

TESA Standard Probes – Overview



















8 mm diameter axial probes with ball-bearing measuring bolt

						Measuring bolt retraction		Sealing bellows	
			Measuring range (mm)	mm	Cable exit				
<i>Standard probes</i>									
	03210904	GT 21	± 2	4,3	axial	mechanical		Nitrile	
	03210924	GT 22	± 2	4,3	radial	by vacuum		Nitrile	
	03230057	GTL 21	± 2	4,3	axial	mechanical		Viton	
	03230072	GTL 211	± 2	4,3	axial	by vacuum		Viton	
	03230056	GTL 22	± 2	4,3	radial	by vacuum		Viton	
<i>Standard high-precision probes</i>									
	03230036	GT 21HP	± 0,2	4,3	axial	mechanical		Nitrile	
	03230021	GT 22HP	± 0,2	4,3	radial	by vacuum		Nitrile	
<i>Standard long-travel probes</i>									
	03230027	GT 27	± 2	10,3	axial	mechanical		Viton	
	03230073	GT 271	± 2	10,3	axial	by vacuum		Viton	
	03230026	GT 28	± 2	10,3	radial	by vacuum		Viton	
<i>Probes with extended measuring range</i>									
	03230041	GT 61	± 5	10,3	axial	mechanical		Viton	
	03230074	GT 611	± 5	10,3	axial	by vacuum		Viton	
	03230042	GT 62	± 5	10,3	radial	by vacuum		Viton	
...with activation of the measuring bolt by pneumatic pressure									
						Pressure (bar)		Sealing bellows	
			Measuring range (mm)	mm	Cable exit	nominal	maximum		
<i>Standard probes</i>									
	03230060	GTL 212	± 1,5	3,2	axial	0,7	1,0	Viton	
	03230054	GTL 222	± 1,5	3,2	radial	0,7	1,0	Viton	
	03230067	GTL 212-A	± 1,5	3,2	axial	0,25	6,0	none	
	03230063	GTL 222-A	± 1,5	3,2	radial	0,25	6,0	none	
<i>Long-travel probes</i>									
	03230061	GT 272	± 2	10,3	axial	1,1	1,5	Viton	
	03230053	GT 282	± 2	10,3	radial	1,1	1,5	Viton	
	03230068	GT 272-A	± 2	10,3	axial	1,0	6,0	none	
	03230069	GT 282-A	± 2	10,3	radial	1,0	6,0	none	
<i>Probes with extended measuring range</i>									
	03230062	GT 612	± 5	10,3	axial	1,1	1,5	Viton	
	03230055	GT 622	± 5	10,3	radial	1,1	1,5	Viton	
	03230070	GT 612-A	± 5	10,3	axial	1,0	6,0	none	
	03230071	GT 622-A	± 5	10,3	radial	1,0	6,0	none	

ELECTRONIC LENGTH MEASURING EQUIPMENT - ANALOGUE



** Nominal value of the measuring force at electrical zero, max. deviation $\pm 25\%$.
 *** Highest mechanical frequency valid for the final value of the measuring range, amplified by 10%.
 **** Linearity related max. permissible errors.

 N**	 Moving mass (g)	 Frequency limit Hz***	 Dismountable	 μm	 (L in mm) μm^{****}	 $^{\circ}\text{C}$	 IEC 60529	
0,63	6	60	●	0,01	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-17
0,63	6	60	●	0,01	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-18
0,63	6	60	●	0,01	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP65	0-17
0,63	6	60	●	0,01	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP65	0-17
0,63	6	60	●	0,01	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP65	0-18
0,63	6	60	–	0,01	$0,07 + 0,4 \cdot L$	$10 \div 40$	IP64	0-17
0,63	6	60	–	0,01	$0,07 + 0,4 \cdot L$	$10 \div 40$	IP64	0-18
0,63	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-19
0,63	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-19
0,63	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-19
0,9	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP65	0-20
0,9	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP65	0-20
0,9	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP65	0-20
 N**	 Moving mass (g)	 Frequency limit Hz***	 Dismountable	 μm	 (L in mm) μm^{****}	 $^{\circ}\text{C}$	 IEC 60529	
1,2	6	60	●	0,015	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP65	0-21
1,2	6	60	●	0,015	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP65	0-21
0,2	6	60	●	0,015	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP50	0-21
0,2	6	60	●	0,015	$0,2 + 2,4 \cdot L^2$	$-10 \div 65$	IP50	0-21
1,0	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-22
1,0	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP65	0-22
0,85	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP50	0-22
0,85	8	60	●	0,05	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP50	0-22
2,0	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP65	0-23
2,0	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP65	0-23
1,0	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP50	0-23
1,0	8	60	●	0,05	$1 + 4 \cdot L$	$-10 \div 65$	IP50	0-23



