

# High Voltage Differential Probes HVD3605, HVD3206 HVD310x

## **Key Features**

- 1 kV, 2 kV, 6 kV CAT safety rated models
- World's only 1500 V<sub>dc</sub> safety rated probe per IEC/EN 61010-031:2015
- Widest differential voltage ranges available
- Exceptional common-mode rejection ratio (CMRR) across a broad frequency range
- 1% gain accuracy
- High offset capability at both high and low attenuation
- AC and DC coupling
- ProBus active probe interface with automatic scaling
- Auto-zero capabilities
- Wide oscilloscope compatibility



The HVD3000 series high voltage differential probes provide high CMRR over a broad frequency range to simplify the measurement challenges found in noisy, high common-mode power electronics environments. The probe's design is easy-to-use and enables safe, precise high voltage floating measurements.

#### **Exceptional Common-Mode** Rejection Ratio

The CMRR for the probes is exceptional out to very high frequencies, greatly improving measurement capability in the noisy, high common-mode environments found in power electronics. The high CMRR combined with low probe noise and high offset capability allows measurement of very small control signals floating on high commonmode voltages.

#### **High Precision Measurements**

HVD3000 series probes provide 1% gain accuracy enabling precise voltage measurements. AutoZero capability ensures further measurement precision by allowing small offset drifts to be calibrated out of the measurement.

#### **Widest Application Coverage**

The HVD3000 series of high voltage differential probes cover the fullest range of applications, from 120/240 V switch-mode power supplies through 600 V class and 5 kV class electrical apparatus, Each model has the best gain accuracy, widest differential and offset voltage range, and superior CMRR.

#### World's Only 2 kV Rated Probe

The HVD3206 is specifically designed for 1500  $V_{dc}$  solar photovoltaic (PV) measurements per the IEC/EN 61010-031:2015 standard.

#### **Complete Probe Integration**

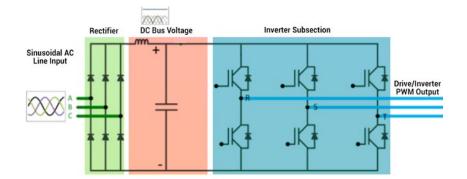
The ProBus interface provides power and communication to the probe eliminating the need for a separate power supply or batteries. Attenuation is automatically selected based on oscilloscope gain range (V/div) setting.

# WIDE APPLICATION COVERAGE - 600 V TO 5 KV APPARATUS

### 600 V Class, 3-phase Electrical Apparatus

The HVD310x probes are available in a range of bandwidths from 25 to 120 MHz with standard 2 meter cable (6 meter cable model available). All probes have industry best CMRR for best noise-immunity, are guaranteed to 1% gain accuracy, and have the industry's widest differential voltage range in a 1 kV rated high voltage differential probe.

- Only 1 kV safety rated probe that serves the full 600 V class requirement
- 1500 V differential range with industry's best overshoot measurement capability (to 2000 V<sub>pk</sub>)
- Industry's best offset capability (1500 V) when used with HDO Series oscilloscopes
- Bandwidth rating up to 120 MHz
- 6 meter cable model available (HVD3106-6M)
- Ideal voltage range and performance for Gate drive probing
- Models available without accessories for a lower cost (HVD310x-NOACC)



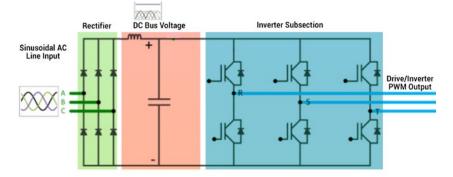
Sinusoidal AC Line Input		DC Bus Voltage	Drive / Inverter Pulse-Width Modulated (PWM) Output				
V <sub>rms</sub> or V <sub>pk-pk</sub>		V <sub>pk</sub> (Rat		ated) V <sub>pk</sub> (with Overshoot)*			
V <sub>ac</sub>	Line-Line	Line- Neutral	V <sub>dc</sub>	Line-Line	Line- Neutral	Line-Line	Line- Neutral
400	1131	653	566	566	327	849	491
480	1358	784	679	679	392	1019	588
600	1697	980	849	849	490	1274	735
690	1952	1127	976	976	563	1464	845

\*Based on 50% overshoot condition

## 5 kV Class, 3-phase Electrical Apparatus

The HVD3605 probe is safety-rated for 6000  $V_{rms}$  and 8485 V(DC + peak AC) for full coverage of 5 kV class apparatus. The probe has ample 100 MHz of bandwidth, is standard with a 6 meter cable, is guaranteed to 1% gain accuracy, has excellent CMRR, and has the industry's widest differential voltage range.

- Only probe that permits AC Line, DC Bus, and Drive/Inverter output voltage probing through 4160 V apparatus ratings
- Industry's best overshoot measurement capability (to 7600 Vpk)
- Industry's best offset capability (6000 V) when used with HDO Series oscilloscopes
- Standard 6 meter cable



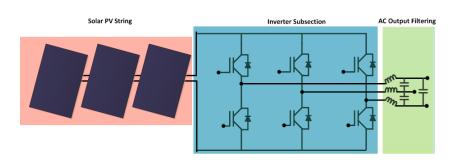
Sinusoidal AC Line Input		DC Bus Voltage	Drive / Inverter Pulse-Width Modulated (PWM) Output			Output	
V <sub>rms</sub> or	Vpk	-pk		V <sub>pk</sub> (F	Rated)	V <sub>pk</sub> (with C	vershoot)*
V <sub>ac</sub>	Line-Line	Line- Neutral	V <sub>dc</sub>	Line-Line	Line- Neutral	Line-Line	Line- Neutral
2400	6788	3920	3395	3395	1960	4244	2450
3300	9334	5388	4666	4666	2694	5833	3368
4160	11766	6794	5884	5884	3397	7355	4246

\*Based on 25% overshoot condition

# WORLD'S ONLY 2 KV SAFETY RATED MODEL

## **Solar PV Inverters**

The HVD3206 probe is rated to 1500 V<sub>dC</sub> (2000 V DC + peak AC). This makes the probe ideal for testing single-phase or three-phase inverters or newer 1500 V<sub>dC</sub> rated string-inverters (per IEC/EN 61010-031:2015). The HVD3206 has the same excellent 1% gain accuracy, industry-leading CMRR, industry-best offset range, standard 2 meter cable (6 meter cable model available), and a guaranteed 2000 V<sub>pk</sub> differential voltage range.



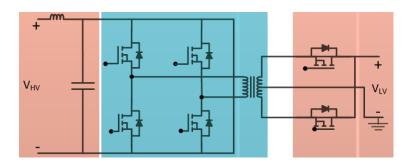
Solar String DC Bus Voltage	Sinusoidal AC Output				
	V <sub>pk</sub> (Rated)		V <sub>pk</sub> (with Overshoot)*		
V <sub>dc</sub>	Line-Line	Line- Neutral	Line-Line	Line- Neutral	
1000	849	490	1104	637	
1500	849	490	1104	637	

<sup>\*</sup>Based on 30% overshoot condition

- Only 1500 V<sub>dc</sub> safety rated probe per IEC/EN 61010-031:2015
- Guaranteed 2000 V<sub>pk</sub> differential voltage range
- Industry's best offset capability (1500 V) when used with HDO Series oscilloscopes
- Bandwidth rating up to 120 MHz
- 6 meter cable model available (HVD3206-6M)

## **DC-DC Converters**

High-power DC-DC converters can operate at substantial voltages, 500 V<sub>dC</sub> or higher. The HVD310x models provide up to 1000 V<sub>dC</sub> common-mode (HVD3206 models provide up to 1500 V<sub>dC</sub>) and high precision (1% gain accuracy) DC voltage measurements. Automatic switchable attenuation keeps the probe in the optimum measurement range. Multiple probes can be used to understand complex device switching performance.

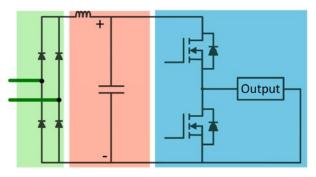


- Common mode range up to ±2000 V (DC + peak AC) with HVD3206
- High precision 1% accuracy
- Automatic gain switching for optimum performance

### 120 V / 240 V Half-Bridge Circuit Topologies

Single-phase switch-mode power supplies and other devices utilizing half-bridge topologies need test and validation at DC bus voltages up to 340  $V_{dC}$  with up to 680  $V_{p-p}$  on the input voltage. HVD310x probes are cost-effective solutions for probing the wide range of high voltage signals present in these systems. "No Accessory (NOACC)" versions of these probes permit additional cost savings. Use your existing accessories or purchase just the ones you want.

