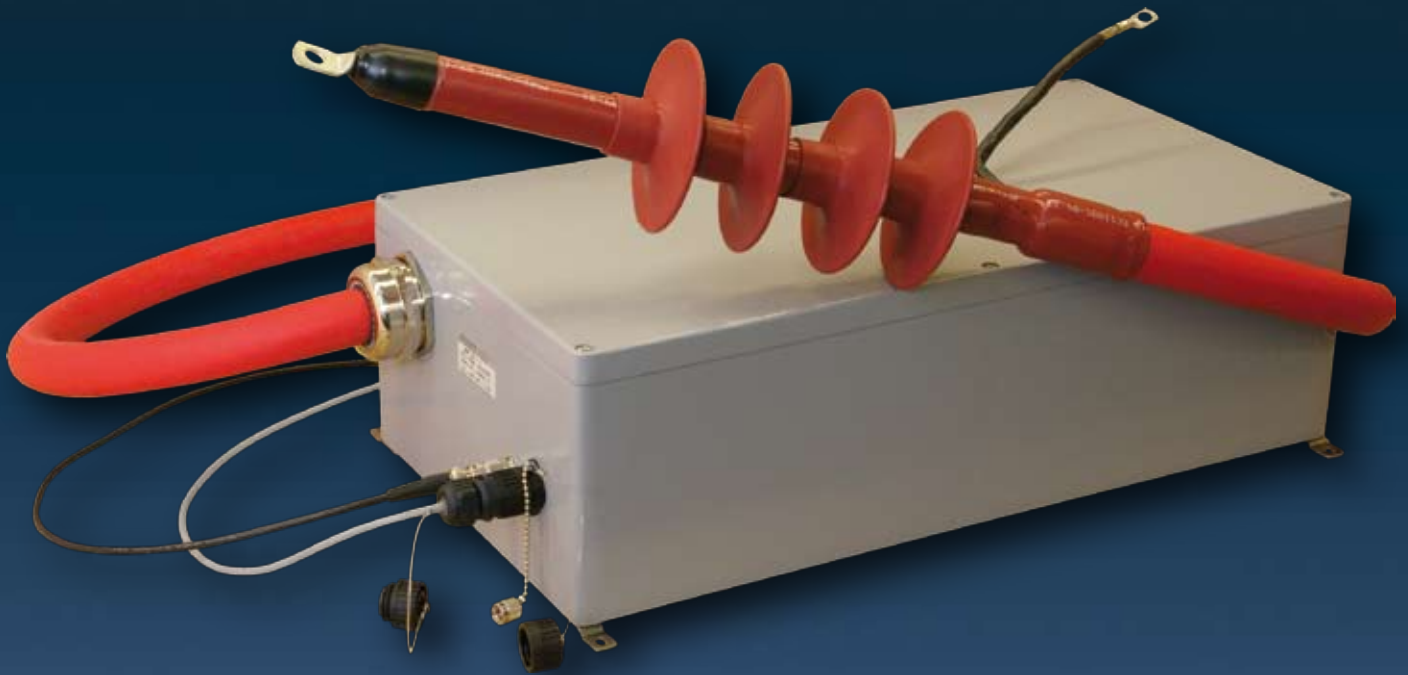


# Precision Wideband High Voltage Divider HST 30



- DC to 300kHz bandwidth – up to 30kV
  - High transient voltage resistivity
  - Protection class IP65 for outdoor application
  - Insulation diagnostics by  $\tan \delta$  measuring
  - Negligible phase error
- best suited for wideband power measuring**



# Precision Wideband High Voltage Divider HST 30

The wide band precision high voltage divider HST 30 expand the voltage measuring range of ZES ZIMMER precision power meter LMG for use at power grid of nominal voltage up to 30kV. The high voltage input is equipped with 2.5m cable. The outdoor termination of this cable is attached to the voltage measured against earth. The HST 30 divides DC, AC or any distorted voltages with very high accuracy by the factor 10000. The divided voltage is available at the buffered low impedance TNC output.

To avoid noise interference it is recommended to use shielded cables to the measuring input of the LMG.

## Application at

- medium voltage power grids up to 30kV
- railway contact lines up to 25kV
- test voltages for insulation diagnostics up to 40kV
- converter feed medium voltage motors

## e.g. to make

- precise high bandwidth power measurements
- analyse of voltage harmonics
- precise measurement of dielectric losses

## Safety

To guarantee a safe measuring the earth terminal of the enclosure must be connected with an appropriate earthing point. Here you have to take a sufficient cross section of the earthing conductor into account with respect to the possible short circuit current of the application. The related safety instructions are strictly to be observed!

## Preliminary Specifications

Nominal voltage	26kV	
Max. continuous trms working voltage	31kV	
Max. periodic peak working voltage	50kV	
Maximum transient overvoltage	125kV	
Input impedance	120MΩ    400pF	
Dividing ratio	1:10000	
Uncertainty of dividing ratio	Max. ± 0.15%	(DC ... 45Hz)
	Max. ± 0.1%	(45Hz ... 65Hz)
	Max. ± 0.25%	(65Hz ... 2.5kHz)
	Max. ± 0.5%	(2.5kHz ... 10kHz)
	Max. ± 1.5%	(10kHz ... 100kHz)
	Typ. ± 5%	(100kHz ... 300kHz)
Operating and storage temperature range	+20°C ... +30°C	with above specified tolerance
	0°C ... +50°C	with double tolerance
	-20°C ... +70°C	with threefold tolerance
High voltage measurement input	38mm diameter flexible screened single core polymeric insulated cable with outdoor termination and earth lead	
Input terminal	HV input lug for bolt M12, earth lug for bolt M10 at case potential	
Input cable length	2.5m including termination	
Output terminal	Standard TNC socket at case potential	
Output burden	Min. 1kΩ    max. 1nF	
Safety class	Class I; Case must be earthed	
Protection class	IP65	
Enclosure	Aluminium case	
Mounting	Wall mounting with brackets	
Dimension (L x W x H)	640mm x 350mm x 190mm (without cables)	
Weight	Approx. 20kg	
Supply	DC-supply 10V to 36V, max. 15W	

## Additional information for railway applications

Standards	EN50163:2004 , EN 50124-1:2006-04	
Nominal voltage	Un	25kV
Maximum continuous trms working voltage	U <sub>max1</sub>	27.5kV
Maximum non continuous trms working voltage	U <sub>max2</sub>	29kV
Maximum transient overvoltage	UN <sub>i</sub>	125kV

Note: Valid for max. altitude 2000m over sea level

Subject to technical changes, especially to improve the product, at any time without prior notification.