





Foreword

Dear reader,

Thank you for showing interest in our products and our service. In this catalogue we want to introduce our cable measurement engineering spectrum to you. Here you receive a complete overview of our standard product range of VisioCablePro®.

VisioCablePro® - the name stands for highest quality and functionality. All products that we deliver are produced and inspected according to the strict process guidelines within our ISO 9001:2015 certification.

The optical cable measuring devices of the VisioCablePro® series create high resolution colour video images of cable samples with a diameter up to 130 mm. The softwares FMC-3 and VCPEasy additionally help you to evaluate the images and by using the CAQ-system ProCable 3 you can archive the obtained results and manage your orders.

Furthermore, we offer various devices to prepare cable samples like the ORC-Family for cutting samples with an outer diameter from 0.5 up to 150 mm (0.019 - 5.9 Inch) and other devices to inspect cable samples according to the standard IEC 60811.

For technical information or a detailed consultation we will gladly advise you. Please contact our headquarters under the telephone number +49 (3681) 45519-0 or send us an Email to VisioCablePro.Sales@iimAG.de.



We look forward to a successful working relationship. Best regards from Suhl. Your VisioCablePro® team.



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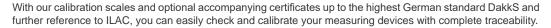
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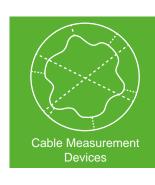
Cable Measurement Devices by VisioCablePro®

Product overview

iiM cable measurement engineering has especially been developed to carry out geometrical measurements, which specifically fulfill cable producers requirements to measure the geometrical features of insulating skins and cable sheaths. The complete package consists of one of the devices from the VisioCablePro® series VCPX5, VCPLab and VCPEx+ as well as the measuring software FMC-3 and optionally the CAQ-System ProCable. The new generation of VisioCablePro® - the VCPX5 - is standardly equipped with the measuring software FMC3 and optionally can be equipped with the new software VCPEasy to simplify the complete measuring process. The optical cable measuring devices of the VisioCablePro®-series create high resolution video images of cable samples with a diameter up to 130 mm (5.11"). The softwares FMC-3 and VCPEasy additionally helps you to evaluate these images and by using the CAQ-system ProCable 3 you can archive the obtained results and manage your orders.



Further measuring devices for testing cables are available for both the laboratory as well as for the production process. With our Twist Length Detector, it is initially possible to automatically measure the twist/ lay/ pitch length of a cable without cutting open the insulation for a visual measurement and thus manipulating the sample.



	Model	Size (width x length x height)	Weight	Resolution	Lighting	Camera	Cable Sample
	VCPLab	1150 x 380 x 1070 mm 45.3 x 14.0 x 42.1 Inch	77 kg 170 lbs	corresponds to 0.1% of the image field	LED	up to 2 cameras	max. 34 mm (1.34") outer diameter
NEW VERSION	VCPX5 →	600 x 560 x 910 mm 23.6 x 22.0 x 35.8 Inch	54 kg 119 lbs	corresponds to 0.1% of the image field	LED	customised, 1-3 cameras	max. 130 mm (5.11") outer diameter
	VCPEx+	750 x 430 x 320 mm 29.5 x 16.9 x 12.6 Inch (Technical changes reserved)	28 kg 61.7 lbs (Technical changes reserved)	corresponds to 0.1% of the image field	LED	customised	wire guides & extrusion nozzles up to max. 15 mm (0.6") inner diameter in various configurations
	Twist/ Lay/ Pitch Length Detector - TLD	1320 x 420 x 480 mm 52.0 x 16.5 x 18.1 Inch	43 kg 95 lbs	-	-	-	80 mm (3.14") measuring distance (100 mm (3.93") on request) for a 100 mm cable sample
NEW VERSION	Calibration Scales	different sizes	7 g (0.02 lbs) 23 g (0.05 lbs) 30 g (0.07 lbs)	-	-	-	For calibrating geometrical measuring devices



Software by VisioCablePro®

Product overview

Our software FMC-3 helps you evaluate obtained test results from our cable measuring devices securely and is always included, when buying one of our products from the VisioCablePro series. Therefore FMC-3 is your guarantee for secure quality testing of geometrical attributes of cables and isolated conductors. With the CAQ-system ProCable 3, test plans can be developed, orders administrated and the received test results can be archived with corresponding additional information into the database. ProCable 3 generates a list of results from the measurements according to the applied test plans. Afterwards, the test results are filed well structured and accurately. With the Software VCPEasy it is possible to connect external devices with the iiM CAQ-database or with other CAQ systems, e.g. CIQ, SAP, ADVARIS, new systems possible. Your own system can also be connected upon request. External devices are e. g. elongation, adherence or resistance meters, which can also be connected to the complete HUB system of VCPEasy.



			System requiremen	nts	
Software	Functions	Cable measurement device	Operating system	RAM	Hard drive space
VCPEasy	Easy, quick and suitable for the production Optimised for the touch screen operation of the VCPX5 Connects external devices such as elongation, adherence or resistance meters with the iiM CAQ-database Various manual entry options Easy product testing, e.g. cable cores and insulations according to norms and standards Possible automatic result feedback (pass/fail) Quick and easy operation	VCPX5, VCPLab, open interface for peripheral devices	Windows VISTA, Windows 7, Windows 8.x, Windows 10, (.NetFramework 4.5)	2 GB	5 GB
FMC-3	 Measurement according to standard IEC 60811 After the cable ist positioned and measured on the measuring table, FMC-3 analyses the sample at once and completely Very good traceability and repeatability 	VCPLab, VCPX5	Windows VISTA, Windows 7, Windows 8.x, Windows 10	2 GB	5 GB
ProCable 3	 Test plan development Order administration Archiving of obtained test results Creation of result lists according to the test plans (product report recipes) Correct and structured depositition of test results Exceedance of tolerance limits are immediately reported and saved Possibility to connect with other devices (please inquire type) 	any PC	Windows VISTA, Windows 7, Windows 8.x, Windows 10	2 GB	5 GB



Devices for Sample Preparation

Product overview

Our devices for the cable sample preparation and the following inspection meet the highest quality requirements. With the ORC 65, ORC 80 and ORC 150 it is possible to cut thin, even and parallel samples with a smooth surface. The ORC Micro is optimal to cut very small cables. Furthermore, we offer various other preparation devices for material testing in laboratories, e.g. the Splitting Cutter for standardised slices to further process and use in the Hot Set Test or tensile Test.