- High precision 1% accuracy
- Automatic gain switching for optimum performance



Input Voltage (Vrms or Vac)	Input Voltage (Vpk-pk)	DC Bus Voltage (Vdc)	Output PWM Voltage (Vpk)
120	340	170	170
240	680	340	340

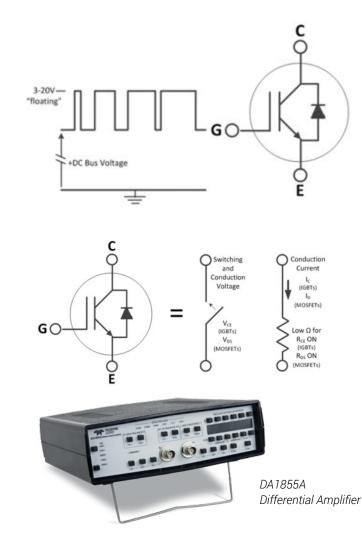
#### **MOSFET/IGBT Devices**

#### **Gate Drive Voltage Measurements**

Typically from 3 to 20 volts and "floating" at up to the DC Bus voltage. Safe and accurate measurements require a probe that is safety rated to the full DC bus voltage, has low additive noise, excellent CMRR, and a suitable lowvoltage gain range with very high offset capability. The HVD Series probes provide all of these capabilities.

#### **Device Analysis**

Conduction loss or Rds(on) measurements require a voltage probing solution that has high CMRR, fast overdrive recovery, voltage clamping (so the oscilloscope is not overdriven), compensation flatness, gain/amplification to see small signal details, and precise offset generation to see the switching device's turn-off performance. For this type of analysis, the Teledyne LeCroy DA1855A Differential Amplifier is the best solution. It provides 100 MHz bandwidth, excellent common mode rejection ratio (CMRR) of 100,000:1 (typical), and overdrive recovery to within 100 mV from a 400 V input signal in less than 100 ns.



AC line voltages and power electronics systems can operate at very high voltages, and all parts of the measurement circuit are not necessarily connected to ground, requiring HV safety ratings. Additionally, a variety of terms may be used to describe the same voltage. Below is a simple tutorial to help you understand the various types of voltage terms and how they relate to each other. Understanding these voltage terms is necessary to ensure the correct probe selection.

170V

Three-phase AC Line Input

Ratings are provided in  $V_{rms}$  (also referred to as  $V_{ac}$ )

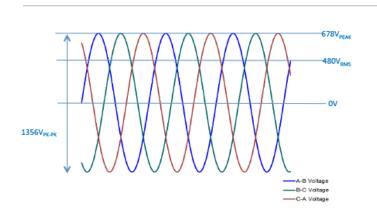
Vpeak (L-L) is calculated √2\*Vrms and Vpk-pk is calculated

as 2\*V<sub>peak</sub>. The example on the left is for a 480 V<sub>rms</sub> three-phase rated system with signals shown as Line-Line.

referred Line-Line (L-L), which can be converted in magnitude to a Line-Neutral basis by dividing by  $\sqrt{3}$ .

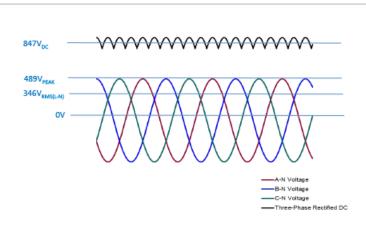
#### Single-phase AC Line Input

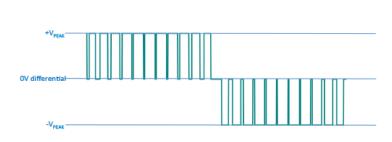
Ratings are provided in V<sub>rms</sub> (also referred to as V<sub>ac</sub>) referred Line-Neutral. AC Line inputs are usually grounded and these voltages can be assumed to have a 0V reference voltage. V<sub>peak</sub> is calculated as  $\sqrt{2*V_{rms}}$  and V<sub>pk-pk</sub> is calculated as 2\*V<sub>peak</sub>. The example to the right is for a 120 V<sub>rms</sub> rating.



#### Rectified AC (DC Bus/Link Voltage)

For three-phase inputs, the three Line-Neutral (L-N) AC Line inputs are rectified and summed to provide a "stiff" DC (bus/link) voltage for the input to an inverter subsection. The example shown to the right is for a 600 V<sub>rms</sub> system. The Line-Neutral RMS voltages are 600V/ $\sqrt{3}$ , and each V<sub>peak</sub>(L-N) is calculated as  $\sqrt{2*V_{rms}}$ . The DC bus voltage after rectification and filtering is equal to  $\sqrt{3*V_{peak}}$ (L-N), or 847 V<sub>dc</sub> in this case.





#### Inverter or Drive H-Bridge or Cascaded H-Bridge Outputs

The nominal peak voltage (+ or -) of the PWM signals without accounting for signal overshoot is equal to the DC bus voltage. The measured 0V differential voltage value is not ground-referenced, and therefore a differential probe suitably rated to the DC bus voltage is recommended. Note that the +V<sub>peak</sub> and -V<sub>peak</sub> plus overshoot safety margin (typically ~50%) is what the HV differential probe must measure - V<sub>pk-pk</sub> (2\*V<sub>peak</sub>) will never occur in the circuit.

