# **Laserliner**<sup>®</sup> Innovation in Tools

## **Modern Measuring Technology** Complete range 2015



## **Quality. Service. Know-how.**



### Your Premium Partner in measurement technology.

Laserliner is a competent partner around the world. In the planning, construction, modernization, renovation and restoration, our instruments are characterized by numerous technical innovations.

Allow yourself to be convinced by our extensive range of application oriented, user friendly products ranging from: rotary lasers, cross- and line lasers, moisture and building inspection tools, distance meters, electronic locating devices, spirit levels and angle measures.

- Product presentation supported by working displays, touch-screen information desk, showcases, attractive packaging and much more.
- International and national exhibition presence
- Product and service training



- Quick delivery service
- Professional product and sales consulting
- Quality testing with certification

### Always up to date - Our online service

As service you can rely on: always providing the latest information about technology and specialized areas of application. A quick and user-friendly means of providing you with all the information you need.

#### Press and Test -Online product demonstration

Use the product videos you can find on the Press and Test section of our website to learn the possibilities of our products and how they can be used











# **Brand Leading products in Modern Measuring Technology**



Professional Technology –
Extensive product range for demanding end-users and building professionals.

Under the brand Laserliner you will find modern measuring tools which are characterized by numerous technical innovations and high quality. Furthermore, a quality certificate comes with each industrial quality product.

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- Surface moisture measurement
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# **Humidity and moisture measuring devices**



### WOOD, HUMIDITY AND CONSTRUCTION MOISTURE

Protection against moisture is a major problem in buildings. Early detection of building and material moisture contribute to the sustained protection and preservation of building fabric. Moisture assessment and localisation with suitable instruments is essential for this. Early detection can also prevent harmful mould and mildew infestation.

Non-destructive material moisture detection using the capacitive measuring method, ensures measurement results are obtained effortlessly and quickly: without damaging the surface during and especially after the construction phase. Measuring instruments utilising the precision measuring concept are used to determine the moisture in various building materials. This measuring method provides very accurate results.



Surface temperature < Dew point temperature => Moisture condensation



<b>Mould prevention</b> Climate in closed rooms at 20 °C	Relative humidity %
Living room / study / summer	35 - 50
Living room / study / winter	50 - 70
Bedroom	35 - 50
Office	40 - 60
Assembly bay	50 - 60
School classroom	60 - 65
Swimming pool	80 - 90
Bathroom	65 - 100





Moisture assessment / Darr method







### Push-in moisture measurement



### Overview



	DampCheck	WoodTester Compact	DampFinder Compact	DampMaster	DampMaster Data	MultiWet- Master
Measuring methods	Resistance	Resistance	Resistance	Resistance	Resistance	Resistance + Capacitive
Types of wood	1 wood group beech, ebony, linden, teak, willow	2 wood groups especially for firewood alder, ash, beech, birch, ebony, linden, maple, pedunculate oak, spruce, willow	2 wood groups with 102 types of wood *	3 wood groups with 108 types of wood * with table	3 wood groups with 513 types of wood *	3 wood groups with 108 types of wood * with table + 2 wood groups subdivided into softwood/hardwood
Building materials / per cent by weight	<b>1 building</b> <b>material</b> gypsum plaster		8 building materials with table aerated concrete, anhydrite screed, cement screed, chalky sandstone, concrete (C12/15, C20/25, C30/37), gypsum plaster	4 building materials integrated, 25 additional with table **	29 building materials **	29 building materials **
Building materials / per cent CM					11 building materials	
Index Mode			•	•	•	•
Moisture indicator (dry/wet)	•	•		•	•	•
Room climate/ dew point measurement						•
Menu system / 22 languages					•	
Measured value storage / Logging function					•	

<sup>\*</sup> Types of wood / extract

ash, alder, amer. mahagony, beech, birch, cedar, douglas fir, ebony, elm, european larch, linden, maple, pedunculate oak, scots pine, spruce, teak, willow

#### \*\* Building materials

aerated concrete, anhydrite screed, ardurapid cement screed, bricks clay bricks, cardboard, cement mortar ZM 1/3, cement screed, cement screed bitumen admixture, cement screed synthetic additives, cement-bonded particle board, chalky sandstone, concrete C12/15, concrete C20/25, concrete C30/37, cork, elastizel screed, fibre board, gypsum plaster, gypsum screed, kauramin particle boards, lime mortar KM 1/3, melamine particle boards, paper, phenolic resin particle boards, polystyrene / styrofoam, soft-fibre panel / wood / bitumen, stone wood / xylolite, textiles, wood cement screed

### Accessories

### DampExtension

Deep-insertion electrode – suitable for various measurement applications ...



HammerProbe









...on insulating materials



...for mineral building materials, e.g. concrete, screed, masonry







**External hand-held electrode** for use with hardwoods and soft building materials

### Surface moisture measurement and condensation





MoistureFinder	MoistureMaster
Capacitive	Capacitive
2 wood groups subdivided into softwood/hardwood amer. mahagony, ash, birch, beech, cedar, linden, redwood, scots pine, spruce	56 types of wood ***
2 building materials cement screed, gypsum plaster	6 building materials aerated concrete, anhydrite screed, cement screed, chalky sandstone, concrete (C12/15), gypsum plaster
	•
•	•
	•
	•

• = available

\*\*\* Types of wood / extract
ash, alder, amer. mahagony, beech, birch, cedar,
douglas fir, elm, european larch, linden, maple,
pedunculate oak, scots pine, spruce, teak, willow





	CondenseSpot	CondenseSpot Pro
Measuring system	Infrared + rH / + NTC	Infrared + rH / + NTC
Measuring range	-40°C350°C	-40°C600°C
Accuracy	± 1.5°C + 0.1°C/1°C (-30°C10°C) ± 1°C (10°C30°C) ± 1.5°C or 1.5% (30°C350°C)	± 1°C (10°C 60°C) ± 1.5°C (< 10°C and > 60°C) or ± 1.5% depending on the higher value
Ambient temperature	-10°C60°C	-10°C60°C
Dew point calculation	•	•
Relative humidity	•	•
Analysis function	Condense water indicator	Condense water indicator
Emissivity coefficient	0.100.99	0.100.99
Optics	8:1	8:1
Display	LCD	LCD
Rubberised casing		•
Laser class	2	2



...for obscure multiple layers, e.g. cladded ceiling structures



...insulation measurements, e.g. aluminium-clad insulating materials





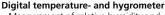
### Humidity and condensation



### ClimaCheck







- Measurement of relative humidity and ambient temperature
- Can be used as tabletop device with fold-out stand/clip
- Integrated magnetic holder
- Digital display with max/min values

Ambient temperature measuring range: 0°C50°C				
Accuracy: ± 1°C				
Relative air humidity:	20%rH99%rH			
Accuracy:	± 5%rH (25%rH85%rH)			







### ClimaPilot



### Digital hygrometer for measurement of relative humidity and ambient temperature with dew point indicator

- Practical device for monitoring room climate
- Digital display with max/min values

Digital	display vv	icii iiiazo i	illi valacs		
<ul><li>Switch</li></ul>	between	ambient	temperati	ure/dew	point

Ambient temperature measuring range: 0°C50°C				
Accuracy:	± 1°C			
Relative air humidity:	20%rH90%rH			
Accuracy:	± 5%rH (25%rH85%rH)			
Dew point temperature:	-28.6°C47.9°C			
Accuracy:	± 2°C			

Inclusive: ClimaPilot, battery

ORDER NO.	EAN-CODE	PU	
082.034A	4 021563 687886	5	



### CondenseSpot



### Non-contact infrared temperature instrument

- The 12-point laser circle pinpoints the measuring zone exactly
- Additional relative humidity measurement (20%...90%), assessment of dew point and ambient temperature
- Temperature measurement range (-30°C...350°C)
- Emission ratio: 0.10...0.99 (adjustable)
- Bar graph condense water indicator
- Min./Max./Avg. display: the smallest, largest or average value will be displayed.
- Lens 8:1, illuminated display





Inclusive: CondenseSpot, battery

ORDER NO.	EAN-CODE	PU
082.044A	4 021563 687633	5



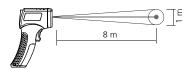






### CondenseSpot Pro (1)







#### Non-contact infrared temperature instrument for locating thermal bridges, condensation and for preventing mould.

- The 12-point laser circle pinpoints the measuring zone exactly
   Additional relative humidity measurement
- (20%...90%), assessment of dew point and ambient temperature
- Large temperature measurement range
- (-40°C...600°C)

   Emission ratio: 0.10...0.99 (adjustable)

   Bar graph condense water indicator
- Min./Max./Avg. display: the smallest, largest or average value will be displayed.
- Lens 8:1
- Illuminated display





Infrared measuring range: -40°C...600°C

± 1°C (10°C ... 60°C); Accuracy: ± 1.5°C / ± 1.5% (< 10°C and > 60°C)

Ambient temperature: -10°C...60°C ± 2°C Accuracy:

20%...90% relative air humidity ± 3.0% Hygrometer: Accuracy:

Dew point temperature: -20°C...60°C

Inclusive: CondenseSpot Pro, battery, softbag

ORDER NO. **EAN-CODE** PU 082.045A 4 021563 665020 2









### Push-in moisture measurement



### **DampCheck**

NEW



### Compact moisture measuring device – Checks the degree of dryness in wood

- For checking the moisture content in on-wall plaster
- Measuring of ambient temperature
- LED wet/dry indicator: the 3 colour LEDs (green = dry, yellow = moist, red = wet) provide immediate information about the tested material's degree of moisture or dryness.





Inclusive: DampCheck, protective cap, batteries

Measuring range / accuracy (relative material humidity): Wood  $\pm$  2% (6...60%), building materials  $\pm$  0.5% (0.2...2.9%), temperature  $\pm$  2°C (0...40°C)

ORDER NO	FAN-CODE	DII	

4 021563 689996 5

### WoodTester **Compact**

NEW





- Checks the degree of dryness in firewood to conserve energy and reduce emissions
- Dual scale for most commonly used types of firewood RANGE, WOOD GROUP A (beech, linden, willow, ebony) RANGE, WOOD GROUP B (pedunculate oak, maple, alder, spruce, birch, ash)

  – Simple one-button operation
- Stable, ergonomic housing

### Available soon.





082.003A

Inclusive: WoodTester Compact, protective cap with self-test function, batterv

Measuring range	accuracy:
WOOD GROUP A	9%23% / ± 2%
WOOD GROUP B	11%27% / ± 2%

ORDER NO.	EAN-CODE	PU
082.004A	4 021563 690008	5



### **DampFinder** Compact

NEW





- For ascertaining moisture in building materials and for quick checks when working with wood

  – Triple scale for wood groups A, B and
- universal index mode
- Numerical display of measured value and ambient temperature
- Illuminated, transparent display

### Available soon.



Inclusive: DampFinder Compact, protective cap with self-test function, . battery

### Measuring range / accuracy:

Wood: 0%...30% / ± 1%, 30%...60% / ± 2% Other materials: ± 0.5%

ORDER NO.	EAN-CODE	PU
082.015A	4 021563 690015	5



### **DampMaster**





#### Professional test instrument for moisture in wood, plaster and building materials

- Measurement accuracy increased by integrated characteristics of 3 wood groups and
- 4 building materials.

   The wet/dry indicator evaluates and interprets measurements with respect to the given material.
- The housing's protective rubber case equips this
- device for tough professional usage. - Illuminated, transparent display



Resistance measurement Measuring range / accuracy Wood: 0...30% / ± 1%, 30...60% / ± 2%, 60...90% / ± 4% Other materials: ± 0.5%

Inclusive: DampMaster, protective cap with self-test function, softbag, batteries

ORDER NO.	EAN-CODE	PU
082.020A	4 021563 664962	5









### Push-in moisture measurement

### **DampMaster Data**

NEW





### Professional material moisture measuring device with material display – Material characteristics for 513 types of wood and

- 29 types of building material

   CM mode for 11 building materials

   List of materials and menu system: selection in 22 languages
- Internal memory for recording measured data with place and time information
- Favourite management of the most frequently used materials – Universal INDEX mode with reference measurement
- function
- Programmable, 12-position wet/dry LED indicator for





Resistance measurement Measuring range / accuracy Wood: 0...30% /  $\pm$  1%, 30...60% /  $\pm$  2%, 60...90% /  $\pm$  4% Other materials:  $\pm$  0.5%

Inclusive: DampMaster Data, protective cap with self-test function, battery, carrying case

ORDER NO.	EAN-CODE	PU	
082 101Λ	/ 021563 6026	68 2	







### MultiWet-Master





#### Non-destructive surface scan and precision spot measurement of material moisture. Room climate measurement with dew point

- 2 measuring methods: Resistance measurement, capacitive measurement (non-destructive)
- For measuring 111 types of wood and 21 types
- of building material

   Pop-out sensor for measuring ambient temperature, relative humidity and calculating dew point
- Universal INDEX mode:
- locate moisture independently of material type
- Programmable, 12-position wet/dry LED indicator for quick assessment

  – Illuminated LC display



Resistance measurement Measuring range / accuracy Wood: 0...30% /  $\pm$  1%, 30...60% /  $\pm$  2%, 60...90% /  $\pm$  4% Other materials:  $\pm$  0.5%

Capacitive measurement Measuring range / accuracy Softwood: 0%...52% /  $\pm$  2% (6%...30%) Hardwood: 0%...32% /  $\pm$  2% (6%...30%)





Inclusive: MultiWet-Master, protective cap with self-test function, softbag, battery

ORDER NO.	EAN-CODE	PU
082.090A	4 021563 679706	2









### Surface moisture measurement



Non-destructive material moisture detection using the capacitive measuring method, ensures measurement results are obtained effortlessly and quickly: without damaging the surface during and especially after the construction phase. Measuring instruments utilising the precision measuring concept are used to determine the moisture in various building materials. This measuring method provides very accurate results.



Non-destructive surface scan



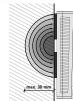




12-position wet/dry LED indicator

### MoistureFinder







### Professional material moisture measurement - quick and non-destructive

- Non-destructive measurement of material moisture by capacitive measurement. The tested material is not damaged.
- Simple handling: select material type then place the instrument on the material's surface to determine moisture content in %.
- 4 selectable material characteristics: soft woods (e.g. spruce, pine, linden), hard woods (e.g. beech, oak, birch), gypsum plaster and cement screed
   LED wet/dry indicator provide immediate measure-
- LED wet/dry indicator provide immediate measurement results for moisture content in the tested material



ge / Accuracy:
0%4.5% / ± 0.5%
0%9% / ± 0.5%
0%52% / ± 2% (6%30%)
0%32% / ± 2% (6%30%)

Inclusive: MoistureFinder, battery

ORDER NO.	EAN-CODE	PU
082.032A	4 021563 671120	5







### MoistureMaster







### Professional material moisture measurement – quick and non-destructive

- Non-destructive measurement of material moisture by capacitive measurement. The tested material is not damaged.
- 62 selectable material characteristics: 56 wood and 6 building material types (cement screed, anhydrite screed, gypsum plaster, aerated concrete, concrete, lime malm brick)
- Index mode
- Quick localisation of moisture: comparison measurements can be made in index mode to reveal increasing or decreasing moisture based on a neutral scale.
- LED wet/dry indicator provide immediate measurement results for moisture content in the tested material.
- Menu system with 22 languages
- Illuminated, transparent display



Measuring range	e / Accuracy:
Cement screed:	0%4.5% / ± 0.5%
Anhydrite screed:	0%3.1% / ± 0.5%
Gypsum plaster:	0%9% / ± 0.5%
Aerated concrete:	0%48% / ± 1%
Concrete:	0%5% / ± 0.5%
Lime malm brick:	0%10% / ± 0.5%
Wood:	0%60% / ± 2% (6%30%)

Inclusive: MoistureMaster, battery, softbag

ORDER NO.	EAN-CODE	PU	
082.033A	4 021563 671137	5	







### Building moisture analysis sets





DampMaster with HammerProbe

- Product description same as on page 8 and 11

Inclusive: DampMaster, HammerProbe, conversion table, batteries, carrying case

ORDER NO.	EAN-CODE	PU
082.021A	4 021563 664979	2



DampMaster Pro
DampMaster with DampExtension
– Product description same as on page 8, 9 and 11

Inclusive: DampMaster, DeepElectrodes, ExtensionCable, conversion table, batteries, carrying case

ORDER NO.	EAN-CODE	PU
082.025A	4 021563 670451	2



### MoistureMaster and **CondenseSpot Pro**

- Product description same as on page 10 and 13

Inclusive: MoistureMaster, CondenseSpot Pro, batteries, carrying case

ORDER NO.	EAN-CODE	PU
082.033-1	4 021563 674275	2



### MultiWet-Master Inspection set

- Product description same as on page 8, 9, 12 and 17

**Inclusive:** MultiWet-Master, ThermoSpot Plus, DeepElectrodes, ExtensionCable, batteries, carrying case

ORDER NO.	EAN-CODE	PU
082.092A	4 021563 687893	2



IQ

# **Temperature measuring instruments**

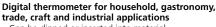


### Contact and ambient temperature measurement



### **ThermoTester**





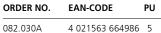
- Can be dipped or inserted into material
- Large temperature measuring range: -40°C...250°C
- Quick response time
- Measurement in °C or °F
  Hold function: the current measured value is held in the display
- Min/Max display
- Large LC display



**Inclusive:** ThermoTester, protective cover, battery

Measuring range: -40 °C...250 °C

accuracy.	1.5/0 ± 2	C





### **ThermoMaster**





#### Digital thermometer with contact thermocouple for use in laboratories and industry

- Large temperature measuring range: -50°C...1300°C – Dual K-type inputs for thermocouple for direct differential measurement of two temperatures
- Two flexible thermocouples for a wide range of industrial applications

  – The MAX function determines when limit values are
- exceeded during prolonged measuring procedures
- Fold-out base for laboratory use
- 1/4" stand connection for flexible arrangement in stationary setups
- Tough enclosure with rubber guard
- Illuminated, clearly arranged display





Measuring range: -50°C...1300°C Accuracy: ± 0.5% of displayed value ± 1°C (0°C...1000°C) ± 0.8% of displayed value ± 1°C (1000°C...1300°C) ± 2°C (-50°C...0°C)

ThermoProbe K measuring range: -50°C...200°C Accuracy: ± 2.5°C (-50°C...200°C)

Accuracy:

**Inclusive:** ThermoMaster, 2x ThermoProbe K thermocouple, battery, carrying case

ORDER NO.	EAN-CODE	PU	









### **ThermoSensor** Air / Tip / Touch



ThermoSensor Air for measuring air and gas

ThermoSensor Tip for inserting in soft, highly viscous materials ThermoSensor Touch as a surface probe on

solid backgrounds

- Sensor length: 165 mm
- Heat resistant handle
- Accuracy class: 2
- ThermoSensor Air: Temperature sensor protected by metal sleeve (ø 6.5 mm)