Miniature axial probes, 8 mm dia. probe housing

			Measuring range mm	mm	Cable exit	Measuring bolt retraction	Sealing bellows	
<i>Measuring bolt hanging from diaphragm springs</i>								
	03230001	GT 41	± 0,3	0,7	axial	without	Nitrile	
	03230002	GT 42	± 0,3	0,7	radial	vacuum	Nitrile	
<i>Measuring bolt mounted on a plain bearing</i>								
	03230035	GT 43	± 1	2,1	axial	mechanical	Viton	
	03230017	GT 44	± 1	2,1	radial	vacuum	Viton	





Axial probes with measuring bolt mounted on a ball-bearing, with no brand name

			Measuring range mm	mm	Cable exit	Measuring bolt retraction	Sealing bellows	
<i>Standard probes</i>								
	03230490	490	± 1,5	4,3	axial/radial	mechanical	Viton	
<i>Standard probes with short body</i>								
	96410012	410	± 1	2,5	axial/radial	mechanical	Nitrile	
<i>Standard probes with short body, 6 mm dia. fixing shank</i>								
	96160013	160	± 1	3,3	axial	mechanical	Viton	
<i>Miniature probes, 8 mm dia. fixing shank</i>								
	96430029	430	± 0,5	1,25	axial	mechanical	Nitrile	
	96441041	451	± 0,5	2,1	radial	vacuum	Nitrile	

Lever probes

			Measuring range mm	mm	Cable exit	Measuring bolt retraction	Sealing bellows	
	96420004	420	± 0,15	0,525	parallel	without	none	
	96499007	499	± 0,5	1,2	parallel	without	none	





 N**	 Moving mass g	 Frequency limit Hz***	Dismountable	 μm	 (L in mm) μm ****	 °C	 IEC 60529	
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0,63	2	60	–	0,01	$0,2 + 5 \cdot L^2$	-10 ÷ 65	IP65	0-24
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0,63	2	60	–	0,01	$0,2 + 5 \cdot L^2$	-10 ÷ 65	IP65	0-24
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0,4	2	60	–	0,1	$0,2 + 5 \cdot L^2$	5 ÷ 65	IP65	0-24
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0,4	2	60	–	0,1	$0,2 + 5 \cdot L^2$	5 ÷ 65	IP65	0-24
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 N**	 Moving mass g	 Frequency limit Hz***	Dismountable	 μm	 %****	 °C	 IEC 60529	
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0,63	6	60	●	0,02	0,2	-10 ÷ 65	IP65	0-25
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0,6	3,1	58	–	0,1	0,2	0 ÷ 60	IP62	0-26
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0,6	2,5	60	–	0,1	0,2	0 ÷ 60	IP62	0-27
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0,75	1,9	60	–	0,1	0,2	0 ÷ 60	IP62	0-27
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0,6	3	60	–	0,1	0,2	0 ÷ 60	IP62	0-27
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 N**	 Moving mass g	 Frequency limit Hz***	Dismountable	 μm	 %****	 °C	 IEC 60529	
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1,8	2,5	10	–	0,5	0,3	0 ÷ 60	IP40	0-28
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0,02 ÷ 0,2	10,6	10	–	0,25	0,6	0 ÷ 60	IP40	0-28
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** Nominal value of the measuring force at electrical zero, max. deviation $\pm 25\%$.
 *** Highest m mechanical frequency valid for the final value of the measuring range, amplified by 10%.
 **** Linearity related max. permissible errors.



TESA probe with inclinable lever

	No.	Model	Measuring range (mm)	mm	Cable exit	Measuring bolt retraction
	03210802	GT 31	± 0,3	0,7	angled	without

TESA universal probes

	No.	Model	Measuring range (mm)	mm	Cable exit	Measuring bolt retraction (accessory)

Standard probes

	03230019	FMS 100	± 2	5,8	parallel	air pressure
	03230028	FMS 102	± 2	5,8	angled	air pressure
	03230049	FMS 130	± 2,9	5,8	parallel	air pressure
	03230050	FMS 132	± 2,9	5,8	angled	air pressure

Probes «FMS Protected»

	03230037	FMS 100-P	± 2	5,8	parallel	air pressure
	03230038	FMS 102-P	± 2	5,8	angled	air pressure
	03230051	FMS 130-P	± 2,9	5,8	parallel	air pressure
	03230052	FMS 132-P	± 2,9	5,8	angled	air pressure

* Position against the measuring direction

 N**	 Moving mass (g)	 Frequency limit Hz***	 Dismountable	 μm	 (L in mm) μm^{****}	 °C	 IEC 60529	
0,1	12	25	–	0,1	$0,2 + 50 \cdot L^2$	$5 \div 60$	IP40	0-29
 N/mm	 Moving mass (g)	 Frequency limit Hz***	 Dismountable	 μm	 (L in mm) μm^{****}	 °C	 IEC 60529	
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP50	0-31
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP50	0-32
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP50	0-31
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP50	0-32
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP54	0-31
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP54	0-32
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP54	0-31
2	110	25	●	0,5	$0,2 + 3 \cdot L^3$	$-10 \div 65$	IP54	0-32

** Nominal value of the measuring force at electrical zero, max. deviation $\pm 25\%$.

*** Highest mechanical frequency valid for the final value of the measuring range, amplified by 10%.

**** Linearity related max. permissible errors.

