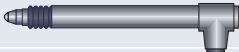
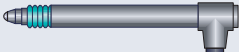
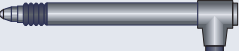
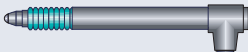
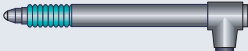


TESA/Brown & Sharpe Electronic Probes Quick Selection Tables

8 mm Diameter Axial Probes with Ball-Bearing Measuring Bolt

			 Measuring Range mm	 Travel mm	 Cable Exit	Bolt Retraction	Sealing Bellows
Standard probes							
	599-982-10	GT 21	± 2	4.3	axial	mechanical	Nitrile
	32.10904	GT 21	± 2	4.3	axial	mechanical	Nitrile
	32.10924	GT 22	± 2	4.3	radial	by vacuum	Nitrile
	32.30057	GTL 21	± 2	4.3	axial	mechanical	Viton
	32.30056	GTL 22	± 2	4.3	radial	by vacuum	Viton
Standard high-precision probes							
	32.30036	GT 21HP	± 0.2	4.3	axial	mechanical	Nitrile
	32.30021	GT 22HP	± 0.2	4.3	radial	by vacuum	Nitrile
Standard long-travel probes							
	32.30027	GT 27	± 2	10.3	axial	mechanical	Viton
	32.30026	GT 28	± 2	10.3	radial	by vacuum	Viton
Probes with extended measuring ranges							
	32.30041	GT 61	± 5	10.3	axial	mechanical	Viton
	32.30042	GT 62	± 5	10.3	radial	by vacuum	Viton

General Information – Valid for all Types

All of the characteristics given are valid for a reference temperature of 20°C. These technical specifications are applicable to probes fitted with the standard contact point.

Possible resolution: 0.01 µm.

L = value measured from electrical zero in mm.

Linearity Error: The linearity error noted in the above table shows the maximum value.

The typical value can be half of the maximum value.

Nominal sensitivity (half-bridge): GT62/61 – 29.5 mV/mm (conditions: 3V, 13 kHz/2 kΩ);
all other types - 73.75 mV/mm.

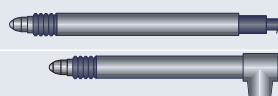
Compatibility of Brown & Sharpe TESA® Probes with Electronic Equipment of other Manufacturers

		32.90119	32.90120	32.90121	32.90122	32.90123	32.90124
ETAMIC (ZCB)		GT 21	GT 22	GT 27	GT 28	FMS 100	FMS 102
		32.90143	32.90144	32.90145	32.90146		
MAHR		GT 21	GT 22	GT 212	GT 222		
		32.90149	32.90150				
MARPOSS		GT 21	GT 22				

DIN 32676
Part 1For technical
data, refer to
each single standard
probe

DC Axial Probes

Provided with a direct current output for connection to a computer or any other unit fitted with an analog input.

				Measuring Range / mm		N *		Cable Exit
	32.30059	GT 21 DC	± 2		0.63		axial	
	32.30058	GT 22 DC	± 2		0.63		radial	
* Nominal value at electrical zero; max. deviation ± 25%. Valid for upright assembly position, with downward oriented measuring bolt, as well as for static measuring.								
Also available upon request:								
	S32180358	S32180315	S32080302	S32080692	S32080721			
	GT 27 DC ± 10V	GT 28 DC	GT 31 DC	GT 41 DC	GT 43 DC			
	S32080569	S32020402	S32080729	S32080661	S32020214			
	GT 44 DC ± 5V	GT 61 DC	GTL 222 DC ± 10V	GT 272 DC	GT 622 DC			
	S32001487	S32080524	S32730497	S32080361				
	FMS 100 DC	FMS 102 DC	FMS 132 DC ± 10V	FMS 100 DC-IP54				
Other existing versions: 2V / mm, 5V / mm and 10V / mm; max. output voltage 10V.								