Measuring range:	ThermoSensor Air / Tip:	-50°C800°C
	ThermoSensor Touch:	-50°C400°C

### Only for ThermoMaster.





Inclusive: ThermoSensor, expandable spiral cable

ORI	DER NO.	EAN-CODE	PU
Air	082.035.1	4 021563 676309	2
Tip	082.035.2	4 021563 676316	2
Tou	<b>ch</b> 082.035.4	4 021563 688111	2

### Infrared temperature measurement



### ThermoSpot One



#### Non-contact infrared temperature instrument with integrated laser

- The non-contact measuring method is ideal for sensitive surfaces and for hazardous applications such as moving machine parts or electrical installations
- Measuring range pinpointing with target laser
- Emission ratio: 0.95
- Lens: 12:1

Infrared measuring range: -38°C...365°C Accuracy: ± 2.5°C + 0.05°C / degree (-38°C...0°C) ± 2.5°C (0°C...365°C) or ± 2.5% depending on the higher value







Inclusive: ThermoSpot One, batteries

ORDER NO. **EAN-CODE** 

082.038A 4 021563 689989 5



### **ThermoSpot Plus**

NEW





#### Non-contact infrared temperature instrument with integrated laser

- The non-contact measuring method is ideal for measuring temperature in places difficult to access as well as for hazardous applications such as moving machine parts or electrical installations
- Large temperature measurement range (-38°C...600°C)
   Emission ratio: 0.01...1.0 (adjustable)
- Measuring range pinpointing with laser circle display
- Max-Read: The highest measured value is shown on the display during measurement.
- Lens: 12:1
- Illuminated display

### Available soon.







 $\begin{array}{lll} \hline \mbox{Infrared measuring range:} & -38^{\circ} C...600^{\circ} C \\ \mbox{Accuracy:} & \pm 2^{\circ} C + 0.05^{\circ} C \ / \ \mbox{degree (-38^{\circ} C...0^{\circ} C)} \\ & & \pm 2^{\circ} C \ \ (0^{\circ} C...600^{\circ} C) \ \ \mbox{or} \end{array}$ 

± 2% depending on the higher value

Inclusive: ThermoSpot Plus, batteries, belt holster

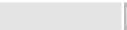
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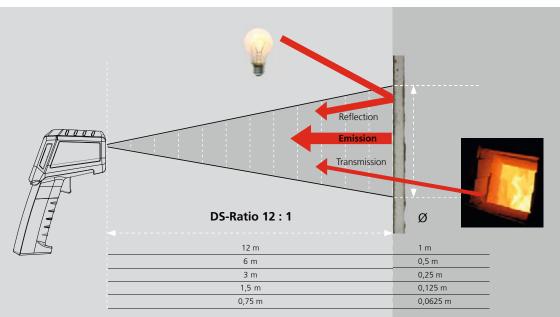














# **Thermal imaging cameras**



### THERMAL VISUALISATION

Non-contact temperature measurement used in a wide range of applications – also in difficult to reach places – at home, in the office, laboratory and in industry. Pinpointing, checking and assessing damage with suitable measuring devices prevents energy loss and overheating of components such as electrical fuses, heating/air conditioning systems and more.

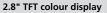
### Overview



	ThermoVisualizer
Measuring system	Thermal array sensor
Measuring range	-20250°C
Accuracy	± 2°C or ± 2% (-20°C250°C)
IR optics	Standard focus 0.5 m - 5 m
Thermal sensitivity	NETD 0.1°C
<b>Analysis function</b> Colour palettes, real-time analysis	•
Measuring points	•
Alarm function	•
Hot / cold point	
Visual image	
Picture-in-picture	
Emissivity coefficient	0.011.00
Laser class	



ThermoCamera Compact
80 x 80 measuring points uncooled microbolometer
-20150°C LO range 0350°C HI range
± 2°C or ± 2% (-20°C350°C)
IFOV 3.78 mrad, adjustable focus
NETD 0.1°C
•
•
•
•
•
0.011.00
2





# Direct analysis on site Compact design for small areas

and short distances

#### Construction industry, heating and bathroom sector

- Underfloor and wall heatingAnalysis of heating valves and systems
- Detecting weak points in insulation

#### Electrical

- Detection of overloaded fuses and electrical circuits
- Avoidance of heat build-up
- Optimisation of temperature distribution

- Area evaluation
- Immediate visual check

- Recognition of incipient damage to shafts, bearings and moving machine parts
- Checking workpieces, injection moulds and weak points in materials

### Human and veterinary analysis

- Temperature screening in infectious diseases
   Applications in food industry
   Analysis and monitoring in animal husbandry and fattening facilities







### Compact temperature measurement

### **ThermoVisualizer**

NEW





Visualisation of temperature curves for use in construction, electrical engineering, industrial applications and person diagnosis in compact design

- High-resolution 2.8" colour displayHigh-quality infrared sensor enables quick and easy measurement for evaluating temperature profiles
- Large measuring range from -20°C...250°C - Adjustable emissivity range from 0.01 to 1.0 for
- precision measurement of material properties
- Measuring point for temperature analysis, min/max display, measured data for each image
   Selectable standard colour pallets: IRON, RAINBOW,
- HIGH CONTRAST and GREY SCALE
- Data storage on SD card
- Built-in USB 2.0 PC interface for smooth data exchange and transfer of real-time measurement data
- Practical and sturdy camera

Available soon.





CONTRACTOR	
IR sensor:	Thermal array sensor
IR optics:	High-quality infrared lens <b>40° x 40° FOV</b> Standard focus 0.5 m - 5 m
Thermal sensitivity:	NETD 0.1°C
Accuracy:	± 2°C or ± 2% of measured value
Measuring range:	−20°C250°C
Display:	2.8" colour TFT display
Format:	JPEG format up to 60,000 images / GB
Memory:	Micro-SD card up to 8 GB

Inclusive: ThermoVisualizer, USB cable, batteries, carrying case





















### ThermoCamera Compact

NEW



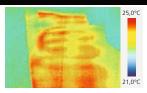


#### Compact thermal imaging camera for applications in construction, electrical engineering and mechanical engineering

- High-resolution 2.8" colour display for reliable evaluation and analysis of temperature conditions
- Infrarod sensor with 80 x 80 pixel resolution and focusable infrared lens for detailed and
- varied image analysis

   Large measuring range from -20°C....350°C, adjustable emissivity range from 0.01 to 1.0 or selection from material table
- Analysis in various image modes infrared, VIS, picture-in-picture
- Selectable standard colour pallets: IRON,
   RAINBOW, GREY, GREY-INV
   Central measuring point for temperature analysis
   and additional automatic hot/cold spot marking
- Measured value correction for ambient and reflected temperature for easy compensation of error effects
- Built-in USB 2.0 PC interface for smooth data exchange and additional PC camera function

Available soon.





IR sensor:	<b>80 x 80</b> measuring points <b>, 25 fps</b> Uncooled microbolometer, 8-14 μm
IR optics:	Germanium interchangeable lens 17° x 17° FOV
	3.78 mrad IFOV
	Adjustable focus 0.5 m - 5 m
Thermal sensitivity:	NETD 0.1°C
Accuracy:	± 2°C or ± 2% of measured value
Measuring range:	−20°C+150°C LO range 0°C+350°C HI range
Display:	2.8" colour TFT display
Modes:	Infrared, VIS, picture-in-picture
Image function:	1-32x digital zoom
Digital camera:	Resolution 640 x 480 pixels
LED:	White LED, object lighting
Menu:	Choice of 7 languages
Format:	MPEG-4 standard, max. 1280 x 960 pixels, 30 fps > 60 min. on memory card
Memory:	Micro-SD card up to 16 GB

Inclusive: ThermoCamera Compact, Li-lon battery pack with external power supply/battery charger and international adapter, USB cable, video cable, 8 GB micro-SD card with adapter, carrying case

ORDER NO.	EAN-CODE	PU
082.083A	4 021563 6927	29 1





























### Thermal image analysis

### Overview







	ThermoXplorer Pro	ThermoCamera-Vision	ThermoCamera-Vision XP
Measuring system	160 x 120 pixels, uncooled microbolometer, 8-14 μm	160 x 120 pixels, 50 fps uncooled microbolometer, 8-14 μm	384 x 288 pixels, 50 fps uncooled microbolometer, 8-14 µm
Measuring range	-20°C350°C	-20°C…150°C 0°C…400°C	-20°C…150°C 0°C…400°C
Accuracy	± 2°C or ± 2 %	± 2°C or ± 2 % (-20°C150°C)	± 2°C or ± 2 % (-20°C150°C)
	(-20°C350°C)	± 2°C or ± 2 % (0°C400°C)	± 2°C or ± 2 % (0°C400°C)
Thermal sensitivity	NETD 0.1°C	NETD 0.08°C	NETD 0.06°C
Analysis function	colour palettes, real-time analysis (measuring points, -lines, -areas), hot/cold point, isothermal function	colour palettes, real-time analysis (measuring points, -lines, -areas), hot/cold point, isothermal function, picture-in-picture, MIX image	colour palettes, real-time analysis (measuring points, -lines, -areas), hot/cold point, isothermal function, picture-in-picture, MIX image
Emissivity coefficient	0.011.00	0.011.00	0.011.00
IR optics	IFOV 2.73 mrad	IFOV 3.33 mrad	IFOV 1.14 mrad
Interchangeable lens		•	•
Image / video function	• / –	• / •	• / •
Audio function	•	•	•
Memory / USB	• / •	• / •	• / •
CustomApps		•	•
Display	TFT colour display	TFT colour display with touch screen	TFT colour display with touch screen
Laser class	2	2	2

• = available

## **Productivity Tools**

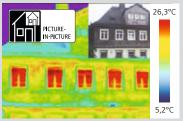


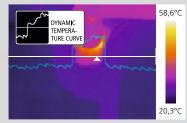
CustomColorPalettes Create your own colour palettes, Enter complex settings quickly and reliably





Configuration of optimised parameter templates (apps) for individual applications







### Thermal image analysis

### **ThermoXplorer Pro**





### Sturdy thermal camera for professional applica-

- tions in construction and the electrical industry

   Large, high-resolution 3.5" colour display for analysis

   160 x 120 pixel infrared sensor enables detailed
- and varied image analysis
- Large measuring range from -20°C...350°C
- Analysis in infrared and digital image
- 11 standard colour palettes with high contrast options for better visualisation

  – Measured value correction for ambient and offset
- temperature, relative humidity, measuring distance
- Extended real-time analysis:
- 4 measuring points, 2 measuring lines (horizontal/vertical),
- 3 measuring areas (with min/max/avg with min/max/avg calculation)
- Automatic hot/cold point marking and isothermal function for dynamic, visual alarm display
- Image recordings for documentation with additional voice recording
- Simple and easy to operate thanks to large, easy-to-access menu buttons





IR sensor:	160 x 120 pixel resolution,
	Uncooled microbolometer, 8-14 µm
IR optics:	25° x 19° / 0,5 m FOV
•	2.73 mrad IFOV
	Manual focus, 0.1 m min.
Thermal sensitivity:	NETD 0,1°C
Accuracy:	±2°C or ±2% of measured value
Measuring range:	−20°C350°C
Display:	3.5" colour TFT display
Modes:	Infrared, digital
Image function:	1-2x digital zoom
Digital camera:	Resolution 640 x 480 pixels
Format:	JPEG format, max. 640 x 480 pixels
Memory:	Micro-SD card up to 16 GB

**Inclusive:** ThermoXplorer Pro, 2 Li-Ion battery packs with external charging station and international adapter, USB cable, video cable, Reporting-Software, 8 GB micro-SD card with adapter, 1/4" tripod connection, complete in the Sortimo® L-BOXX® 136

ORDER NO.	EAN-CODE	PU
082.081L	4 021563 688524 1	

































### Software

for quick and easy measurement analysis

The software provided makes it possible to transfer the recorded data to a PC and to use the data for further processing and documentation.

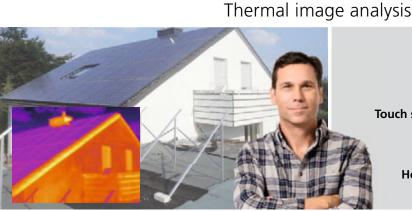




### Software functions

- Thermal data analysis
- **Adjust colour palettes**
- **Documentation and report function**
- Configure CustomColor-Palettes\*
- Configure CustomApps\*

\*Only for ThermoCamera-Vision und ThermoCamera-Vision XP.



Touch screen

**Hot keys** 



### ThermoCamera-Vision







#### Universal, high resolution thermal camera for professional applications in construction, photovoltaics, electrical engineering and mechanical engineering

- Large, high-resolution 3.5" colour display with touch screen for direct control and analysis
- 160 x 120 pixel infrared sensor with focusable interchangeable lens (optional) enables detailed and varied image analysis
- 50 fps high-speed infrared sensor suitable for fast and dynamic procedures
- Large measuring range from -20°C to 400°C
- QuickRange-Setup: Optimum measurement range set with hot key
- Analysis in various image modes -Full screen: Infrared/digital image, Picture-in-picture: Infrared/digital image, digital image/infrared MIX image: Crossfade infrared/digital image with masking function
- Standard colour palettes and CustomColorPalettes, freely definable user-specific colour palettes

  – Measured value correction for ambient and offset
- temperature, relative humidity, measuring distance
- Extended real-time analysis:
- 3 measuring points, 2 measuring lines (horizontal/vertical),
- 3 measuring areas (with min/max/avg with min/max/ avg calculation)
- Automatic hot/cold point marking and isothermal
- Image and video recordings for documentation with additional voice recording and text notes





IR sensor:	<b>160 x 120 pixel resolution, 50 fps</b> Uncooled microbolometer, 8-14 μm	
IR optics:	Germanium interchangeable lens 33° x 24° / 0,3 m FOV 3.33 mrad IFOV Manual focus, 0.3 m min.	
Thermal sensitivity:	NETD 0.08°C	
Accuracy:	± 2°C or ± 2% of measured value	
Measuring range:	−20°C150°C, 0°C400°C	
Display:	3.5" colour TFT touch screen display	
Modes:	Infrared, digital, picture-in-picture, MIX image	
Image function:	1-2x digital zoom, rotation 0° - 360°, in steps of 1	
Digital camera:	Resolution 640 x 480 pixels	
Format:	JPEG format, max. 640 x 480 pixels MPEG-4 standard, 640 x 480 pixels, 30 fps	
Memory:	Micro-SD card up to 16 GB	
CustomApps:	Compatible	

Inclusive: ThermoCamera-Vision

Accessories: 2 Li-lon battery packs with external charging station, power supply/battery charger incl. international adapter, USB cable, video/audio cable, microphone/headphone, QuickReporting-Software, 4 GB micro-SD card with adapter, 1/4" tripod connection, protective case with visor, carrying case

### ThermoCamera-Vision XP



#### ThermoCamera-Vision XP Product description same as ThermoCamera-Vision

- High-resolution and highly sensitive thermal camera for demanding industrial measurement and analysis in professional industrial applications, construction, photovoltaics, electrical engineering and mechanical engineering
- Infrared sensor with very high 384 x 288 pixel resolution and focusable interchangeable lens enables detailed
- and varied image analysiseven over longer distances. The high image resolution allows entire building façades to be captured
- The highly sensitive measuring elements with a 0.06°C temperature resolution can detect even the smallest temperature differences.
- High temperature resolution, can be used to improve detection of moisture and mould problems in construction

ThermoCamera-Vision

ThermoCamera-Vision XP

IR sensor:	384 x 288 pixel resolution, 50 fps
	Uncooled microbolometer, 8-14 µm
IR optics:	Germanium interchangeable lens
	24.6° x 18.6° / 0.3 m FOV
	1.14 mrad IFOV
	Manual focus, 0.3 m min.
Thermal sensitivit	v: NETD 0.06°C

Inclusive: ThermoCamera-Vision XP Accessories: same as for ThermoCamera-Vision

ORDER NO.	EAN-CODE	PU
082.085A	4 021563 684458	1
082.088A	4 021563 688210	1



DISPLAY

























# **Environment and special measuring devices**



### Measurement of environmental factors

### **LuxTest-Master**





### Professional lighting intensity measuring instrument

- Measurement of lighting intensity in workplaces, offices, public buildings and industry
- Sensitive photodiode with cosine correction for wide-angle light measurement
- Relative measurement function for reference and comparison measurement
- Peak function for registering fast changes in light levels
- Hold function
- Automatic and manual range changeover
- Zeroing function Measurement variables: Lux (lm/m²), foot candle (lm/ft²)
- Min/Max display
- 1/4" tripod connection





#### Measuring range:

20 Lux...200000 Lux

#### Accuracy:

± 3% (reference light bulb at 2854 K)

### Cosine angular deviation:

± 2% (30°), ± 6% (60°)

**Inclusive:** LuxTest-Master, battery, carrying case

ORDER NO.	EAN-CODE	PU
082.130A	4 021563 680535	5 2









### AirflowTest-Master



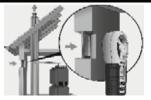






#### Professional anemometer for measuring air flow, volumetric flow and wind speed

- Integrated sensor for measuring ambient temperature, relative humidity and dew point calculation
- USB interface for saving measured data PC software for real-time logging
- Large impeller: 65 mm
- Min/Max display
- 1/4" tripod connection for long-term measurement
- Illuminated, clearly arranged display with permanently visible ambient temperature and relative humidity





### Measuring range / Accuracy:

Flow rate:  $0.80...30 \text{ m/s} / \pm 2\%$ 

Ambient temperature: -10...60°C /  $\pm 1.5$ °C

Relative humidity: 20%...80% / ± 3%

Measuring range: Airflow: 0...99990 CMM

Inclusive: AirflowTest-Master, software, USB Cable, batteries, carrying case

ORDER NO.	EAN-CODE	PU
082.140A	4 021563 680566	2











### SoundTest-Master





### Noise level measuring instrument

- with integrated long-term storage

   Measurement of noise levels with frequency weighting filter according to dB (A) and dB (C) standard curves as per IEC 61672 (type 2)
- Selectable time weighting factors (fast 125 ms/slow 1 s) for optimum adaptation to noise dynamics
- Long-term recording function with 16,000 storage points or real-time logging on PC
- Selectable analogue indicator for visual assessment
- Calibrated and adjusted by means of standard 94 dB/1 kHz noise level calibrator
- Sensitive electret condenser microphone with detachable wind guard
- Analogue outputs: DC and AC
- PC software
- Illuminated, transparent display





Measuring range / Accuracy:

Frequency range: 31.5 Hz...8 KHz



DATA-LOGGING/ RECORDING directly and at the PC

Inclusive: SoundTest-Master, software, USB cable, batteries, carrying case

ORDER NO.	EAN-CODE	
082.070A	4 021563 676330	2





### Special measurement

### **TireCheck**





#### Digital tester for checking tyre pressure and heating reservoirs

- For checking tyre pressure in psi and bar
- Digital gauge for checking tread depth
- In the heating installation measuring
- the pressure at reservoirs

   Auto Power-off: the device switches off automatically when left idle for 90 seconds.
- Illuminated LC-display

Tyre pressure	
Measuring range:	0.21 - 6.85 bar max.
	(3.0 - 99.5 psi max.)
Accuracy:	$\pm 0.1  \text{bar} / \pm 1.5  \text{psi}$
Resolution:	0.03 bar / 0.5 psi

Tread depth Measuring range: 0 - 15.8 mm Accuracy: ± 0.5 mm

Inclusive: TireCheck, batteries

ORDER NO.	EAN-CODE	PU
082.180A	4 021563 690077	5











### **CoatingTest-Master**









#### Coating thickness measuring instrument for measuring non-metallic layers on metal surfaces

- Coating thickness measurement based on induction or eddy current principle
- Measurable coatings: non-magnetic coatings (paint, zinc on steel), insulating coatings (paint, anodized coatings) on non-ferrous metals
- Automatic identification of base material (ferrous / ferromagnetic, non-ferrous / non-ferromagnetic)
- Internal memory for 400 measured values
- One-point and two-point calibrationUSB interface for transferring measurement data
- and software evaluation
- Min/Max/Avg display
- Illuminated, transparent display





#### Magnetic induction

Measuring range: 0...1250 µm Accuracy: 0...850 µm / ( $\pm$  3%  $\pm$  1 µm), 850...1250 µm / ( $\pm$  5%)

#### **Eddy current principle**

Measuring range: 0...1250 μm

Accuracy:  $0...850 \, \mu \text{m} / (\pm 3\% \pm 1 \, \mu \text{m}), 850...1250 \, \mu \text{m} / (\pm 5\%)$ 

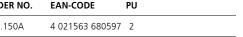
**Inclusive:** CoatingTest-Master, calibration references, software, USB cable, batteries, carrying case

ORDER NO.	EAN-CODE	PU
082.150A	4 021563 680597	2











### **COATING THICKNESS MEASUREMENT**

Non-destructive measurement of coating thicknesses is used in many applications. Precision and selective coating thickness measurement is not only required for quality control in paintshops and in the automobile industry but, by inspecting material coating quality, it also enables long-term corrosion protection of metal components.



