

329-1285

SHORTFORM PRODUCT DESCRIPTION
probes and accessories
for oscilloscopes and multimeters

Order-number	Type	Attenuation	Input Impedance		Bandwidth (MHz)	Risetime (ns)	Cablelength (m)	Compensation-range (pF)	max. Input Voltage CAT I
			R (MOhm)	C (pF)					
low frequency probes up to 150 MHz									
10000	TT-LF 112	x1	=oscilloscope	45	25	14	1,2	-	400 Vp
10001	TT-LF 116	x1	=oscilloscope	56	22	16	1,6	-	400 Vp
10002	TT-LF 120	x1	=oscilloscope	67	20	18	2,0	-	400 Vp
10010	TT-LF 212	x10	10	14	150	2,3	1,2	10..60	600 Vp
10011	TT-LF 216	x10	10	15,5	130	2,7	1,6	10..60	600 Vp
10012	TT-LF 220	x10	10	16	100	3,5	2,0	10..60	600 Vp
10020	TT-LF 312	x1	=oscilloscope	47	15	24	1,2	-	400 Vp
		x10	10	15,5	150	2,3	10..60	600 Vp	
10021	TT-LF 316	x1	=oscilloscope	58	12	30	1,6	-	400 Vp
		x10	10	16	130	2,7	10..60	600 Vp	
10022	TT-LF 320	x1	=oscilloscope	69	10	40	2,0	-	400 Vp
		x10	10	16,5	100	3,5	10..60	600 Vp	
middle frequency probes up to 250 MHz									
11000	TT-MF 112	x1	=oscilloscope	45	30	12	1,2	-	400 Vp
11001	TT-MF 116	x1	=oscilloscope	56	27	13	1,6	-	400 Vp
11002	TT-MF 120	x1	=oscilloscope	67	25	14	2,0	-	400 Vp
11010	TT-MF 212	x10	10	13,5	250	1,4	1,2	10..60	600 Vp
11011	TT-MF 216	x10	10	15	220	1,6	1,6	10..60	600 Vp
11012	TT-MF 220	x10	10	15,5	190	1,8	2,0	10..60	600 Vp
11020	TT-MF 312	x1	=oscilloscope	47	20	18	1,2	-	400 Vp
		x10	10	15	250	1,4	10..60	600 Vp	
11021	TT-MF 316	x1	=oscilloscope	58	13	27	1,6	-	400 Vp
		x10	10	15,5	220	1,6	10..60	600 Vp	
11022	TT-MF 320	x1	=oscilloscope	69	10	35	2,0	-	400 Vp
		x10	10	16	190	1,8	10..60	600 Vp	
high frequency probes up to 350 MHz									
12000	TT-HF 112	x1	=oscilloscope	45	40	9	1,2	-	400 Vp
12002	TT-HF 120	x1	=oscilloscope	67	30	12	2,0	-	400 Vp
12010	TT-HF 212	x10	10	13,5	300	1,2	1,2	10..50	600 Vp
12012	TT-HF 220	x10	10	15,5	230	1,5	2,0	10..50	600 Vp
12020	TT-HF 312	x1	=oscilloscope	47	30	12	1,2	-	400 Vp
		x10	10	15	300	1,2	10..50	600 Vp	
12022	TT-HF 320	x1	=oscilloscope	69	15	23	2,0	-	400 Vp
		x10	10	16	230	1,5	10..50	600 Vp	
12030	TT-HF 412	x10	10	13,5	350	1	1,2	10..50	600 Vp
12032	TT-HF 420	x10	10	15,5	270	1,3	2,0	10..50	600 Vp