# SPECIFICATIONS

Bise Time (10:90)         TAms         2.9 ms         4.4 ms           Differential Voltage Range (High Attenuation)         1500 V (Dc + peak AC) from 100 CS 00 V/db vieth on 1500 V offset.         2000 V maximum typical measurable differential voltage before saturation           Differential Voltage Range (Low Attenuation)         27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 1500 V offset.           Common Mode Voltage Range (Low Attenuation)         27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 1500 V offset.           Common Mode Voltage Range (Low Attenuation)         27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div (SOV)           Common Mode Voltage Range (Low Attenuation)         27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div (SOV)           Serie Linguit Voltage         11500 VpK (nominal either input to ground)           Grait Max Sare Input Voltage         100 mV/div to 6.9 V/div (SOV)           Serie Rate         100 mV/div to 6.9 V/div (SOV)           Vida to SOV/div (LOOX)         7 V/div to SOV/div (SOV)           Serie Rate         100 V/ns (maximum)           Attenuation         100 V/ns (maximum)           Attenuation         100 V/ns (maximum)           Attenuation         100 V/ns (maximum)           Attenuation         00 V/ns (maximum)           Attenuation         00 V/ns (maximum)           Attenuation         00 V/ns (maximum)		HVD3102	HVD3106	HVD3106-6M		
Differential Voltage Range (High Attenuation)       1500 V (DC + peak AC) from 7 to 500 V/d/w with up to 1500 V offset.         Differential Voltage Range (Low Attenuation)       27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 150 V offset.         Differential Voltage Range (Low Attenuation)       27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 150 V offset.         Common Mode Voltage Range       +1500 V (DC + peak AC). 1000 mV/div to 5.9 V/div to 5.9 V/div to 5.9 V/div (50X)       100 mV/div to 6.9 V/div (50X)         Sensitivity       100 mV/div to 5.9 V/div (50X)       100 mV/div to 5.9 V/div (50X)       100 mV/div to 5.9 V/div (50X)         Sensitivity       100 mV/div to 5.9 V/div (100X)       rx 64 V/div (50X)       170 V/na (maximum)         Sensitivity       100 V/na (maximum)       400 V/na (maximum)       27.0 V/na (maximum)         Sensitivity       100 V/na (maximum)       400 V/na (maximum)       27.0 V/na (maximum)         Sensitivity       100 V/na (maximum)       400 V/na (maximum)       27.0 V/na (maximum)         Sensitivity       100 V/na (maximum)       400 V/na (maximum)       27.0 V/na (maximum)         Sensitivity       100 V/na (maximum)       400 V/na (maximum)       27.0 V/na (maximum)         Jupat Coupling       DC - 60 I/P Ba Ba (B)       00 V/na (maximum)       27.0 V/na (maximum)         Jupat Coupling       DC - 60 I/P Ba (B)       00 - 60	Bandwidth	25 MHz	120 MHz	80 MHz		
Differential Voltage Bange (Low Attenuation)       27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 150 V offset         Common Mode Voltage Bange       ±1500 V (DC + peak AC), 1000 Vrms         Bange       ±1500 V (DC + peak AC), 1000 Vrms         Maxmum Input Voltage       ±1500 V (DC + peak AC), 1000 Vrms         Sensitivity       100 mV/div to 6.9V/div (100x)       100 mV/div to 6.9V/div (50x)       100 mV/div to 6.9V/div (50x)         Sensitivity       100 mV/div to 6.9V/div (100x)       r.8/w/div (60x)       100 mV/div to 5.00V/div (50x)         Sensitivity       100 V/ms (maximum)       400 V/ms (maximum)       270 V/ms (maximum)         Stev Rate       100 V/ms (maximum)       400 V/ms (maximum)       270 V/ms (maximum)         Output Coupling       DC only       0.01       0.01       0.01         Output Coupling       DC only       0.01       0.01       0.01       0.01         Output Coupling       DC only       0.01	Rise Time (10-90)					
Range (Low Atteinuation) <ul> <li>Common Mode Voltage at 1500 V (DC + peak AC), 1000 Vrms Range at 1500 Vpk (nominal, either input to ground)</li> <li>Earth Max Safe Input Voltage at 1500 Vpk (nominal, either input to ground)</li> <li>Earth Max Safe Input Voltage at 1000 Vrms (CAT III)</li> </ul> Sensitivity         100 mV/div to 5.9V/div (DOX) 7V/div to 5.9V/div (SOX) 70/div 5.9V for (maximum) 70/div 5.9V for (final maximum) 70/div 7.9V for 7	Differential Voltage Range (High Attenuation)	1500 V (DC + p 2000 V maximum	beak AC) from 7 to 500 V/div with up to 1 typical measurable differential voltage l	1500 V offset. before saturation		
Bange         1 <td>Differential Voltage Range (Low Attenuation)</td> <td colspan="5">27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 150 V offset</td>	Differential Voltage Range (Low Attenuation)	27.6 V (DC + peak AC) from 100 mV/div to 6.9 V/div with up to 150 V offset				
Los Earth         Los Earth           Max Safe Input Voltage         1000 Vrms CAT III           Sensitivity         6.6 With (1000)         100 mV/div to 6.6 With (1000)         100 mV/div to 6.6 With (500)           Sensitivity         100 mV/div to 6.6 With (1000)         100 mV/div to 6.6 With (500)         100 mV/div to 6.6 With (500)           Sensitivity         100 V/ms (maximum)         400 V/ms (maximum)         270 V/ms (maximum)           Attenuation         100 V/ms (maximum)         400 V/ms (maximum)         270 V/ms (maximum)           Attenuation         100 V/ms (maximum)         400 V/ms (maximum)         270 V/ms (maximum)           Attenuation         100 V/ms (maximum)         270 V/ms (maximum)         270 V/ms (maximum)           Attenuation         100 V/ms (maximum)         270 V/ms (maximum)         270 V/ms (maximum)           Attenuation         100 M II 2.5 pF (between inputs), 5 M II 16.0 pF (either input to ground)         Input Coupling         0.0 ml put U ground)           Input Coupling         DC only         0.0 minput lead length         6.8 m           Cable Length (input lead         2.25 m         6.8 m           Noise Attents         20 MHz 30 dB         20 MHz 30 dB         20 MHz 30 dB           20 MHz 30 dB         20 MHz 30 dB         20 MHz 30 dB         20 MHz 30 dB <td< td=""><td>Common Mode Voltage Range</td><td></td><td>±1500 V (DC + peak AC), 1000 Vrms</td><td></td></td<>	Common Mode Voltage Range		±1500 V (DC + peak AC), 1000 Vrms			
Sensitivity         100 mV/div to ry/div to 500V/div (1000) 7V/div to 500V/div (1000) 1% (Ef. guaranteed) Stew Rate         100 W/ns (maximum) 100V/ns (maximum) 4ternation         270 W/ns (maximum) 500V/step 5000V/step 500V/step 500V/step 500V/step 500V/step 500V/step 500V/s	Maximum Input Voltage to Earth	±1		4)		
6.9V/div (100x)         7.6.9V/div (50x)         7V/div to 500V/div (500x)           Gain Accuracy         1% (LF, guaranteed)         1% (LF, guaranteed)           Stew Rate         100 V/ns (maximum)         400 V/ns (maximum)         270 V/ns (maximum)           Attenuation         100 V/ns (maximum)         400 V/ns (maximum)         270 V/ns (maximum)           Attenuation         100 V/ns (maximum)         400 V/ns (maximum)         270 V/ns (maximum)           Attenuation         100 V/ns (maximum)         200 V/ns (maximum)         200 V/ns (maximum)           Attenuation         10 MQ    2.5 pF (between inputs), 5 MQ    5.0 pF (either input to ground)         Input Coupling         DC only           Output Coupling         DC only         Output Coupling         Output Coupling         Output Coupling           Output Termination         1 MQ         AC or DC coupling         Output Solution         6.8 m           Interface         ProBus         Input Lead Length         40 cm input lead length         6.8 m           Cable Length (input lead         2.25 m         6.8 m         6.8 m         6.8 m           Coscilloscope         2.0 MHz 30 dB         2.0 MHz 30 dB         1.0 MHz 56 dB         1.0 MHz 30 dB         2.0 MH	Max Safe Input Voltage		1000 V <sub>rms</sub> CAT III			
Slew Rate         100 V/ns (maximum)         270 V/ns (maximum)           Attenuation         100x / 1000x         50x / 500x         50x / 500x           Input Coupling         10 MQ    2.5 pF (between inputs), 5 MQ    5.0 pF (either input to ground)         Input Coupling         0C only           Output Coupling         0C or DC coupling         0utput Termination         1 MQ           Input Lead Length         40 cm input lead length         6.8 m           Cable Length (input lead to coscilloscope connection)         1 MHz: 65 dB         1 MHz: 65 dB         1 MHz: 65 dB           Noise and Rejection         1 MHz: 65 dB         1 MHz: 65 dB         1 MHz: 65 dB         1 MHz: 65 dB           Noise (Probe)         1000X <15 mVrms to 0B	Sensitivity	6.9V/div (100X)	6.9V/div (50X) 7V/div to 500V/div (500X)			
Attenuation       100x / 1000x       50x / 500x       50x / 500x         Input Impedance       10 MΩ    2.5 pF (between inputs), 5 MΩ    5.0 pF (either input to ground)       Input to opuling       DC only         Output Coupling       DC only       Output Coupling       DC only         Output Coupling       AC or DC coupling       Output Coupling         Output Coupling       40 cm input lead length       6.8 m         Cable Length (input lead Length       2.25 m       6.8 m         Coscilloscope connection)       1 MHz; 65 dB       1 MHz; 65 dB       1 MHz; 65 dB         1 MHz; 40 dB       5 MHz; 40 dB       5 MHz; 40 dB       20 MHz; 30 dB       20 MHz; 30 dB         Noise and Rejection       1000X; <15 mVrms						
Input Impedance 10 MQ    2.5 pF (between inputs), 5 MQ    5.0 pF (either input to ground) Input Coupling DC only Output Termination 1 MQ Interface ProBus Input Lead Length (input lead Length (input lead Length (input lead Cable Length (input lead						