Automatic identification of base material: FE: ferrous / ferromagnetic NFe: non-ferrous / non-ferromagnetic



Small measuring head for coating thickness measurement with pinpoint accuracy



# **Video inspection**



### Video endoscopes

### **MICRO-DIGITAL INSPECTION**

Special applications and places difficult to access require innovative solutions to ensure optimum use. The smaller and more stable the camera unit the more varied the applications – whether used at home, in industry or by craftsmen.

### Powerful technology





Different sized camera heads for various applications





HARD

Laserliner instruments are available in sturdy carrying bags or hard-shell cases. SOFT: softbag HARD: plastic carry case The VideoFlex G2 carrying case with space for optional accessories, such as the SpeedPowerPack battery charger



### Overview





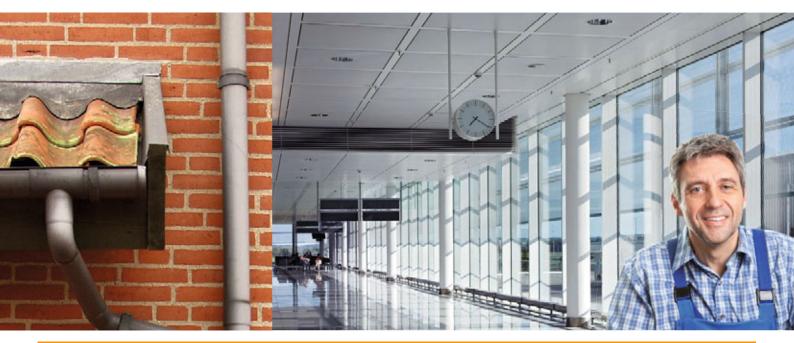


	VideoScope	VideoScope XXL	VideoFlex G2
Colour display	•	•	•
180° image rotation	•	•	•
Zoom function		•	•
LED lighting	•	•	•
Data storage		•	•
Image recording		•	•
Video recording		•	•
Length of flex cable	1,0 m	5,0 m	1,5 m / 10 m
Camera head ø	9 mm	9 mm	6 / 9 mm
Accessory TopClips, TopGuide	0	0	0

• = available O = optional



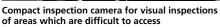
### Video endoscopes



### VideoScope







- The camera head on the flexible cable transmits images directly to the LC monitor.
  - Powerful object lighting thanks to 4 high-performance LEDs
- The compact camera head is small enough to
- inspect even inaccessible areas.

   Manual image rotation by 180° on the monitor
- Camera head: ø 9 mm





Inclusive: VideoScope 1 m / focus 10 cm, batteries























### VideoScope XXL





#### Compact inspection camera with featuring record function

- The camera head on the flexible cable transmits
- images directly to the LC monitor. REC-Function: still picture and video can be recorded for a later analysis.
- Formattable SDHC-Card
- Webcam function
- Powerful object lighting thanks to 4 high-performance LEDs
- 4x digital zoom in 10% increments
  The compact camera head is small enough to inspect even inaccessible areas.
- Internal memory
- Manual image rotation by 180° on the monitor
- Camera head: ø 9 mm























Inclusive: VideoScope XXL 5 m / focus 10 cm, USB/REC-cable, software for webcam function, batteries

Inspection accessory TopGuide G2 and TopClips G2

depending on the application (page 31)

ORDER NO. **EAN-CODE** PU 4 021563 687404 2 082.115A

### Video endoscopes



### VideoFlex G2











Professional video inspection system for visually inspecting areas that are difficult to access – also over great distances

- The camera head on the flexible cable transmits images directly to the LC monitor.

  Powerful object lighting thanks to
- 2 or 4 high-performance LEDs
- Bright LED lighting means that the camera is able to provide clear still images and video recordings even when lighting conditions are at their poorest. 4x digital zoom in 10% increments
- The compact camera head is small enough to inspect even inaccessible areas.
- Multilingual on-screen display
- Image and video REC function: The recordings can be stored on an SDHC memory card for subsequent evaluation.
- Direct data transfer to PC
- Webcam function, Screen size: 3.0"
- Manual 180° image rotation on the monitor
- Exchangeable camera snakes 1.5 m length with head ø 9 or 6 mm and 10 m length with head ø 9 mm, Focus: 5 cm available
- Quick Replacement of camera snake depending on the application. (possible options on page 31 Flex-, Fibre- and SnakeCamera)





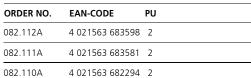




Inclusive: VideoFlex G2, USB-cable, software for webcam function, batteries, carrying case Accessories depending on equipment:

- FlexCamera 1.5 m, camera head: Ø 9 mm, focus: 5 cm, IP 68 FibreCamera 1.5 m, camera head: Ø 6 mm, focus: 5 cm, IP 68 SnakeCamera 10 m, camera head: Ø 9 mm, focus: 5 cm, IP 68

0/05/11/11	ORDER NO.	EAN-CODE	PU
FlexCamera 1,5 m, ø 9 mm	082.112A	4 021563 683598	2
breCamera 1,5 m, ø 6 mm	082.111A	4 021563 683581	2
nakeCamera 10 m, ø 9 mm	082.110A	4 021563 682294	2





DISPLAY





Fi



CONNECTION

















### Accessories



TopGuide

The specially ground sleeve allows for optimal gliding on uneven surfaces, for example dirty pipes.



**TopClips G2** Clip mechanism for easy attachment and removal on 9 mm camera head



### FlexCamera G2



#### Universal micro camera with very small camera head and flexible cable

- Powerful object lighting thanks to
- 4 high-performance LEDs Camera head: ø 9 mm, Focus: 5 cm, IP 68 Cable length: 1,5 m

Only for VideoFlex G2.



ORDER NO.	EAN-CODE	PU
082.122A	4 021563 679744	2











### FibreCamera G2



#### Universal micro camera with very small camera head and flexible cable

- Suitable for inspections in small openings.
- Powerful object lighting thanks to 2 high-performance LEDs
- Camera head: Ø 6 mm, Focus: 5 cm, IP 68 Cable length: 1,5 m

Only for VideoFlex G2.



ORDER NO.	. EAN-CODE	
082.121A	4 021563 679737	2











### SnakeCamera G2



#### Universal micro camera for inspections over great distances

- Powerful object lighting thanks to
- 4 high-performance LEDs Camera head: ø 9 mm, Focus: 5 cm, IP 68 Cable length: 10 m

Only for VideoFlex G2.



ORDER NO.	EAN-CODE	PU
082.120A	4 021563 680696	2











### **TopGuide G2**



- Inspection accessory

   Aluminium guide sleeve for mounting on the camera head
- The specially ground sleeve allows for gliding on uneven surfaces, for example dirty pipes.
- Reduces jamming and contamination of the camera head. – Suitable for 9 mm camera head

Not for FibreCamera.



ORDER NO.	EAN-CODE	PU
082.124A	4 021563 683079	2



### **TopClips G2**

ø9mm



### Inspection accessory

- Magnet, mirror and hook attachment
- for mounting on camera head

   Suitable for 9 mm camera head
- Clip mechanism for easy attachment and removal

### Not for FibreCamera.



ORDER NO.	EAN-CODE	PU
082.123A	4 021563 680610	2

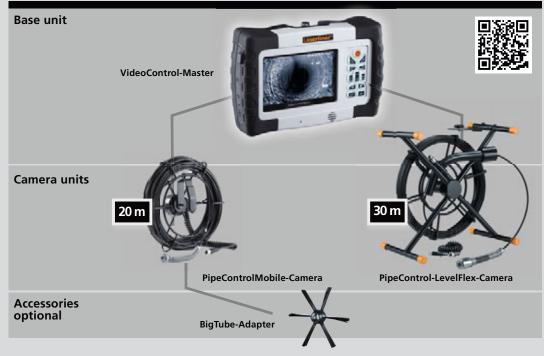




### Pipe / drain cameras building inspection

### **FLEXIBLE APPLICATIONS**

The professional video inspection system is suitable for the visual inspection of hard to reach places, such as pipelines, canals, ventilation pipes and exhaust gas systems. The different camera units and set options are adapted to different applications in manufacturing and the construction industry.











Connection for various camera

Video format:	ASF / 30 frames / sec
Image format:	JPEG format
External memory:	Supports up to max. 16 GB SD card
Humidity:	max. 90 % relative humidity (no condensation)
LED:	10 brightness levels

IMAGE-/ VIDEO-RECORDING/ EDITING SYSTEM directly and at the PC





### Pipe / drain cameras building inspection







SafetyLens and CameraProtector Camera head with separate lens cover to provide protection from contamination and impact



**BigTube-Adapter**For the axial alignment of the PipeControl camera units in pipes, chimneys and ventilation shafts

### PipeControlMobile set (1)









#### VideoControl-Master

- Modular, versatile master unit for professional and efficient fault finding in manufacturing and the construction industry
- Large, high resolution 5.0" colour display powerfully backlit for detailed image analysis
   Integrated still image and video recording function
- Data storage on SD card
- USB 2.0 interface for PC data transfer
   Operation of external monitors possible
   Rechargeable Li-lon battery
- Sturdy, water-protected design

### PipeControlMobile-Camera

- Easy-to-handle camera unit for mobile use
- 25 mm stainless steel camera head Stand-up reel with 20 m cable
- DOF: Focal depth 5...60 cm
- No pull-back thanks to flexible coil spring
- 12 high-performance LEDs for adjustable, powerful object lighting
- Stable, reinforced feed cable (ø 5.8 mm) for precise and safe camera guidance



Inclusive: VideoControl-Master, PipeControlMobile-Camera 20 m, USB-cable, 4 GB SD-card, power supply/battery charger, AV-cable, carrying strap, SafetyLens, CameraProtector 25 mm, Complete in the Sortimo® L-BOXX® 238

ORDER NO.	EAN-CODE	PU
084.121L	084.121L 4 021563 688364	



































### **BigTube-Adapter**

ø 25 mm



### Modular centring brush system

- For the axial alignment of the PipeControl camera units
- in pipes, chimneys and ventilation shafts

   With six high-strength, exchangeable brush edges for precise camera guidance
- Brush edges can be shortened
- Sturdy two-piece connection for safe and sturdy fit of the centring brush

### Only for PipeControlMobile-Camera.

ORDER NO.	EAN-CODE	PU
084.144	4 021563 685318	1



### Pipe / drain cameras building inspection







LevelFlex: Horizontal self-alignment for optimum image playback



Camera head with 12 high-performance LEDs



Adapter to replace the camera unit

### PipeControl-LevelFlex set

NEW









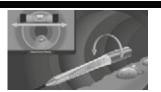
#### VideoControl-Master

- Modular, versatile master unit for professional and efficient fault finding in manufacturing and the construction industry
- Large, high resolution 5.0" colour display powerfully backlit for detailed image analysis
   Integrated still image and video recording function
- Data storage on SD card
- USB 2.0 interface for PC data transfer
   Operation of external monitors possible
   Rechargeable Li-lon battery
   Sturdy, water-protected design

### PipeControl-LevelFlex-Camera

- Professional camera unit with integrated self-levelling for optimum camera alignment 31 mm stainless steel camera head with
- replacement adapter
- No pull-back thanks to flexible coil spring
- 12 high-performance LEDs for adjustable, powerful object lighting at the camera Robust, sturdy stand-up reel with a cable length of 30 m
- Stable, reinforced feed cable (ø 6 mm) for precise

and safe camera guidance





CMOS image sensor			
ø 31 mm, IP 68 (immersion depth 20 m, 1 h)			
71°			
560 cm			
6 mm			
30 m			
Minimum bending radius: 39 cm			

Inclusive: PipeControl-LevelFlex-Camera 30 m Accessories: VideoControl-Master, USB-cable, 4 GB SD-card, power supply/battery charger, AV-cable, carrying strap, control cable, complete in the Sortimo® L-BOXX® 136











ORDER NO.	EAN-CODE	PU
084.134L	4 021563 691944	1



























CAMERA







# **Electrical meters**





# BUILDING INSTALLATIONS AND ELECTRICAL SYSTEMS

Whether non-contact voltage tester, fully-protected multimeter or universal cable tracer: Professional tradesmen appreciate the varied functions of electrical tester and will find the right measuring instrument for the job here.

The user guide provides an overview of electrical test segments and working ranges.

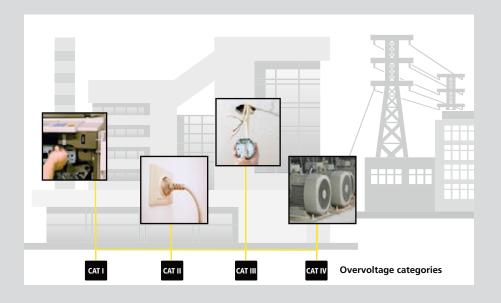
### Overview





Working ranges	ActivePen	AC-Check	ActiveFinder
<b>Detecting</b> AC	200 - 600 V contactless	5 - 1000 V contactless	24 - 1000 V contactless
Locating Electrical / metal lines			
Verifying Function / continuity test	Phase	Phase	Phase
<b>Identifying</b> Voltages			
<b>Quantifying</b> Units			
Overvoltage categories	CAT III 600 V	CAT III 1000V	CAT III 1000V

er	ActiveTester	ActiveMaster	ActiveMaster Digital	
/		110 - 230 V	110 - 230 V	
		Continuity / Phase	Continuity / Phase	
	12, 24, 36, 50, 120, 230, 400 V	12, 24, 36, 50, 120, 230, 400, 690 V	12, 24, 36, 50, 120, 230, 400, 690 V	
			5 - 690 V	
	CAT III 400V	CAT II 1000V 1000V CAT IV 600V	CAT II 1000V 1000V CAT IV 600V	





















MultiMeter- PocketBox	MultiMeter- Pocket	MultiMeter- Compact	MultiClamp- Meter Pro
	110 - 230 V contactless	110 - 230 V contactless	110 - 230 V contactless
Continuity	Continuity / Phase	Continuity / Phase	Continuity
V, Α, Ω	V, Α, Ω	V, A , Ω, F, %, Hz	V, A, Ω
CAT II 250V	CAT III 1000V	CAT III CAT IV 600V	CAT III

LAN CableChecker	AC-Tracer	CableTracer Pro
		110 - 230 V contactless
Zero-potential	200 - 250 V Mains voltage	12 - 250 V Zero-potential/ Mains voltage
Continuity		
		12, 50, 120, 230, 400 V
	CAT III 300V	CAT III 300V CAT III



**Detecting**Detecting electrical alternating fields / potential

**Locating**Locating line routing with transmitter and receiver

Verifying
Function and continuity test

**Identifying** Identifying voltages

**Quantifying** Determining electrical variables

Overvoltage categorie
Safety classification of working voltage and voltage peaks

Electrical variable	Description	Unit	Alternating current = AC / Direct current = DC
U	Voltage	V (volt)	AC / DC
	Current	A (ampere)	AC / DC
R	Resistance	Ω (ohm)	DC
С	Capacitance	F (farad)	DC
f	Frequency	Hz (hertz)	AC
V	Duty factor	% (percent)	AC







### Battery and pole testers



### **BatteryCheck**



#### Battery tester for checking battery charge level

- For checking all commonly used batteries (AA / AAA / C / D / E-block / button cell – small)
- Easy to read, 3-colour scale to display the
- battery charge level

  Easy to use with sliding battery holder and clearly accessible contacts
- Operates without batteries
- Small, compact design (fits in any toolbox)

Measuring range: 1.5 V / 9.0 V

Inclusive: BatteryCheck

ORDER NO.	EAN-CODE	PU	
083.005A	4 021563 690022	5	

#### **PowerCheck**

NEW





#### Battery tester for checking battery and rechargeable battery charge level

- For checking all commonly used batteries and rechargeable batteries (e.g. AA / AAA / C / D / E-block / button cell – small/large)
- For checking various battery systems with one device: Alkali (AlMn), zinc carbon (ZnC), lithium (LiMnO2), nickel metal hydride (NiMH)
- Charge level shown on LCD scale
- Small, compact design (fits in any toolbox)

Available soon.