Order-number	Type	Attenuation	Input Impedance		Bandwidth (MHz)	Risetime (ns)	Cablelength (m)	Compensation- range (pF)	max. Input Voltage CAT I
			R (MOhm)	C (pF)					
high frequency miniature probes									
12040	TT-HF 512	x10	10	9	500	<0,7	1,2	10..30	200 Vp
12042	TT-HF 520	x10	10	11	350	1	2,0	10..30	200 Vp
high voltage probes up to 300 MHz									
13000	TT-HV 150	x100	100	4	300	1,2	1,2	10..50	1500 Vp
13001	TT-HV151	x100	100	6	200	1,8	2,0	10..50	1500 Vp
13010	TT-HV 250	x100	100	4	300	1,2	1,2	10..50	2500 Vp
13011	TT-HV 251	x100	100	6	200	1,8	2,0	10..50	2500 Vp
15000	TT-HVP 15HF	x1000	100	3	50	7	2,0	10..35	15kVDC+30kVp
active FET probe									
12050	TT-AF 2000	x10	1	2	750	<0,5	1,5	-	40 Vp
SafetyProbe Protection 1000 V, CAT II									
14000	TT-SP 101	x1	= oscilloscope	70	25	15	1,5	-	500 V
14010	TT-SP 202G	x10	10	15	250	1,4	1,5	10..30	1000 V
14011	TT-SP 202R	x10	10	15	250	1,4	1,5	10..30	1000 V
Order-number	Type	Cablelength (m)	Bandwidth (MHz)	Input Capacity (pF)	Diode turn on voltage (mV)	maximum input voltage			
						UAC (V)	UDC (V)		
detector probe for oscilloscope									
13100	TT-DE 112	1,2	0,1-950 MHz +-3dB	approx. 5	250	50	250		
RF-detector probe for DMM									
13110	TT-DE 112BA	1,2	0,1-750 MHz +-3dB	approx. 5	250	50	250		
Order-number	Type	Attenuation	Input Impedance		Bandwidth (MHz)	Risetime (ns)	absolute max. Voltage	max differentielle DC+peakAC	max. common mode DC+peakAC
			R (MOhm)	C (pF)					
active differentielle probes CAT II									
15101	TT-SI 9001	x10	4	10	25	14	1000 Vrms	70 V	700 V
		x100	4	10	25	14	1000 Vrms	700 V	700 V
15102	TT-SI 9002	x20	4	10	25	14	1000 Vrms	140 V	1400 v
		x200	4	10	25	14	1000 Vrms	1400 V	1400 V
15105	TT-SI 9005	x50	10	5	25	14	2500 Vrms	350 V	3500 V
		x500	10	5	25	14	2500 Vrms	3500 V	3500 V
15115	TT-SI 9105	x50	4	7	100	3,5	600 Vrms	70 V	600 Vrms
		x500	4	7	100	3,5	600 Vrms	700 V	600 Vrms
15120	TT-SI 9110	x100	4	7	100	3,5	1000 Vrms	140 V	1000 Vrms
		x1000	4	7	100	3,5	1000 Vrms	1400 v	1000 Vrms

Order-number	Type	Attenuation	Input Impedance		Bandwidth (MHz)	Risetime (ns)	Cablelength (m)	max. Input Voltage
			R (Mohm)	C (pF)				
high voltage probes for oscilloscopes								
15001	TT-HVP 40	x1000	1000	1	0,3	-	1,0	40 kV DC
15004	TT-HVP 20AC	x1000	500	1	5	70	1,0	20kV AC+ 30kV DC

Order-no.	Description	Order-no.	Description
standard accessories for probes		accessories for safety probes, 1000V, CAT II	
20010	ground lead 22cm	14100	ground lead
20020	sprung hook retractable	14110	sprung hook with ground lead
20030	probe tip	14120	sprung hook with ground lead
20040	test tip	14130	isolated grabber
20050	test tip IC	14140	4mm safety adapter
20060	probe tip to BNC-adapter	14150	BNC safety adapter
20061	probe tip to BNC-adapter for x100 - 2,5kV	14160	probe tip 2mm
20070	adjustment screwdriver	14170	probe tip 4mm
20071	adjustment screwdriver for x100 - 1,5kV	14180	safetygrabber 50mm
20100	standard accessory pack - 7 pieces	14190	safetygrabber 100mm
20101	standard accessory pack - 7 pieces for x100 - 1,5kV	14200	safetygrabber 200mm
20102	standard accessory pack - 7 pieces for x100 - 2,5kV		