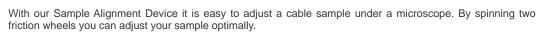
Model	Size (width x length x height)	Weight	Supply Voltage	Input Power	Blade	Lighting	Material	Cable sample
Cable Stripper 100	430 x 800 x 430 mm 16.9 x 31.5 x 18.9 lnch	54 kg 119.05 lbs	-	-	-	-	Aluminium, Stainless steel, PVC	For separating cable jackets / -insulations from the electrical conductor
Core Removal Punch CRP	170 x 360 x 450 mm 6.7 x 14.2 x 17.7 inch	15.6 kg 34.4 lbs	-	-	-	-	Iron, Stainless steel	Punch to remove solid eletrical conductors
ORC 150	910 x 730 x 600 mm 35.83 x 28.74 x 23.62 lnch	100 kg 220.46 lbs	230 - 400 V 50 Hz	max. 1100 Watt	Chisel 150-1	LED	Aluminium, Stainless steel	150 mm (5.91"), special chuck jaws for larger samples up to 200 mm (7.87"
ORC 80	250 x 380 x 260 mm 9.84 x 14.96 x 10.23 lnch	17.3 kg 38.14 lbs	100 - 240 V 50 - 60 Hz	max. 221 Watt	Stainless steel blade	LED	Aluminium, Stainless steel	80 mm 3.15 lnch
ORC 65	400 x 400 x 280 mm 15.75 x 15.75 x 11.02 lnch	8.5 kg 18.74 lbs	100 - 240 V 50 - 60 Hz	max. 40 Watt	Martor Grafix 680 blade	LED	Stainless steel	65 mm 2.56 lnch
ORC Micro	200 x 200 x 170 mm 7.87 x 7.87 x 6.69 lnch	3.25 kg 7.16 lbs	100 - 240 V 50 - 60 Hz	max. 60 Watt	Stainless steel blade	LED	Stainless steel	3.5 mm 0.14 lnch
Sample Picker	135 x 190 x 135 mm 5.31 x 7.48 x 5.31 lnch	1.8 kg 3.97 lbs	230 V AC	max. 230 Watt	-	-	Stainless steel, Rubber	Easy positioning of very small samples
Flat Cable Cutter 75	225 x 235 x 450 mm 8.85 x 9.25 x 17.71 lnch	7.7 kg 16.97 lbs	-	-	one-side grinded special blade by iiM	-	Aluminium, Stainless steel	75 mm (2.95") (width - cable sample)
Splitting Cutter	380 x 460 x 300 mm 14.96 x 18.11 x 11.81 lnch	18.5 kg 39.68 lbs	-	-	Stainless steel blade	-	Aluminium, Stainless steel	on request
Splitting Cutter PE	760 x 500 x 500 mm 29.92 x 19.68 x 19.68 lnch	58 kg 127.8 lbs	100 - 240 V 50 - 60 Hz	max. 100 Watt	Stainless steel blade	-	Aluminium, Stainless steel, Plastic housing	130 mm 5.11 Inch 150 mm (5.91") on request
Toggle Press KHP / Dumb-bell tools	156 x 292 x 475 mm 5.98 x 11.49 x 18.7 lnch	10.75 kg 23.69 lbs	-	-	-	-	Aluminium, Stainless steel, PVC	For punching out dumb bell samples and remov electrical conductors
Tool Box	345 x 308 x 164 mm 13.5 x 12.1 x 6.5 Inch	2.4 kg 5.3 lbs	-	-	-	-	PVC, Stainless steel	Practical Tool Box with a required tools for cable sample preparation



Laboratory Equipment for Material Tests

Product overview

iiM AG continuously develops devices for measuring, testing and preparing cable samples according to the standards. By using the Hot Set Test you can easily perform an elongation and a heat pressure test of your cable samples. With this hot set test device, you needn't attach your samples in the heat oven, as with other products. You just place the complete device with the samples into the oven. In addition to the Hot Set Test for thermal testing, iiM also offers instruments for Cold Impact and Cold Bend Testing under the VisioCablePro® brand.



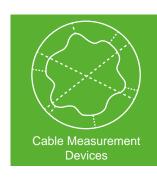


	Model Size (width x length x height)		Weight	Material	Functions
	Hot Set Test	Device: 200 x 170 x 315 mm 7.87 x 6.69 x 12.4 lnch Equipment: 375 x 290 x 70 mm 14.76 x 11.41 x 2.75 lnch Laser: 210 x 130 x 540 mm 8.26 x 5.11 x 21.26 lnch	Device: 2.3 kg (5.1 lbs) Equipment: 3 kg (6.6 lbs) Laser: 6.4 kg (14.1 lbs)	Aluminium, Stainless steel	■ Hot Set Test ■ Heat Pressure Test
NEW VERSION	Cold Impact Test CIT	200 x 200 x 520 mm 7.9 x 7.9 x 20.5 Inch (Technical changes reserved)	15 kg 33.1 lbs (Technical changes reserved)	Stainless steel	■ Cold Impact Test
NEW VERSION	Cold Bend Test CBT	470 x 280 x 200 mm 18.5 x 11.0 x 7.9 lnch	Device: 7.1 kg (15.7 lbs) Accessories: 14 kg (30.8 lbs)	Stainless steel	■ Cold Bend Test
	Sample Alignment Device	130 x 80 x 65 mm 5.11 x 3.14 x 2.55 Inch	0.96 kg 2.1 lbs	Aluminium, Stainless steel, Brass, Rubber	Simplifies the arrangement of a cable sample for measuring under a microspcope



Cable Measurement Devices by VisioCablePro®

Product data sheets







Cable Measurement Device VCPLab

For cable samples with an outer diameter up to 34 mm (1.34")

Product No.: 401.0003.05



Technical details:

1150 x 380 x 1070 mm 45.27 x 14.96 x 42.13 lnch
77 kg 170 lbs
100 - 240 V 50 - 60 Hz
max. 100 Watt
corresponds to 0.1% of the image field
LED
up to 2 cameras
up to max. 34 mm (1.34") outer diameter
IEC 60811 -201; -202; -203 LV112 (A Factor)









Device details:

- Robust case seals against extraneous light
- Central control unit
- Semi-automatic focussing and illumination
- Safe from impacts and vibrations
- Quasi shadow free transmitted light
- Optimal system status for lighting, optics and camera
- 2 integrated camera systems possible
- Adjustable operation distance for 2D measurements in laboratories
- Very precise measurement due to high resolution sensors
- Standardised individual components
- Very easy measuring procedure
- Measurement according to:

IEC 60811 -201, -202, -203 / LV112 (A Factor)