Input Coupling     DC only       Output Termination     1 MQ       Interface     ProBus       Input Lead Length     40 cm input lead length       Cable Length (input lead to oscilloscope connection)     2.25 m       Noise and Rejection     6.8 m       CMRR (Typical)     DC - 60 Hz: 85 dB       1 MHz: 65 dB     1 MHz: 65 dB       5 MHz: 40 dB     5 MHz: 40 dB       2 OMHz: 30 dB     20 MHz: 30 dB       8 OMHz: 30 dB     100 MHz: 30 dB       8 OMHz: 30 dB     50X: <30 mVrms						
Output Coupling       AC or DC coupling         Output Termination       1 M0         Interface       ProBus         Input Lead Length       40 orn input lead length         Cable Length (input lead to oscilloscope connection)       2.25 m         Noise and Rejection       6.8 m         CMRR (Typical)       DC - 60 Hz: 85 dB       1 MHz: 65 dB         1 MHz: 65 dB       1 MHz: 65 dB       1 MHz: 65 dB         20 MHz: 30 dB       20 MHz: 30 dB       20 MHz: 30 dB         20 MHz: 30 dB       1000 MHz: 30 dB       80 MHz: 30 dB         Noise (Probe)       1000: <15 mVrms		10 MΩ    2.5 pF (	between inputs), 5 M $\Omega$    5.0 pF (either in	nput to ground)		
Output Termination       1 M.0         Interface       ProBus         Input Lead Length       40 cm input lead length         Cable Length (input lead to oscilloscope connection)       6.8 m         Noise and Rejection       0 C - 60 Hz: 85 dB       1 MHz: 65 dB         CMRR (Typical)       DC - 60 Hz: 85 dB       1 MHz: 66 dB       1 MHz: 66 dB         S MHz: 40 dB       20 MHz: 30 dB       20 MHz: 30 dB       20 MHz: 30 dB         Noise (Probe)       1000X: <15 mVrms						
Interface ProBus Input Lead Length Input Lead Length Cable Length (input lead Convertion) Noise and Rejection CMRR (Typical) DC - 60 Hz; 85 dB 1 MHz; 65 dB 1 MHz; 65 dB 1 MHz; 65 dB 1 MHz; 65 dB 20 MHz; 30 dB 80 MHz; 30 dB 1000X; <45 mVrms (referred to input) Environmental Temperature (Operating) CMRR (Non-Condensing), 75% RH above 30°C, 45% RH at 50°C Humidity (Operating) 5% to 80% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°C Humidity (Operating) 5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°C Attitude (Operating) CMRO Condensing), 75% RH above 30°C, 45% RH at 50°C Attitude (Non-Operating) 10,000 m Pollution Degree 2, Indoor use only Certifications CE (LVD Directive 20, Indoor use only CE (LVD Directive 20, Indoor use only CE (LVD Directive 20, Indoor use only Certifications CE (LVD Directive 20, Indoor use only CE (LVD Direc						
Input Lead Length       40 cm input lead length         Cable Length (input lead to oscilloscope connection)       2.25 m         Noise and Rejection       6.8 m         CMRR (Typical)       DC - 60 Hz: 85 dB       1 MHz: 65 dB       20 MHz: 30 dB       80 MHz: 30 dB       80 MHz: 30 dB       80 MHz: 30 dB       1000 XI: 415 mVrms       500X: <150 mVrms						
Cable Length (input lead to oscilloscope connection)       2.25 m       6.8 m         Noise and Rejection       DC - 60 Hz: 85 dB       1 MHz: 65 dB       5 MHz: 40 dB       20 MHz: 30 dB       80 MHz: 30 dB       80 MHz: 30 dB       80 MHz: 30 dB       1000 X: 415 mVrms       500X: <150 mVrms						
Noise and Rejection         Noise and Rejection         CMRR (Typical)       DC - 60 Hz: 85 dB 1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB       DC - 60 Hz: 85 dB 1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB       DC - 60 Hz: 85 dB 1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB         Noise (Probe)       100X: <15 mVrms 1000X: <85 mVrms (referred to input)       50X: <30 mVrms 500X: <150 mVrms (referred to input)       50X: <30 mVrms 500X: <150 mVrms (referred to input)         Environmental         Temperature (Operating)       0°C to 50°C - (Atrice to roperating)         Humidity (Operating)       5% to 95% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C Humidity (Non-Operating)         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°C - (Atritude (Operating)         Altitude (Operating)       000 M         Pollution Degree       2, Indoor use only         Cet (LVD Directive 2006/95/CC)       IEC/EN 61010-031:2015 2006/95/CC)         Cet (LVD Directive 2004/108/EC)       IEC/EN 61326-1:2013 2004/108/EC)         UL Listed       UL 61010-031 (Second Edition)		2.0		6.0 m		
CMRR (Typical)         DC - 60 Hz: 85 dB 1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB         DC - 60 Hz: 85 dB 1 MHz: 65 dB 20 MHz: 30 dB           Noise (Probe)         100X: <15 mVrms (referred to input)         500X: <30 mVrms 500X: <150 mVrms (referred to input)         500X: <30 mVrms 500X: <150 mVrms (referred to input)         500X: <150 mVrms 500X: <150 mVrms (referred to input)           Environmental	to oscilloscope	2.25 m 0.8 m				
1 MHz: 65 dB1 MHz: 65 dB1 MHz: 40 dB1 MHz: 40 dB5 MHz: 40 dB5 MHz: 40 dB20 MHz: 30 dBNoise (Probe)100X: <15 mVrms 1000X: <85 mVrms (referred to input)50X: <30 mVrms 500X: <150 mVrms (referred to input)50X: <30 mVrms 500X: <150 mVrms (referred to input)EnvironmentalTemperature (Operating)0 °C to 50°C Temperature (Non-Operating)4 Umidity (Non-Operating)5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C Humidity (Non-Operating)4 Utitude (Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°C Humidity (Non-Operating)4 Utitude (Non-Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C 3000 m maximum When used with clip accessories, 2000 m maximum Attitude (Non-Operating)10,000 mPollution Degree2, Indoor use onlyCertificationsCEC/EN 61326-1:2013 2006/95/EC)CE (LVD Directive 2006/95/EC)UL ListedUL 61010-031 (Second Edition)	Noise and Rejection					
1000X: <85 mVrms (referred to input)500X: <150 mVrms (referred to input)500X: <150 mVrms (referred to input)EnvironmentalTemperature (Operating)0°C to 50°CTemperature (Non-Operating)Humidity (Operating)5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°CHumidity (Non-Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°CAltitude (Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°CAltitude (Non-Operating)000 m maximumAltitude (Non-Operating)10,000 mPollution Degree2, Indoor use onlyCertificationsEC/EN 61010-031:2015CE (LVD Directive 2006/95/EC)IEC/EN 61326-1:2013UL ListedUL 61010-031 (Second Edition)	CMRR (Typical)	1 MHz: 65 dB 5 MHz: 40 dB	1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB	1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB		
Temperature (Operating)       0°C to 50°C         Temperature (Non-Operating)       -40°C to 70°C         Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°C         Altitude (Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         CE (LVD Directive 2006/95/EC)       IEC/EN 61326-1:2013         CE (EMC Directive 2004/108/EC)       UL 61010-031 (Second Edition)	Noise (Probe)	1000X: <85 mVrms	500X: <150 mVrms	500X: <150 mVrms		
Temperature (Operating)       0°C to 50°C         Temperature (Non-Operating)       -40°C to 70°C         Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         CE (LVD Directive 2006/95/EC)       IEC/EN 61326-1:2013         CE (EMC Directive 2004/108/EC)       UL 61010-031 (Second Edition)	Environmental					
(Non-Operating)         Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         C06/95/EC)       IEC/EN 61326-1:2013         CE (LVD Directive       IEC/EN 61326-1:2013         2004/108/EC)       UL 61010-031 (Second Edition)			0°C to 50°C			
Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         C06/95/EC)       IEC/EN 61326-1:2013         CE (LVD Directive       IEC/EN 61326-1:2013         2004/108/EC)       UL 61010-031 (Second Edition)			-40°C to 70°C			
Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         C06/95/EC)       IEC/EN 61326-1:2013         CE (LVD Directive       IEC/EN 61326-1:2013         2004/108/EC)       UL 61010-031 (Second Edition)						
Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       EC/EN 61010-031:2015         CE (LVD Directive       IEC/EN 61326-1:2013         2006/95/EC)       IEC/EN 61326-1:2013         CE (EMC Directive       UL 61010-031 (Second Edition)						
When used with clip accessories, 2000 m maximum       Altitude (Non-Operating)     10,000 m       Pollution Degree     2, Indoor use only       Certifications     EC/EN 61010-031:2015       CE (LVD Directive LEC/EN 61326-1:2013     EC/EN 61326-1:2013       2004/108/EC)     UL 61010-031 (Second Edition)						
Pollution Degree 2, Indoor use only Certifications CE (LVD Directive IEC/EN 61010-031:2015 2006/95/EC) CE (EMC Directive IEC/EN 61326-1:2013 2004/108/EC) UL Listed UL 61010-031 (Second Edition)	Antitude (Operating)					
Certifications           CE (LVD Directive 2006/95/EC)         IEC/EN 61010-031:2015           CE (EMC Directive 2004/108/EC)         IEC/EN 61326-1:2013           UL Listed         UL 61010-031 (Second Edition)	Altitude (Non-Operating)	ide (Non-Operating) 10,000 m				
CE (LVD Directive         IEC/EN 61010-031:2015           2006/95/EC)         IEC/EN 61326-1:2013           CE (EMC Directive         IEC/EN 61326-1:2013           2004/108/EC)         UL 61010-031 (Second Edition)	Pollution Degree		2, Indoor use only			
2006/95/EC)         IEC/EN 61326-1:2013           CE (EMC Directive         IEC/EN 61326-1:2013           2004/108/EC)         UL 61010-031 (Second Edition)	Certifications					
CE (EMC Directive         IEC/EN 61326-1:2013           2004/108/EC)         UL 61010-031 (Second Edition)	CE (LVD Directive		IEC/EN 61010-031:2015			
UL Listed UL 61010-031 (Second Edition)	CE (EMC Directive	IEC/EN 61326-1:2013				
	UL Listed	UL 61010-031 (Second Edition)				
	cUL Listed					