Order-no.	Description	Order-no.	Description
optional accessories for probes		T&M accessories	
21010	4mm probe adapter	22000	Kelvin probe lead with 5pol. DIN-plug
21011	1,3mm probe adapter	22020	Kelvin probe lead with 4mm plugs
21012	4mm probe adapter flexible	22100	SMD-test tweezer with 4mm plugs
21013	1,3mm probe adapter flexible	22110	SMD-test tweezer with BNC connector
21020	sprung hook screwable		
21040	minigrabber to probe tip		
21060	probe tip to BNC-adapter special		
21070	short ground connection		

ALL PROBES ARE CE CERTIFIED ACCORDING IEC1010-2-031

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TESTEC ACTIVE DIFFERENTIAL PROBES

	TT-SI 9001	TT-SI 9002	TT-SI 9005	TT-SI 9105	TT-SI 9110
Model	15101	15102	15105	15115	15120
Order-No.					
Bandwidth	DC to 25 MHz (-3dB)	DC to 25 MHz (-3dB)	DC to 25 MHz (-3dB)	DC to 100 MHz (-3dB)	DC to 100 MHz (-3dB)
Input Impedance	4 MOhm / 10 pF	4 MOhm / 10 pF	10 MOhm / 10 pF	4 MOhm / 7 pF	4 MOhm / 7 pF
Accuracy	+/- 2%	+/- 2%	+/- 2%	+/- 2%	+/- 2%
Attenuation Ratio	1/10 & 1/100	1/20 & 1/200	1/50 & 1/500	1/50 & 1/500	1/100 & 1/1000
<u>Input Voltage</u>					
-Max. Differential	+70V (DC+peak AC) 1/10 +700V (DC+peak AC) 1/100 +700V (DC+peak AC)	+140V (DC+peak AC) 1/20 +1400V (DC+peak AC) 1/200 +1400V (DC+peak AC)	+350V (DC+peak AC) 1/50 +3500V (DC+peak AC) 1/500 +3500V (DC+peak AC)	+70V (DC+peak AC) 1/50 +700V (DC+peak AC) 1/500 +700V (DC+peak AC)	+140V (DC+peak AC) 1/100 +1400V (DC+peak AC) 1/1000 +1400V (DC+peak AC)
-Max. Common Mode	1000 Vrms	1000 Vrms	2500 Vrms	1000 Vrms	1000 Vrms
-Absolute Maximum					
<u>Output Voltage</u>					
-Max. Amplitude	+/- 7 V	+/- 7 V	+/- 7 V	+/- 1,4 V	+/- 1,4 V
-Offset (typical)	<+/- 5mV, -10°C to 40°C	<+/- 5mV, -10°C to 40°C	<+/- 5mV, -10°C to 40°C	<+/- 5mV, -10°C to 40°C	<+/- 5mV, -10°C to 40°C
-Noise (typical)	0,6mVrms	0,6mVrms	0,6mVrms	0,6mVrms	0,6mVrms
CMRR	50Hz/-86dB 20kHz/-66dB 200kHz/-56dB	50Hz/-80dB 20kHz/-60dB 200kHz/-50dB	50Hz/-80dB 20kHz/-60dB 200kHz/-50dB	60Hz/-86dB 1 MHz/-56dB	60Hz/-80dB 1 MHz/-50dB
Power Requirements	4 x AA cells 6 VDC/60mA main adaptor	4 x AA cells 6 VDC/60mA main adaptor	4 x AA cells 6 VDC/60mA main adaptor	4 x AA cells 6 VDC/60mA main adaptor	4 x AA cells 6 VDC/60mA main adaptor
Compliance	IEC 1010 CAT III	IEC 1010 CAT III	IEC 1010 CAT III	IEC 1010 CAT III	IEC 1010 CAT III

Certificate of Conformity

in compliance with the EC Directive for the harmonization of the legal regulations of the member states concerning the use of electrical equipment within specific voltage limits (73/23/EEC) - amended by Directive 93/68/EEC

