

# DMI 552 DMI 553

Digital Measuring Instrument  
for AC and DC  
Leaflet



DMI 552



DMI 553



## HAEFELY

Current and voltage – our passion

Designed by

**Tettex**  
INSTRUMENTS



## GENERALITIES

### The best partner

High-voltage measurements are done by connecting a specialized voltmeter (like the DMI 552 or DMI 553) to the secondary unit of a voltage divider, or to a current-to-voltage transducer (like a shunt).

HAEFLY, the pioneer company for high-voltage testing, has been continuously developing and upgrading application specific high-voltage test equipment. The DMI 552 & DMI 553 are the latest in the long line of Kilovoltmeters since the 1920s, offering the user the features and reliability gained from all these years of experience.

### Measures according to IEC 61083-3:2020

The DMI 552 has been developed to measure, record and visualize events during dielectric and breakdown tests in high-voltage applications according to IEC 61083-3:2020. This

standard defines the requirements for instruments used in AC and DC high voltage applications.

### HAEFLY CaMS™

New software based on CaMS™ (HAEFLY's Control and Measurement Studio) provides the most flexible and user-configurable environment on the market. Anything from single meter display up to complex analysis can be configured and displayed, depending on the user's experience, application or need.

### Galvanic isolation

The optically decoupled front-end provides complete galvanic isolation between control room and test field. It thus affords the personnel the highest safety level and in addition minimizes ground loop, resulting in a reduced interference coupling.



EXPERT'S CHOICE  
TO FULFILL  
INTERNATIONAL  
STANDARDS



PROVIDING THE  
HIGHEST ACCURACY  
IN THE MARKET

## FEATURES

Designed to measure voltage and current in high voltage applications.

Measures AC voltage and currents as RMS, Peak and Peak/√2 among others.

Measures DC voltage and currents as Mean, Peak and Ripple.

Flash detection with voltage indication.

Real time scope and frequency analysis FFT.

Additional AC/DC input channel (optional).

Computer controlled with HAEFLY CaMS graphical user interface.

Optically decoupled from computer.

Compact, reliable, and EMC hardened design, IP50.

## ADVANTAGES

→ Approved for dielectric tests as per IEC 61083-3 - as Peak/√2 is the required measured parameter.

→ The Peak/√2 required value during dielectric test is measured and recorded.

→ One device, 2 applications, same device can be used for AC and DC application.

→ Exact voltage just before failure is recorded and held – if a failure arises during the test, failure indication, voltage measured before the flash and waveshape during the flash is shown and recorded for further analysis

→ Waveshape quality of the signal is continuously shown on the screen.

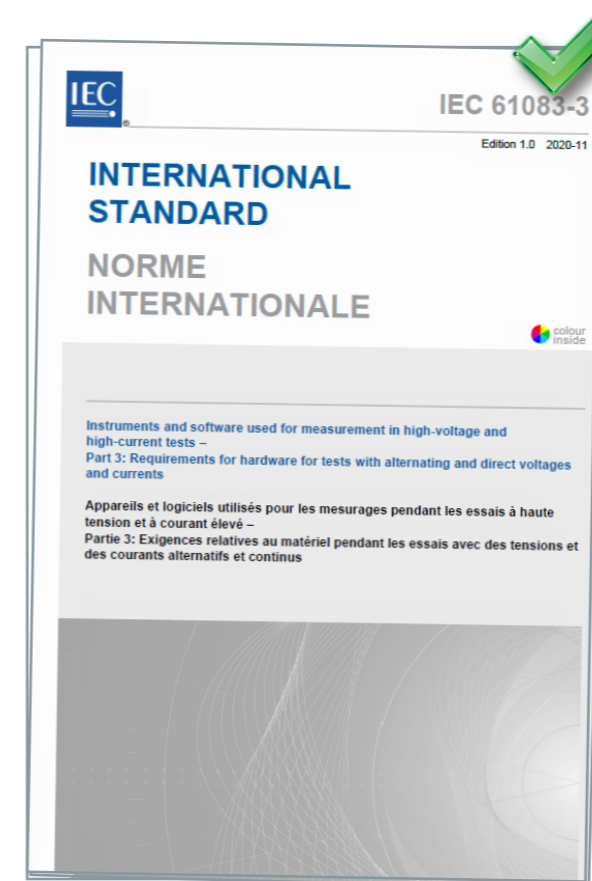
→ Voltage and current readings in one single device – values can be simultaneously shown and recorded.