# SPECIFICATIONS

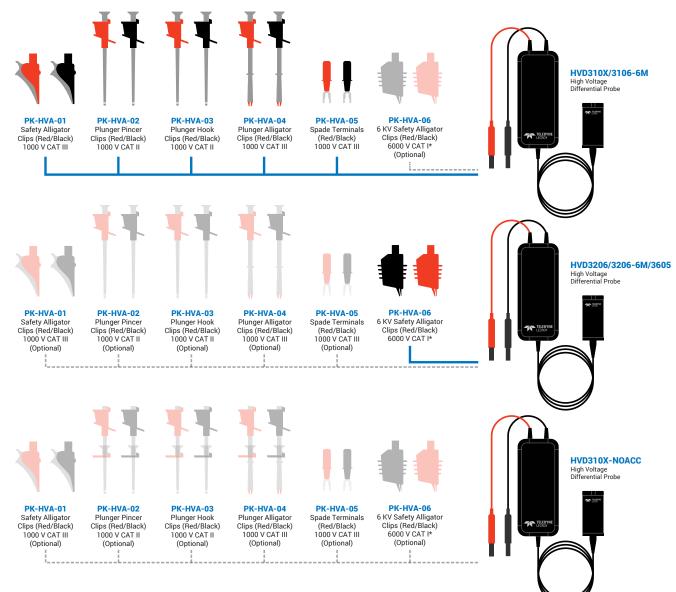
Bandwitch         120 MHz         80 MHz         100 MHz           Bise Time (10-0)         24 ns         44 ns         43 ns           Differential Voltage Bange (Vigh Attenuation)         2000 V (02 + peak AC) from 7 to 500         2000 V (02 + peak AC) from 7 to 500         2000 V (02 + peak AC) from 7 to 500           Differential Voltage Bange (Low Attenuation)         71.6 V (02 + peak AC) from 100 mV/dw 27.6 V (02 + peak AC) from 100 mV/dw to 59 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 59 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw to 72.7 V/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak AC) from 300 mV/dw         70.0 V (02 + peak A		HVD3206	HVD3206-6M	HVD3605		
Differential Voltage Renge (High Attenuation)         2000 V (DC + peak AC) from 7 to 500         7000 V (DC + peak AC) from 7 to 500 V (Viv with up to 1500V offset.         7000 V (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv 27 6 V (DC + peak AC) from 700 mV/dv to 58 V/dv         7000 V (DC + peak AC) from 700 mV/dv 27 6 V (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv 27 6 V (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv 27 6 V (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv 27 6 V (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv 27 6 V (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700 mV/dv U (DC + peak AC) from 700	Bandwidth	120 MHz	80 MHz	100 MHz		
Brange (High Attenuation)         V/div         V/div         V/div         2000 V/div           Differential Voltage         27.6 V/DC + peak AQ) from 100 mV/div Z6 V/DC + peak AQ) from 100 mV/div Z6 S0 V/div         to S0 V/div         to S0 V/div           Common Mode Voltage         12.00 V/div         to S0 V/div         to S0 V/div         to S0 V/div         to S0 V/div           Common Mode Voltage         12.00 V/div         to S0 V/div           Common Mode Voltage         12.00 V/div         to S0 V/div	Rise Time (10-90)	2.9 ns	4.4 ns	4.3 ns		
with up to 1500V offset.         with up to 1500V offset.         with up to 0000 offset.           Differential Voltage Narget Low Attenuation         27.6 V (DC + pask AC) from 100 mV/div 27.6 V (DC + pask AC) from 100 mV/div with up to 150V offset.         with up to 0000 V (DC + pask AC) from 100 mV/div with up to 150V offset.           Common Mode Voltage Range         ±2000 V (DC + pask AC)         ±2000 V (DC + pask AC)         ±760 V (0C + pask AC)           Maximum Input Voltage to 150V offset.         ±2000 V (DC + pask AC)         ±760 V (0C + pask AC)         ±760 V (0C + pask AC)           Max Safe Input Voltage         ±2000 V (DC + pask AC) CAT 1*         2000 V (DC + pask AC)         ±845 V (CC + pask AC)         ±760 V (0C + pask AC)           Sensitivity         1000 mV/div to 59V/div (500X)         1000 mV/div to 59V/div (500X)         1000 mV/div to 59V/div (500X)         380 mV/div to 275 V/div (500X)           Gan Accuracy         1% (LF guaranteed)         1000 V/ms (maximum)         1270 V/ms (maximum)         1000 V/ms (value)           Stew Bate         400 V/ms (maximum)         270 V/ms (maximum)         1000 V/ms (value)         280 V/div (200X)           Gan Accuracy         10 M01 12.5 pf (between inputs)         0.6 m           Duput Coupling         0.0 + 10 M 12.5 0 ff (between inputs)         10 M 12.5 0 ff (between	Differential Voltage	2000 V (DC + peak AC) from 7 to 500		7000 V (DC + peak AC) from 28V/div to		
Image (Low Allow Provided	Range (High Attenuation)	V/div				
Differential Voltage Range (Low Attenuation)         ZX V (DC + peak AC) from 100 mV/dv V         V V (DC + peak AC) from 300 mV/dv V         V0 V (DC + peak AC) from 300 mV/dv V         V0 V (DC + peak AC) from 300 mV/dv V         V0 V (DC + peak AC) from 300 mV/dv V         V0 V (DC + peak AC) from 300 mV/dv V         V0 V (DC + peak AC) from 300 mV/dv V         V0 V (DC + peak AC)         2700 V (DC + peak AC)		with up to 1500V onset.	with up to 1500V onset.			
Range (Low Atterivation)         To 6.9 V/dv         To 6.9 V/dv         To 7.5 V/dv           Common Mode Voltage         ±2000 V (DC + peek AC)         ±2000 V (DC + peek AC)         ±7600V (DC + peek AC)         ±77				differential voltage before saturation)		
with up to 150V offset.         with up to 150V offset.         with up to 150V offset.           Common Mode Voltage Bande         ±2000 V (DC + peak AC)         ±7600 V (DC + peak AC), 500V V (DC + peak AC), 500	Differential Voltage	27.6 V (DC + peak AC) from 100 mV/div	27.6 V (DC + peak AC) from 100 mV/div	700 V (DC + peak AC) from 300mV/div		
Common Mode Voltage Range         ±2000 V (DC + peak AC)         ±7600V (DC + peak AC), 6000 Vms           Maximum Input Voltage to Earth         1±2000 V (DC + peak AC), CAT I * 1500 V (V (DC + peak AC), CAT I * 1500 V (DC + peak AC)	Range (Low Attenuation)			to 27.5 V/div		
Bange         +2000 Vpk         +2000 Vpk         +7600 Vpk           Maxmum Input Voltage         1000 Vinc (mmal either input to ground)         (nommal either input to ground)         (nommal either input to ground)           Max Safe Input Voltage         2000 V(0C + peak AC) CAT I *         1500 Vinc CAT I *         6000 Vinc CAT I *           Safe Input Voltage         1000 Vinc CAT I *         1500 Vinc CAT I *         1600 Vinc CAT I *           Sensitivity         100 mV/div to 592/div (50X)         100 mV/div to 592/div (50X)         2000 V(0C + peak AC) CAT I *         1600 Vinc CAT I *           Sensitivity         100 mV/div to 500V/div (50X)         100 mV/div to 500V/div (50X)         200 mV/div (50X)         200 mV/div to 200 V/div (200X)           Sens Rate         400 Vins (maximum)         270 V/ns (maximum)         1000 V/ns (200X)         200 M/ns (200X)           Sens Rate         400 Vins (maximum)         270 V/ns (maximum)         1000 V/ns (200X)         200 M/ns (200X)           Input Impedance         10 M0 [12 5 pF (between inputs)         5 M0 [15 0 pF (either input to ground)         24 M0 [12 5 pF (between inputs)           Input Impedance         10 M0 [12 5 pF (between inputs)         0 C only         001 Untot Coupling           Output Iermination         1 M0         1 S on F (either input to ground)         24 M0 [1 5 0 P (either input to ground)	Common Mode Voltage					
to Earth         (nominal, either input to ground)         (nominal, either input to ground)           Max Safe Input Voitage         2000 V (Dc + peak AC) CAT I * 1500 Vdc CAT III         2000 V (Dc + peak AC) CAT I * 1500 Vdc CAT III         845 V (Dc + peak AC) CAT I * 6400 Vrms CAT III           Sensitivity         100 mV/div to 6.9V/div (50X)         100 mV/div to 6.9V/div (50X)         300 mV/div to 27 V/div (200X)           Sensitivity         100 mV/div to 6.9V/div (50X)         7V/div to 500V/div (50X)         300 mV/div to 27 V/div (200X)           Sensitivity         100 mV/div to 5.9V/div (50X)         7V/div to 500V/div (50X)         300 mV/div to 27 V/div (200X)           Sensitivity         100 mV/div to 5.9V/div (50X)         7V/div to 500V/div (50X)         300 MV/div CaT III           Sensitivity         100 mV/div to 5.9V/div (50X)         7V/div to 500V/div (50X)         300 MV/div CaT III           Sensitivity         10 MD II 2.5 pf (between inputs)         60X J 500 K         50X 500 K         200X / 200K           Input Coupling         DC only         DC only         24 MD II 5.0 pF (either input to ground)         Ad MD II 5.0 pF (either input to ground)           Input Coupling         DC of the 2.85 dB         DC of the 2.85 dB         DC of the 2.85 dB           Output Coupling         DC with the 2.00 dB         1 MH the 2.00 dB         1 MH the 2.00 dB           Input Leagt Inp	Range		-2000 (20 ) poarties			
Max Safe Input Voltage         2000 V (DC + peak AC) CAT I * 1500 Vdc CAT III         2000 V (DC + peak AC) CAT I * 1500 Vdc CAT III         8485 V (DC + peak AC) CAT I * 1500 Vdc CAT III           Sensitivity         100 mV/div to 6.9V/div (500X)         200 mV/div to 500/vdc CAT III         1000 Vmms CAT III         1000 Vms (vac 200X / 200X)         28 Vdiv to 2200 V/div (200X)         200X / 200	Maximum Input Voltage					
1500 Vide CAT III         1500 Vide CAT III         6000 Vms CAT III         6000 Vms CAT III           Sensitivity         100 mV/div to 6.9V/div (50X)         100 mV/div to 6.9V/div (50X)         300 mV/div CAT III           Sensitivity         100 mV/div to 5.9V/div (50X)         7V/div to 500V/div (50X)         300 mV/div CAT III           Sensitivity         100 mV/div to 5.9V/div (50X)         7V/div to 500V/div (50X)         320 V/div (20X)           Sensitivity         100 mV/div to 5.9V/div (50X)         7V/div to 500V/div (50X)         320 V/div (20X)           Sensitivity         100 MI JC 5.0 F (between inputs)         50X / 500x         50X / 500x         300 V/div (20X)           Input Gouping         0 V/div S 50 / 500x         0 XM J IS 0.0 F (either input to ground)         480 U I IS 0.0 F (either input to ground)         480 U I S 0.0 F (either input to ground)           Input Couping         0 C only         2 XM J IS 0.0 F (either input to ground)         480 U I S 0.0 F (either input to ground)           Input Couping         0 C on DC couping         0 XM J IS 0.0 F (either input to ground)         480 U I S 0.0 F (either input to ground)           Input Couping         0 C on DC couping         0 XM J IS 0.0 F (either input to ground)         480 U I S 0.0 F (either input to ground)           Input Couping         0 C on DC s 0 Hz 85 dB         1 M Z S 0 dB         1 M Hz S 0 dB         1 M H						