Suitable software FMC-3 and CAQ-System ProCable available

Tribis Philipping 1998

- Camera-based system for measuring cable geometries from insulations and sheaths
- Especially for the use in production and laboratory
- Suitable for very thin cores smaller than 1 mm (0.04") up to sheath thicknesses with an outer diameter of 34 mm (1.34")
- Time and material saving and therefore sustainable cost reduction due to quick and very efficient measurements

^{*} the most suitable configuration can only be determined with your minimum and maximum sample outer diameter



Cable Measurement Device VCPX5

For measuring cable samples with an outer diameter up to 130 mm (5.11")

Product No.: 401.0010.21



Technical details:

Measuring according to standards	IEC 60811 -201; -202; -203 LV112 (A Factor)
Measuring range	up to max. 130 mm (5.11") outer diameter
Camera	customised 1-3 Cameras, high resolution
Lighting	LED
Resolution	corresponds to 0.1% of the image field
Input Power	max. 100 Watt
Supply Voltage	110 - 230 V 50 - 60 Hz
Weight	54 kg 119 lbs
Size (width x length x height)	560 x 600 x 910 mm 22 x 23.6 x 35.8 lnch











Device details:

- Object size / measuring range up to 130 mm (5.11") (larger customisations are possible)
- Quick and very easy measurement
- Little training required (without a customer specified database an initial operating instruction takes only 15 min)
- Measurements according to standards IEC 60811 -201, -202, -203 / LV112 (A Factor)
- Suitable software: FMC3 (measuring software), VCPEasy and ProCable3 (CAQ system)
- Various external CAQ software are connectable (CIQ-AESA; ADVARIS; QDA-ASI-DATAMYTE; QUASAR; etc.)
- No user influence on default optical focus as well as default optimised, intelligent and homogeneous lighting
- Shock and vibration resistant due to an optimised sensor arrangement and balanced weight distribution
- Quick and very precise measurements due to the robust construction and easy operation
- Measuring software enables various operator level settings (production, laboratory, administrator, service, etc.)
- Standardised individual components lead to supply security and therefore a short delivery period
- Easy connection with external devices

Area of application:

- Camera-based system for measuring cable geometries from insulations and sheaths (measurement according to standards)
- Measuring device especially designed for use in production as well as in laboratories (quick-test; with VCPEasy: 1-button measurement)
- By using different lenses and high-resolution cameras, very small and very large cable sample measurements are possible

NEW VERSION

- lenses and cameras of the newest generation
- higher resolutions
- reduced measurement uncertainties
- measuring software with new features
- more flexible operation



Measuring Device for Extrusion Tools VCPEx+

Stand-alone system for high-precision and fast measurement of wire guides and extrusion nozzles

Product No.: 401.0007.04



Technical details:

Size (width x length x height) (Technical changes reserved)	750 x 430 x 320 mm 29.5 x 16.9 x 12.6 lnch
Weight (Technical changes reserved)	28 kg 61.7 lbs
Supply Voltage	100 - 240 V 50 - 60 Hz
Input Power	max. 100 Watt
Resolution	corresponds to 0.1% of the image field
Lighting	telecentric LED lighting
Camera	customised
Measuring range	up to 15 mm (0.6") in various configurations









Ensure your product quality right from the start - before the production process.

Device details:

- Robust and compact design, easy to handle
- Fast, reliable and highly accurate measuring process
- Integrated hardware and software, touch monitor for intuitive operation
- Reliable, high-precision clamping of the test specimen (including conical tools / conical wire guides)
- The highly precise alignment of camera and test object clamp both enable a highly accurate measurement
- No extraneous light influences thanks to measurement behind closed sliding door

Possible measurement results:

■ Maximum, minimum and average inside diameter (→ With these values any deformation or wear can be identified - the wires could be positioned undefined in the cable after extrusion which can lead to an underranged wall thickness.)

Area of application & benefits:

- Camera-based system for measurement of wire guides and extrusion nozzles mean that only tools tested independently of users are used in production
- Specially designed for use in production, the tool store and the laboratory
- Reliable, fast and accurate quality control
- Traceability of results for convenient presentation of the life cycle of your tools
- Time and cost savings for your measurement



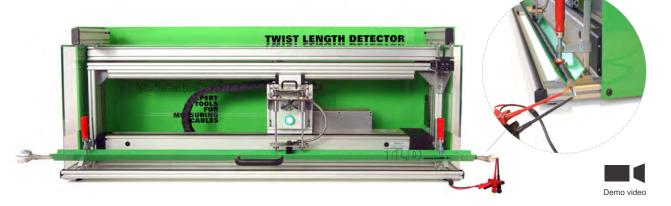
Twist/ Lay/ Pitch Length Detector - TLD

For measuring the twist/ lay/ pitch length of sheathed cables

Product No.: 402.0013.01















Technical Details:

Size (width x length x height)	1320 x 420 x 480 mm 52.0 x 16.5 x 18.1 Inch	
Weight	43 kg 95 lbs	
Supply Voltage	100 - 240 V, 50 - 60 Hz	
Input Power	max. 100 Watt	
Material	uminium, Stainless Steel, PVC	
Measuring accuracy	1 mm 0.04"	
Measuring according to standards	LV212; LV122	
Measurable twist lengths	min. 10 mm 0.39" / max. 800 mm 31.5" (with the standard measuring distance) ATTENTION: Customizations possible on request (Please send some samples)	
Measurable twist lengths Measuring distance		
	ATTENTION: Customizations possible on request (Please send some samples) 800 mm 31.5"	

Device details:

- Measurements according to the standards LV212 und LV122
- The twist length of the samples is measured without removing the sheath
 - \rightarrow this ensures a precise measurement
- Traditional methods manipulate the sample (cable stripping / unwinding of conductors)
 - → a precise measurement is not possible anymore
- Via a PC connection, the measuring results can directly be exported
- Fully automatic: By clicking one button, the measuring sensor automatically moves along the sample

Results:

- Result file: It is possible saving the following result data into a text file (export function):
 - Amount of twists
 - Measured distance (distance from the first twist to the last overlapping twist)
 - Driving distance of the sensor
 - Minimum / Maximum twist length
 - Average of the detected twist lengths

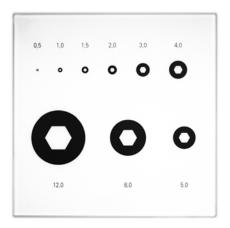
Calibration:

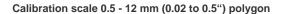
The calibration is performed with an especially designed master-sample (calibration piece)



Calibration Scale with optional Calibration Certificate

For calibrating geometrical measuring devices (e.g. VCPX5)