→ Reduced training time - Modern SW makes the use of the device easier than ever. Operators can start using the device in minutes.

→ The galvanic isolation ensures the full safety of the operating personnel. With the DMI 552, there is no electrical connection between the control room and the high voltage test room.

## APPLICATIONS

- High voltage laboratories
- On-site high voltage test
- Calibration laboratories



TAILORED SOLUTION

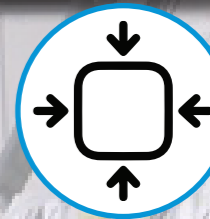
Lab-optimized



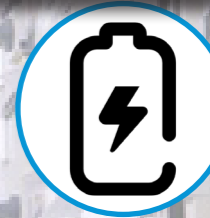
Strong



Compact



Battery-operated



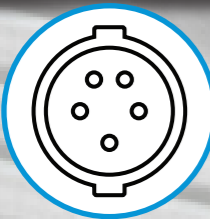
DMI 552



DMI 553



Rugged fiber optics



Mains supply



Light-weight



Portable

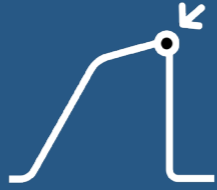


LAB-OPTIMIZED OR PORTABLE DESIGN


SOFTWARE FEATURES




**LARGE INDICATORS**  
Free selection between 20 values.




**PEAK & HOLD**  
Keeps the values in case of breakdown (flash).



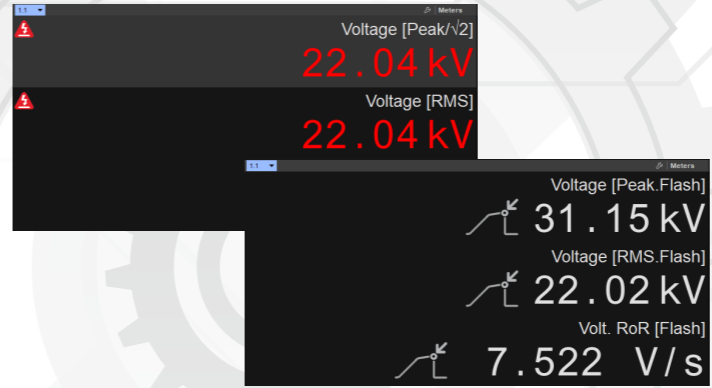
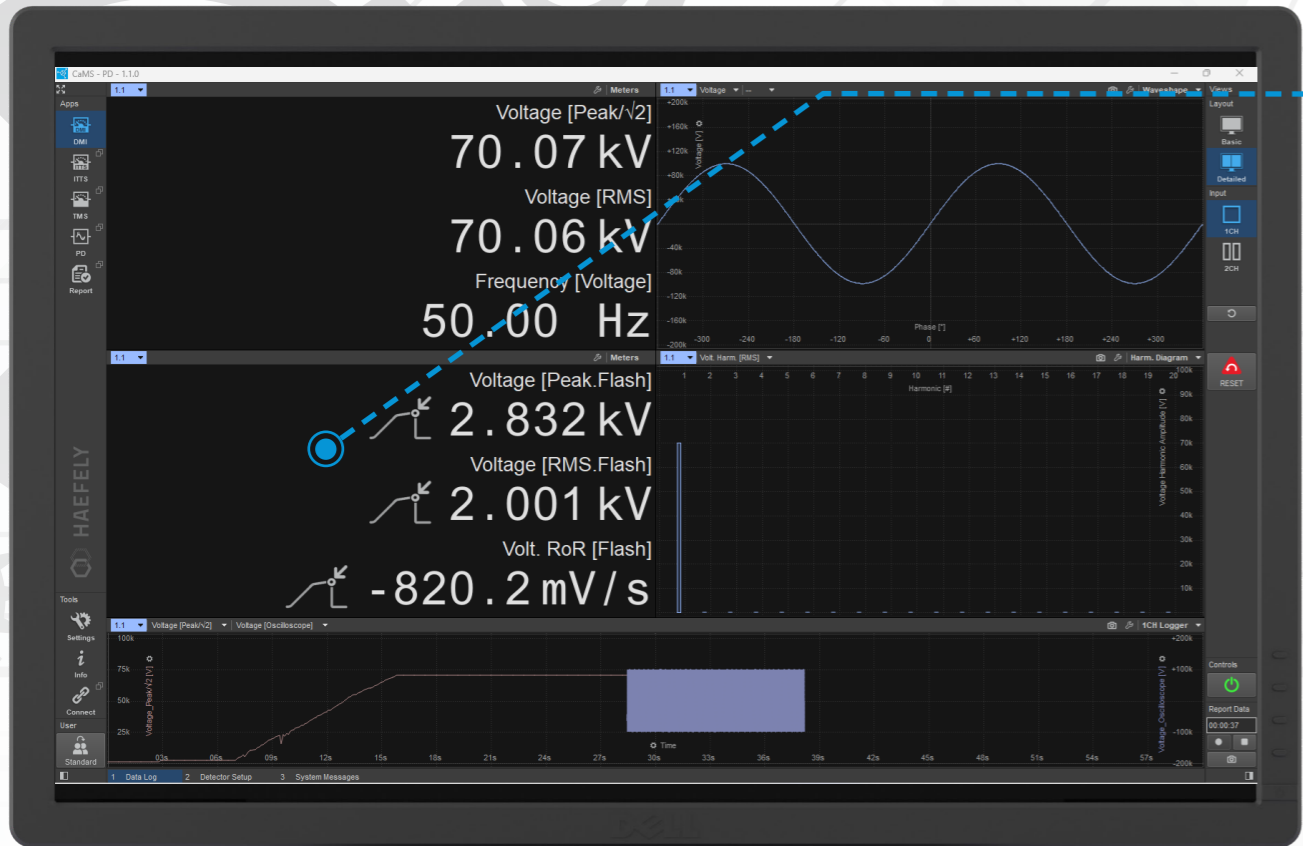
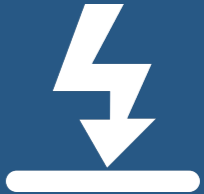
**SCOPE**  
Shows the waveshape continuously.