1000 Vms CAT III         1000 Vms CAT III         1500 Vdic CAT III           Sensitivity         100 mV/div to 5.9V/div (500X)         100 mV/div to 5.9V/div (500X)         300 mV/div to 2000 V/div (200X)           Gain Accuracy         1% (LF, guaranteed)         28 V/div to 2000 V/div (200X)         28 V/div to 2000 V/div (200X)           Stew Rate         400 V/ns (maximum)         270 V/ns (maximum)         1000 V/ns (typical)           Attenuation         50X / 500X         50X / 500X         200X / 200X           Input Impediance         10 M0 II 2.5 pF (between inputs)         10 M0 II 2.5 pF (between inputs)         48 M0 II 2.5 pF (between inputs)           Input Impediance         10 M0 II 2.5 pF (between inputs)         DC conly         24 M0 II 5.0 pF (either input to ground)           Output Coupling         AC or DC coupling         040 minot 1 ead length         24 M0 II 5.0 PF (either input to ground)           Output Coupling         0C - 60 Hz: 85 dB         DC - 60 Hz: 85 dB         DC - 60 Hz: 85 dB         DC - 60 Hz: 85 dB           Noise and Rejection         00 MHz: 30 dB         100 MHz: 30 dB         100 MHz: 30 dB         100 MHz: 30 dB         100 MHz: 30 dB           Noise (Probe)         50X <30 mVrms	Max Safe Input Voltage	2000 V (DC + peak AC) CAT I* 1500 Vdc CAT III		8485 V (DC + peak AC) CAT 1* 6000 Vrms CAT 1*		
Sensitivity         100 mV/div to 59V/div (500X) 7V/div to 500V/div (500X)         100 mV/div to 5.00V/div (500X)         280 mV/div to 2200 V/div (200X) 28 V/div to 2000 V/div (200X)           Gain Accuracy         1% (LF guaranteed)         38 (LF guaranteed)         100 0 V/ns (typical)           Slew Rate         400 V/ns (maximum)         270 V/ns (maximum)         1000 V/ns (typical)           Attenuation         50x / 500x         200x / 200x         200x / 200x           Input Ingediance         10 M0 [12.5 pF (fetthere inputs)         48 M0 [1.5 0 pF (either inputs)         24 M0 [1.5 0 pF (either inputs)           Input Coupling         DC cn/y         0.0 mV/div to 200 V/ns (typical)         24 M0 [1.5 0 pF (either inputs)           Output Coupling         AC or DC coupling         DC cn/y         0.0 mV/div to 30 M0 [1.5 0 pF (either input to ground)           Output Coupling         AC or DC coupling         0.0 mV/ms         6.8 m         6.8 m           Notise Length (input lead to ground)         2.25 m         6.8 m         6.8 m         1.0 M4.2 to 4.8 (200x)           Noise and Rejection         DC - 60 Hz: 85 dB         1.0 Hz: 50 dB         1.0 Hz: 50 dB (200x)         1.0 MHz: 30 dB           Noise (Probe)         500X:<30 mVrms						
TV/div to 500V/div (500x)         TV/div to 500V/div (200x)         28 V/div to 2000 V/div (200x)           Gain Accuracy         1% (LF, guaranteed)         500         500 V/50 (maximum)         1000 V/ns (typical)           Stew Rate         400 V/ns (maximum)         270 V/ns (maximum)         1000 V/ns (typical)         48 N0 (12 5 pf (between inputs)         50 f (between input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         24 M0 (15 0 pf (either input to ground)         10 M1 (15 0 pf (either input to ground)         10 M1 (15 0 pf (either input to ground)         10 M1 (15 0 pf (either input to ground)         10 M1 (15 0 pf (either input to ground)         10 M1 (15 0 pf (either input to ground)				1000 Vrms CAT III		
Gain Accuracy       1% (LF, quaranted)         Slew Rate       400 V/ns (maximum)       270 V/ns (maximum)         Attenuation       50X / 500X       50X / 500X         Slew Rate       10 M0 II 2.5 pF (between inputs)       10 M0 II 2.5 pF (between inputs)         Input medance       10 M0 II 2.5 pF (between inputs)       48 M0 II 1.5 pF (between inputs)         Input Coupling       DC conly       200X / 2000X         Output Coupling       DC conly       0 Utput I corrund)         Output Coupling       AC or DC coupling       0 Conly         Output Coupling       0 C conly       0 Utput I corrund)         Output I coupling       1 MQ       1 MQ         Input Lead Length       40 cm input lead length       6.8 m         Cable Length (input lead to scilloscope)       5 MHz: 30 dB       1 MHz: 65 dB       1 MHz: 65 dB         Noise and Rejection       CMRR (Typical)       1 MHz: 65 dB       1 MHz: 64 dB (200x)       10 MHz: 30 dB (200x)         Noise (Probe)       50X:<30 mV/ms	Sensitivity	100 mV/div to 6.9V/div (50X)	100 mV/div to 6.9V/div (50X)			
Slew Rate         400 V/ns (maximum)         270 V/ns (maximum)         1000 V/ns (typical)           Attenuation         50x / 500x         50x / 500x         50x / 200x         1000 U/ns (typical)           Input linpedance         10 MQ II 2.5 pF (between inputs)         5MQ II 50 pF (either input to ground)         24 MQ II 2.5 pF (between inputs)         24 MQ II 5.0 pF (either input to ground)         26 MR (Tiput to ground)         26 MR		7V/div to 500V/div (500X)	7V/div to 500V/div (500X)	28 V/div to 2000 V/div (2000X)		
Slew Rate         400 V/ns (maximum)         270 V/ns (maximum)         1000 V/ns (typical)           Attenuation         50x / 500x         50x / 500x         50x / 200x         1000 U/ns (typical)           Input linpedance         10 MQ II 2.5 pF (between inputs)         5MQ II 50 pF (either input to ground)         24 MQ II 2.5 pF (between inputs)         24 MQ II 5.0 pF (either input to ground)         26 MR (Tiput to ground)         26 MR	Gain Accuracy		1% (LE guaranteed)			
Attenuation         50x / 500x         200x / 200x           Input Impediance         10 MQ    2.5 pF (between inputs)         5 MQ    5.0 pF (either input to ground)         48 MQ    2.5 pF (between inputs)           Input Coupling         DC only         24 MQ    5.0 pF (either input to ground)         24 MQ    5.0 pF (either input to ground)           Untput Coupling         DC only         DC only         24 MQ    5.0 pF (either input to ground)           Output Coupling         AC or DC coupling         Output Coupling         0           Output Coupling         AC or DC coupling         0         0           Output Coupling         AC or DC coupling         0         0           Output Coupling         0         6.8 m         6.8 m           Nosiee and Rejection         Noise and Rejection         0         10 MHz: 56 dB         10 KHz: 70 dB           CMRR (Typical)         1 MHz: 65 dB         1 MHz: 65 dB         10 KHz: 70 dB         10 MHz: 30 dB         10 MHz: 30 dB           100 MHz: 30 dB         10 MH		400 V/ns (maximum)		1000 V/ns (typical)		
Input Impedance         10 M0 [] 2.5 pF (between inputs)         48 M0 [] 2.5 pF (between inputs)           Input Coupling         DC only         24 M0 [] 5.0 pF (either input to ground)         24 M0 [] 5.0 pF (either input to ground)           Input Coupling         DC only         24 M0 [] 5.0 pF (either input to ground)         24 M0 [] 5.0 pF (either input to ground)           Uptot Termination         1 M0         0         0         0           Input Lead Length         40 cm input lead length         6.8 m         6.8 m           Cable Length (input lead connection)         0         0.6 m         6.8 m           Noise and Rejection         0.6 m         6.8 m         10 H412 r6 dB           CMRR (Typical)         0.6 - 60 Hz: 95 dB         0.6 - 60 Hz: 95 dB         10 H412 r6 dB           Noise and Rejection         100 MHz: 30 dB         10 H412 r6 dB         10 H412 r6 dB           CMRR (Typical)         0.6 - 60 Hz: 95 dB         0.6 - 60 Hz: 95 dB         10 H412 r6 dB           Noise (Probe)         500X <30 mVrms		×	· · · · · ·			
SMQ II 5.0 pF (either input to ground)         SMQ II 5.0 pF (either input to ground)         24 MQ II 5.0 pF (either input to ground)           Dutput Coupling         AC or DC coupling         DUtput Coupling         AC or DC coupling           Output Termination         1 MQ         Interface         ProBus           Input Lead Length         40 cm input lead length         6.8 m         6.8 m           Cable Length (input lead to oscilloscope connection)         0 C - 60 Hz: 85 dB         1 MHz: 65 dB         1 MHz: 70 dB           Noise and Rejection         DC - 60 Hz: 85 dB         1 MHz: 70 dB         1 MHz: 70 dB         1 MHz: 70 dB           CMRR (Typical)         DC - 60 Hz: 85 dB         1 MHz: 70 dB         1 MHz: 70 dB         1 MHz: 70 dB           Noise and Rejection         DC - 60 Hz: 85 dB         1 MHz: 70 dB         1 MHz: 70 dB         1 MHz: 70 dB           Noise (Probe)         50X: <30 dB	Input Impedance	10 MΩ II 2.5 pF (between inputs)	10 MΩ II 2.5 pF (between inputs)	48 MΩ II 2.5 pF (between inputs)		
Output Coupling         AC or DC coupling           Output Termination         1 M0           Interface         ProBus           Input Lead Length         40 cm input lead length           Cable Length (input lead         2.25 m           Soliloscope connection)         0C - 60 Hz: 85 dB         0 C - 60 Hz: 85 dB           Noise and Rejection         0C - 60 Hz: 85 dB         1 MHz: 65 dB         1 0 HHz: 70 dB           CMRR (Typical)         1 MHz: 65 dB         1 MHz: 64 dB (200x)         1 0 MHz: 30 dB         1 0 MHz: 30 dB           Noise and Rejection         20 MHz: 30 dB         20 MHz: 30 dB         1 0 MHz: 64 dB (200x)         1 0 MHz: 30 dB           Noise (Probe)         50X < 30 mVrms		5 MΩ    5.0 pF (either input to ground)		24 MΩ    5.0 pF (either input to ground)		
Output Termination         1 M0           Interface         ProBus           Input Lead Length         40 cm input lead length           Cable Length (Input lead to oscilloscope connection)         2.25 m         6.8 m         6.8 m           Noise and Rejection         0C - 60 Hz: 85 dB         DC - 60 Hz: 85 dB         10 kHz: 70 dB         10 kHz: 70 dB           MRR (Typical)         DC - 60 Hz: 85 dB         10 kHz: 70 dB         10 kHz: 70 dB         10 kHz: 70 dB           200 kHz: 30 dB         10 kHz: 40 dB         5 kHz: 40 dB         10 kHz: 50 dB (200x)         10 kHz: 70 dB           100 MHz: 30 dB         100 MHz: 30 dB         100 MHz: 30 dB         10 kHz: 70 dB (200x)         10 MHz: 40 dB (200x)           Noise (Probe)         50X: <30 mVrms						
Interface       ProBus         Input Lead Length       40 cm input lead length         Cable Length (input lead connection)       2.25 m       6.8 m         Noise and Rejection       6.8 m       6.8 m         CMRR (Typical)       DC - 60 Hz: 85 dB       1 MHz: 65 dB       1 0 KHz: 70 dB         S MHz: 40 dB       2 0 MHz: 30 dB       1 MHz: 64 dB (200x)       10 MHz: 40 dB (200x)         100 MHz: 30 dB       100 MHz: 30 dB       10 MHz: 40 dB (200x)       100 MHz: 40 dB (200x)         100 MHz: 30 dB       100 MHz: 30 dB       10 MHz: 40 dB (200x)       100 MHz: 30 dB       10 MHz: 40 dB (200x)         Noise (Probe)       50X: <30 mVrms						
