE PROBES

Product catalogue

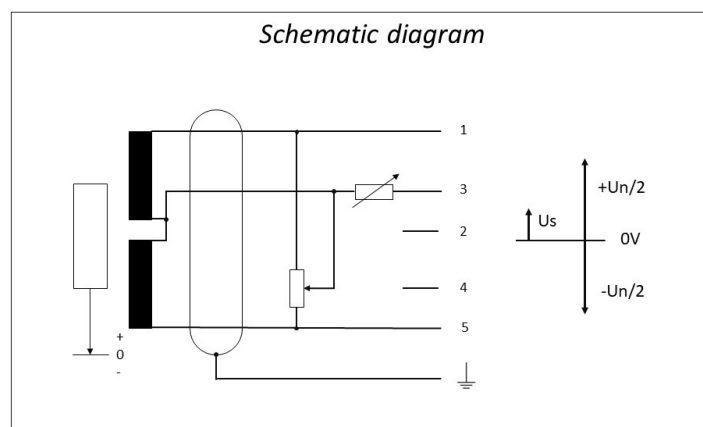


General technical data about PRETEC inductive probes

The construction of our probes is based on long experience in probe manufacturing. Even under rough conditions the probe guarantees a good repeatability of the measurement. The body of the standard probe is $\varnothing 8$ mm and the measuring bolt is ball bearing guided. An additional roller bearing locks the probe head against distortion. The pre-travel and the post-travel can be set continuously.

The operating principle of PRETEC inductive probes is based on the change of position of the ferromagnetic core within a coil system. The change of position is made by mechanical contact with the workpiece, while the coil system is supplied by an alternating voltage. A move of the core causes the inductance to change.

All PRETEC electronic probes are half-bridge Tesa compatible probes with repeatability smaller or equal to $0.02 \mu\text{m}$.



Electrical specification	
Carrier frequency	13 kHz
Sensitivity	73.75 mV/V/mm
Drive voltage	3 Vrms
Output resistive load	RL 2 k Ω

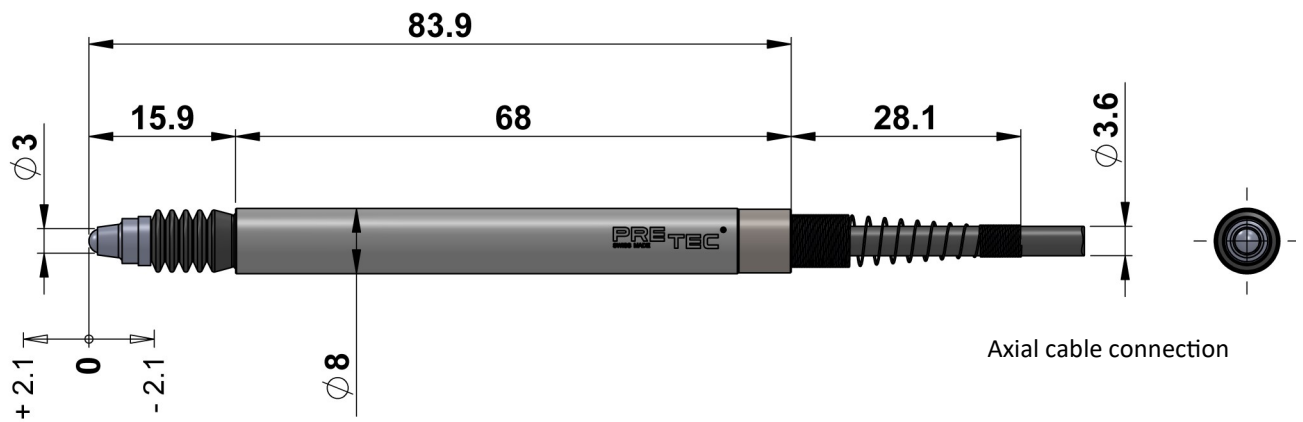
All probes are supplied with 2 m of PUR cable as standard. Other lengths and options are available on request.

