

# **Probing Solutions. Made in Germany.**



# **ENVI®**

Passive Probe with extended Temperature Range 350 MHz, 400 V

Datasheet



#### **About ENVI® Probes**

The passive probe ENVI® is ideal for environmental testing, and measurements in climatic chambers from -55 °C to +155 °C. The world's first modern probe for this high temperature range with 400 V input voltage range, 10:1 divider and 350 MHz bandwidth is suitable for a variety of applications. Due to its BNC connector with read-out function the probe is universally connectible to any oscilloscope with BNC input and shows the correct measured voltage directly.

#### **Specifications**

	ENVI® PHT 312-RO			
Order Number with Read-Out	835-312-001			
Electrical Specifications				
Attenuation Ratio (±2% at DC)(1)	10:1			
System Bandwidth (-3 dB)	350 MHz			
Rise Time (10 % - 90 %)	1ns			
Voltage Coefficient (at DC)	0.00025%/V			
Input Resistance (System) (±1%)	5 ΜΩ			
Input Capacitance (System)	20 pF			
Compensation Range	10 pF - 25 pF			
Input Coupling of the Measuring Instrument	1 MΩ AC/DC			
Maximum Rated Input Voltages, CAT II (²)				
Pollution Degree	3			
Measurement Category II	300V CAT II			
Maximum Rated Input Voltages, No Measuremer	nt Category, not in CAT II, III, IV (²)			
Pollution Degree	3			
No Measurement Category	400 V / 1250 V peak			
Maximum Pulse Rating, No Measurement Category, not in CAT II, III, IV (²)				
Upulse(3)	Upulse 1250 V (Step 0 V to 1250 V)  Voltage pulse			

Mechanical Specifications		
Weight (Probe only)	93 g	
Cable Length	2 m	
Probe Tip Diameter	5 mm	

<sup>(1)</sup> Connected to oscilloscope with an input impedance of 1 M $\Omega$  ±1 %.

<sup>(2)</sup> As defined in IEC 61010-031.

<sup>(3)</sup> No overshoot permitted.

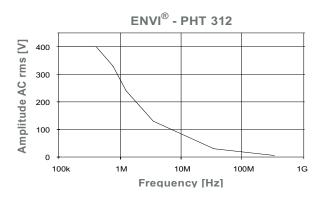
Environmental Specifications					
Probe head and cable asse	embly				
Altitude	operating	up to 2000 m			
	non-operating	up to 15000 m			
Temperature Range	operating	-55°C to +155°C			
	non-operating	-55°C to +155°C			
Maximum Relative Humidity	operating	98% relative humidity			
BNC connector and (*) marked accessories					
Altitude	operating	up to 2000 m			
	non-operating	up to 15000 m			
Temperature Range	operating	0 °C to +50 °C			
	non-operating	-40°C to +71°C			
Maximum Relative Humidity	operating	80% relative humidity for temperatures up to +31°C, decreasing linearly to 40% at +50°C			

#### **Typical Voltage Derating**



Note that the maximum input voltage rating of the probe decreases as the frequency of the applied signal increases.

Valid for no measurement category, not in CAT II, III, IV (1):

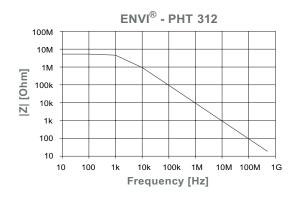


#### **Typical Input Impedance**



Note that the input impedance of the probe decreases as the frequency of the applied signal increases.

Valid for no measurement category, not in CAT II, III, IV (1):



#### **Probe Accessories**

The parts supplied are highlighted in bold, see also "Scope of Delivery". 018-292-007 \* Probe BNC-Connector **Adjustment Tool T** 891-005-803 891-005-011 5x Spring Tip 0.8 mm 5x Solid Tip 0.8 mm 890-400-022 HT-Ground Lead 10 cm 018-291-102 018-292-524 Ground Blade 5.0 HT-Insulating Cap 890-400-021 HT-Ground Lead 10 cm 890-520-712 BNC Adapter 5.0-L PCB Adapter 5.0-L to 4 mm Banana Plug 018-291-779 890-500-141 890-500-142 930122000 10x Solder-in HT-IC Clip-M HT-IC Clip-L **Aligator Clip V2A** to 0.64 mm Pin Contact Pin 0.64 mm to 0.64 mm Pin to 4 mm Socket 890-321-025 HT-Sprung Hook 5.0

#### **Scope of Delivery**

Accessories delivered with each probe are highlighted in the graphical overview.

Item	Qty	Item	Qty
Adjustment tool T	1	Manual	1
BNC adapter 5.0-L	1	Probe ENVI®	1
Ground blade 5.0	1	Solder-in contact pin 0.64mm	10
HT-dual lead adapter to 0.64mm sockets	1	Solid tip CuBe 0.8 mm	1
HT-insulating cap	1	Spring tip 0.8 mm (1)	1
HT-ground lead 10 cm	1	Sprung hook 5.0-HT (²)	1
HT-ground lead 10 cm to 4 mm banana plug	1		

<sup>(1)</sup> plugged on probe

<sup>(2)</sup> installed in probe

Notes	

### Manufacturer

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Specifications are subject to change without notice.

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