Input Lead Length       40 cm input lead length         Cable Length (input lead to oscilloscope connection)       2.25 m       6.8 m       6.8 m         Noise and Rejection       CMRR (Typical)       DC - 60 Hz: 85 dB       1 MHz: 65 dB       1 0 HHz: 70 dB         S MHZ: 40 dB       5 MHz: 40 dB       1 MHz: 56 dB       1 0 HHz: 70 dB       1 0 HHz: 70 dB         S MHZ: 40 dB       20 MHz: 30 dB       1 0 MHz: 30 dB       1 0 MHz: 40 dB (200x)         100 MHz: 30 dB       100 MHz: 30 dB       10 MHz: 40 dB (200x)         Noise (Probe)       50X: <30 mVrms						
Cable Length (input lead to oscilloscope connection)       2.25 m       6.8 m       6.8 m         Noise and Rejection       CMRR (Typical)       DC - 60 Hz: 85 dB       DC - 60 Hz: 85 dB       10 kHz: 70 dB         S MHz: 40 dB       5 MHz: 40 dB       1 MHz: 56 dB       10 kHz: 70 dB       10 kHz: 70 dB         20 MHz: 30 dB       20 MHz: 30 dB       100 MHz: 30 dB       10 MHz: 64 dB (200x)       10 MHz: 64 dB (200x)         Noise (Probe)       50X: <30 mVrms						
to oscilloscope connection) Moise and Rejection CMRR (Typical) DC - 60 Hz: 85 dB DC - 60 Hz: 85 dB DC - 60 Hz: 85 dB 10 kHz: 70 dB S MHz: 40 dB S MHz: 40 dB 1 MHz: 65 dB 10 kHz: 70 dB 10 MHz: 30 dB 100 MHz: 40 dB 100 MZ Mz: 40 dB 100 MZ MZ MZ: 40 dB 100 M		2.25 m		6.8 m		
Noise and Rejection           CMRR (Typical)         DC - 60 Hz: 85 dB 1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB 100 MHz: 40 B 2000x: <55 mVrms (typical, referred to input)           Environmental Temperature (Operating)         5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C 3000 m maximum           Humidity (Operating)         5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C 40°C Humidity (O		2.23 111	0.0111	0.0111		
CMRR (Typical)         DC - 60 Hz: 85 dB         DC - 60 Hz: 85 dB         DC - 60 Hz: 85 dB           1 MHz: 65 dB         1 MHz: 65 dB         1 0 KHz: 70 dB         1 0 KHz: 70 dB           20 MHz: 30 dB         20 MHz: 30 dB         1 0 MHz: 64 dB (200x)         1 0 MHz: 64 dB (200x)           100 MHz: 30 dB         100 MHz: 30 dB         1 0 MHz: 40 dB (200x)         100 MHz: 30 dB         1 0 MHz: 40 dB (200x)           Noise (Probe)         50X: <30 mVrms	connection)					
CMRR (Typical)         DC - 60 Hz: 85 dB 1 MHz: 65 dB 5 MHz: 40 dB 20 MHz: 30 dB 20 MHz: 30 dB 100 MHz: 30 dB 20 0X + 30 mVrms 500X: <150 mVrms (referred to input)         200x: <150 mVrms 2000X: <250 mVrms 2000X: <250 mVrms 2000X: <250 mVrms 2000X: <250 mVrms (typical, referred to input)           Environmental	Noise and Rejection					
1 MHz: 65 dB         1 MHz: 65 dB         1 MHz: 64 dB         1 MHz: 40 dB         1 MHz: 64 dB         1 0 MHz: 30 dB         200x: <65 mVrms         10 MDz         200x: <65 mVrms         200x: <65 mVrms         200x: <65 mVrms         200x: <65 mVrms		DC - 60 Hz: 85 dB	DC - 60 Hz: 85 dB	DC - 60 Hz: 85 dB		
20 MHz: 30 dB 100 MHz: 30 dB         20 MHz: 30 dB 100 MHz: 30 dB         1 MHz: 50 dB (2000x) 10 MHz: 40 dB (200x) 10 MHz: 30 dB           Noise (Probe)         50X: <30 mVrms 500X: <150 mVrms (referred to input)         50X: <30 mVrms 500X: <150 mVrms 000X: <150 mVrms (typical, referred to input)           Environmental         200x: <65 mVrms (referred to input)         200x: <65 mVrms 2000x: <320 mVrms (typical, referred to input)           Environmental         0°C to 50°C         7           Temperature (Operating)         0°C to 50°C         7           Humidity (Operating)         5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         7           Humidity (Non-Operating)         5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         7           Altitude (Operating)         5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         7           Altitude (Non-Operating)         10,000 m         7           Pollution Degree         2, Indoor use only         7           Certifications         10,000 m         10,000 m           CE (LVD Directive 2006/95/EC)         1EC/EN 61326-1:2013 2006/95/EC)         2006/95/EC)           UL Listed         UL 61010-031 (Second Edition)         10		1 MHz: 65 dB	1 MHz: 65 dB			
100 MHz: 30 dB100 MHz: 30 dB10 MHz: 40 dB (200x) 10 MHz: 30 dB (2000x) 10 MHz: 30 dB (2000x) 10 MHz: 30 dB (2000x) 100 MTHz: 30 dB (20000 maximum MTHE MURICHING MARKER				1 MHz: 64 dB (200x)		
Interface         Interface <thinterface< th=""> <thinterface< th=""> <thi< td=""><td></td><td></td><td></td><td></td></thi<></thinterface<></thinterface<>						
Noise (Probe)50X: <30 mVrms 500X: <150 mVrms (referred to input)50X: <30 mVrms 500X: <150 mVrms (typical, referred to input)EnvironmentalTemperature (Operating)0°C to 50°CTemperature (Operating)0°C to 70°CMunidity (Operating)5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°CHumidity (Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°CAltitude (Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°CHumidity (Non-Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°CAltitude (Operating)10,000 mPollution Degree2, Indoor use onlyCertificationsIEC/EN 61010-031:2015CE (LVD Directive 2006/95/EC)IEC/EN 61326-1:2013UL ListedUL 61010-031 (Second Edition)				10 MHz: 30 dB (2000x)		
500X: <150 mVrms (referred to input)500X: <150 mVrms (referred to input)2000x: <320 mVrms (typical, referred to input)EnvironmentalTemperature (Operating)0°C to 50°CTemperature (Non-Operating)Humidity (Operating)5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°CHumidity (Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°CHumidity (Non-Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°CAltitude (Operating)When used with clip accessories, 2000 m maximum 10,000 mAltitude (Non-Operating)004/108/CC)Cet (LVD Directive 2006/95/EC)CE (LVD Directive 2006/95/EC)UL ListedUL ListedUL ListedUL ListedUL ListedUL Listed						
(referred to input)(referred to input)(typical, referred to input)EnvironmentalTemperature (Operating)0°C to 50°CTemperature (Operating)Humidity (Operating)5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°CHumidity (Non-Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH at 50°CAltitude (Operating)5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°CAltitude (Operating)000 m maximumWhen used with clip accessories, 2000 m maximumAltitude (Non-Operating)10,000 mPollution Degree2, Indoor use onlyCertificationsCE (LVD Directive2006/95/EC)CE (EMC Directive2004/108/EC)UL ListedUL ListedUL ListedUL 61010-031 (Second Edition)	Noise (Probe)	50X: <30 mVrms	50X: <30 mVrms	200x: <65 mVrms		
Environmental         Temperature (Operating)       0°C to 50°C         Temperature (Operating)       -40°C to 70°C         Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       EC/EN 61010-031:2015         C206/95/EC)       2006/102/EC         CE (EMC Directive       IEC/EN 61326-1:2013         2004/108/EC)       UL 61010-031 (Second Edition)						
Temperature (Operating)       0°C to 50°C         Temperature (Non-Operating)       -40°C to 70°C         Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         CE (LVD Directive 2006/95/EC)       IEC/EN 61326-1:2013         CE (EMC Directive 2004/108/EC)       UL 61010-031 (Second Edition)	Environmentel					
Temperature       -40°C to 70°C         (Non-Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         CE (LVD Directive 2006/95/EC)       IEC/EN 61326-1:2013         CE (ENC Directive 2004/108/EC)       UL 61010-031 (Second Edition)			0°C to 50°C			
(Non-Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         Mumidity (Non-Operating)       10,000 m         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         CE (LVD Directive 2006/95/EC)       IEC/EN 61326-1:2013         CE (EMC Directive 2004/108/EC)       UL 61010-031 (Second Edition)						
Humidity (Operating)       5% to 80% RH (Non-Condensing) up to 30°C, decreasing linearly to 45% RH at 50°C         Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       IEC/EN 61010-031:2015         CE (LVD Directive       IEC/EN 61326-1:2013         2004/108/EC)       UL 61010-031 (Second Edition)			40 0 10 70 0			
Humidity (Non-Operating)       5% to 95% RH (Non-Condensing), 75% RH above 30°C, 45% RH above 40°C         Altitude (Operating)       3000 m maximum         When used with clip accessories, 2000 m maximum         Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications         CE (LVD Directive 2006/95/EC)       IEC/EN 61010-031:2015         CE (EMC Directive 2004/108/EC)       UL 61010-031 (Second Edition)		5% to 80% RH (Non-C	ondensing) up to 30°C, decreasing linea	rly to 45% RH at 50°C		
When used with clip accessories, 2000 m maximum       Altitude (Non-Operating)     10,000 m       Pollution Degree     2, Indoor use only         Certifications       CE (LVD Directive 2006/95/EC)     IEC/EN 61010-031:2015       CE (EMC Directive 1EC/EN 61326-1:2013       2004/108/EC)     UL 61010-031 (Second Edition)						
Altitude (Non-Operating)       10,000 m         Pollution Degree       2, Indoor use only         Certifications       EC/EN 61010-031:2015         CE (LVD Directive 2006/95/EC)       IEC/EN 61326-1:2013         CE (EMC Directive 2004/108/EC)       UL 61010-031 (Second Edition)	Altitude (Operating)					
Pollution Degree     2, Indoor use only       Certifications       CE (LVD Directive 2006/95/EC)     IEC/EN 61010-031:2015       CE (EMC Directive 2004/108/EC)     IEC/EN 61326-1:2013       UL Listed     UL 61010-031 (Second Edition)		When		kimum		
Certifications         CE (LVD Directive 2006/95/EC)         CE (EMC Directive 2004/108/EC)         UL Listed         UL Listed						
CE (LVD Directive         IEC/EN 61010-031:2015           2006/95/EC)         EC/EN 61326-1:2013           CE (EMC Directive         IEC/EN 61326-1:2013           2004/108/EC)         UL 61010-031 (Second Edition)	Pollution Degree		2, Indoor use only			
CE (LVD Directive         IEC/EN 61010-031:2015           2006/95/EC)         EC/EN 61326-1:2013           CE (EMC Directive         IEC/EN 61326-1:2013           2004/108/EC)         UL 61010-031 (Second Edition)	Cortifications					
2006/95/EC)         IEC/EN 61326-1:2013           CE (EMC Directive 2004/108/EC)         UL 61010-031 (Second Edition)						
CE (EMC Directive         IEC/EN 61326-1:2013           2004/108/EC)         UL 61010-031 (Second Edition)			IEC/EN 01010-031:2015			
2004/108/EC)         UL 61010-031 (Second Edition)			IEC/EN 61326-1.2013			
cUL Listed CAN/CSA-C22.2 No. 61010-031-15						
	cUL Listed		CAN/CSA-C22.2 No. 61010-031-15			