In terms of actuation/retraction method, our probes are available in 3 variants:

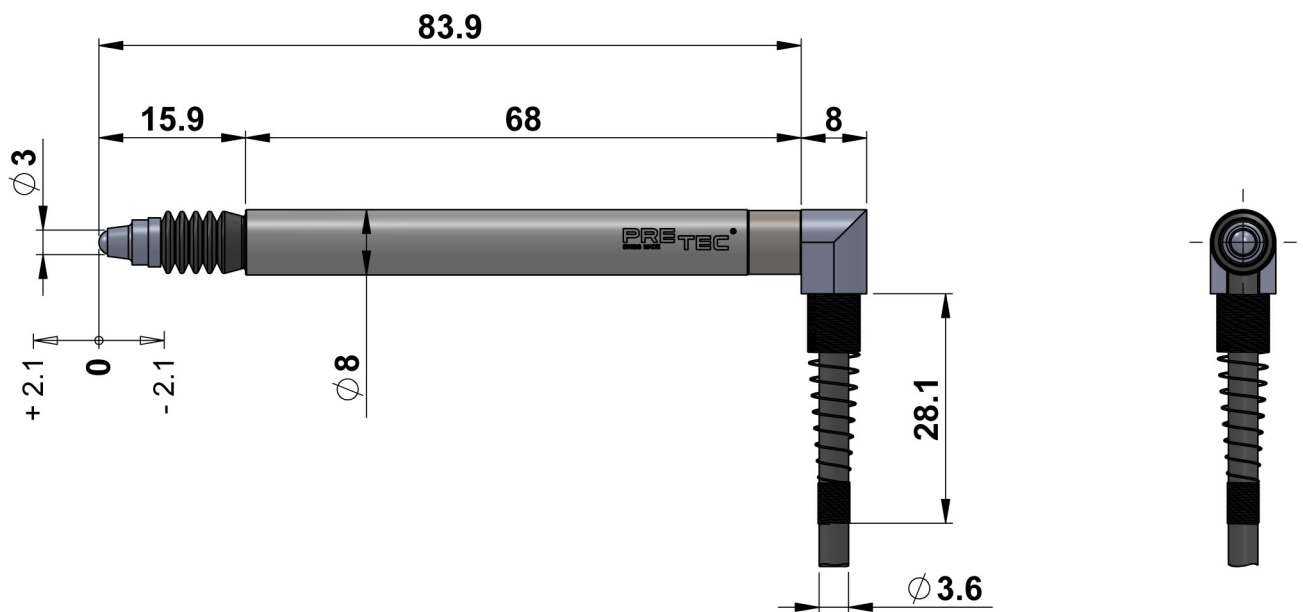
- spring push
- pneumatic push
- vacuum retract

2940

Standard



Axial cable connection



Radial cable connection

Key features:

Best universal probe with a total measuring range of 4 mm.

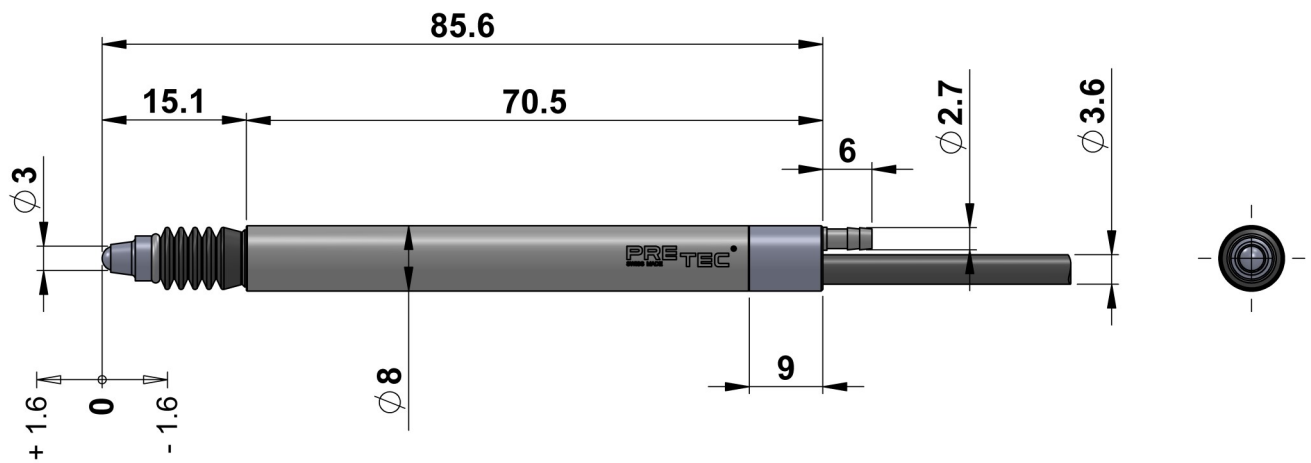
Configurable to axial or radial connection.