**FFT**  
Measures and represents harmonics content.



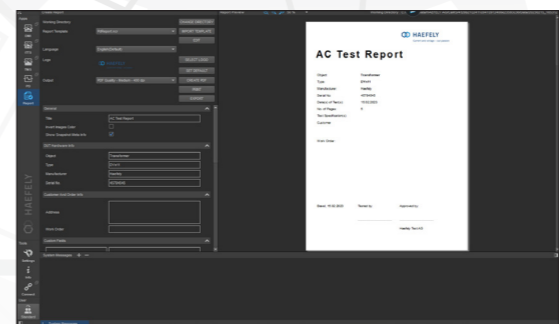
**DATA LOGGING**  
Collects key data during test.

**BREAKDOWN**  
Visual breakdown indication

REPORTING, DATA EXPORT

USER ROLES

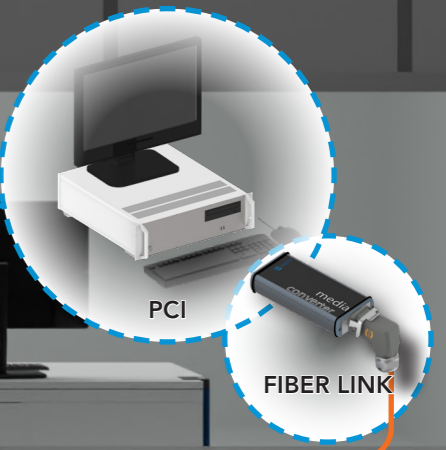
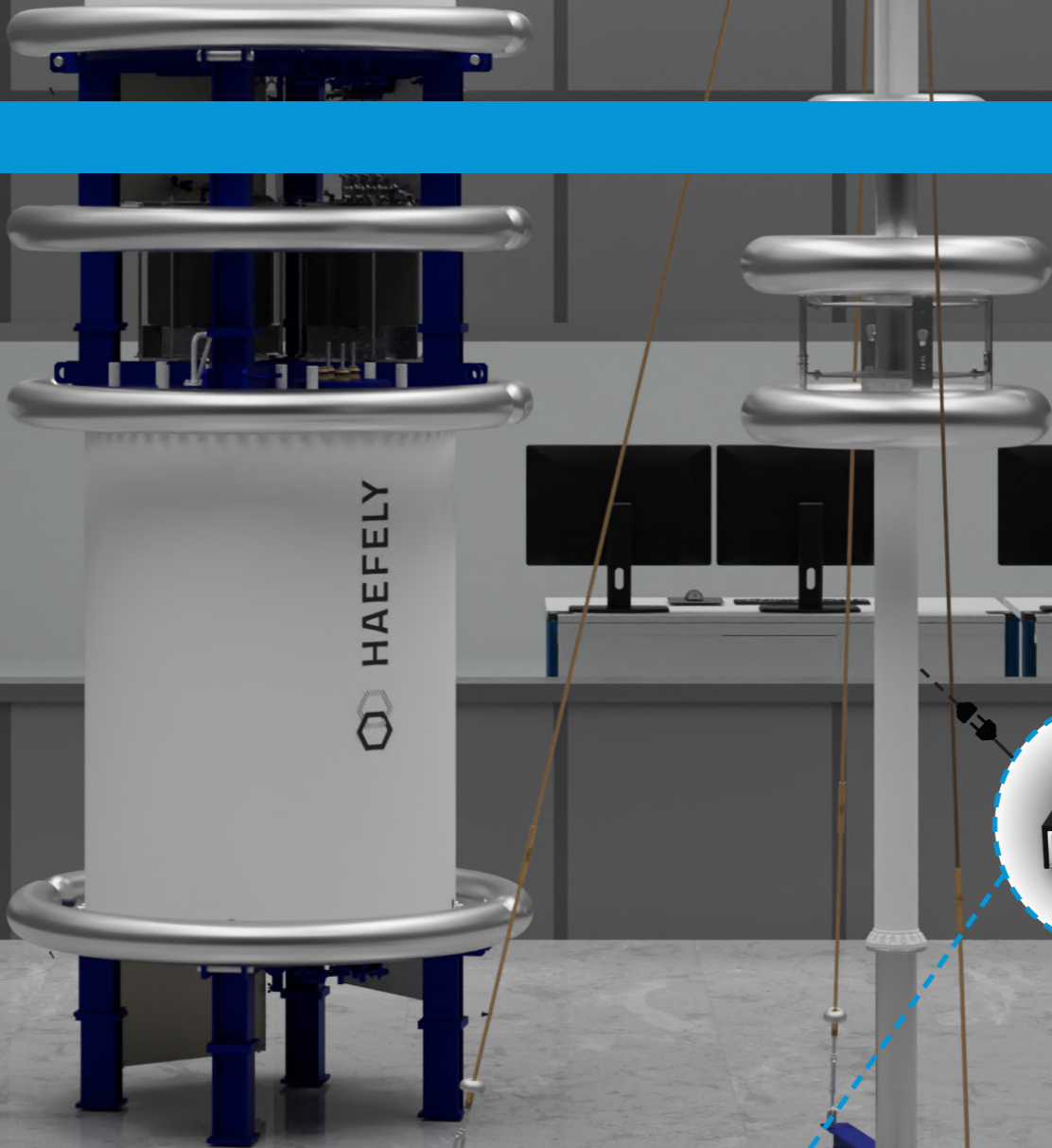
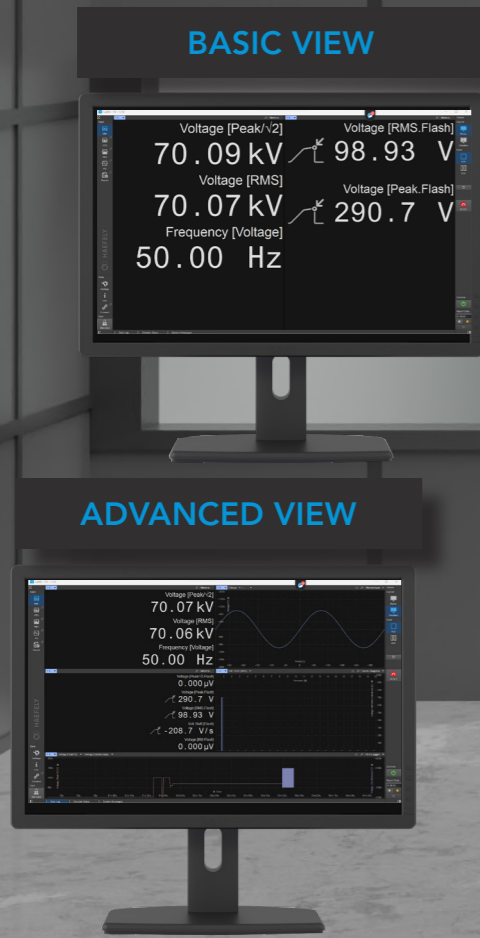