Measuring range: 1.2 V / 1.5 V / 3.0 V / 8.4 V / 9.0 V

Inclusive: PowerCheck, battery

ORDER NO.	EAN-CODE	PU
083.006A	4 021563 687879	5







#### Safe non-contact voltage check

- Locates electrical voltages in cables, sockets, bulb sockets and fuses
- Determines polarity of L/N conductors, e.g. on sockets or terminals

  – Finds breaks in wires and cables
- Clearly visible LED

Voltage range: 200 V/AC...600 V/AC, frequency: 50...60 Hz

Inclusive: ActivePen, batteries

ORDER NO.	EAN-CODE	PU
083.007A	4 021563 690039	5







#### AC-Check







#### Non-contact voltage tester with adjustable sensitivity

- Locates electrical voltages in cables, sockets, bulb sockets and fuses
- Determines polarity of L/N conductors, e.g. on sockets or terminals
- Finds breaks in wires and cables
- Extremely high sensitivity for tracing lines
- at great depths
- Clearly visible LED

Voltage range: 5...1000 V/AC, frequency: 50...400 Hz

Inclusive: AC-Check, batteries

ORDER NO. **EAN-CODE** ΡU 083.008A 4 021563 687862 5











#### **ActiveFinder**





#### Contactless handy voltage tester -Work safely on electrical lines

- Locates electrical voltages in cables, sockets, bulb sockets and fuses

  - Determines polarity of L/N conductors,
- e.g. on sockets or terminals

   Finds breaks in wires and cables
- Extremely high sensitivity for tracing lines at great depths (Zoom)
- Clearly visible LED for signalling electrical voltages
- Integrated flashlight with separate ON/OFF button
- Rugged, impact-resistant quality enclosure

#### Voltage range:

24...1000 V/AC, frequency: 50...60 Hz



Inclusive: ActiveFinder, batteries

ORDER NO.	EAN-CODE	PU
083.010A	4 021563 67114	4 5









### Voltage testers



#### **ActiveTester**



#### Universal voltage tester for the entire electrical system of buildings

- Reliable and fast voltage tester with the most
- commonly used nominal voltages Automatic AC voltage and DC voltage test Automatic range and function changeover for direct testing and measurement
- Operates without batteries
- Rugged, practical enclosure in space-saving mini format





Voltage range: 12, 24, 36, 50, 120, 230, 400 V/AC +/-12, 24, 36, 50, 120, 230, 400 V/DC

#### LED indicator:

12, 24, 36, 50, 120, 230, 400 V polarity plus/minus

Inclusive: ActiveTester, protective covers

ORDER NO. **EAN-CODE** 083.020A 4 021563 671151 5



#### **ActiveMaster**





#### Reliable measuring device for testing voltage and continuity

- Voltage tester with the most commonly used nominal voltages

  – Automatic AC voltage and DC voltage test

  – Automatic range and function changeover
- for direct testing and measurement
- Single-phase and rotary field test with phase sequence display
- Single-pole phase testing
- Single-pole phase testing
   Automatic continuity tester with acoustic signal
   Safety self-test (AC warning) as from 50 V,
   operates in emergency mode without battery
   Rugged, practical enclosure with lockable test
- prod spacing (for standard EU connector)



Voltage range: 12, 24, 36, 50, 120, 230, 400, 690 V AC/DC

Peak current: Is < 3.5 mA

Inclusive: ActiveMaster, protective covers, batteries

**EAN-CODE** ORDER NO. 083.021A 4 021563 671168















#### **ActiveMaster Digital**





#### Digital voltage and continuity tester with bar graph and numerical measured value display

- Voltage tester with the most commonly used nominal voltages

  – Automatic AC voltage and DC voltage test

  – Automatic range and function changeover
- for direct testing and measurement
- Single-phase and rotary field test with phase sequence display
- Single-pole phase testing
- Automatic continuity tester with acoustic signal
   Safety self-test (AC warning) as from 50 V, operates in emergency mode without battery
- Rugged, practical enclosure with lockable test prod spacing (for standard EU connector)



LC-display / resolution: 3.5 places, 1999 digits / 1 V AC/DC (numerical display)

**Voltage range:** 6, 12, 24, 50, 120, 230, 400, 690 V AC/DC (bar graph display)

Peak current: Is < 3.0 mA

Inclusive: ActiveMaster Digital, protective covers, batteries

ORDER NO. FAN-CODE PU 083.025A 4 021563 679836 2













#### Multimeters

#### MultiMeter-PocketBox

NEW





#### Universal multimeter in practical box format with automatic range changeover

- Precise voltage, current and resistance measurement
- Automatic continuity tester
- Diode test function for determining integrity and polarity
- Automatic function and range changeover without reconnecting cables
- Easy-to-read LC display
- Hold function



Voltage range: V/DC: 200 mV...200 V, ± (0.8% + 5 digits)

200 V...250 V, ± (1% + 5 digits) V/AC: (40 - 400 Hz): 2 mV...200 V, ± (1% + 5 digits)

200 V...250 V, ± (1.2% + 5 digits)

Current range: A/DC: 20 mA...200 mA, ± (1.2% + 5 digits) A/AC: (40 - 400 Hz): 20 mA...200 mA, ± (1.5% + 5 digits)

Resistance range:  $0 \Omega...200 \Omega$ , ± (1.2% + 5 digits)

200 Ω...200 kΩ,  $\pm$  (1.0% + 5 digits) 200 kΩ...2 MΩ,  $\pm$  (1.2% + 5 digits)  $2 M\Omega...20 M\Omega$ , ± (1.5% + 5 digits)

Inclusive: MultiMeter-PocketBox, batteries

ORDER NO. **EAN-CODE** 

083.028A 4 021563 690053 5













#### Fully protected universal multimeter for measurements in all building installations

- Precise voltage, current and resistance measurement
- Automatic continuity tester
- Diode test function for determining integrity and polarity
- Integrated contactless voltage indicator
- Single-pole phase testing
- Fully protected design in all measuring ranges prevents operating errors
- Super-bright integrated flashlight for illuminating test point
- Large, easy-to-read LC display



Voltage range:	V/DC: 0.2 V / 220200600V ± (0.5% / 1.2%)
	V/AC: 220V / 200600V ± (1.0% / 2.3%)

Current range: A/DC: 0...200mA (± 2.0%) A/AC: 0...200mA (± 2.5%)

200 Ohm / 2...20...200 Kohm / 2 Mohm / 20 Mohm Resistance range:

± (0.8% / 1.2% / 5% / 10%)

Inclusive: MultiMeter-Pocket, 2 test prods, batteries

ORDER NO. FAN-CODE 083.032A 4 021563 671229 5









#### MultiMeter-Compact





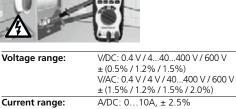
#### Professional multimeter with all functions for exact electrical measurement

- Precise voltage, current, resistance, capacitance, frequency and duty factor measurement
- Automatic range changeover and manual range preselection
- Automatic continuity tester
- Diode test function for determining integrity
- Integrated contactless voltage indicator with acoustic, visual and vibration warning

  – High measurement resolution for precisely determining
- different measurement variables Compact, impact-resistant enclosure with base
- support and selector switch Large, easy-to-read LC display

083.034A





A/AC: 0...10A, ± 3.0% Resistance range: 0.4...4...40...400 Kohm...4 Mohm / 40 Mohm

± (1.2% / 2.0%) Capacitance range: 40nF / 400nF...4μF...40μF / 100μF ± (5% / 3% / 5%)

0...10MHz / ± 1.5% Frequency range: **Duty factor range:** 0.1...99.9% / ± 1.2%

FAN-CODE

Inclusive: MultiMeter-Compact, 2 test prods, battery

4 021563 671236 5

PU





ORDER NO.



#### Cable detectors

#### MultiClamp-Meter Pro



#### Professional current and voltage clamp meter with true r.m.s. measurement

- Measurement in all closed current circuits (AC/DC)
- Automatic continuity tester with acoustic signal
- Automatic diode measurement
- Peak-HOLD function for determining short-term making current
- High measurement resolution for precisely determining current, voltage and resistance
- Integrated contactless voltage indicator to quickly determine live parts

  – MIN/MAX function for determining changing
- measurement variables
- Bright LED lighting for integrated test point
- Backlit LC display with bar graph display



Voltage range:	V/AC: 0600 V / ± 1.0%
	V/DC: 0600 V / ± 1.5%
Resistance,	
continuity test:	600 V AC/DC
Current range:	A/AC: 0200 A / ± 2.5% (PEAK 282,8 AAC)
	A/DC: 0200 A / ± 2.0%
Frequency range:	50/400Hz AC (True RMS)

Inclusive: MultiClamp-Meter Pro, 2 test leads, batteries

ORDER NO.	EAN-CODE	PU
083.040A	4 021563 671205	5









#### LAN CableChecker





#### Cable tracer set with transmitter and receiver for LAN, SAT, TV, telephone, audio cables

- Tests wire allocations and analyses line routing
- Checks LAN- network cable assemblies (assigns the individual conductors).
   Analyses LAN, SAT, TV, telephone, audio and other
- cables in electrical systems
- Integrated continuity tester
- The receiver traces cables up to a depth of 5 cm - contactless.
- Comprehensive accessories set for testing the most commonly used types of plug-in connections
- Universal testing terminals for the connection to any conductor.
- For off-circuit electrical systems
- Integrated LED flashlight.





#### Receiver LAN CableChecker RECV

Measuring range scan-modus: 0...5 cm measuring depth

Inclusive: transmitter LAN CableChecker TX, receiver RECV, adapter (RJ11, RJ45, BNC, TV-coax, F-adapter) testing terminals, headphones,

batteries, carr	ying case	
ORDER NO.	EAN-CODE	PU
083.060A	4 021563 671779	5







#### **AC-Tracer**







#### Cable tracer set with transmitter and receiver

- Non-contact tracing of the transmission signal
- Fast tracing of coherent electrical circuits.
   Location of lines in coherent, live electrical circuits
   Detection of fuse circuits in live installations
- Receiver with audible signal tone for locating measured objects
- Receiver with adjustable sensitivity for optimum fine adjustment
- Socket adapter for direct and fast testing in building installations.
- E27 lamp adapter for direct and fast testing in lamp circuits.





#### Receiver AC-Tracer RECV

Measuring range: 0...5 cm measuring depth

Inclusive: transmitter AC-Tracer TX, receiver RECV, EURO connector, UK-plug (Great Britain), E27 Lamp adapter, battery, carrying case

ORDER NO.	EAN-CODE	PU
083.050A	4 021563 672103	5









#### Cable detectors



Transmitter/receiver line testers – Measurement with transmitter and receiver. The sender feeds coded signals into the cable to be checked. The signal is a modulated current that creates an electromagnetic field about the conductor. The receiver recognises this field, decodes it and is then able to find and locate cables with this signal. Ideal for taking stock of electrical installations and metal line systems.





Easy location of fuses in switch boxes



Inaccessible cables: Line detection up to measuring depth of 2 m – e.g. suspended ceilings or underground cables







#### CableTracer Pro





#### Universal, flexible cable tracer set including transmitter and receiver

- Non-contact tracing of the transmission signal by the receiver.
- Locates electrical cables, fuses, circuit breakers,
   metal pipes (such as heating pipes) and much more.
   Locates interrupted cables in existing installations
- and short-circuits in existing installation cables.
- May be used with or without mains voltage.

- High frequency of 125 kHz
  Display of DC and AC voltages.
  Signal coding allows as many as 7 senders to be used with one receiver and is thus ideal for complex installation settings.
- Integrated AC voltage detector
- Permanent AC voltage warnings
- Integrated illumination of measuring points
- Clearly arranged, illuminated displays





#### Receiver CableTracer RECV

Measuring range: 0...2 m measuring depth

Inclusive: transmitter CableTracer TX, receiver RECV, connecting cable, test prods, test clamps, batteries, carrying case

ORDER NO.	EAN-CODE	PU
083.070A	4 021563 671212	1













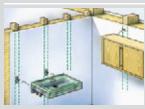
# **Electronic scanners**





### **DRILLING AND MOUNTING JOBS**

The electronic scanners now keep you clearly informed of what is hidden below the surface of walls, floors and ceilings. They therefore give you the assurance of being able to complete your project quickly, precisely and without unexpected complications. You can save costs by avoiding elaborate repair work and unsightly false drilling.



**Stud-Scan** Beam / cavity detection



**Metal-Scan** Targeted metal detection



**AC-Scan** Targeted detection of live supply lines



**Depth measurement** Determining depth



AUTO

The automatic calibration adjusts the device to different surfaces immediately after switching on.

#### AUTO CAL PLUS

The advanced automatic calibration in Metal-Scan provides an easy way to narrow down test objects.

### Overview







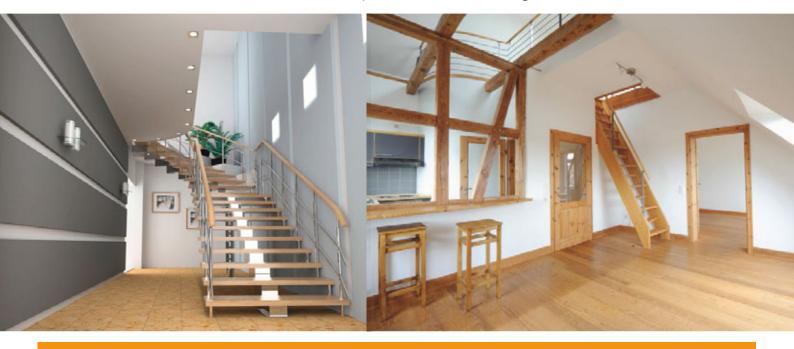




	StarFinder	StarFinder Plus	CombiFinder Plus	MetalliFinder Pro	MultiFinder Plus
Stud-Scan	•	•			•
Metal-Scan			•	•	•
AC-Scan	•	•	•	•	•
Depth measurement				•	
Voltage warning	•	•	•	•	•
Auto-Calibration	•	•	•		•
Auto-Cal Plus			•		•
Center Indication				•	
LCD with user guide		•	•		•

• = available

### Stud, metal and power cable locating



#### **StarFinder**

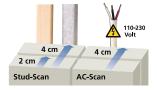


#### Electronic detector for live supply lines as well as wall beams and joists in drywall structures

- Auto-Calibration: adjusts the device to different
- surfaces immediately after switching on.

   Acoustic and visual detection signals for finding objects.

   High safety is guaranteed by the permanent
- voltage warning function.



Inclusive: StarFinder, battery









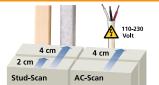


#### **StarFinder Plus**



### Electronic detector for live supply lines as well as wall beams and joists in drywall structures

- One-button operation to switch between the different measurement modes
- Auto-Calibration: adjusts the device to different surfaces immediately after switching on.
- Acoustic and visual detection signals for finding objects.
   Illuminated display



Inclusive: StarFinder Plus,







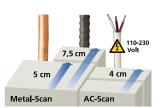






#### **CombiFinder Plus**







#### Electronic detector for metal and live wires

- This device permits targeted scanning for metals such
- as reinforcing iron, heating pipes and water pipes.

  One-button operation to switch between the different measurement modes
- The user guide on the LC display makes the device easy and reliable to use.
- Auto-Calibration: adjusts the device to different surfaces immediately after switching on.
- Auto-Cal Plus: allows objects to be localized easily in Metal-Scan mode.
- Acoustic and visual detection signals for finding objects.
- High safety is guaranteed by the permanent voltage warning function.
- Illuminated display



Inclusive: CombiFinder Plus, battery

ORDER NO.	EAN-CODE	PU
080.955A	4 021563 6841	199 5









### Stud, metal and power cable locating

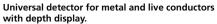


#### **MetalliFinder Pro**









- Enables targeted search for metals such as reinforcing
- steel, heating pipes and water pipes.

   The depth measurement function is a valuable aid in deciding whether there is sufficient drilling depth over metal girders, etc.
- Therefore no more accidental drilling into metal water
- Prevents drilling into girders or steel reinforcements when working in walls and masonry

  – Centre Indication: to easily determine the centre
- of an object.

   Acoustic and visual detection signals for finding objects.
- High safety is guaranteed by the permanent voltage warning function.
- Large, illuminated display





Inclusive: MetalliFinder Pro, battery

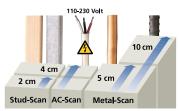
ORDER NO.	EAN-CODE	PU
080 951A	4 021563 670291	5





#### **MultiFinder Plus**







#### Universal detector for locating wood, metal, copper, iron and live wires

- One-button operation to switch between the different
- measurement modes

   The user guide on the LC display makes the device easy and reliable to use.
- Auto-Calibration: adjusts the device to different surfaces immediately after switching on.
- Auto-Cal Plus: allows objects to be localized easily in Metal-Scan mode.
- Acoustic and visual detection signals for finding objects.
   High safety is guaranteed by the permanent
- voltage warning function.
- Special feature: in metal mode, it is even able to detect concealed lines when they are not live.

Illuminated display





Inclusive: MultiFinder Plus, battery

ORDER NO. FAN-CODE PU 080.965A 4 021563 684175 5







# **Slope indicators**



### Digital spirit levels



### DigiLevel





#### Digital electronic spirit level with vertical and horizontal angle display

- An acoustic signal is sounded at 0°, 45°, 90°, 135° and 180° as an aid to ease the alignment of objects.

  – Angles can be transferred in reference mode.

  – Calibration function to recalibrate the sensor and
- increase the measuring accuracy

   Powerful adhesion magnets and additional vertical
- and horizontal vial, illuminated display
- Vial precision  $\pm$  0.5 mm / m
- Slope in degrees, in/ft, or percent

#### DigiLevel Compact (1)

- Hold function – Length 23 cm
- DigiLevel 60 (1)/

#### DigiLevel Laser mit Wand-Linien-Laser

- Call-up of up to 9 values with the separate measurement memory
- Milled measuring surface 60 cm in length



#### Accuracy of electronic measurements:

#### **DigiLevel Compact**

 $\pm$  0.1° at 0° and 90°,  $\pm$  0.2° from 1°...89°

#### DigiLevel 60 / DigiLevel Laser

± 0.05° from 0°...1°, ± 0.1° at 90°, ± 0.2° from 1°...89°



Inclusive: DigiLevel, softbag, batteries

**EAN-CODE** 



DigiLevel 60 /

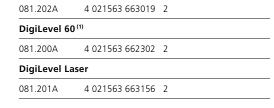








DigiLevel Laser



PU



ORDER NO.