Set for radial cable setup is included in package

Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μm]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2940 N	±2	2.1 - 2.3 variable	4.2	< 0.02	± 0.3	0.45 N ... 0.75 N	NBR	Spring	IP 64	2m Axial and radial	Universal

2922

Vacuum (axial connection)



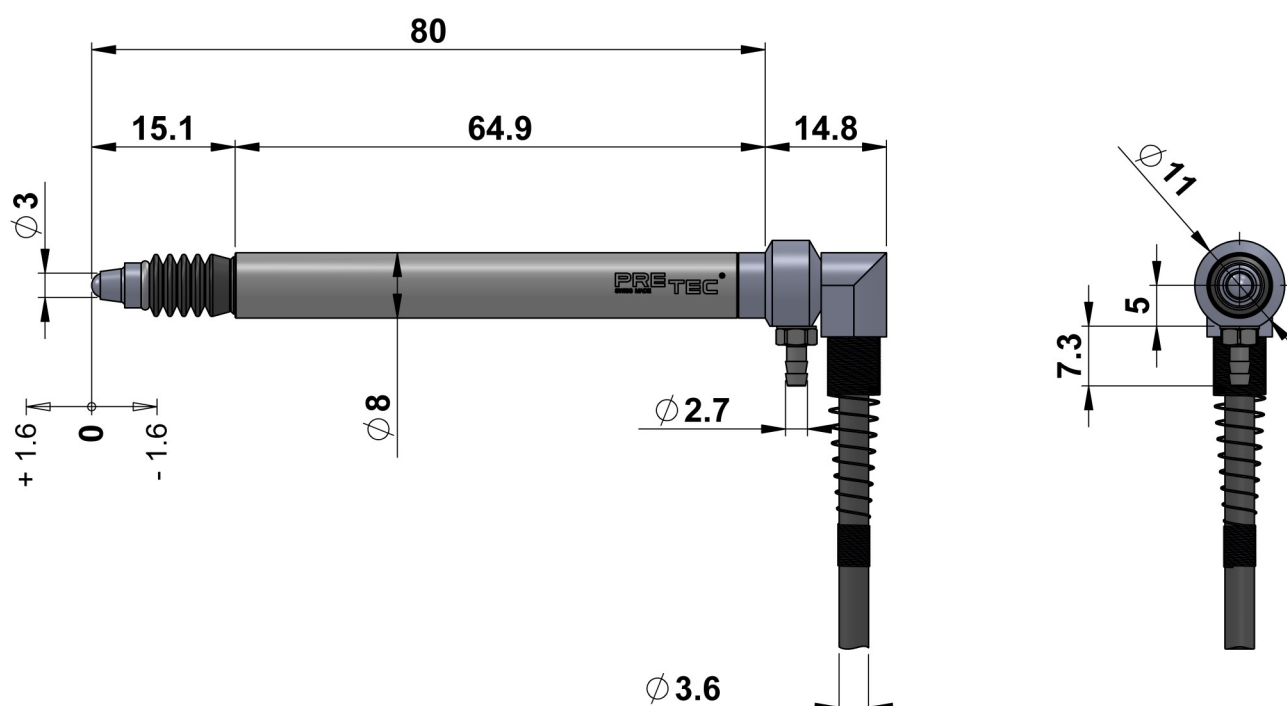
Key feature:

Vacuum probe with a total measuring range of 2 mm.

Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μm]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2922 N	±1	1.5 - 1.7 fix	3.2	< 0.02	± 0.3	0.45 N ... 0.75 N	NBR	Vacuum	IP 64	2m Axial	Universal

2923

Vacuum (radial connection)



Key features:

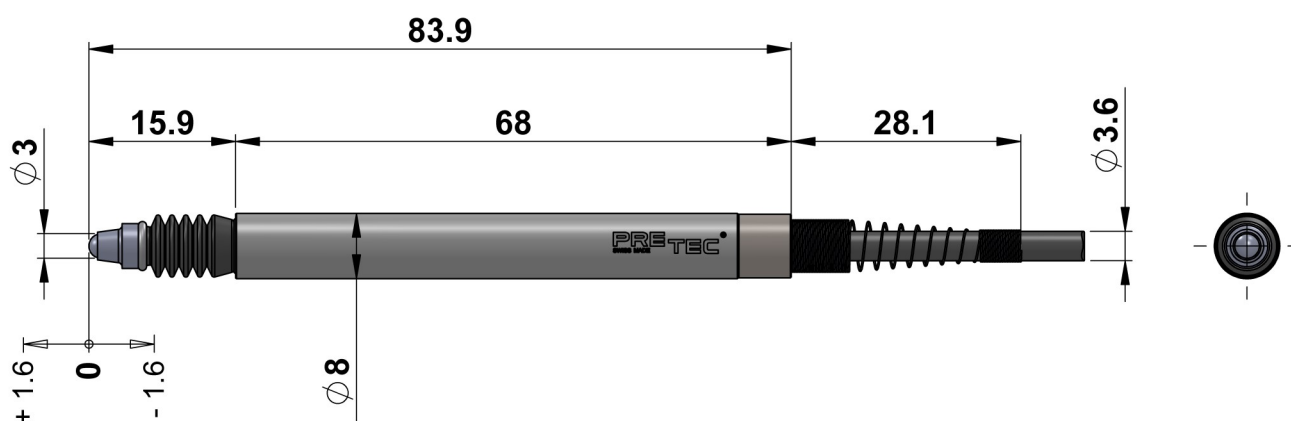
Vacuum probe with a total measuring range of 2 mm.

Radial cable and pneumatic input connection.

Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μm]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2923 N	±1	1.5 - 1.7 fix	3.2	< 0.02	± 0.3	0.45 N ... 0.75 N	NBR	Vacuum	IP 64	2m Radial	Universal

2924

IP65



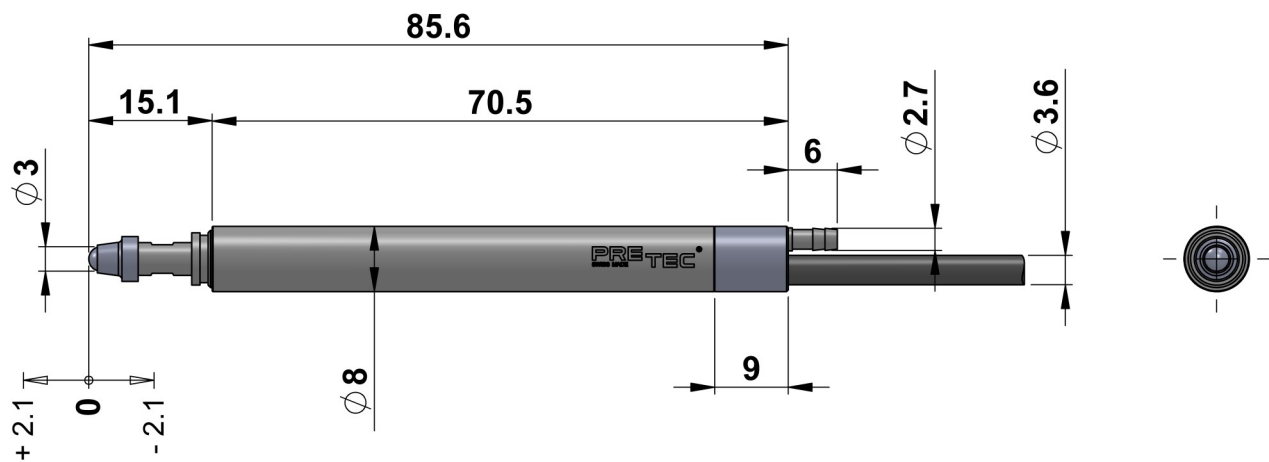
Key feature:

Protection IP 65.

Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μm]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2924 N	±1	1.5 - 1.7 Fix	3.2	< 0.02	± 0.3	0.45 N ... 0.75 N	NBR	Spring	IP 65	2m Axial	Splash waterproof

2980

Pneumatic push (axial connection)



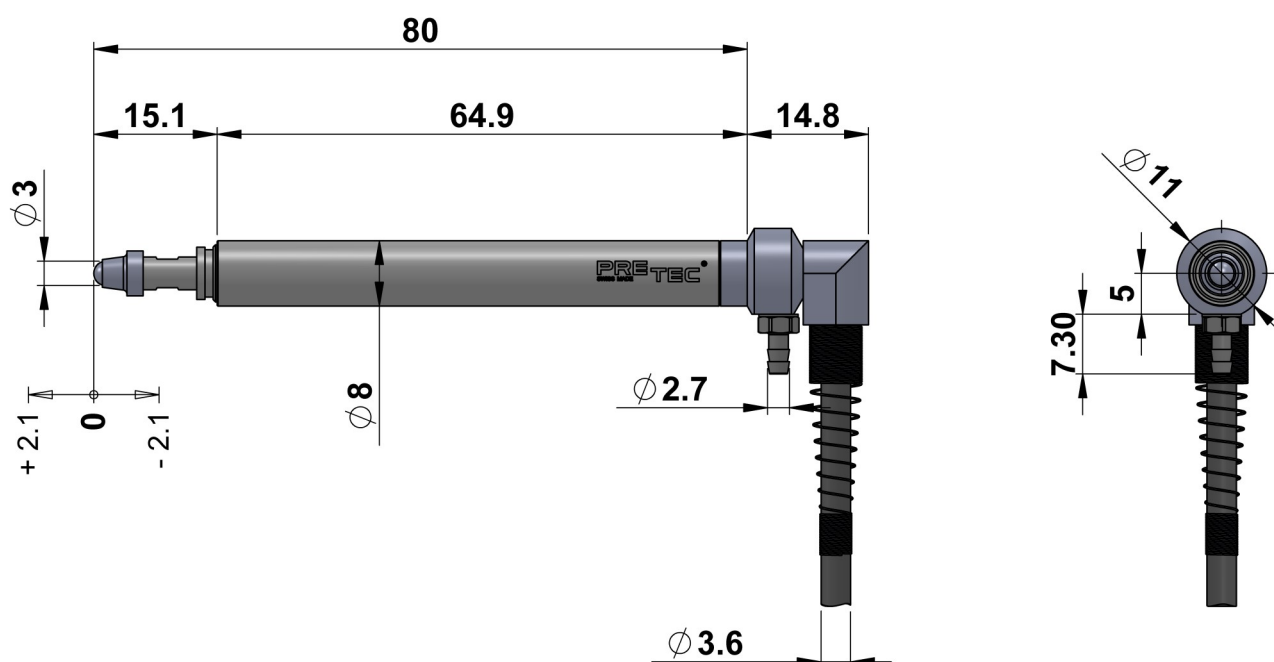
Key feature:

Pneumatic probe with a total measuring range of 4 mm.

Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μm]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2980 N	±2	2.1 - 2.3 Fix	4.2	< 0.02	± 0.3	0.5 N ... 0.7 N (@0.6 bar) 0.85 N ... 1.15 N (@1.1 bar)	-	Pneumatic	IP 64	2m Axial	Universal

2981

Pneumatic push (radial connection)