\* CAT I per IEC/EN 61010-031/A1:2008. No Rated Measurement Category per IEC/EN 61010-031:2015.

# **ORDERING INFORMATION**

Product Description	Product Code
1 kV, 25 MHz High Voltage Differential Probe with 2 m cable	HVD3102
1 kV, 120 MHz High Voltage Differential Probe with 2 m cable	HVD3106
1 kV, 80 MHz High Voltage Differential Probe with 6 m cable	HVD3106-6M
1 kV, 25 MHz High Voltage Differential Probe with 2 m cable without tip Accessories	HVD3102-NOACC
1 kV, 120 MHz High Voltage Differential Probe with 2 m cable without tip Accessories	HVD3106-NOACC
2 kV, 120 MHz High Voltage Differential Probe with 2 m cable	HVD3206
2 kV, 80 MHz High Voltage Differential Probe with 6 m cable	HVD3206-6M
6 ky, 100 MHz High Voltage Differential Probe with 6 m cable	HVD3605
High Voltage Replacement Accessories Kit (Includes 2 each, 1 Black, 1 Red):	PK-HV-001

Safety Alligator Clips, Plunger Pincer Clips, Plunger Hook Clips, Plunger Alligator Clips, Spade Terminals



\* CAT I per IEC/EN 61010-031/A1:2008. No Rated Measurement Category per IEC/EN 61010-031:2015.

#### **Customer Service**

Teledyne LeCroy oscilloscopes and probes are designed, built, and tested to ensure high reliability. In the unlikely event you experience difficulties, our digital oscilloscopes are fully warranted for three years and our probes are warranted for one year. This warranty includes: • No charge for return shipping • Long-term 7-year support • Upgrade to latest software at no charge



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