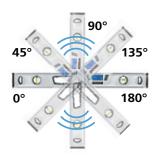
DigiLevel Compact (1)



### Digital spirit levels



### **DigiLevel Plus**





#### Digital electronic spirit levels precise and easy to use

- An acoustic signal is sounded at 0°, 45°, 90°, 135° and 180° as an aid to ease the alignment of objects.
  Angles can be transferred in reference mode.
  The flip-display feature changes the display automatically when making overhead measurements.
  Calibration function to readily best the concerned. - Calibration function to recalibrate the sensor and
- increase the measuring accuracy
- Powerful adhesion magnets and additional vertical and horizontal vial, illuminated display
   Hold function

### DigiLevel Plus 40 / 60 / 80 /100 / 120





#### Accuracy of electronic measurements:

± 0.1° from 0°... 1° ± 0.1° from 89°...90° ± 0.2° from 1°...89°



Inclusive: DigiLevel Plus, softbag, batteries



ORDER NO.	EAN-CODE	PU
<b>40 cm:</b> 081.250A	4 021563 690664	5
<b>60 cm:</b> 081.251A	4 021563 690671	5
<b>80 cm:</b> 081.252A	4 021563 690688	5
<b>100 cm:</b> 081.253A	4 021563 690695	5
<b>120 cm:</b> 081.254A	4 021563 690701	5







DigiLevel

Plus 60









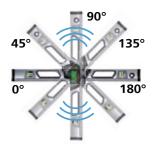


### Digital spirit levels and angle measurement

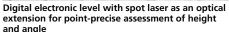




#### **DigiLevel Pro**







- An acoustic signal is sounded at 0°, 45°, 90°, 135° and 180° as an aid to ease the alignment of objects.
- The flip-display feature changes the display automatically when making overhead measurements
   Calibration function to recalibrate the sensor and
- increase the measuring accuracy
- Powerful adhesion magnets on the underside
- Accuracy of electronic measurements: ± 0.05° from 0°...1°, ± 0.1° at 90°, ± 0.2° from 1°...89°, vial precision  $\pm$  0.5 mm / m



Inclusive: DigiLevel Pro, softbag, batteries

#### **DigiLevel Pro**

-			
ORDER	NO.	EAN-CODE	PU
30 cm:	081.212A	4 021563 664856	1
60 cm:	081.210A	4 021563 664825	1
120 cm	: 081.216A	4 021563 664849	1





DigiLevel Pro 30 / 60



#### **ArcoMaster**





# Digital electronic angle measuring device with display – Measuring range 0° - 220°

- Pull-out bevel
- With additional horizontal and vertical vail
- An illuminated LCD display on each side
- (front and rear)
- Hold function
- Automatic calculation of angle bisection
- Accuracy of electronic angle measurement ± 0.2°, vial precision ± 0.25 mm / m

ArcoMaster 40 / 60 Arm length 40 / 60 cm



Inclusive: ArcoMaster, softbag, batteries



ORDER NO.	EAN-CODE	PU
<b>40 cm:</b> 075.130A	4 021563 664016	1
<b>60 cm:</b> 075.131A	4 021563 666683	1











# **Distance meters**



### Distance measuring wheels

#### **RollPilot Mini**

NEW







- Mechanical measuring wheel: Distances up to 9,999.9 m
   Addition when wheels are turning forwards and subtraction when backwards
- Wall-to-wall function: The compact design enables direct measurement from wall to wall.
- The moving pointer shows the exact start and end positions.
- Accuracy ± 0.1%
- Metering wheel with 0.5 m circumference

Available soon.

Inclusive: RollPilot Mini

ORDER NO.	EAN-CODE	PU
075.002A	4 021563 660667	2



#### **RollPilot S12**





### Measuring wheel for use on straight lines

- This mechanical metering wheel delivers accurate
- measured values at all ranges up to 9,999.9 m.

   Large, easy to read display with additional fine scale (1 9 cm) for precise measurement.

   Addition when wheels are turning forwards
- and subtraction when backwards
- The moving pointer shows the exact start and end positions.
- Folding design and softbag for easy transport
   Brake and zero setting directly on handle
   Non-wearing cardanic scale drive

- Accuracy ± 0.1%
- Metering wheel with 1 m circumference





Inclusive: RollPilot S12, softbag

ORDER NO.	EAN-CODE	PU
075.005A	4 021563 672714	1





### **RollPilot S6**

NEW





#### Measuring wheel for use on straight lines and curves

- Mechanical measuring wheel: Distances up to 9,999.9 m
- Large, easy to read display with additional fine scale (1 - 9 cm) for precise measurement.
- Addition when wheels are turning forwards and subtraction when backwards - Wall-to-wall function: The compact design enables
- direct measurement from wall to wall.
- Brake and zero setting directly on handle
- Non-wearing cardanic scale drive
- Accuracy ± 0.1%
- Metering wheel with 0.5 m circumference

#### Available soon.

Inclusive: RollPilot S6, softbag

ORDER NO.	EAN-CODE	PU
075.008A	4 021563 692521	1





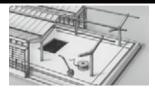
#### **RollPilot D12**





#### Electronic measuring wheel for use on straight lines and curves

- Electronic measuring wheel delivers measured values accurate to the centimetre when measuring distances of up to 9,999.99 m.
- Easy-to-read, illuminated LC display directly on the handle.
- Addition when wheels are turning forwards and subtraction when backwards
- Hold function for holding the measured value
- Measured value memory for 5 entriesThe moving pointer shows the exact start and end positions.
- Folding design and softbag for easy transport
- Accuracy ± 0.1%
- Metering wheel with 1 m circumference





Easy-to-read LC display directly on handle

Inclusive: RollPilot D12, softbag, battery

ORDER NO.	EAN-CODE	PU
075.006A	4 021563 68081	8 1







### Measuring wheel and ultrasonic distance measurement

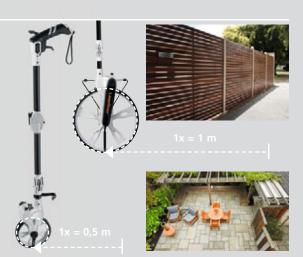
#### Measuring outdoors

The most common dimensions measured on building sites are length and height. From the professional laser distance meter through reliable ultrasound measuring instruments to the classic measuring wheels you will find the optimum solution for every application.





Portable hand shows exact position









#### **MeterMaster Plus**

NEW





#### Ultrasonic distance meter with target laser

- Laser for sighting ultrasound for measuring
- Ultrasound measurement of lengths, surfaces and space volumes, automatic addition and multiplication
- Measured value display can be switched between °C and °F
- Room temperatures ranging from 0 to 40° are
- registered and compensated for by the electronics. Power-saving function: The device switches
- itself off automatically.
- Measuring range: 0.6 to 13 m

Available soon.



Inclusive: MeterMaster Plus, battery

ORDER NO. **EAN-CODE** 

080.931A 4 021563 691463 5







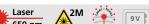
#### MeterMaster Pro Laser (1) Professional ultrasonic distance meter

- Laser for sighting ultrasound for measuringUltrasound measurement of lengths, surfaces and space
- volumes, automatic addition and multiplication
- By exact match of laser circle and ultrasound measuring range, the measurement can be precisely targeted.
- With versatile calculation and memory functions
- Self-triggering facility and reference mode
   Easy handling through dedicated function buttons and multiple line display
- Measuring range: 0.6 to 18 m



Inclusive: MeterMaster Pro Laser, battery

ORDER NO. **EAN-CODE** PU 4 021563 660483 5 080.930A













#### Laser distance measurement



#### LaserMeter X20

max. 20 m

NEW

max. 25 m







#### Laser distance meter - simple operating techniques

- Measuring range, internal 0.2 to 20 m
- Measuring precision of  $\pm$  3 mm (typical)\*
- The area and volume functions permit the acquisition of room sizes, for example to calculate material quantities
- Continuous Min./Max. measurement

#### Available soon.

\*See operating instructions for specific accuracies



Inclusive: LaserMeter X20, softbag, batteries

EAN-CODE ORDER NO. ΡU

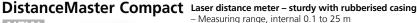




080.933A







- Measuring precision of  $\pm$  3 mm (typical)\*
- The area and volume functions permit the acquisition of room sizes, for example to
- calculate material quantities Continuous Min./Max. measurement
- With storage options
- Illuminated 3-line colour LC display
- Sturdy, ergonomically designed housing

\*See operating instructions for specific accuracies



Inclusive: DistanceMaster Compact, softbag, batteries

ORDER NO.	EAN-CODE	PU







080.936A









#### **DistanceMaster Home**











- Measuring precision of ± 3 mm (typical)\*
- Features distance, surface and volume calculation, Pythagoras 1+2, continuous Min./Max. measurement
- and plus/minus function
  With versatile calculation and memory functions
- The wall surface function automatically adds up surfaces by measuring the lengths of walls as well as their height once.
- Reference mode for easy transfer of lengths
- \*See operating instructions for specific accuracies





**EAN-CODE** 

4 021563 685080 5





ORDER NO.

080.949A









#### DistanceMaster Pocket













#### Laser distance meter - measure exactly to the point even faster

- Measuring range, internal 0.3 to 40 m

   Strong sunlight will reduce the maximum range.

   High measuring precision of ± 2 mm (typical)\*
- Features distance, surface and volume calculation, Pythagoras 1+2, continuous Min./Max. measurement and plus/minus function
- With versatile calculation and memory functions
- The wall surface function automatically adds up surfaces by measuring the lengths of walls as well as their height once.
- Reference mode for easy transfer of lengths

\*See operating instructions for specific accuracies

650 nm

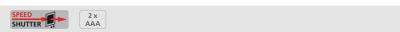




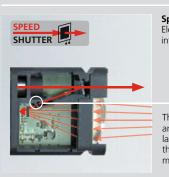
Inclusive: DistanceMaster Pocket, softbag, batteries

ORDER NO.	EAN-CODE	PU
080.945A	4 021563 683994	5





#### Laser distance measurement



#### Speed shutter:

Electronic anti-glare system for internal reference measurements

Thanks to the electronic anti-glare system, the DistanceMaster laser range finders measure 3x faster than conventional devices with mechanical systems.



#### **DistanceMaster Compact Pro**













#### Laser distance meter - with Bluetooth interface and angle measurement

- Measuring range, internal 0.1 to 50 m
- High measuring precision of  $\pm 2$  mm (typical)\*
- The area and volume functions permit the acquisition of room sizes, for example to calculate material quantities
- Bluetooth interface for measurement data transfer
- 360° inclination sensor for determining the horizontal and vertical distance
- Pythagoras 1 + 2 + 3\*\*
- continuous Min./Max. measurement
- With storage optionsIlluminated 3-line colour LC display
- Sturdy, ergonomically designed housing

#### Available soon.

\*See operating instructions for specific accuracies
\*\*In combination with 360° inclination sensor



Inclusive: DistanceMaster Compact Pro, softbag,

ORDER NO. **EAN-CODE** PU 080.937A 4 021563 692903 5













#### **DistanceMaster Pocket Pro**













Laser distance meter - measure exactly to the point more quickly with the help of high-speed technology

- Measuring range, internal 0.05 to 50 m
- High measuring precision of  $\pm 2$  mm (typical)\*
- Features distance, surface and volume calculation, Pythagoras 1+2, continuous Min./Max. measurement and plus/minus function

  – With versatile calculation and memory functions
- The wall surface function automatically adds up surfaces by measuring the lengths of walls as well as their height once.
- Reference mode for easy transfer of lengths

\*See operating instructions for specific accuracies



Inclusive: DistanceMaster Pocket Pro, softbag, batteries

ORDER NO. **EAN-CODE** 080.948A 4 021563 684502 5













#### DistanceMaster 80 (1)













#### Professional laser distance meter

- Measuring range 0.05 to 80 m
- Measuring accuracy ±1.5 mm (typical)\*
- Features distance, surface and volume calculation, Pythagoras 1+2, continuous Min./Max. measurement and plus/minus function
- With versatile calculation and memory functions
- Reference mode for easy transfer of lengths
- 1/4" threaded connection
- Measure out of a corner with the screw-on measuring prod

\*See operating instructions for specific accuracies













Inclusive: DistanceMaster 80, fold-out pin, softbag, batteries



Optional: FixPod 155 cm, page 98

ORDER NO. FAN-CODE PU 080.946A 4 021563 680634 5





### Laser distance meter technology

### PRECISE MEASUREMENT

### Overview















	LM X20	DM Compact	DM Home	DM Pocket	DM Compact Pro	DM Pocket Pro	DM 80
Measuring system	Laser	Laser	Laser	Laser	Laser	Laser	Laser
Measuring range / m	0,2 – 20	0,1 – 25	0,2 – 25	0,05 – 40	0,1 – 50	0,05 – 50	0,05 – 80
Accuracy / mm	±3 (typical)*	±3 (typical)*	±3 (typical)*	±2 (typical)*	±2 (typical)*	±2 (typical)*	±1,5 (typical)*
Distance, area, volume calculation	•	•	•	•	•	•	•
Continuous Min. / Max. measurement	• / •	• / •	• / •	•/•	• / •	• / •	•/•
Addition / subtraction			•	•		•	•
Pythagoras			1 + 2	1 + 2	1 + 2 + 3**	1 + 2	1 + 2
Memory / quantity		10	50	50	10	50	50
Bluetooth					•		
Wall surface function			•	•		•	•
Reference function			•	•		•	•
Measuring positions	2	2	3	3	2	3	4
Reflection surfaces		•	•	•	•	•	•
360° inclination sensor					•		
Laser class	2	2	2	2	2	2	2

<sup>• =</sup> available

**LM** = LaserMeter **DM** = DistanceMaster





The bar diagram shows how well suited the reflection surface is for measurement. This is particularly useful for measuring over long distances, dark surfaces or bright ambient light.



The laser range finder can be used for short distances as well – starting at distances of 5 cm.



<sup>\*</sup>See operating instructions for specific accuracies
\*\*In combination with 360° inclination sensor

# Universal lasers for homes and gardens



### **ROOM DESIGN AND INTERIOR FURNISHINGS**

Precise instrumentation for bare structure finishing and interior decoration. Use the right tools to make professional, quick alignments, even over longer distances. Demanding do-it-yourself enthusiasts and building professionals alike will find right instruments in our selection – for renovating, remodelling, on the building site, or anywhere precision is called for!

### Powerful technology



### LEVEL

Automatic alignment of the device with a magnetically dampened pendulum system. The devices are set to their initial position and align themselves automatically in a matter of seconds.





Transport LOCK: Units with "Automatic Level" are protected with a pendulum lock during transport.





RX-READY technology enables line lasers to be used even in unfavourable light conditions. The laser lines pulsate at a high frequency and this can be picked up by special laser receivers over long distances.





Laser class





For many measuring tools, the key to optimum working is magnetic adhesion. This leaves the hands free to complete other tasks.







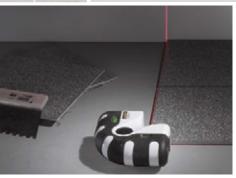
Tripod connection for optimal alignment of the instrument.







Laserliner instruments are available in sturdy carrying bags or hard-shell cases. SOFT: softbag HARD: plastic carry case







### Room design and interior furnishings

### Overview











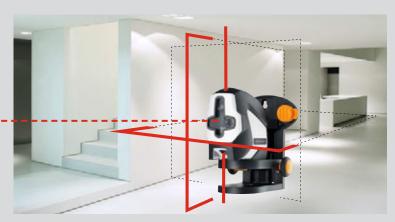


	SmartCross-Laser	SuperCross-Laser Compact	SuperCross-Laser 2	SuperCross-Laser 3	SuperCross-Laser 2P	SmartLine-Laser 360°
System	1H / 1V	1H / 1V	1H / 1V	1H / 2V	1H / 1V / 1P	1H360° / 1V
Brightness	standard	standard	standard	standard	standard	standard
Accuracy mm/10 m	5	5	5	5	5	4
Number of laser lines	2	2	2	3	2	2
Plumb laser					•	
Individually switchable laser	•		•	•	•	•
Levelling range	5°	4°	4,5°	5°	4°	5°
Levelling principle	Automatic-Level	Automatic-Level	Automatic-Level	Automatic-Level	Automatic-Level	Automatic-Level
Slope function	manual	manual	manual	manual	manual	manual
Receiver mode					•	•
Laser class	2	2	2	2	2	2

• = available



RangeXtender 30 Mag





The space grids show the number and direction of laser lines. **H** = Number of horizontal lasers

- P = Plumb laser up and down V = Number of vertical lasers S = Slope function







#### Wall and floor lasers





### HandyLaser Plus

NEW



#### Compact universal laser spirit level

- Combines the advantages of a laser spirit level in outstandingly compact dimensions

  – Vial accuracy 0.5 mm / 1 m

#### 90° pentaprism Mag

- The laser beam is deflected at an angle of 90°
- Vertical levelling
- With high-precision prism

Available soon.



**Inclusive:** HandyLaserCompact, adjustable feet, 90° pentaprism,

ORDER NO. **EAN-CODE** 





025.04.00A





4 021563 692644 5



#### SuperLine 2D



#### Line laser for aligning work on all surfaces

- Accuracy 1 mm / 1 m
- The rotatable angle scale means that the device and the graduated collar can be set separately to any angle.
- Powerful adhesion magnets facilitate attachment to magnetic surfaces
- Illuminated vial



Inclusive: SuperLine 2D, pins, batteries

ORDER NO. **EAN-CODE** 



081.110A 4 021563 662579 5









#### **SuperSquare-Laser Plus**



#### 90° line laser for alignment work on floors and walls

- Angle accuracy 0.05°, accuracy of vertical laser lines 0.5 mm / 1 m
   The wide-range laser beams also project easily visible laser lines onto walls.
- The two vials facilitate vertical levelling on walls.
- The 90° try-square edge makes it easy to align
- the first floor tile.
- Built-in levelling feetIlluminated vial
- 1/4" tripod connection





Inclusive: SuperSquare-Laser, laser enhancement glasses, carrying case, batteries



4 021563 662760 2



ORDER NO.

081.130A



**EAN-CODE** 



PU



#### SuperSquare-Laser 4

NEW



#### 90° line laser - ideal for laying wall and floor tiles

- Angle accuracy 0.5 mm / 1 m The 4 clearly visible laser lines are ideally suited for aligning tiles.
- Vertical and horizontal levelling on walls
   The applied lay edges and contact surface make it easy to position floor tiles.
- Clean application on all surfaces also when using pins
- Bubble levels to adjust the device
- Can be used as a laser spirit level

Available soon.





Inclusive: SuperSquare-Laser 4, pins, batteries

ORDER NO.	EAN-CODE	PU
081.134A	4 021563 692651	5











#### Cross-line lasers

### **FLEXIBLE APPLICATIONS**

The multi-functional accessories make the SmartCross laser versatile and suitable for a variety of professional applications, such as the installation of cupboards and bookcases, painting and varnishing tasks etc.

#### SmartCross-Laser with...



FlexClamp

Clamp for the damage-free attachment of surfaces to cupboard doors, standard lamps, ladders etc.



FlexHolder

Wall bracket for the easy alignment of the laser beam with stepless height adjustment (see page 64).



Adjustable mini stand with Velcro fastener for extruded sections and roof lath (see page 98).



FixPod 155 cm

3-way stand with crank height adjustment and telescopic tripod legs (see page 64).