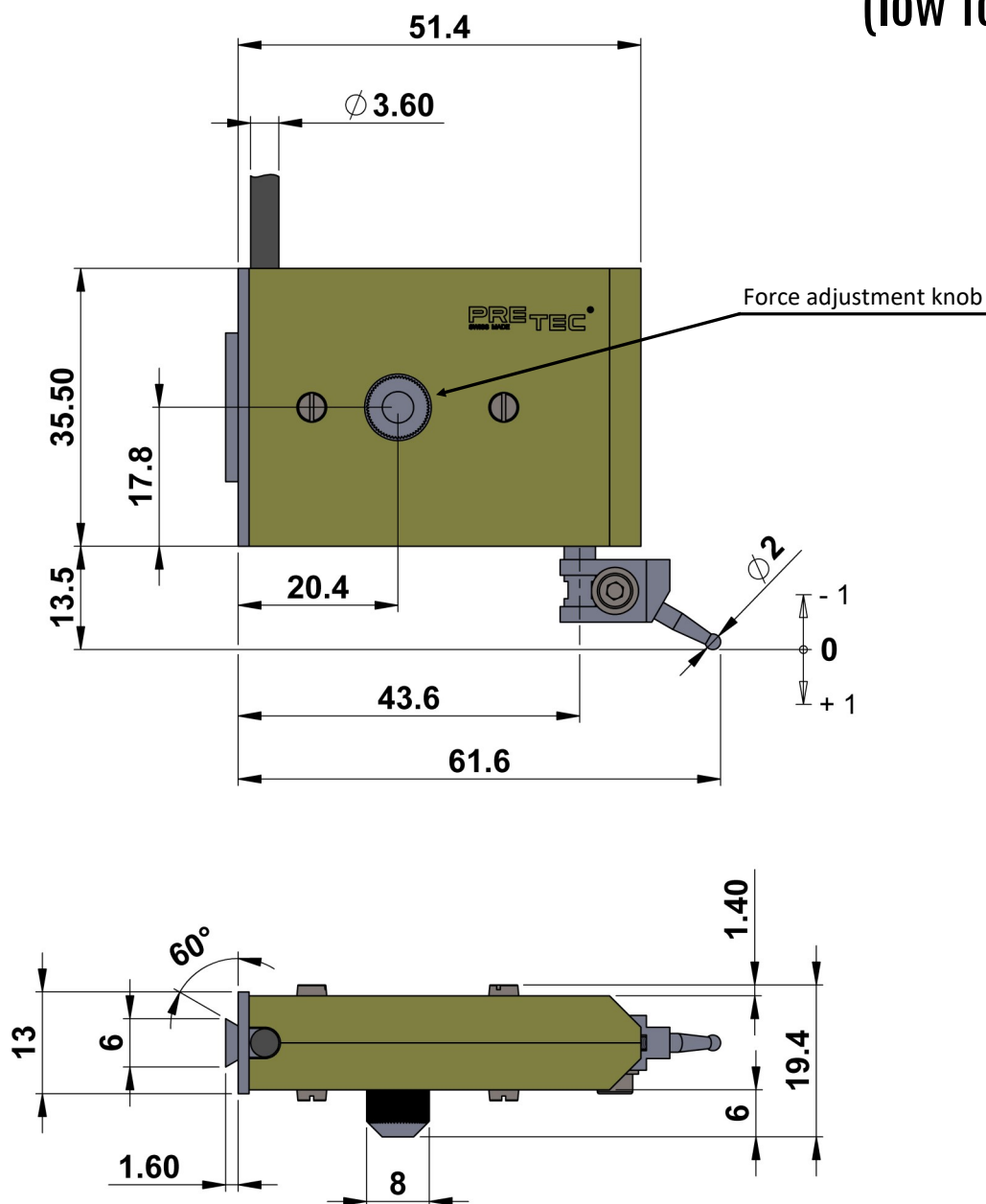
Key features:

Pneumatic probe with a total measuring range of 4 mm.

Radial cable and pneumatic input connection.

Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μm]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2981 N	±2	2.1 - 2.3 fix	4.2	< 0.02	± 0.3	0.5 N ... 0.7 N (@0.6 bar) 0.85 N ... 1.15 N (@1.1 bar)	-	Pneumatic	IP 64	2m Radial	Universal

2952 Parallelogram spring (low force)



Key feature:

Parallelogram with low measuring force.

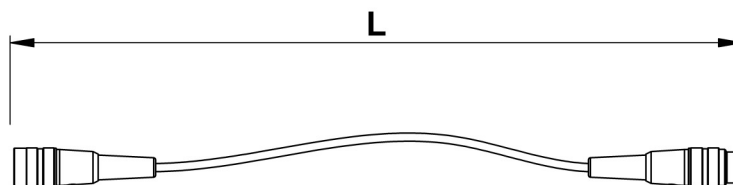
Ordering code	Measuring travel [mm]	Pretravel [mm]	Overall travel [mm]	Repetability [μ m]	Linearity [%]	Measuring force at electrical zero	Gaiter	Actuation / retraction	Protection	Cable length and exit	Application
2952 N	± 1	1.05 - 1.1 fix	2	0.01-0.05	± 0.3	0 - 0.25 N	-	Parallelogram	IP 64	2m	Low measuring force