- Custom editable templates
- Print or PDF
- SQLite database
- CSV and PNG data export



- User Roles
- Password protection
- Limited features and widget access

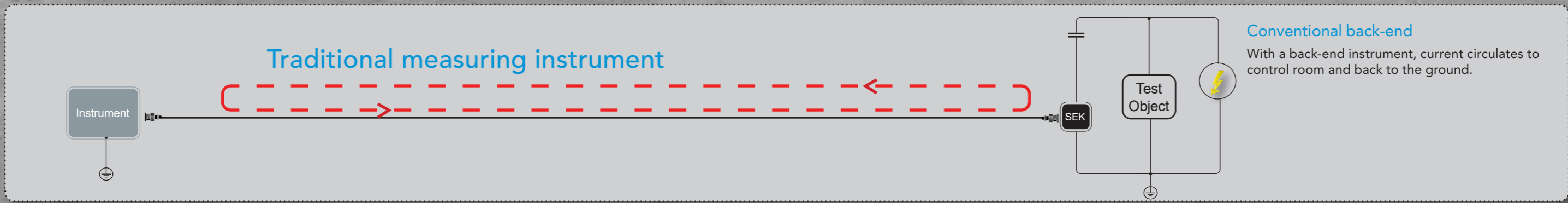
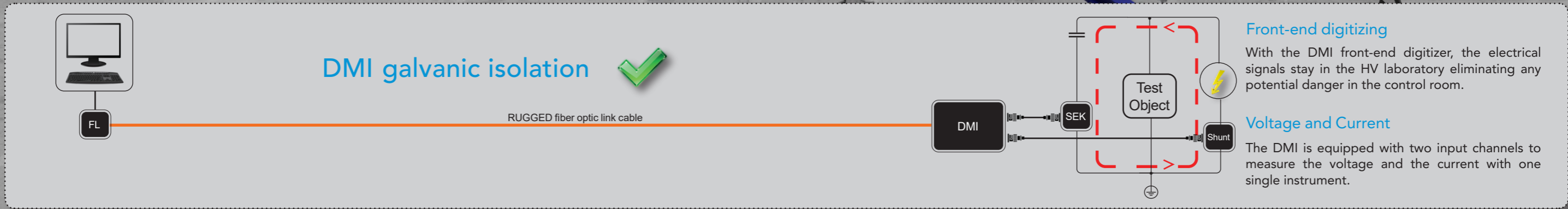
# DMI CONNECTION



**Galvanic Isolation** ✓  
 Fiber optic link between the DMI and the control PC provides a complete galvanic isolation, with the following benefits:

- The length of the fibre optic cable does not impact the measurement ratio or the calibration.
- Fully ensures safety of personnel. With the DMI, there is no electrical connection between the control room and the high voltage test room.

DMI CaMS™ Software - modern & easy to use!





## DMI BASIC SPECIFICATIONS

	DMI 552	DMI 553
Supply	Mains	Battery
Input Voltage (AC & DC)	0...400 V <sub>Peak</sub>	
Accuracy AC	±(0.1 % + 10 µV)	
Accuracy DC	±(0.1 % + 1 mV)	
Meas Values Voltage / Current <sup>(1)</sup>	Amplitude AC	±Peak, ±Peak/√2, RMS <sub>fund<sup>r</sup></sub> , Peak <sub>AVG<sup>r</sup></sub> , RM, RM <sub>Corr<sup>r</sup></sub> , Mean, Peak Factor, Rate of Rise
	Amplitude DC	Mean, Ripple, f <sub>Ripple<sup>r</sup></sub> , Peak, Rate of Rise
	Harmonics	1...20 <sup>th</sup> individual (Amplitude, Phase, Ratio), THC, THD
	Peak and Hold	Peak Flash, RM <sub>Corr</sub> , Flash, Rate of Rise Flash