#### **SmartCross-Laser**







#### Automatic cross-line laser with additional slope function

- 5° self-levelling range, accuracy 5 mm / 10 m
  Slope function is an additional feature that permits gradients to be laid out.
- Out-Of-Level is indicated by optical signals when the unit is out of its self-levelling range.
- Simple, uniform operating techniques

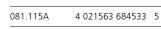




Inclusive: SmartCross-Laser, batteries

FAN-CODE





ORDER NO.















### **FlexClamp**



#### Universal clamp

- Suitable for all laser measuring devices with 1/4" threads
- Versatile damage free mounting options for surfaces
- Height and position of the measuring device easily adjustable





PH

ORDER NO.	EAN-CODE	PU
090.133A	4 021563 684618	5



#### Cross-line lasers



# SuperCross-Laser Compact (1)





- 4° self-levelling range, accuracy 5 mm / 10 m
   Slope function is an additional feature that permits gradients to be set out.
- Folding supporting feet ensure a stable position during alignment work but are conveniently tucked away for carrying.





Inclusive: SuperCross-Laser Compact, softbag, battery

ORDER NO.	EAN-CODE	PU
081.124A	4 021563 670857	5















#### SuperCross-Laser 2







#### Laser for interior finishing work featuring 2 laser lines

- 4.5° self-levelling range, accuracy 5 mm / 10 m
   Slope function is an additional feature that permits gradients to be set out.
- The device's height-adjustable bracket means that it can be mounted on a tripod or attached directly to the wall.





Inclusive: SuperCross-Laser 2,

height-adjustable bracket, softbag, batteries ORDER NO. **EAN-CODE** 

4 021563 662708 5



















### SuperCross-Laser 3

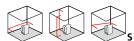




#### The cross-line laser with additional reference line

- With 3 laser lines: front cross-line laser and 90° laser on the side
- 5° self-levelling range, accuracy 5 mm / 10 m
   Slope function is an additional feature that permits gradients to be laid out.
   The device's height-adjustable bracket means that
- it can be mounted on a tripod or attached directly to the wall.





Inclusive: SuperCross-Laser 3, height-adjustable bracket, softbag, batteries

ORDER NO.	EAN-CODE	PU
081.140A	4 021563 668441	2

































#### Plum and 360° lasers



#### SuperCross-Laser 2P





#### Laser for interior finishing work featuring 2 laser lines

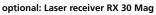
- 4° self-levelling range, accuracy 5 mm / 10 m
- Additional plumb laser at top and bottom
  Slope function is an additional feature that permits gradients to be laid out.
- The device's height-adjustable bracket means that it can be mounted on a tripod or attached directly
- RX-Ready: The laser receiver RX 30, which is available as an optional extra, can detect laser lines in a range of up to 30 m - ideal for outdoor applications.



Inclusive: SuperCross-Laser 2P, height-adjustable bracket, softbag, batteries

ORDER NO.	EAN-CODE	PU
081.125A	4 021563 670864	2





RangeXtender, including battery and universal mount

4 021563 672394 5





















#### SmartLine-Laser 360°







#### Automatic laser with horizontal 360° laser circle

The horizontal laser line creates a closed 360° laser

- line, and the vertical laser line is perpendicular to it. 5° self-levelling range, accuracy 4 mm / 10 m Slope function is an additional feature that permits gradients to be laid out.
- Individually switchable laser lines
- The device's height-adjustable bracket means that it can be mounted on a tripod or attached directly to the wall
- RX-Ready: The laser receiver RX 30, which is available as an optional extra, can detect laser lines in a range of up to 30 m ideal for outdoor applications.







Inclusive: SmartLine-Laser 360°, height-adjustable bracket, 2x adapter, softbag, batteries

#### Available soon.

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081.117A	4 021563 687176	2



#### optional: Laser receiver RX 30 Mag

RangeXtender, including battery and universal mount

4 021563 672394 5















033.25A













The laser beam is aimed exactly at the tip of a precisely sharpened cone and is deflected from the reflective surface in a circular manner. This creates a highly accurate continuous, circumferential 360° laser line.

#### Accessories and sets



#### RangeXtender 30 Mag



### Laser receiver for all line lasers with

- With RX-READY, the laser lines pulsate at a high frequency. This pulsation allows the range extender to detect laser lines up to a maximum of 30 m away.
- The universal mount enables the device to be attached to levelling staffs.
- Integrated head magnet



Inclusive: universal mount, battery

ORDER NO. **EAN-CODE** ΡU

033.25A 4 021563 672394 5





#### **FlexHolder**



#### Multi-functional, magnetic wall bracket

- Height-adjustable
  1/4" and 5/8" tripod threads
  Pins and magnets for various surfaces

Only for SmartCross-Laser, SCL 2, SCL 3, SCL 2P, SmartLine-Laser 360°.



ORDER NO. **EAN-CODE** 090.134A 4 021563 684847 5





### High-quality aluminium telescopic stand, ideal for quick changes in applications where working positions vary – 1/4" and 5/8" thread adapter

- The stand is clamped between floor and ceiling then the laser measuring tool is turned manually to set it to the correct height ready for operation.

  – 5-piece design for easy transport

  – Height approx. 330 cm



Inclusive: telescopic adapter,

ORDER NO.	EAN-CODE	PU
090.120A	4 021563 665372	4









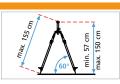
#### FixPod 155 cm



#### Tripod for SuperCross-Laser series, SmartLine-Laser 360°, SmartCross-Laser and laser distance meters

- 1/4" tripod connection
- 3-way tripod head Crank lift (30 cm) and telescopic tripod legs
- Rubber-steel tips for use on different surfaces





Inclusive: softbag

ORDER NO.	EAN-CODE	PU	
090 132Δ	4 021563 67899	) 6	





#### Accessories and sets



#### **SmartCross-Laser set**

NEW



Automatic cross-line laser with universal clamp FlexClamp and laser enhancement glasses

Product description SmartCross-Laser on page 61

Inclusive: SmartCross-Laser, FlexClamp, laser enhancement glasses, batteries, metal box



ORDER NO.	EAN-CODE	PU
081.116B	4 021563 686834	1 4









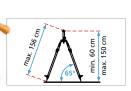


**SmartCross-Laser set** 150 cm



Automatic cross-line laser with compact camera tripod 150 cm

 Product description SmartCross-Laser on page 61





Inclusive: SmartCross-Laser, softbag, compact camera tripod 150 cm incl. softbag, batteries

ORDER NO. **EAN-CODE** PU 081.114A 4 021563 687824 2











SuperCross-Laser set 330 cm



Automatic cross-line laser with telescopic stand 330 cm

Product description SuperCross-Laser 2 on page 62



Inclusive: SuperCross-Laser 2, height-adjustable bracket, softbag, telescopic stand 330 cm incl. softbag, telescopic adapter, batteries

ORDER NO.	EAN-CODE	PU	
181 121Δ	4 021563 663996	2	













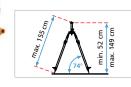


SuperCross-Laser 2P RX set 150 cm



Automatic cross-line laser with laser receiver and compact tripod

Product description SuperCross-Laser 2P on page 63





**Inclusive:** SuperCross-Laser 2P, height-adjustable bracket, softbag, RangeXtender RX 30, universal mount, compact tripod 150 cm incl. softbag, batteries

ORDER NO.	EAN-CODE	PU
081.128A	4 021563 679775	2















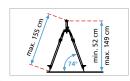
SmartLine-Laser 360° set Automatic cross-line laser with

NEW



compact tripod 155 cm and laser enhancement glasses

Product description SmartLine-Laser 360° on page 63





**Inclusive:** SmartLine-Laser 360°, height-adjustable bracket, 2x adapter, softbag, compact tripod 155 cm incl. softbag, laser enhancement glasses, batteries

ORDER NO.	EAN-CODE	PU	
001 110D	1 021562 6060	NF 2	



















# **Professional cross-line lasers**



### INTERIOR FINISHING AND BUILDING

The ideal laser measuring device for interior and dry finish work. Simple handling – these devices align themselves automatically. Bright laser lines make them ideally suited for laying tiles, wall studding, window installation and much more. The line lasers with laser receiver can even be used outdoors. The best visibility is offered by green line lasers.

### Powerful technology







Automatic alignment of the device with a magnetically dampened pendulum system. The devices are set to their initial position and align themselves automatically in a matter of seconds.





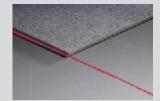


The laser beam is aimed exactly at the tip of a precisely sharpened cone and is deflected from the reflective surface in a circular manner. This creates a highly accurate continuous, circumferential 360° laser line.



#### SENSOR

Electronic vials and positioning motors controlled by temperaturestable sensors for automatic alignment of devices. The devices are set to their initial position and align themselves automatically.









High-performance class laser diodes produce extremely bright laser lines. They remain visible even on surfaces at great distances or on dark surfaces as well as under bright ambient light conditions.

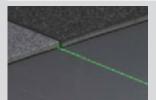






lock

Transport LOCK: Units with "Automatic Level" are protected with a pendelum lock during transport. A special motor lock protects units with "Sensor Automatic".





The green, state-of-the-art DLD laser diodes offer energy efficiency and high temperature stability, providing outstanding laser beam quality. The result is a sharp, distinct and therefore clearly visible laser line.





Additional function for all units with "Sensor Automatic": The electronic permanently levels the units even if these are moving. For quick levelling, on vibrating surfaces and windy weather.







Green looks 12 times brighter than red. This makes possible applications on dark surfaces, over long distances and working even in very bright ambient light conditions. A red laser with a wavelength of 635 nm is used as reference for the difference in brightness.







RX- and GRX-READY technology enables line lasers to be used even in unfavourable light conditions. The laser lines pulsate at a high frequency and this can be picked up by special laser receiversover long distances.







Laser classes

Laserliner instruments are available in sturdy carrying bags or hard-shell cases.



In practical carrying case with reinforced aluminium corners: always ready for use



SOFT: softbag HARD: plastic carry case





#### Sortimo® L-BOXX®

mobile carrying case system for safely transporting measuring instruments and accessories flexible, practical and compatible with the Sortimo® vehicle equipment system



Battery system



### Overview













	ACL 2	ACL 2 XP	ACL 2 XPG
System	1H / 1V	1H / 1V / 5P	1HG / 1VG / 5P
Brightness	PowerBright+	PowerBright	Green DLD
Accuracy mm / 10 m	2	2	2
Number of laser lines	2	2	2
Laser spread	120°	H 180° V 120°	HG 180° VG 120°
Number of laser points		5	5
Plumb function		•	•
Individually switchable laser	•	•	•
Levelling range	3°	3°	3°
Levelling principle	Automatic-Level	Automatic-Level	Automatic-Level
System pad			
AntiShake			
Slope function	manual	manual	manual
Receiver mode	•	•	•
Laser classes	2M	2	2

ALL 3D	PPL 3D	PPL 3DG		
1H360°/ 2V360°	1H360°/ 2V360°	1HG360°/ 2V360°		
PowerBright+	PowerBright+	Green DLD / PowerBright+		
2	2	2		
3	3	3		
360°	360°	360°		
•	•	•		
•	•	•		
2,5°	2,5°	2,5°		
Automatic-Level	Automatic-Level	Automatic-Level		
	•	•		
	•	•		
manual	manual	manual		
•	•	•		
2M	2M	2M		

• = available

**ACL** = AutoCross-Laser 2C, AutoCross-Laser 2 XP, AutoCross-Laser 2 XPG

**ALL** = AutoLine-Laser 3D **PPL** = PowerPlane-Laser 3D, PowerPlane-Laser 3DG













1H 3V 1D

The space grids show the number and

direction of laser lines.

H = Number of horizontal lasers

D = Downward plumb laser (downpoint)

V = Number of vertical lasers

S = Slope function

HG = Number of green, ) horizontal lasers VG = Number of green, vertical lasers



The magnetic holder designed as a tripod adapter enables perpendicular plumbing with the AutoCross-Laser 2 XP and XPG.

### Compact cross-line lasers

#### **AutoCross-Laser 2 Plus**

NEW



#### Cross-line laser with 2 clearly visible laser lines

- 3° self-levelling range, accuracy 2 mm / 10 m
   Additional slope function for aligning inclines
- Individually switchable laser
- The magnetic wall bracket allows the unit to be used as a stand-alone device or in combination with other devices – on walls and attached to magnetic objects
- Ideal for mounting on drywall construction profiles RX-Ready: The laser receiver RX 40, which is available as an optional extra, can detect laser lines in a range of up to 40 m - ideal for outdoor applications.







Inclusive: AutoCross-Laser 2, magnetic wall mount, batteries, carrying case

ORDER NO.	EAN-CODE	PU
032.101A	4 021563 688722	1

















optional: Laser receiver RX 40



RangeXtender, including battery and universal mount 4 021563 688036





#### AutoCross-Laser 2 Pro

#### Cross-line laser with 2 clearly visible laser lines

- Product description same as AutoCross-Laser 2 Plus

- The kit comes with a SpeedPowerPack quick charger and rechargeable batteries

Inclusive: AutoCross-Laser 2, rechargeable batteries, quick charger, magnetic wall mount, carrying case



























#### AutoCross-Laser 2 XP

NEW





#### Cross-line laser with 2 clearly visible laser lines and additional 5-point laser

- 3° self-levelling range, accuracy 2 mm / 10 m
- The 5 laser points are arranged each offset by 90° on the horizontal and vertical planes of the laser lines. 3 points of intersection, consisting of a laser line and point, are formed at the end of the laser lines
- The plum and ceiling points allow markings to be
- easily transferred from the floor to the ceiling Additional slope function for aligning inclines
- Individually switchable laser
- The magnetic wall bracket allows the unit to be used as a stand-alone device or in combination with other devices - on walls and attached to magnetic objects
- Ideal for mounting on drywall construction profiles
- RX-Ready: The laser receiver RX 40, which is available as an optional extra, can detect laser lines in a range of up to 40 m – ideal for outdoor applications.









Inclusive: AutoCross-Laser 2 XP, magnetic wall mount, batteries, carrying case

ORDER NO.	EAN-CODE	PU
060.101A	4 021563 691432	1





RangeXtender, including battery and universal mount

033.40 4 021563 688036























#### AutoCross-Laser 2 XPG

NEW

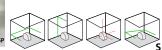


#### Green cross-line laser with ultra bright diode technology and additional 5-point laser

- Product description same as AutoCross-Laser 2 XP
- Extremely bright green DLD laser cross at the front achieves high-quality lines: precise, clear and therefore easily visible.
- GRX-Ready: in combination with the optional laser receiver, the integrated hand-held receiver mode permits detection of laser lines at long distances and under unfavourable light conditions.
- Green laser technology with 0°C...45°C temperature range

Available soon.





Inclusive: AutoCross-Laser 2 XPG, magnetic wall mount, batteries, carrying case

ORDER NO.	EAN-CODE	PU
060.111A	4 021563 692866	1





















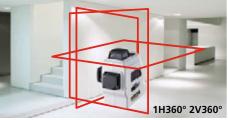
#### **HIGH POWER**

#### 3D line lasers



#### **AutoLine-Laser 3D** NEW













Three-dimensional laser with a horizontal and two vertical 360° laser circles

- PowerBright-Laser+ with 3 extremely bright 360° laser lines
- Straight forward plumb function using laser crosses
- Optimised for work close to the ceiling

- 2.5° self-levelling range, accuracy 2 mm / 10 m
   Additional slope function for aligning inclines
   Out-Of-Level: is indicated by optical signals when the unit is outside its self-levelling range.
- RX-Ready: The laser receiver RX 40, which is available as an optional extra, can detect laser lines in a range of up to 40 m - ideal for outdoor applications.





#### optional: Laser receiver RX 40

. RangeXtender, including battery and universal mount

Inclusive: AutoLine-Laser 3D, batteries, softbag

4 021563 688036























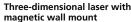




#### **AutoLine-Laser 3D Plus**

NEW





Product description same as AutoLine-Laser 3D

- The magnetic wall bracket allows the unit to be used as a stand-alone device or in combination with other devices - on walls and attached to magnetic objects

Inclusive: AutoLine-Laser 3D, magnetic wall mount, batteries, carrying case



ORDER NO.	EAN-CODE	PU
036.202A	4 021563 689873	1























AutoLine-Laser 3D set 300 cm





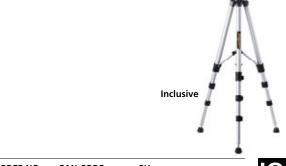


#### Three-dimensional laser with laser receiver and compact tripod 300 cm

- Product description same as AutoLine-Laser 3D



Inclusive: AutoLine-Laser 3D, RangeXtender 40 Mag, softbag, batteries, compact tripod 300 cm incl. softbag









**BONUS** 





290

















#### **HIGH POWER**

#### 3D line lasers



### PowerPlane-Laser 3D Pro







#### Three-dimensional laser with a horizontal and two vertical 360° laser circles

- PowerBright-Laser+ with 3 extremely bright 360° laser lines
- Straight forward plumb function using laser crosses

- Optimised for work close to the ceiling
   2.5° self-levelling range, accuracy 2 mm / 10 m
   Additional slope function for aligning inclines
   The magnetic wall bracket allows the unit to be used
- as a stand-alone device or in combination with other devices - on walls and attached to magnetic objects
- Out-Of-Level: is indicated by optical signals when the unit is outside its self-levelling range.
- RX-Ready: The laser receiver RX 40, which is available as an optional extra, can detect laser lines in a range of up to 40 m – ideal for outdoor applications.





Inclusive: PowerPlane-Laser 3D, magnetic wall mount, detachable baseplate, rechargeable batteries, quick charger, complete in the Sortimo® L-BOXX® 136



System pad for precision front and lateral positioning

**EAN-CODE** 

optional: Laser receiver RX 40

4 021563 689897





|--|







ORDER NO.