- 9 different circles from 0.5 to 12.0 mm outer diameter (0.02 to 0.5")
- Distance measurements are possible with the polygonal inner shape
- Available with DAkkS- or factory calibration certificate

Technical Details:

Size (width x length x height)	45 x 45 x 2 mm 1.77 x 1.77 x 0.07 Inch
Weight	7 g 0.02 lbs
Material	Glass









NEW VERSION

Calibration rings 65 / 95 mm (2.5 / 3.7")

enables high-precision calibration

Calibration scale 20 / 60 mm (0.8 / 2.4") polygon

- 2 different circles:(20 / 60 mm (0.8 / 2.4") outer diameter)
- Distance measurements are possible with the polygonal inner shape
- Available with DAkkS- or factory calibration certificate

Technical Details:

Size (width x length x height)	80 x 80 x 2 mm 3.15 x 3.15 x 0.07 lnch
Weight	23 g 0.05 lbs
Material	Glass

Calibration rings 65 / 95 mm (2.5 / 3.7")

50

- 2 different circles (65 / 95 mm (2.5 / 3.7") outer diameter)
- Available with DAkkS- or factory calibration certificate

Technical Details:

60

Size (width x length x height)	65 x 65 x 1 mm 2.5 x 2.5 x 0.04 lnch 95 x 95 x 1 mm 3.7 x 3.7 x 0.04 lnch
Weight	30 g 0.07 lbs





Calibration case - practical storage of calibration scales





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Software by VisioCablePro®

Product data sheets

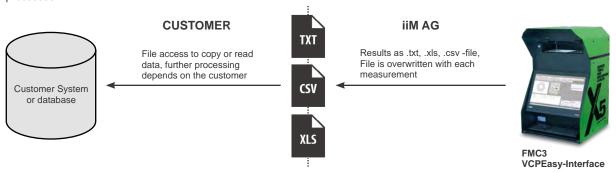






Overview Database Scenarios

Scenario 1: The measurement device stands alone without database connection, it is possible to store the measurement results into a export file, which is overwritten in each measurement. The customer has the option to read the data for further own processes.



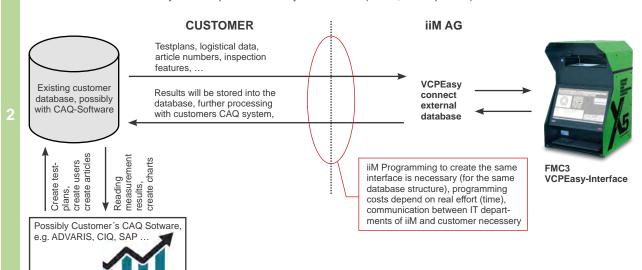




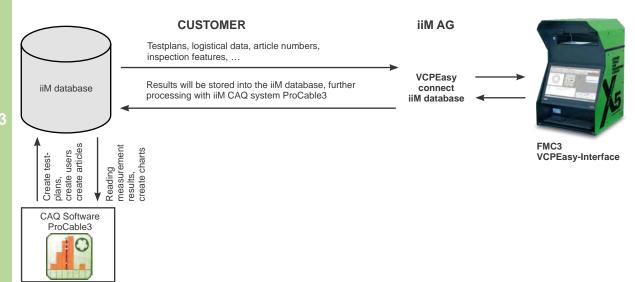




Scenario 2: The customer uses an existing database and wants connect the VCPX5 to send testplans, logistical data, inspection features to select the article direct on the VCPX5. After the measurement the results will be send back to the customers database. If the customer uses a CAQ system it is possible to analyse the results (charts, developments).



Scenario 3: iiM provides a complete and comfortable solution with the iiM database, iiM CAQ system ProCable3. Further measurement devices, e.g. resistance measurement devices, can be integrated and the results can be stored and analysed.

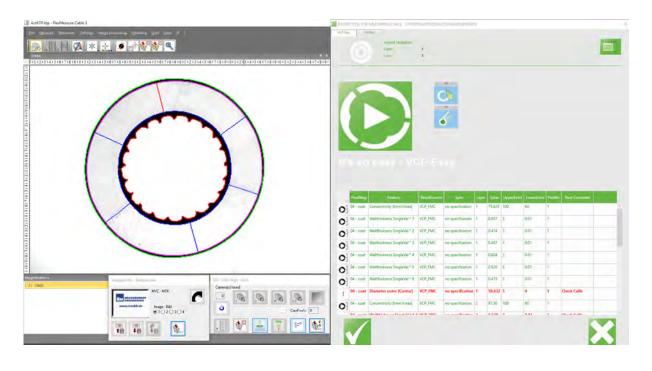




Software VCPEasy

The handy software for quick inspection devices in production halls

Product No.: 403.0004.01











System requirements:

Cable measurement device	VCPX5, VCPLab, open interface for peripheral devices
Operating system	Windows VISTA, Windows 7, Windows 8.x, Windows 10, (.NetFramework 4.5)
RAM space	2 GB
Hard disk space	5 GB

Details:

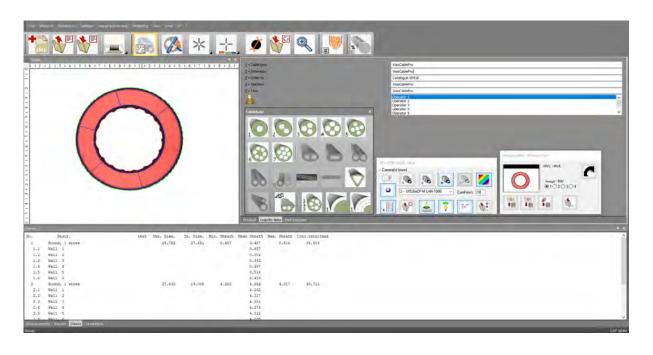
- Interface for connecting external CAQ-systems (e.g. CIQ by AESA)
- Import, interpretation and evaluation of external test plans
- Result evaluation (traffic light system) with export function to external CAQ systems possible
- Possible automatic result feedback (pass/fail)
- Customised measuring programs for the current cable types are available on clearly recognizable buttons
- Clear and simple quick-test perfectly suitable for production
- Optimised for the touch screen operation of the VisioCablePro® X5 measuring devices
- Easily adaptable for various applications
- User-specific button symbols (cable pictures) simplify the operation



Software FMC 3

Measurement-Software for safe results

Product No.: 403.0001.01











System requirements:

Cable measurement device	VCPX5, VCPLab
Operating system	Windows VISTA, Windows 7, Windows 8.x, Windows 10
RAM space	2 GB
Hard disk space	5 GB

Software details:

- Safe analysis of test results
- Automatic measurement and analysis
- Measurement according to standard
 IEC 60811 -201, -202, -203
 (for all standard cable shapes up to 3 layers)
- Easy and intuitive operation

Important Standards for the measurement:

- IEC 50396
- IEC 60811 (-201, -202, -203)
- LV 112 (A Factor)

Safe analysis - Safe quality

- Software is included in a complete package with a cable measurement device from the VisioCablePro® series
- Your quality guarantee for safe geometrical feature tests on cables and isolated conductors
- Very good traceability and repeatability

Automatic measurement for a very simple measuring procedure

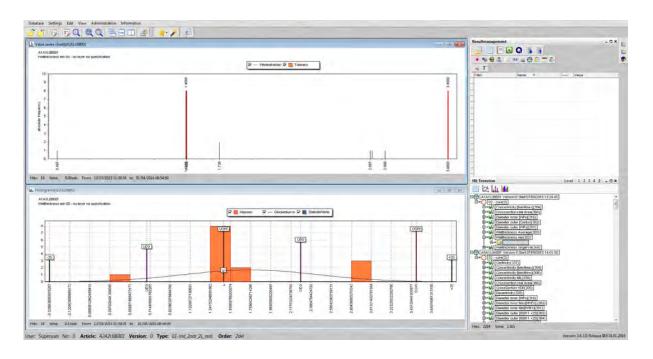
- Automatic measuring procedure and further analysis of the achieved test results are possible
- After the cable is positioned and measured on the measuring table, FMC-3 analyses the sample completely at once



Software ProCable 3

The CAQ-System customized for cable producer requirements

Product No.: 403.0002.01











System requirements:

Cable measurement device	any PC
Operating system	Windows VISTA, Windows 7, Windows 8.x, Windows 10
RAM space	2 GB
Hard disk space	5 GB

Easy handling - Highest functionality

- Test plan development
- Order administration
- Archiving of obtained test results
- Creation of result lists according to the test plans (product report recipes)
- Correct and structured filing of test results
- Exceedance of tolerance limits are immediately reported and saved
- Possibility to connect with external measuring devices (please inquire type)
- Connection with a SQL or MS Access[©] database possible

Retraceable CAQ-System

- Achieved test results are compared with test plans and exceedances of tolerance limits are immediately reported
- Retraceability is guaranteed
- Compact CAQ-System, especially developed for cable producer requirements
- Various functions for safe administration and archiving of your test results
- Retraceability: Due to the comparison with the deposited test plans, ProCable reduces operator influences and guarantees safe measurement results
- Various filter functions enable finding any result
- Results are displayed in charts, tables and histograms
- Export to MS Excel[®] possible



Devices for Sample Preparation

Product data sheets







Cable Stripper - CS100

For separating cable jackets / -insulations from the electrical conductor

Product No.: 402.0005.04



Technical Details:

Size (width x length x height)	430 x 800 x 430 mm 16.9 x 31.5 x 16.9 Inch
Weight	54 kg 119 lbs
Material	Aluminium, Stainless Steel, PVC
Length Cable Sample	min. 150 mm (5.91") (at 50 mm (2") Stripping)
Ø - Cable sample	15 - 100 mm 0.06 - 3.9 lnch
Cable Stripping	ca. 10 - max. 250 mm 0.4 - 9.8 Inch depending on material









Device details:

- Easy separation of cable jackets from the electrical conductor
- Suited for samples with a high strip force
- Also designed for larger sample outer diameters
- Suitable preparation before cutting cable samples for measuring (e.g. with the ORC-series)
- Robust, stable construction
- Easy operation

Operation:

- 1. Cut around the cable
- 2. Insert the cable into the CS100 (cut side towards the front)
- 3. Close the clamps
- 4. Turn the front wheel to remove the cable jacket



Suitable additional equipment

Modified pipe cutters

3 - 35 mm (0.1 - 1.4") OD* - Product No.: 402.0017.02 10 - 63 mm (0.4 - 2.5") OD* - Product No.: 402.0017.03 50 - 110 mm (2.0 - 4.3") OD* - Product No.: 402.0017.04

^{*} Outer diameter of the cable sample



Core Removal Punch - CRP

Punch to remove solid electrical conductors

Product No.: 402.0018.01



Technical Details:

Size (width x length x height)	170 x 360 x 450 mm 6.7 x 14.2 x 17.7 Inch
Weight	15,6 kg 34.4 lbs
Material	Iron, Stainless steel
Equipment	Metal ring underlays; Metal pins









Device details:

- Preparation of cable samples for further processing
- Applicable for cable types with solid core cross-sections
- E.g. Sample preparation for cutting with ORC family







Cable O-Ring Cutter 150

Cutting device for large cable samples

Product No.: 402.0007.02



Technical details:

Size (width x length x height)	910 x 730 x 600 mm 35.83 x 28.74 x 23.62 Inch
Weight	100 kg 220.4 lbs
Supply Voltage	230 - 400 V 50 Hz
Input Power	max. 1100 Watt
Blade	Chisel 150-1 Product No.:404.0004.06
Lighting	Light bulb
Ø - Cable sample	20 - 150 mm (0.78" - 5.9") special chuck jaws for larger samp- les up to 200 mm (7.87")
Length - Cable sample	min. 40 mm / max. 85 mm min. 1.57" to max. 3.34"
Sample preparation according to standards	IEC 60811









Device details:

Save up to $\frac{2}{3}$ measuring uncertainty with well prepared samples

- Quick and efficient cut
- Thin, evenly and parallel cut samples with a smooth surface
- Very robust device made of aluminium and stainless steel no corrosion
- By using special chuck jaws it is even possible to cut larger samples with an outer diameter up to 200 mm (7.87")
- Light to illuminate the cutting process
- Precise and repeatable measuring results possible with the cut samples



- Sample preparation according to IEC 60811
- Optimal cable preparation device for measurements with offline cable measurement devices
- Cut samples complement the cable measuring devices from the VisioCablePro® series
- Use of the Cable O-Ring Cutters is essential for your Quality Management
- Easy use in laboratories and production halls



Cable O-Ring Cutter 80

Device for sample preparation of hard materials up to 80 mm (3.15 lnch)

Product No.: 402.0007.10



Technical details:

Size (width x length x height)	250 x 380 x 260 mm 9.84 x 14.96 x 10.23 Inch
Weight	17.3 kg 38.14 lbs
Supply Voltage	100 - 240 V 50 - 60 Hz
Input Power	max. 221 Watt
Blade	Stainless steel blade
Lighting	LED
Ø - Cable sample	8 - 80 mm 0.31 - 3.15 lnch
Length - Cable sample	min. 30 mm / max. 50 mm min. 1.18 to max. 1.96 Inch
Sample preparation according to standards	IEC 60811