GT 21 DC and GT 22 DC
electronic probes

DIN 32876
Part 1See
in the tableAxial probes
usable in any position8 mm dia.
fixing shankDrive voltage:
± 10 to ± 15V
Consumption: 15 mA
Adjustment load: > 1 kΩ
Sensitivity: 1V / mm

0.1 μm



0.15 μm

Max. perm.
error of 15 μm
relative to a 4 mm meas-
uring span (measuring
range ± 2 mm)Other technical
data listed on
pages L-12 and L-13Technical data sheets
GT 21 DC: 32.00396
GT 22 DC: 32.00397

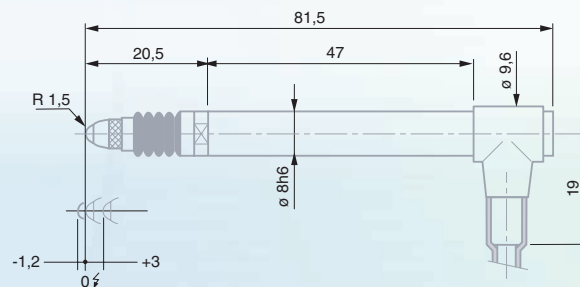
GT 22 Probes with Radial Cable Exit

		 Measuring Range / mm	 N *	 Bolt Retraction	Sealing Bellows
<i>Standard probes</i>					
599-982-18	GT 22	± 2	0.63	by vacuum	Nitrile
32.10924	GT 22	± 2	0.63	by vacuum	Nitrile
32.10921	GT 22	± 2	0.16	by vacuum	Nitrile
32.10922	GT 22	± 2	0.25	by vacuum	Nitrile
32.10923	GT 22	± 2	0.4	by vacuum	Nitrile
32.10925	GT 22	± 2	1.0	mechanical	Nitrile
32.10926	GT 22	± 2	1.6	mechanical	Nitrile
32.10927	GT 22	± 2	2.5	mechanical	Nitrile
32.10928	GT 22	± 2	4.0	mechanical	Nitrile
32.30056	GTL 22	± 2	0.63	by vacuum	Nitrile

* Nominal value at electrical zero, max. ± 25%. Valid for upright assembly position, with downward oriented measuring bolt, as well as in static measuring.



GT22



			Lower stop of the measuring bolt **, adjustable from... to ex-factory mm			 mm	 μm	 μm	 μm ***	 Technical Data Sheets
GT 22	- 2.2	0.1	- 1.2			4.3	0.01	0.02	$0.2 + 3 \cdot L^3$	32.00250
GTL 22	- 2.2	0.1	- 1.2			4.3	0.01	0.02	$0.2 + 2.4 \cdot L^2$	32.00392
GT 22 HP	- 2.2	0.1	- 1.2			4.3	0.01	0.01	$0.07 + 0.4 \cdot L$	32.00265

** Distance from electrical zero

*** Max perm. errors applicable to the linearity errors (L in mm).



 DIN 32876 Part 1

 See in the table

 Axial probes usable in any position

 8 mm dia. fixing shank

Ball-bearing measuring bolt

Distance from electrical zero of both stops is either adjustable (lower stop) or depending on the position of the latter (upper stop)

Interchangeable measuring insert with a 3 mm dia. tungsten carbide ball tip. M2.5 thread

Cable length : 2 m

5-pin plug DIN 45322, LVDT without plug

 Nickel-plated housing

Stainless steel measuring bolt, hardened

Sealing bellows : resistant Nitrile or high-resistance Viton (elastomer)

 Moving mass : 6 g

 Drive frequency 13 kHz (± 5%).

Mechanical frequency limit : 60 Hz

 0.15 μm / °C or 0.2 μm / °C for GTL 22

 20 ± 0.5 °C

 -10 °C to 65 °C. 10 °C to 40 °C for GT 21 HP

 80%

 Protection IP65 (IEC 60529), GT 21 HP : IP64

 Transport packing

 Identification number

 Inspection report with a declaration of conformity

Variety of Accessories for TESA® Electronic Probes

Measuring Force Spring Sets for Axial Probes



All values given in the table for the measuring force are nominal values at electrical zero; max. deviation $\pm 25\%$. Valid for upright assembly position, with downward oriented measuring bolt, as well as in static measuring.



Force related information marked on the plastic sleeve



Transport packing



Nitrile: resistant synthetic rubber for normal use

Viton: high-resistance synthetic rubber used where probes are constantly in contact with cooling and lubricating agents.



Safety rings and washer



Transport packing



N

GT 22 probe series

32.60419	0.16
32.60420	0.25
32.60421	0.40

GT 21 and GT 22 probe series

32.60422	1.0
32.60423	1.6
32.60424	2.5
32.60425	4.0



N

GT 27 and GT 28 probe series

32.60458	0.63
32.60459	1.0
32.60460	1.6
32.60461	2.5

GT 61 and GT 62 probe series

32.60483	0.8
32.60463	1.0
32.60464	1.6
32.60465	2.5



Spare Bellows for Axial Probes



GT 21 and GT 22 probe series

32.60468	Nitrile
32.60470	Viton