036.301L



4 021563 688036

RangeXtender, including battery and universal mount









#### PowerPlane-Laser 3DG Pro

NEW





#### Three-dimensional laser with one green horizontal and two red vertical 360° laser circles

- Product description same as PowerPlane-Laser 3D Pro
- Horizontal 360° laser line with green DLD laser technology produced a high quality line as well as a sharp, distinct and therefore clearly visible line image. PowerBright-Laser\* with 3 extremely bright vertical
- 360° laser lines
- RX-/GRX-Ready: in combination with the optional laser receiver, the integrated hand-held receiver modes permit detection of laser lines at long distances and under unfavourable light conditions.
- Green laser technology with 0°C...50°C temperature range

#### Available soon.





Inclusive: PowerPlane-Laser 3DG, magnetic wall mount, detachable baseplate, rechargeable batteries, quick charger, complete in the Sortimo® L-BOXX® 136



ORDER NO.	EAN-CODE	PU
036.311L	4 021563 692873	1





























### Overview













	ACL 3C	CCL 5 DLD	PCL 3	PCL 5G DLD	ECL 8	PCL 8 S
System	1H / 2V / 1D	1HG / 1VG / 3V / 1D	1H / 2V / 1D	1HG / 4VG / 1D	4H / 4V / 1D	4H / 4V / 1D
Brightness	PowerBright	Green DLD / PowerBright	PowerBright**	Green DLD	PowerBright	PowerBright++
Accuracy mm/10 m	2	2	1,5	1,5	1	1
Number of laser lines	3	5	3	5	8	8
Number of laser points	1	1	1	1	1	1
Plumb function	•	•	•	•	•	•
Individually switchable laser	•	•	•	•	•	•
Levelling range	2,5°	2°	2°	2°	2,5°	3°
Levelling principle	Automatic-Level	Automatic-Level	Automatic-Level	Automatic-Level	Sensor-Automatic	Sensor-Automatic
Vertically adjustable rotary base	•	•	•	•	•	•
Vertical fine adjustment	•	•	•	•	•	•
AntiShake					•	•
Slope function		manual	manual	manual	electronic	electronic
Receiver mode	•	•	•	•	•	•
Laser class	2M	2M	2M	2M	2M	2M

• = available

ACL = AutoCross-Laser 3C CCL = CombiCross-Laser 5 DLD **PCL** = PowerCross-Laser 3, PowerCross-Laser 5G DLD, PowerCross-Laser 8 S

**ECL** = EvolutionCross-Laser 8



Laser receiver for cross-line lasers with RX technology: With the laser receiver the laser lines can be seen in any light. With RX-Ready-Technology the laser lines pulsate at a high frequency. This pulsation allows the range extender to detect laser lines up to 50 m away.

Universal mount for attachment on the levelling staff. Flexi levelling staffs are recommended for all ground level measurements.

#### Cross-line lasers with alignment base



#### AutoCross-Laser 3C





#### Cross-line laser with plumb laser additional reference line

- Straightforward plumb function using laser cross at the top and additional plumb laser
- Perpendicular alignment of vertical laser lines
   2.5° self-levelling range, accuracy 2 mm / 10 m
   The pivoted housing can be turned with a vernier adjustment mechanism to permit exact positioning
- Adjustable feet with removable rubber caps
- RX-Ready: The laser receiver RX 51, which is available as an optional extra, can detect laser lines in a range of up to 50 m – ideal for outdoor applications.





caps, carrying case



ORDER NO.	EAN-CODE	PU
031.212A	4 021563 668465	1

laser enhancement glasses, tripod adapter (for crank tripods), rubber





RangeXtender, including battery and universal mount

4 021563 662920

























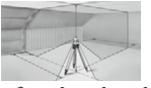
#### CombiCross-Laser 5 DLD

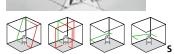




#### Green cross-line laser with ultra bright diode technology, and an additional 3 red laser lines and plumb laser

- Extremely bright green laser cross at front in the DLD design achieves high-quality lines as well as a clean and clear and therefore easily visible line image. Additional 3 vertical red laser lines.
- 2° self-levelling range, accuracy 2 mm / 10 m
   Perpendicular alignment of vertical laser lines
- Straight forward plumb function using laser cross
- at the top and additional plumb laser. Additional slope function for aligning inclines
- The pivoted housing can be turned with a vernier adjustment mechanism to permit exact positioning of laser lines
- RX-/GRX-Ready: in combination with the optional laser receiver, the integrated hand-held receiver modes permit detection of laser lines at long distances and under unfavourable light conditions
- Green laser technology with 0°C...50°C temperature range







Inclusive: CombiCross-Laser 5 DLD, power supply/battery charger, tripod adapter (for crank tripods), rubber caps, lithium ion battery, complete in the Sortimo® L-BOXX® 136

ORDER NO.	EAN-CODE	PU
057.200L	4 021563 688494	1





optional: Laser receiver CRX 30 CombiRangeXtender, including battery and universal mount

4 021563 682928 033.35



























#### Cross-line lasers with alignment base



#### PowerCross-Laser 3





#### Robust cross-line laser with 3 ultra bright laser lines and plumb function

- Straight forward plumb function using laser cross at the top and additional plumb laser
- Perpendicular alignment of vertical laser lines
   Additional slope function for aligning inclines
   2° self-levelling range, accuracy 1.5 mm / 10 m
- Removable lithium battery pack with USB charger function.
- The pivoted housing can be turned with a vernier adjustment mechanism and horizontal circle to
- permit exact positioning of laser lines

  RX-Ready: The laser receiver RX 40, which is available
  as an optional extra, can detect laser lines in a range
  of up to 40 m ideal for outdoor applications.







Inclusive: PowerCross-Laser 3, laser enhancement glasses, power supply/battery charger, tripod adapter (for crank tripods), rubber caps, lithium ion battery, complete in the Sortimo® L-BOXX® 136

ORDER NO.	EAN-CODE	PU
032.030L	4 021563 685226	1



#### optional: Laser receiver RX 40

RangeXtender, including battery and universal mount

033.40 4 021563 688036

























#### PowerCross-Laser 5G **DLD**

NEW





#### Robust cross-line laser with 5 ultra bright, green laser lines and plumb function

- Extremely bright, green, high-quality DLD laser lines: sharp, distinct and therefore clearly visible.
- Straight forward plumb function using laser cross at the top and additional plumb laser
- Perpendicular alignment of vertical laser lines - Additional slope function for aligning inclines
- 2° self-levelling range, accuracy 1.5 mm / 10 m
- Removable lithium battery pack
- The pivoted housing can be turned with a vernier adjustment mechanism and horizontal circle to
- permit exact positioning of laser lines
  GRX-Ready: in combination with the optional laser receiver, the integrated hand-held receiver modes permit detection of laser lines at long distances and under unfavourable light conditions
- Green laser technology with 0°C...50°C temperature range

Available soon.







Inclusive: PowerCross-Laser 5G DLD, power supply/battery charger, tripod adapter (for crank tripods), rubber caps, lithium ion battery, complete in the Sortimo® L-BOXX® 136

ORDER NO.	EAN-CODE	PU
032 0601	4 021563 602736	1



CombiRangeXtender, including battery and universal mount

033.35 4 021563 682928























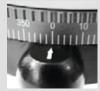


#### Cross-line lasers with alignment base





Stable metal base with vernier adjustment



Freely rotatable horizontal circle

#### **EvolutionCross-Laser 8**





#### High-precision cross-line laser with 8 super-bright laser lines and plumb laser

- Additional slope function for aligning inclines

- Motorised adjustment up to ± 2.5°
   2.5° self-levelling range, accuracy 1 mm / 10 m
   The pivoted housing can be turned with a vernier adjustment mechanism and horizontal circle to permit exact positioning of laser lines
- RX-Ready: The laser receiver RX 40, which is available as an optional extra, can detect laser lines in a range of up to 40 m – ideal for outdoor applications.







Inclusive: EvolutionCross-Laser 8, rechargeable batteries, quick charger, tripod adapter (for crank tripods), rubber caps, battery, complete in the Sortimo® L-BOXX® 238

ORDER NO.	EAN-CODE	PU
048.300L	4 021563 688623	1



#### optional: Laser receiver RX 40

RangeXtender, including battery and universal mount

4 021563 688036

























#### PowerCross-Laser 8 S





All laser lines as well as the slope function can be switched on/off individually via remote control.



#### High-precision cross-line laser with 8 ultra-bright laser lines and plumb laser

- The 4 horizontal laser diodes project a very bright homogeneous 360° laser line, the 4 vertical laser lines are aligned at right angles to one another.

  – Motorised adjustment up to  $\pm$  3°
- 3° self-levelling range, accuracy 1 mm / 10 m
- IR remote control allows the manual slope function for aligning inclines to be controlled. The relevant axes are visually displayed via LEDs.
- Straightforward plumb function using laser cross at the top and additional plumb laser
- The pivoted housing can be turned with a vernier adjustment mechanism and horizontal circle to permit exact positioning of laser lines
- RX-Ready: The laser receiver RX 40, which is available as an optional extra, can detect laser lines in a range of up to 40 m – ideal for outdoor applications.







Inclusive: PowerCross-Laser 8 S, laser enhancement glasses, power supply/battery charger, remote control, tripod adapter (for crank tripods), rubber caps, lithium ion battery, complete in the Sortimo® L-BOXX® 238

ORDER NO.	EAN-CODE	PU
032.080L	4 021563 688289	1



#### optional: Laser receiver RX 40

RangeXtender, including battery and universal mount

033.40 4 021563 688036























#### Accessories



#### CombiRangeXtender 30

#### Laser receiver for all line lasers with RX and GRX **READY technology**

With RX- and GRX-READY, the laser lines pulsate at a high frequency. This pulsation allows the CombiRangeXtender to detect laser lines up to a maximum of 30 m away The universal mount enables the device to be attached

to levelling staffs.

Inclusive: universal mount, battery













#### Laser receiver for all line lasers with RX-READY technology

- Fast alignment work in close and long distance
- With RX-READY, the laser lines pulsate at a high frequency. This pulsation allows the range extender to detect laser lines up to a maximum of 50 m away.
- Head and side magnets
   The universal mount enables the device to be attached to levelling staffs.

Not suitable for green lasers.

Inclusive: universal mount, battery

ORDER NO.	EAN-CODE	PU
033.40	4 021563 6880	36 1













#### Laser receiver for all line lasers with RX-READY technology

- Fast alignment work in close and long distance - With RX-READY, the laser lines pulsate at a high frequency. This pulsation allows the range extender
- to detect laser lines up to a maximum of 50 m away. - The universal mount enables the device to be attached to levelling staffs.



Not suitable for green lasers, PCL 3 and 8 S.

Inclusive: universal mount, battery

ORDER NO.	EAN-CODE	PU
033.20-1	4 021563 6629	20 1













#### Magnetic target plate red / green



#### For all rotary lasers or laser instruments

- With adhesion magnets and dual scaleE.g. for suspended ceilings



ORDER NO.	EAN-CODE	
023.61A	4 011879 643980	red
023.65	4 021563 663439	green





#### LaserVision red / green



#### Laser enhancement glasses for red and

green laser

– Optimum visibility of the laser marker from distance

ORDER NO.	EAN-CODE	
020.70A	4 011879 644000	red
020.71A	4 021563 684663	green



# **Rotary lasers**



# INTERIOR FINISHING WORK, ABOVE AND BELOW GROUND CONSTRUCTION

Rotary lasers are used for a variety of survey tasks. Their primary task is to accurately convey heights, alignments and slopes over great distances, even in poor visibility. Laserliner rotary lasers feature a number of technologies that make measuring easier and safer and present numerous application options. Their reliability and accuracy have proved themselves in practical applications, even in very unusual situations.

### Powerful technology



#### LEVEL

Automatic alignment of the device with a magnetically dampened pendulum system. The devices are set to their initial position and align themselves automatically in a matter of seconds.



#### sensor

#### SENSOR

Electronic vials and positioning motors controlled by temperaturestable sensors for automatic alignment of devices. The devices are set to their initial position and align themselves automatically.







Transport LOCK: Units with "Automatic Level" are protected with a pendelum lock during transport. A special motor lock protects units with "Sensor Automatic".





Rotary lasers with 635 nm technology have a large temperature range in which they operate reliably. Visibility is limited to indoor area applications.





Green looks 12 times brighter than red. This makes possible applications on dark surfaces, over long distances and working even in very bright ambient light conditions. A red laser with a wavelength of 635 nm is used as reference for the difference in brightness.





Additional function for all units with "Sensor Automatic": The electronic permanently levels the units even if these are moving. For quick levelling, on vibrating surfaces and windy weather.



ADS

Prevents erroneous or inaccurate measurements: Continuous monitoring of the alignment of the laser is activated 30 or 45 seconds after automatic levelling. Measurements will be suspended as a precaution if the device is disturbed unintentionally or moves due to the influence of external factors.



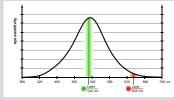


Protection against dust and water – The measuring tools are characterised by specific protection against dustand rain.









Unlike red lasers, green laser light can only be generated indirectly. This limits working temperature such that green lasers are darker outside a temperature range of  $0-40^{\circ}$  C or  $0-50^{\circ}$ C. Energy consumption is also greater, this reduces battery operating time.





### Sets for medium ranges

### Overview



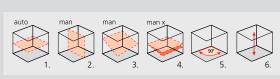




	BeamControl- Master	AutoSmart-Laser	AquaPro
Horizontal	manual	auto	auto
Vertical	manual	auto	manual
Accuracy mm / 10 m	2	4	2
Plumb laser up	•	•	•
Levelling range		4°	3,5°
Levelling principle	manual	Sensor-Automatic	Automatic-Level
Slope function	manual		manual
Remote control	•		
Receiver mode	•	•	•
Laser class	2	2	2

• = available





The space grids show the laser planes and functions.

1. Horizontal levelling

3. Slope function

4. Slope function of one axis

6. Plumb function

auto: Automatic alignment

man: Manual alignment

Battery system







#### Sets for medium ranges

#### **BeamControl-Master** 120 set





#### Rotary laser with laser receiver

- Accuracy 2 mm / 10 m
- A special die-cast-zinc platform guarantees
- long-term stability

   Laser modes: spot, scan, rotary and hand receiver mode
- All functions can be controlled remotely.
- Laser receiver range up to 120 m radius

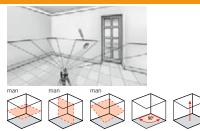












BeamControl-Master 120 set inclusive: BeamControl-Master, SensoCommander 120, universal mount, aluminium lightweight tripod 165 cm, flexi levelling staff, softbag, batteries

ORDER NO.	EAN-CODE	P
026.04.004	4.021563.665181	1







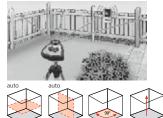
#### **AutoSmart-Laser** 100 set

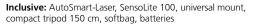




#### Automatic rotary laser with laser receiver and tripod

- 4° self-levelling range, accuracy 4 mm / 10 m
- Laser modes: spot, scan, rotary and hand receiver mode
- Laser receiver range up to 100 m radius





ORDER NO.	EAN-CODE	PU
055 04 00Δ	4 021563 674992	1





















#### AquaPro 120 set





### Automatic rotary laser with laser receiver, ripod and levelling staff - Vertical alignment with adjustable foot - 3.5° self-levelling range, accuracy 2 mm / 10 m - Laser modes: rotary and hand receiver mode - Laser receiver range up to 120 m radius

### Aluminium lightweight tripod 165 cm / flexi levelling staff – Product description same as on page 96 and 99





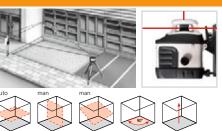


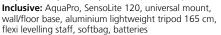












Inclusive

ORDER NO.	EAN-CODE	PU	
046.04.00A	4 021563 670598	1	







#### Sets for medium ranges



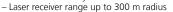
#### AquaPro 310 S





#### Automatic rotary laser with rapid horizontal

- Vertical alignment with adjustable foot
- 3.5° self-levelling range, accuracy 2 mm / 10 m Laser modes: rotary and hand receiver mode Laser receiver range up to 300 m radius







Inclusive: AquaPro, SensoLite 310, universal mount, wall/floor base, rechargeable batteries, power supply/battery

charger, carrying case, batteries				
ORDER NO.	EAN-CODE	PU		

4 021563 663835 1



















046.02.00A







### AquaPro 120 Plus set 165 cm



#### Automatic rotary laser with laser receiver, tripod, levelling staff and rechargeable batteries/charger

- Vertical alignment with adjustable foot
   3.5° self-levelling range, accuracy 2 mm / 10 m
   Laser modes: rotary and hand receiver mode
- Laser receiver range up to 120 m radius

### Aluminium lightweight tripod 165 cm / flexi levelling staff – Product description same as on page 96 and 99

Inclusive: AquaPro, SensoLite 120, universal mount, wall/floor base, rechargeable batteries, power supply/battery charger, aluminium lightweight tripod 165 cm, flexi levelling staff, softbag, batteries





ORDER NO.	EAN-CODE	PU
046.03.00A	4 021563 69052	27 2

Inclusive







Laser



















### Overview



	Iros Celler Estreno S		22 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
	Quadrum OneTouch	Quadrum	Quadrum DigiPlus	Centurium Express	DuraMax XPro
Horizontal	auto	auto	auto	auto	auto
Vertical		auto	auto	auto	auto
Accuracy mm / 10 m	0,75	1	0,75	0,75	0,5
Plumb laser up		•	•	•	
Plumb laser down		•	•	•	
HighSpeed				•	
Levelling range	5°	5°	6°	5°	5°
Levelling principle	Sensor-Automatic	Sensor-Automatic	Sensor-Automatic	Sensor-Automatic	Sensor-Automatic
AntiDriftSystem (Tilt)	•	•	•	•	•
Vertical fine adjustment		•	•	•	
AntiShake	•			•	•
Slope function	DualSlope	DualSlope	Single-/DualGrade	DualSlope	Single-/DualSlope
Remote control	•	•	•	•	•
Receiver mode	•	•	•	•	•
Green laser technology		•		•	
Laser classes	2	2 / Green 3R	2	2 / Green 3R	3R

• = available





#### **Angle Bracket**

Steeper slopes can be set using the optional angle plate and a tripod. Fine adjustment can easily achieve 0.1°. At the same time, gradients can be laid out exactly.



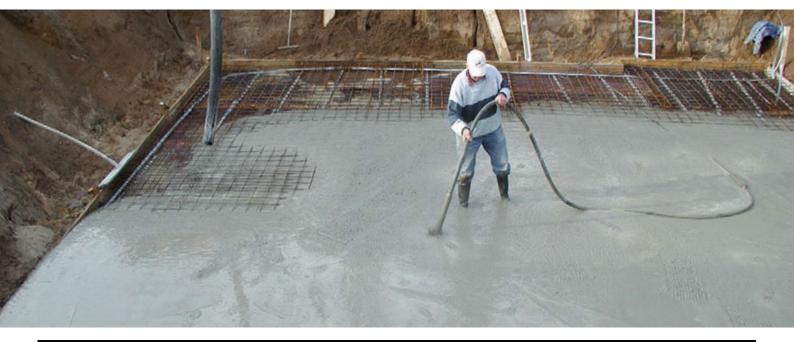


Laserliner instruments are available in hard-shell cases. HARD: plastic carry case



#### Sortimo® L-BOXX®

Mobile carrying case system for safely transporting measuring instruments and accessories flexible, practical and compatible with the Sortimo® vehicle equipment system



### Quadrum OneTouch 410 S





#### One-button operation rotary laser. For horizontal levelling over great distances.

- Simple one-button operation– 5° self-levelling range, accuracy 0.75 mm / 10 m
- Laser modes: spot, scan, rotary and hand receiver mode
- All functions of the rotary laser can be controlled with the remote control from up to 40 m.
- The 4 IR receiving diodes allow this instrument to be remotely operated from all sides.
- Integrated safe-operating concept OneTouch
   Laser receiver range up to 400 m radius





Inclusive: Quadrum OneTouch, SensoLite 410, universal mount, remote control, rechargeable battery, battery compartment, power supply/battery charger, carrying case, batteries

ORDER NO.	EAN-CODE	PU
053.200A	4 021563 677849	1





#### OneTouch operation

The laser is switched over from setup mode (AntiShake) into secure mode (ADS-Tilt) with a single press of a button - simple operation.



