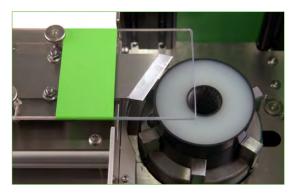




Device details:

Save up to $\frac{2}{3}$ measuring uncertainty with well prepared samples

- Quick and efficient cut
- Thin, evenly and parallel cut samples with a smooth surface
- Is an ideal complement to ORC65 and ORC150
- First ORC device which cuts sectors with ease
- LED light to illuminate the cutting process



- Sample preparation according to IEC 60811
- Quick and efficient cut of hard materials (PE, XLPE) with an outer diameter up to max. 80 mm (3.15")
- Optimal cable preparation device for measurements with offline cable measurement devices
- Use of the Cable O-Ring Cutter is essential for your Quality Management
- Compact and light device to easily use in laboratories and production halls



Cable O-Ring Cutter 65

Device for a quick sample preparation

Product No.: 402.0007.01



Technical details:

Size (width x length x height)	400 x 400 x 280 mm 15.75 x 15.75 x 11.02 lnch
Weight	8.5 kg 18.7 lbs
Supply Voltage	100 - 240 V 50 - 60 Hz
Input Power	max. 40 Watt
Blade	Martor Grafix 680 blade Product No.: 404.0004.05
Lighting	LED
Ø - Cable sample	1 - 65 mm 0.04 - 2.56 Inch
Length - Cable sample	min. 25 mm / max. 50 mm min. 0.98 to max. 1.96 Inch
Sample preparation according to standards	IEC 60811







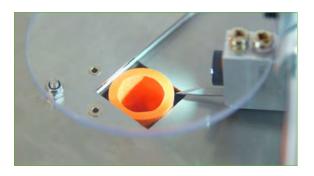


Device details:

Save up to $\frac{2}{3}$ measuring uncertainty with well prepared samples

- Very robust device
- Thin, evenly and parallel cut samples with a smooth surface
- Quick and efficient cut
- LED to illuminate the cutting process
- Precise and repeatable measuring results





- Sample preparation according to IEC 60811
- Cutting device for cable samples with an outer diameter up to 65 mm (2.56")
- Optimal cable preparation device for measurements with offline cable measurement devices
- Use of the Cable O-Ring Cutter is essential for your Quality Management
- Precise and repeatable measuring results possible with the cut samples
- Cut samples complement the cable measuring devices from the VisioCablePro® series
- Compact and light device to easily use in laboratories and production halls



Cable O-Ring Cutter ORC Micro

The sample cutting device for very small samples

Product No.: 402.0007.03



Technical details:

Sample preparation according to standards	IEC 60811
Length - Cable sample	min. 15 mm / max. 40 mm min. 0.59 to max. 1.57"
Ø - Cable sample	0.5 - 3.5 mm 0.019 - 0.14"
Lighting	LED
Blade	Stainless steel blade Product No.: 404.0004.04
Input Power	max. 60 Watt
Supply Voltage	100 - 240 V 50 - 60 Hz
Weight	3.25 kg 7.16 lbs
Size (width x length x height)	200 x 200 x 170 mm 7.87 x 7.87 x 6.69 lnch









Device details:

Save up to $\frac{2}{3}$ measuring uncertainty with well prepared samples

- Easy and fast operation
- Robust, compact device out of stainless steel no corrosion
- 4 different adapters to stabilise the samples
 (on request more adapters of different sizes available Product No.: 402.0007.13)





Area of application:

- Sample preparation according to IEC 60811
- Sample cutting device for cutting very small samples up to 3.5 mm (0.14") outer diameter depending on material and wall thickness
- Optimal cable preparation device for measurements with offline cable measurement devices
- Use of the Cable O-Ring Cutter is essential for your Quality Management
- Compact and light device to easily use in laboratories and production halls

Suitable additional equipment

Sample Picker - Ideal for positioning small cable samples
 Product No.: 402.0015.01 → page 27





Sample Picker

Easy positioning of small samples

Product No.: 402.0015.01



Technical Details:

Size (width x length x height)	135 x 190 x 135 mm 5.31 x 7.48 x 5.31 lnch
Weight	1.8 kg 3.97 lbs
Supply Voltage	230 V AC
Input Power	max. 230 Watt
Material	Stainless steel, Rubber









Device details:

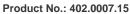
- Vacuum pump to pick up small cable samples
- Suitable for the cable measuring device VCPLab and the cable o ring cutter ORC Micro





Flat Cable Cutter 75 - FCC 75

Device for sample preparation of flat cables up to max. 75 x 8 mm (2.95 x 0.31") width x height





Technical Details:

225 x 235 x 450 mm 8.85 x 9.25 x 17.71 Inch
7.7 kg 16.97 lbs
one-side grinded special blade by iiM
width: max. 75 mm 2.95" height: 1 - max. 8 mm 0.04 - 0.31" length: min. 30 mm 1.18"
IEC 60811







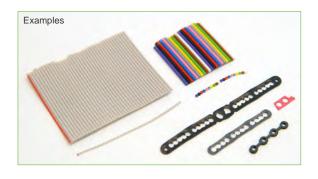


Device details:

Save up to $\frac{2}{3}$ measuring uncertainty with well prepared samples

ATTENTION: Electrical conductors must be removed before cutting!

- Very robust device for quick and efficient cutting of flat cables
- Exact adjustment of the sample thickness (depending on material)
- Thin, evenly and parallel cut samples with a smooth surface (especially the very small and many cores require a very thin cut to avoid shadows)
- Precise and repeatable measuring results due to reproducible samples





- Sample preparation according to IEC 60811
- Cutting device for flat cable samples up to a width of max. 75 mm (2.95") and a height of max. 8mm (0.31")
- Optimal cable preparation device for measurements with offline cable measurement devices
- Use of the FCC75 is essential for your Quality Management
- Compact and light device to easily use in laboratories and production halls



Splitting Cutter

Cable sample preparation for heat elongation and tensile tests conforming to standards

Product No.: 402.0006.01



Technical Details:

Size (width x length x height)	300 x 460 x 300 mm 11.81 x 18.11 x 11.81 lnch
Weight	18.5 kg 33.1 lbs
Material	Steel housing, hardened steel spindle, aluminium
Blade	Stainless steel blade Product No.:404.0004.02
Setting the cut thickness	according to IEC 60811 -501, -507
Sample preparation according to standards	IEC 60811 -501, -507







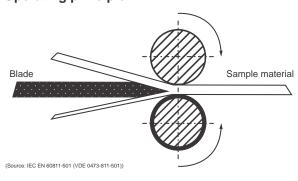


Especially designed for soft materials. Hard materials, e.g. PE, XLPE, HDPE, or hard rubbers partially possible depending on the sample characteristics. To eliminate any doubts, please send samples to iiM AG for evaluation.