Product : Modular Oscilloscope Probes

Tested on request of : Testec Elektronik GmbH, Zeil 4, D-65719 Hofheim

Trade mark : Testec

Model/Type Ref. : TT-HV-150 and TT-HV-250

Full identification of the product : TT-HV-150:- Max. Voltage 1500 V_{peak} or
1200 V AC or DC
- Overvoltage Category II with maximal
2500 V transient Overvoltage
TT-HV-250:- Max. Voltage 2500 V_{peak} or
2000 V AC or DC
- Overvoltage Category II with maximal
3170 V transient Overvoltage

Additional information (if any) : on page 2


A sample of product has been tested and found to be in conformity with DIN EN 61010-1: 1994-03, DIN EN 61010-1/A2: 1996-05 and DIN EN 61010-2-031: 1995-04 as shown in the test report (reference no. 4172007).

This certificate has been established by a body notified to the Member States and Commission of the European Communities according to the provisions of the Low Voltage Directive of February 19th 1973.

This certificate of conformity is the result of testing a sample of the product submitted, in accordance with the provisions of the relevant specific standard. It does not imply an assessment of the whole production and does not permit the use of a mark of conformity.

Nürnberg, 11.03.1997

LGA-Bereich PRODUKTE
Prüfstelle für Gerätesicherheit He



Dr. Ing. W. Schubert

CHLORFREI

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Ab heute und nur als Teste-WAE
ausgeliefert d. 7.3.2000; 16:10

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Farnell
Herr Silbiger
Sales Marketing & Administration Center
Canal Road, Leeds
LS 12 2TU

United Kingdom

x Lieferung zu den Konditionen, für
die nach Deutschland geliefert wurde
"KAMPFPREISE" - auch in Katalog sollte sich die
Preise widerspiegeln

x Absolute Spezialpreise y mit Standard-
Kalkulation in England
x Standard-TEILE hundert.

08.03.2000

Angebot Testec - Serie in DM
(Bedruckung und Bedienungsanleitungen Testec)

Farnell - ORDER CODE F.E.C. Teile-Nr.	Testec Type Testec-Bezeichnung	Testec Part-No. Testec No.	DM/Stück
354569	TT-LF 112	10000	19,50
354570	TT-LF 212	10010	21,00
220619	TT-LF 312	10020	23,74
-----	TT-MF 112	11000	20,00
-----	TT-MF 212	11010	20,45
220553	TT-MF 312	11020	24,17
-----	TT-HF 112	12000	19,20
-----	TT-HF 212	12010	19,40
220607	TT-HF 312	12020	22,95
-----	TT-HF 412	12030	24,40
354594	TT-HF 512	12040	24,00
220541	TT-HV 150	13000	27,16
354612	TT-HV 250	13010	26,50
4019027	TT-HVP 15HF	15000	29,00
3291285	TT-HVP 40	15001	31,00
354727	Adapter 4mm Flex	21012	5,55
354739	Ersatzlastspitzen 2 Stück	20032	1,87
354820	Zubehörset 7teil.	20100	9,00

Deutsche Bank Frankfurt
Kto.-Nr.: 7 38 99 22
BLZ : 500 700 10

Frankfurter Sparkasse
Kto.-Nr.: 89 18 59
BLZ : 500 802 01

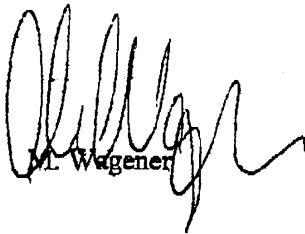
Postbank Frankfurt a.M.
Kto.-Nr.: 2125 22 808
BLZ : 500 100 60

Geschäftsführer:
Marcus Wagener
Robert Mann

Gerichtsstand:
Frankfurt a.M.
HRB 99 805

F.E.C. Teile-Nr.	Testec-Bezeichnung	Testec No.	DM/Stück
354971	Differentialastkopf TT-SI 9001	15101	88,00
354983	Differentialastkopf TT-SI 9002	15102	88,00

Mit freundlichen Grüßen


M. Wagener