Complete technical specifications in the DMI Datasheet available at [www.HAEFLY.com](http://www.HAEFLY.com)

## STANDARD PACKAGE

1	DMI	Rugged Digital Measuring Instrument	DMI 552
		Portable Digital Measuring Instrument	DMI 553
	Including		
2		Software on USB stick	
3		Fiber Optic - USB/Ethernet adaptor (Fiber Link)	
4		Fiber Optic Cable, 20 m	
5		Battery (DMI 553)	
6		Transport case (DMI 553)	
7		Connection set (per channel)	
		Instruction Manual & Test Report	
8	Extended Warranty		
		2 years	DMI/WE2
		3 years	DMI/WE3



## OPTIONS

### DMI 55X Options

9	DMI 553/BATT	Additional/spare battery pack for DMI 553 portable version
10	DMI 553/SUP	External 12 V power supply for DMI 553 portable version
	DMI552/MSET-19RACK	Mounting set 19" 3HE for DMI 552 laboratory rugged version
	DMI552/MSET-UNI	Universal mounting set for DMI 552 laboratory rugged version

## ADD ON (SOFTWARE KEY)

	DMI 55X/SKCH	Software Key to enable additional input/channel (Voltage or Current)
15	DMI 55X/SKDO	Software Key to control up to 8 digital outputs (Flash, Trips) using Moxa ioLogik E1212 (not included).

## ACCESSORIES

### High Voltage Dividers

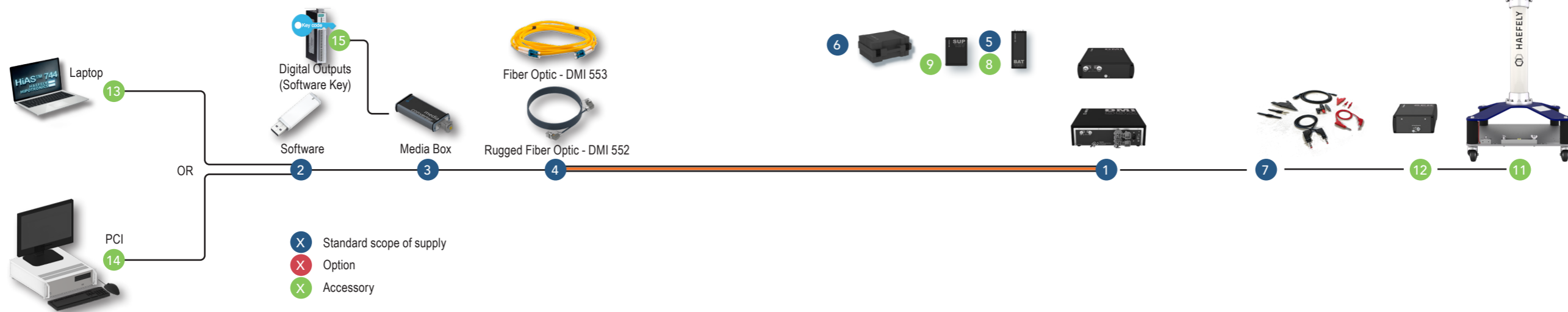
11	9231	The 9231 (25 ... 200 kV) have been specially developed for AC high voltage measurement. Includes a double base to allocate the measuring instrument.
11	9241	The 9241 (25 ... 200 kV) have been specially developed for AC & DC high voltage measurement. Includes a double base to allocate the measuring instrument.

### Secondary Units

12	SEK 463	Secondary unit for AC & DC measurement. 140V output voltage. Other voltages on request.
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### Computers

13	LAPTOP	Laptop, Intel processor, Windows 10, 15.6" display, Full HD (1920 x 1080)
14	PCI 811c	Industrial PC (EMC tested, suitable for working in HV laboratories) Intel processor, Windows 10, Monitor 24", keyboard and mouse



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## Global Presence

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