Device details:

- Device is according to the standard IEC 60811 -501, -507 (Heat elongation test, tensile test)
- The samples are taken from the inner side of the sheath and isolator
- All grooves and/ or conductive layers are removed
- Developed to slice samples according to IEC 60811 with a thickness between 0.8 and 2.0 mm (0.04" - 0.08")

Operating principle:



Operation:

- 1. Set the cutting thickness
- 2. Insert the sample for cutting
- 3. Cut the sample

- 4. Remove the sample





NEW VERSION

- much easier and more adjustment of the cutting thickness
- a new sample insertion table allows inserting the material into the rollers easily and parallel
- a new trans the required strength



Splitting Cutter SC-PE

Cable sample preparation for heat elongation and tensile tests conforming to standards

Product No.: 402.0006.02



Technical details:

Size (width x length x height)	760 x 500 x 500 mm 29.92 x 19.68 x 19.68 Inch
Weight	58 kg 127.8 lbs
Supply Voltage	100 - 240 V 50 - 60 Hz
Input Power	max. 100 Watt
Material	Aluminium, Stainless Steel, Plastic housing
Blade	Hardened stainless steel
Ø - Cable sample	max. outer diameter 130 mm 5.11 lnch
Set the cutting thickness	according to IEC 60811 -501, -507 adjustable
Sample preparation according to standards	IEC 60811 -501, -507









5611

Device details:

- Device is according to the standard IEC 60811 -501, -507 (Heat elongation test, tensile test)
- Handy, electric device for material tests in laboratories
- Developed to slice samples according to IEC 60811 with a thickness between 0.8 and 2.0 mm (0.04" – 0.08")
- Especially for medium and high voltage cables from hard materials

Operation:

- 1. Insert the sample
- 2. Set the cutting thickness
- 3. Close the cover
- **4.** Cut
- 5. Open the cover
- 6. Remove the sample



NEW VERSION

- a larger traversing distance allows slicing longer samples
- transmission allows the cut to be faster
- the complete working area has been enclosed by a cover



Toggle Press - KHP

For punching dumb-bell test specimen for further tests (e.g. Hot Set Test)

Product No.: 402.0008.01



Technical Details:

Size (width x length x height)	156 x 292 x 475 mm 6.14 x 11.5 x 18.70 lnch
Weight	10,75 kg 23.70 lbs
Material	Aluminium, Steel cutting surface: PVC
Punch	Stainless steel blade with automatic sample ejection
Stamping force	8 kN
Sample preparation according to standards	IEC 60811 -501, -507
	•

Operation:

- Prepare the sample thickness with a splitting cutter (e.g. Splitting Cutter from iiM AG)
- 2. Place the sample under the punch
- 3. Punch out the dumb-bell test specimen
- 4. Your sample is prepared for the Hot Set Test









Device details:

- Sample preparation according to IEC 60811 -501, -507
- Available with either 100mm (3.93"), 75 mm (2.95") or 50 mm (2.97") dumb-bell tool
- For inspecting cable sheaths in laboratories
- As a preparation for further tests
- Applicable for all cable types
- Cutting surface also available individually

Suitable additional equipment

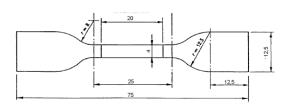
- After punching a dumb-bell test specimen, it can be tested with iiM's Hot Set Test in an oven according to IEC 60811-2-1 or with tensile tester etc.
- Dumb-bell tools with automatic sample ejection:

100 mm (3.93") - Product No.: 405.0008.02 (ASTM D-412 Type D; UL-62-D)

75 mm (2.95") - Product No.: 405.0008.02 (IEC 60811-501 or -507; ISO 37-2; ISO 527-2-5A; IEC 260-12; BS 6746; DIN 53504 S2)

 $50 \text{ mm } (1.96\text{``}) \quad \text{- Product No.: } 405.0008.03 \text{ (IEC 60811-501 or -507; ISO 37-3; IEC 261-12; DIN 53504 S3A)}$

More types available on request











Tool Box

Practical Tool Box with tools for cable sample preparation

Product No.: 402.0010.01



Technical details:

Size (width x length x height)	162 x 144 x 370 mm 13.5 x 12.1 x 6.5 Inch	
Weight	2.4 kg 5.3 lbs	
Material	PVC case	
Content	1 Cutting block 1 Cutting knife 10 Special blades 3 Cable strippers (different sizes)	









Cutting block SB 18:

The cutting base can be rotated 4 times and is exchangeable → always an optimal cutting base

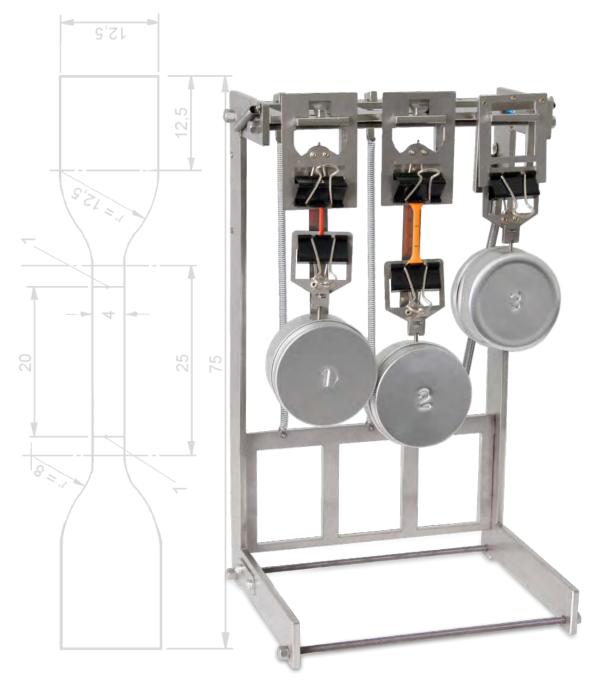
Content		Description
	1 Cutting block SB 18 Product No.: 402.0009.01	 For cutting cable samples between 0.1 and 18 mm (0.004 - 0.7") outer diameter Ø The cutting base is rotatable and exchangeable The sloped cutting block enables a parallel incision for an optimal sample preparation
	1 Cutting knife	■ With special blades for an optimal cutting of the cable samples
	10 pcs/set Special blades Product No.: 404.0005.02	 These blades are especially developed for cable preparation One-sided, double facet profile
T and	1 Cable stripper 8 - 13 mm 0.3 - 0.5"	 For stripping solid and stranded wires Lengthwise cable sheath cutter with additional blade
_	1 Cable stripper 4.8 - 7.5 mm 0.18 - 0.29"	■ Especially for round cables and strands
· · · · · · · · · · · · · · · · · · ·	1 Cable stripper 8 - 28 mm 0.3 - 1.1"	Especially for cables with high stripping force