Accessories & options

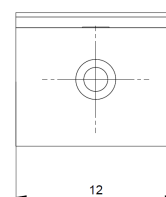
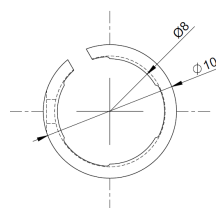
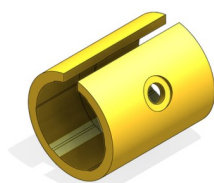
Extension cable

1910.500.1	1 m
1910.500.5	5 m
1910.500.10	10 m

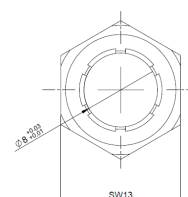
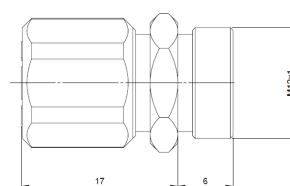
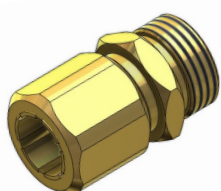
(Any length possible up to 20m)



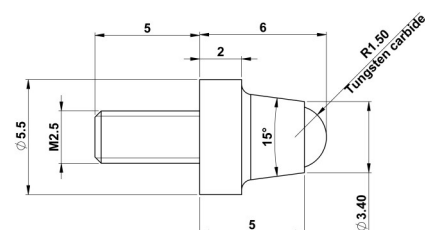
RT 113 Clamping sleeve



RT 116 Clamping sleeve



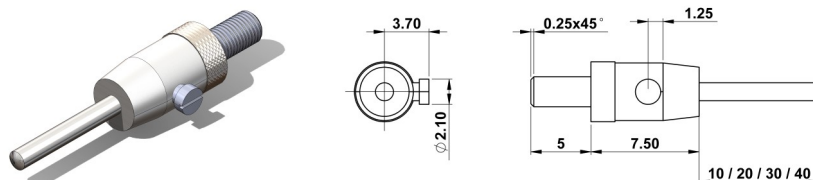
RT 130 Standard measuring tip



Accessories & options

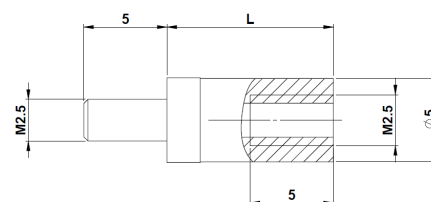
RT 135A

Spherical measuring tip
with 4 interchangeable pins



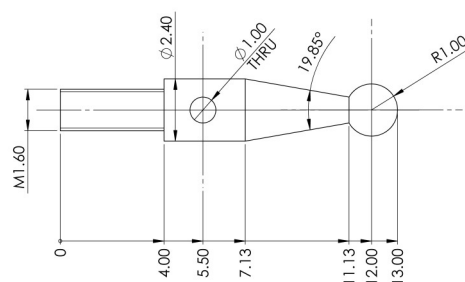
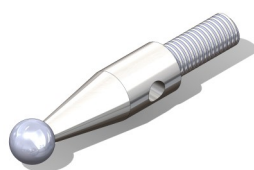
RT 137

Dimension	L (mm)
RT 137/10	10
RT 137/25	15
RT 137/20	20
RT 137/30	30



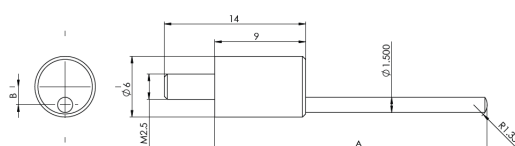
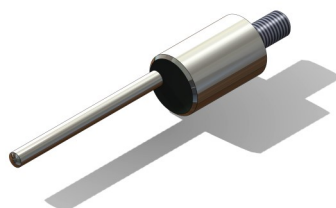
RT 200