Laboratory Equipment for Material Tests

Product data sheets







Hot Set Test

Hot Set Test & Heat Pressure Test

Product No.: 401.0009.03



Technical details:

Size (width x length x height)	Device: 200 x 170 x 315 mm 7.87 x 6.69 x 12.4 lnch Equipment: 375 x 290 x 70 mm 14.76 x 11.41 x 2.75 lnch Laser: 210 x 130 x 540 mm 8.26 x 5.11 x 21.26 lnch
Weight	Device: 2.3 kg 5.1 lbs Equipment: 3.0 kg 6.6 lbs Laser: 6.4 kg 14.1 lbs
Material	Aluminium, Stainless steel PVC case
Sample preparation according to standards	IEC 60811 -507, -508









Device details:

- 2 in 1: device contains the Hot Set Test as well as the Heat Pressure Test
- Robust and compact set including the device and an equipment case
- Possibility to attach a thermometer directly near the sample
- Measurement according to the standards IEC 60811 -507 (Hot Set Test) and IEC 60811 -508 (Heat Pressure Test) regarding sample attachment and weight attachment
- Precise choice of weights due to practical containers
- Simultaneous measurement of up to 3 samples

Optional - Hot Set Test complete

- Sample rack for heat pressure and heat elongation test Product No.: 401.0009.03
- Laser gauge Product No.: 405.0009.01
- Thermal heat oven UN55 Product No.: 405.0009.02

Size (WxLxH): 585 x 514 x 784 mm (23 x 20.2 x 30.9")

Weight: 57 kg (125.6 lbs)

Volume: 53 I

Air exchange rate: 8-20x

Thermal heat oven UN110 - Product No.: 405.0009.06

Size (WxLxH): 745 x 584 x 864 mm (29 x 23 x 34")

Weight: 74 kg (163 lbs)

Volume: 108 I

Air exchange rate: 8-20x



Example



Cold Impact Test - CIT

Device for an impact test at low temperature

Product No.: 402.0001.01



Technical details:

Operation according to standards	IEC 60811-506 (IEC 60811-1-4) point 8.5 VDE PV01:2008-02
Material	Stainless steel
Weight (Technical changes reserved)	15 kg 33.1 lbs
Size (width x length x height) (Technical changes reserved)	200 x 200 x 520 mm 7.9 x 7.9 x 20.5 Inch









- Device and operation are according to the standard IEC 60811-506 (IEC 60811-1-4) point 8.5
- Case set offers all required weights for the test
- Easy operation

Device details:

- Very robust and solid construction
- Steel impact piece included
- Up to 3 Samples can be tested simultaneously
- Device suitable for positioning in a cold chamber Product No.: 402.0020.02

Options:

- Cold Impact Test "one sample"
- Cold Impact Test "up to 3 samples"
- Cold Impact Test "1 x photovoltaics" (VDE PV01:2008-02)
- Laboratory freezer technical specifications on request
- Cold chamber up to -55 °C (-67 °F) technical specifications on request
 - O Cold chamber without raised floor Product No: 402.0020.02
 - O Cold chamber including raised floor (for Cold Bend Test) Product No: 402.0020.04





NEW VERSION

- testing up to three samples simultaneously
- including an extensive set of weights
- including components for testing photovoltaic samples



Cold Bend Test - CBT

Device for Cold Bend Test at low temperature

Product No.: 402.0020.01





Size (width x length x height)	470 x 280 x 200 mm 18.5 x 11.0 x 7.9 Inch
Weight	Device: 7.1 kg 15.7 lbs; Accessories: 14 kg 30.8 lbs
Material	Stainless steel
Operation according to standards	IEC 60811-504

Device details:

- Device and operation according to the standard IEC 60811-504
- The complete set consists of various winding spindles and cable guides for various diameters: Winding spindles: 10, 12, 14.5, 18, 22, 27, 33.5, 41, 50 mm | 0.4, 0.5, 0.57, 0.7, 0.86, 1.06, 1.32, 1.61, 1.96 Inch outer diameter Cable guides: 3.2, 4, 5, 6.2, 7.7, 9.6, 12, 15 mm | 0.12, 0.15, 0.19, 2.44, 3.03, 3.77, 0.5, 0.59 Inch inner diameter
- The winding spindles and cable guides interlock easily and are easily fastened
- Maneuver Ratio: 5/1: 5x Crank rotation = 1x spindle rotation
- Spindle/Guide diameter ratio: 0.8x sample diameter
- Device suitable for positioning in a cold chamber Product No.: 402.0020.04













NEW VERSION

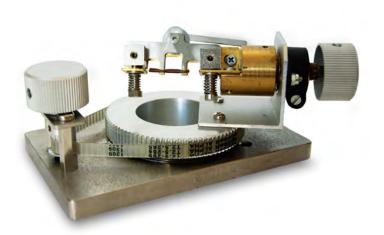
- including an extensive accessory set
- complete solution for all cable diameters
- optionally with cooling unit



Sample Alignment Device

Easy and precise arrangement of cable samples

Product No.: 402.0002.01



Technical Details:

Size (width x length x height)	130 x 80 x 65 mm 5.12 x 3.15 x 2.56 lnch
Weight	960 g 2.1 lbs
Material	Aluminium, Stainless steel, Brass, Rubber



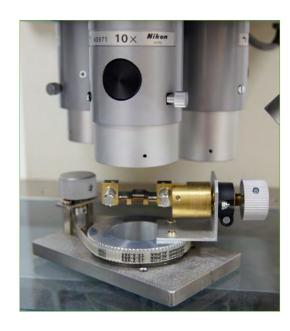






Device details:

- Simplifies the cable sample arrangement for measuring under a microspcope or the VCPLab
- Arranging with friction wheels, cogwheels and a durable rubber tooth belt
- Easy and quick operation
- Robust device made of aluminium, stainless steel and brass no corrosion
- Quick sample fixing of a cable sample due to a lever mechanism
- Perfect for e.g. measuring the heat pressure test indentation according to 60811-508





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