Standard measuring tip
for 2952



RT 201

Dimension	Range (mm)
A	11—27
B	0 - 1.8

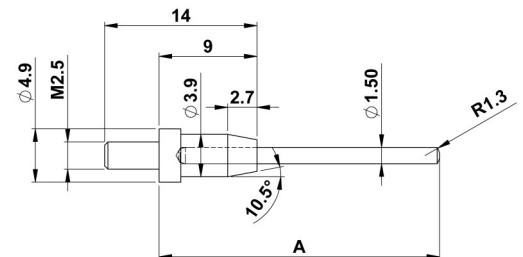


Ordering example:
RT 201 / A19 / B1.4

Accessories & options

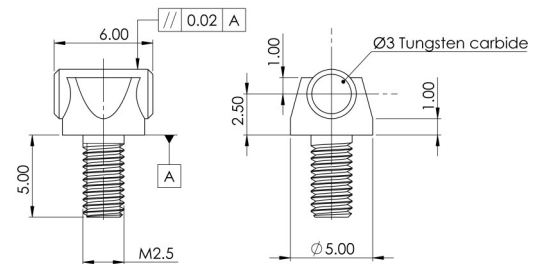
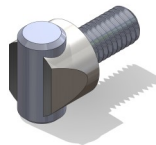
RT 202

Ordering example:
RT 202 / A25



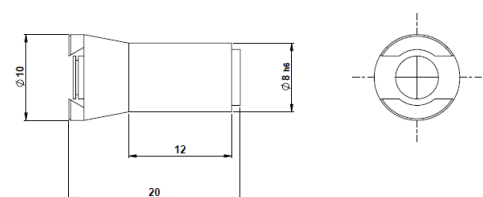
RT 203

Cylindrical measuring face,
radial alignment



RT 225

Clamping shaft Ø8
for 2952



Contact us for more accessories!

Customized probes and accessories upon your request

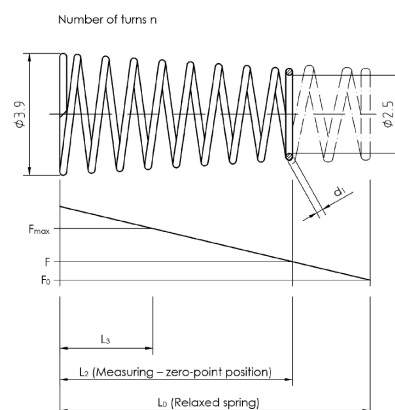
We can offer the following types of customizations on probes:

- The measuring force at electrical zero can be adjusted with special springs:

Item	Designation	L ₀	L ₂	L ₃	F	n	d ₁	Material
2940.09.1	Spring 16 g	11	7.5	3	0.05 N	7.5	0.15	CuSn
2940.09.2	Spring 25 g	11	7.5	3	0.10 N	11	0.2	CuSn
2940.09.3	Spring 30 g	11	7.5	3	0.15 N	8	0.2	CuSn
2940.09.4	Spring 60 g	11	7.5	3	0.45 N	8.25	0.225	Spring steel
2940.09.5	Spring 70 g	14	7.5	5	0.50 N	15	0.25	Spring steel
2940.09.6	Spring 100 g	11	7.5	3	0.8 N	7.25	0.25	Spring steel
2940.09.7	Spring 120 g	11	7.5	3	1.0 N	7.75	0.27	Spring steel
2940.09.8	Spring 150 g	11	7.5	3	1.3 N	8.75	0.3	Spring steel
2940.09.9	Spring 200 g	11	7.5	3	1.8 N	7	0.3	Spring steel

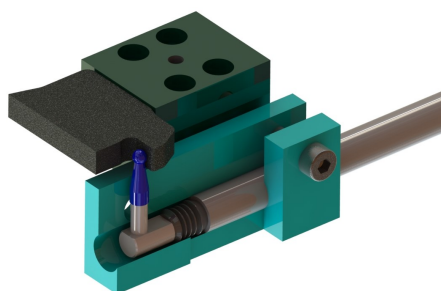
The total force of the probe is composed as follows:

Spring force + force of rubber below + axis weight + measuring tip weight



- The length of the cable can be arbitrary (the maximum is 20 meters).
- The type of cable (insulation) can also be a matter of choice: PUR, PVC, PE, PP, Silicone...
- The rubber bellows (dust shield) can be made of: NBR, SBR, Viton...
- Our probes can be engraved with your logo, custom name, your serial number...

Also, we can develop and manufacture special contact points, inserts, supports.



Don't hesitate to contact us for any special application.

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