#### Quadrum 410 S





#### Fully automatic rotary laser

- With additional red plumb laser 5° self-levelling range, accuracy 1 mm / 10 m
- Laser modes: spot, scan, rotary and hand receiver mode
- All functions of the rotary laser can be controlled with the remote control from up to 40 m.
- The 4 IR receiving diodes allow this instrument to be remotely operated from all sides. Laser receiver range up to 400 m radius











Inclusive: Quadrum, SensoLite 410, universal mount, remote control, rechargeable battery, battery compartment, power supply/battery charger, carrying case, batteries

ORDER NO.	EAN-CODE	PU
053.00.07A	4 021563 670772	1































#### **Quadrum Green 410 S**



#### Fully automatic rotary laser with green laser technology

- Product description same as Quadrum 410 S











**Inclusive:** Quadrum Green, SensoLite 410, universal mount, remote control, rechargeable battery, battery compartment, power supply/battery charger, carrying case, batteries

ORDER NO.	EAN-CODE	PU
053.00.02A	4 021563 6778	56 1

























#### Quadrum DigiPlus 410 S





#### 2-axis inclination laser

- 6° self-levelling range, accuracy 0.75 mm / 10 m Deviation from the horizontal plane can set digitally in X and Y axes.
- Laser modes: spot, scan, rotary and hand receiver mode

- High maximum speed of 600 rpm Large illuminated LCD All functions of the rotary laser can be controlled with the remote control from up to 40 m.
- The 4 IR receiving diodes allow this instrument to be remotely operated from all sides.
- Laser receiver range up to 400 m radius













Inclusive: Quadrum DigiPlus, SensoLite 410, universal mount, remote control, rechargeable battery, battery compartment, power supply/battery charger, carrying case, batteries

ORDER NO.	EAN-CODE	PU
053.300A	4 021563 682270	1





#### Clearly arranged, illuminated LCD

All operating modes are shown on the large LC display. This makes it easy and straightforward to set up the device. Direct read-off of set inclination.



























#### **Centurium Express** 410 S





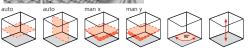
Can be vertically positioned on ground or tripod



#### Fully automatic rotary laser

- 4° self-levelling range, accuracy 0.75 mm / 10 m
- Laser modes: spot, scan, rotary and hand receiver mode
- All functions of the rotary laser can be controlled with the remote control from up to 40 m.
- The 4 IR receiving diodes allow this instrument to be remotely operated from all sides.
- Extremely high speed of max. 800 rpm for fast results in express hand-held receiver mode
- AntiShake function for quick set-up on ground with slight vibrations and in strong wind
- Laser receiver range up to 400 m radius





Inclusive: Centurium Express, SensoLite 410, universal mount, remote control, rechargeable battery, battery compartment, power supply/battery charger, batteries, complete in the Sortimo® L-BOXX® 238



ORDER NO.	EAN-CODE	PU
056.100L	4 021563 685288	1































#### **Centurium Express** Green 410 S

#### Fully automatic rotary laser with green laser technology

Product description same as CenturiumExpress 410 S













Inclusive: Centurium Express Green, SensoLite 410, universal mount, remote control, rechargeable battery, battery compartment, power supply/battery charger, batteries, complete in the Sortimo® L-BOXX® 238

ORDER NO.	EAN-CODE	PU
056.500L	4 021563 6853	01 1

































#### DuraMax XPro 410 S (1)





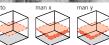
#### High precision rotary laser with shutter function horizontal levelling over great distances

- So self-levelling range, accuracy 0.5 mm / 10 m
   Shutter function: The working range of the laser beam can be limited to 4 different segments.
   Laser modes: spot, scan, rotary and hand
- receiver mode
- Single-slope function for manual tilt of an axis in automatic operation, even if ADS tilt is active.
- All functions can be controlled remotely using
- the Commander 50.

   The 4 IR receiving diodes allow this instrument to be remotely operated from all sides.

   Laser receiver range up to 400 m radius





Inclusive: DuraMax XPro, SensoLite 410, universal mount, Commander 50, rechargeable batteries, power supply/battery charger, carrying case, batteries

ORDER NO.	EAN-CODE	PU	
027.20.09A	4 021563 677795	1	





#### **Shutter function**

Various segments of the laser output can be shut off separately in order to eliminate disturbing reflections and interference when several rotary lasers are used simultaneously on the construction site.



















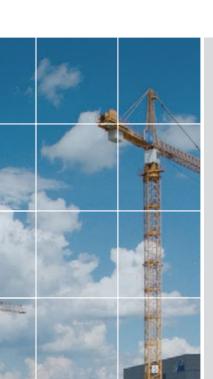












### Laser receiver technology





Device operation is made easier by infrared remote controls. Furthermore, measurement results are bound to be reliable, since the position of the measuring tools does not



#### HIGH V SPEED A

The receiver speeds up response times – rapid detection accelerates work rates.





The SpotLite function – a projected light beam at the height of the laser beam – makes precise marking easy and prevents parallax errors.





For many measuring tools, the key to optimum working is magnetic adhesion. This leaves the hands free to complete



Protection against dust and water -The measuring tools are characterised by specific protection against dustand rain.





Laser reception range	red	green
SensoLite 120	120 m	120 m
SensoLite 310	300 m	200 m
SensoLite 410	to 400 m	to 400 m
SensoMaster 400	to 400 m	_

#### Accessories

#### SensoLite 120 set



#### Laser receiver for rotary lasers

- Laser reception range 120 m for red and green lasers
- With head magnet
- High-luminosity LEDs on front and rear

Inclusive: universal mount, battery

ORDER NO. **EAN-CODE** 026.50 4 021563 662845 1







#### SensoLite 310 set



#### Laser receiver for rotary lasers

- One LCD on the front and one on the rear
- five-digit display, various acoustic melodies support the optical indicators
- Extremely loud piezo buzz tone possible
- Head and side magnets
- Reception range 300 m for red lasers
- 200 m for green lasers
- Extremely durable design



Inclusive: universal mount, battery

ORDER NO. **EAN-CODE** PU 028.71 4 021563 663262 1













#### SensoLite 410 set





#### High-performance laser receiver with extremely large receiving range for red and green rotary

- Extremely long laser reception range for quick laser acquisition at great distances

  – LC displays at front and rear. Tones indicate
- the level of the laser beam.
- Illuminated front LC display
- Extremely bright 3-colour LEDs are located at
- the front, rear and side for remote identification.

   Versus function: The receiver monitors the reference height of the rotary laser, thus effectively preventing false measurements. Visual and acoustic signals indicate when the laser beam moves out of the reference height, e.g. as the result of external influences acting on the rotary laser
- Extremely loud piezo buzzing sound possible
  With improved universal holder
- Universal holder with circular bubble level
- Strong head and side magnets
- Receiving range up to 400 m



Inclusive: universal mount, battery

ORDER NO.	EAN-CODE	PU	
028.75	4 021563 677214	1	











#### SensoMaster 400 set

#### High performance laser receiver for rotary lasers

- 127 mm long laser receiver unit
- Millimetre exact distance reading for laser level - Height difference to laser level is indicated
- by the double-sided LC display.
- Three bright LED's on the front plus, if desired, an extreme loud piezo sound show the height in relationship to the laser plane.
- Circular bubble level
- Has a special protective rubber case
- Receiving range for red laser up to 400 m

Not suitable for green lasers.



Inclusive: universal mount, batteries

ORDER NO.	EAN-CODE	PU
028.80	4 021563 663934	1











#### Accessories



#### **SensoPilot Pro**





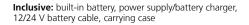


#### Machine laser receiver for construction machine control

- In combination with a rotary laser, the SensoPilot
- serves as a continuous guide for height control.

   Each of its four laser receiver units, which measure
  25 cm in length, can receive the laser beam in a 360° radius.
- Large clearly visible LEDs show the laser's plane.
- Range 200 m
- Highly durable waterproof and dust-proof housing
   With powerful magnets to fasten the device
   to the machine

Not suitable for green lasers.



ORDER NO.	EAN-CODE	PU
035.00A	4 021563 65878	37 1









### Remote Display for SensoPilot



#### This remote display allows reference height to be monitored from the driver's seat of the construction machine.

- This is the ideal complement for the SensoPilot mobile laser receiver
- Very robust design with mounting socket
- Water and dust-proof housing

Inclusive: connection cable for SensoPilot

ORDER NO.	EAN-CODE	PU
035.01	4 021563 658800	1



#### **Mounting Brackets**



for SensoPilot (2 pcs.)

ORDER NO.	EAN-CODE	PU
035.02	4 021563 660452	1

# **Automatic levelling instruments**





### PRACTICAL UNIVERSAL DEVICES

Levelling instruments are used for special tasks on large building sites. They work like a precision telescope, with an artificial target line generated at a specified height – the horizontal reference. An automatic leveller automatically adjusts the target line in the horizontal plane.



Horizontal circle with endless vernier adjustment for precise targeting.



Practical, adjustable fold-up mirror for simple alignment with a circular spirit level.



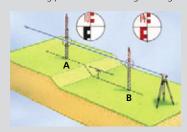
Long-distance scale with E graduation



The 165 cm tall, ball-head tripod allows an AL 26 to be aligned rapidly.

#### Measuring with level

To determine the height difference in the example shown here, the levelling staff is first set up at Point A. The optical system of the level has automatically aligned itself horizontally. With the help of the optical sight marking, it is now possible to read off the distance between Point A and the sight line shown in blue. The staff can now be positioned at any Point B, and the second measuring point read off through the sight.



**Calculation of height difference** Height A - Height B = Height difference H





#### Proven and tested optical measuring instruments

#### **Automatic Optical** Level 22 Classic







Robust, reliable levelling instrument with bright, high-performance lenses

- Practical quick target finder
- Magnetically damped compensatorMagnification 22 x
- Standard deviation 2.5 mm / km
- 360° horizontal circle, 400 gon on request
- The cross hair can be calibrated in all directions due to high quality 2 axis
- With transport securing device

Inclusive: AL 22, plumb bob, allen wrench, calibration needle, carrying case with strap

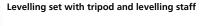
ORDER NO.	EAN-CODE	PU
080.82	4 021563 65256	3 1





#### **Automatic Optical** Level 22 Classic set









Inclusive: AL 22 Classic, aluminium lightweight tripod 165 cm, telescopic levelling staff 4 m

ORDER NO.	EAN-CODE	PU	
080 82-0	4 021563 664702 1		





**Automatic Optical Level 26 Classic** 







#### Robust, reliable levelling instrument with bright, high-performance lenses

- Practical quick target finder
- Magnetically damped compensator
   Magnification 26 x
- Standard deviation 1.5 mm / km
- 360° horizontal circle, 400 gon on request
- The cross hair can be calibrated in all directions due to high quality 2 axis
- With transport securing device



Inclusive: AL 26, plumb bob, allen wrench, calibration needle, carrying case with strap

ORDER NO.	EAN-CODE	PU

4 021563 652570 1







#### **Automatic Optical** Level 26 Classic set



Levelling set with tripod and levelling staff





080.83

Inclusive: AL 26 Classic, ball-head tripod 165 cm, telescopic levelling

ORDER NO.	EAN-CODE	PU
080 83-1	4 021563 6636	37 1





### **Accessories for** laser and levelling devices



### THE BASIS FOR RELIABLE WORK

To make full use of all the capabilities offered by a line- and rotation laser or automatic level, a tripod is necessary. Laserliner offers an extensive range of tripods, since different tasks call for different technical solutions. Wallmounts ease ceiling work.



Quick-release lock for equal extension of all legs



The seat for the instrument is milled and surface-ground



An all-round steel chain prevents the legs from spreading on smooth floors



Crank lift with mm graduation



Sturdy steel feet for secure positioning



Hook for plumb bob directly beneath the fixing screw



Adjustable carrying strap



#### ACCESSORIES FOR LASER AND LEVELLING DEVICES

#### **Tripods**

#### **Compact Tripod 120 cm**

#### High-quality mini crank tripod of aluminium

- Special combination feet (rubber steel tips) facilitate adaptation to different surfaces
- 5/8" thread adapter
- Circular bubble level
- Crank lift 30 cm





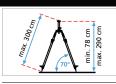
ORDER NO.	EAN-CODE	PU
080.29	4 021563 652266	1



#### **Compact Tripod 300 cm**

#### High-quality, very compact crank tripod made of aluminium

- 5/8" thread adapterCircular bubble level
- Multi-section telescoping tripod legs and crank lift (31.5 cm) permit large adjustment range.
- Special combination feet (rubber steel tips) facilitate adaptation to different surfaces





Inclusive: softbag

ORDER NO.	EAN-CODE	PU
080.37	4 021563 670666	1







# Aluminium Lightweight Tripod 165 cm



- Sturdy steel feet Quick-release lock

Only for AutoLine-Laser 3D, PowerPlane-Laser 3D serie and rotary lasers.



Inclusive: hook for plumb bob, carrying strap

ORDER NO. **EAN-CODE** PU 080.00 4 011879 633967 1





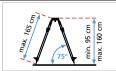
#### **Ball-head Tripod** 165 cm



#### Lightweight design with ball shaped

- mounting surface
   5/8" thread adapter
- Sturdy steel feet
- Quick-release lock

Special for automatic levels AL 22 / 26.



Inclusive: hook for plumb bob, carrying strap

ORDER NO.	EAN-CODE	PU	
080 06	4 021563 658190	1	





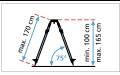
### Aluminium Tripod 170 cm



# Heavy design with milled mounting surface – 5/8" thread adapter – Sturdy steel feet – Steel chains

- Quick-release lock

Only for AutoLine-Laser 3D, PowerPlane-Laser 3D serie and rotary lasers.



Inclusive: hook for plumb bob, carrying strap

ORDER	NO. EAN-CODE	PU
080.10	4 011879 6309	35 1











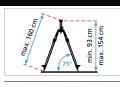
#### **Tripods**

#### Crank Tripod 160 cm



#### Design with crank height adjustment and quick-lock – 5/8" thread adapter – Crank lift 32 cm

- Circular bubble level Sturdy steel feet
- Steel chains





Inclusive: hook for plumb bob, carrying strap

ORDER NO.	EAN-CODE	PU
080.30	4 011879 630959	) 1

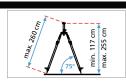




### **Professional Crank Tripod** 260 cm

#### Heavy design with integrated professional crank height adjustment

- 5/8" thread adapterExtremely long crank lift (70 cm) allows a large range of adjustment
- Crank can be fixed in place without any play.
- Sturdy steel feet
- Steel chains



Inclusive: carrying strap

ORDER NO.	EAN-CODE	PU
080.33	4 021563 650637	1





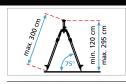


#### Heavy design with integrated professional

- crank height adjustment

   5/8" thread adapter

   Extremely long crank lift (51 + 62.5 cm) allows a large range of adjustment
- Crank lift can be fixed and adjusted without play - Special combination feet (rubber steel tips) facilitate
- adaptation to different surfaces
- Sturdy steel feetSteel chains



Inclusive: carrying strap

OKDEK NO.	EAN-CODE	PU
080.34	4 021563 662296	1

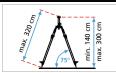




## **Professional Crank** Tripod 320 cm

#### Super-robust design for outdoor areas

- 5/8" thread adapter
   Suitable for windy conditions thanks to stability fitting and double-acting quick release lock
- Circular bubble level
- Sturdy steel feet
- Three-legged frame for maximum stability
- Crank lift 82 cm, can be fixed and adjusted without play
- Special combination feet (rubber steel tips) facilitate adaptation to different surfaces





Inclusive: hook for plumb bob, carrying strap

ORDER NO.	EAN-CODE	PU	
080.36	4 021563 663927	1	







#### High-quality aluminium telescopic stand, ideal for quick changes in applications where working positions vary -1/4" and 5/8" thread adapter

- The stand is clamped between floor and ceiling then the laser measuring tool is turned manually to set it to the correct height ready for operation.
- 5-piece design for easy transportHeight approx. 330 cm



Inclusive: telescopic adapter,

ORDER NO.	DER NO. EAN-CODE	
090 120A	4 021563 665372	4















#### Tripods and fasteners

#### MiniStand 1/4"



# Mini-tripod made of aluminium - For SCL 2, SCL 3 etc. - 1/4" tripod connection - Ball joint

- Telescoping tripod legs



ORDER NO.	EAN-CODE	PU	
090.130A	4 021563 670550	5	



#### **FlexPod**



#### Multi-purpose mini stand

- Suitable for all laser measuring tools with 1/4" thread
- Height and position of the measuring device easily adjustable

  With Velcro fastener for securing to shafts,
- extruded sections and roof laths
- Tripod feet with non-slip rubber caps
- Extendable



ORDER NO.	EAN-CODE	PU
090 131Δ	4 021563 677245	5



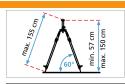
#### FixPod 155 cm



#### **Tripod for SuperCross laser series** and laser distance meter

- 1/4" tripod connection
- 3-way tripod head
- Crank lift (30 cm) and telescopic tripod legs
- Rubber-steel tips for use on different surfaces





Inclusive: softbag

ORDER NO.	EAN-CODE	PU
090.132A	4 021563 6789	90 6





### **Tripod Mount**



- **Tripod mount for compact line lasers** For securing 1/4" or 5/8" thread tripods to the bottom
- For use on walls and magnetic objects

For all laser measuring devices with 1/4" threads.

ORDER NO.	EAN-CODE	PU
036.26	4 021563 69293	4 1







### Magnetic Wall Mount





#### Magnetic wall bracket for 3D laser - versatile use

- Can be used individually or in combination on walls and magnetic objects
- For all laser measuring devices with 1/4" threads.



ORDER NO.	EAN-CODE	PU	
036.25	4 021563 68993	4 1	





#### **Wall Mount**



#### For Laserliner rotary- and linelasers

- With height adjustment and clamp bracket for attachment to construction elements.
- For all laser measuring devices with 5/8" threads.





ORDER NO.	EAN-CODE	PU
080.70	4 011879 6311	78 1







#### Levelling staffs and fasteners

#### **Wall Mount Pro**



#### For all Laserliner rotary- and linelasers

With positioning wheel for precise height adjustment, clamp holder for attachment to structural elements.

For all laser measuring devices with 5/8" threads.



ORDER NO.	EAN-CODE	PU
080.71	4 021563 6588	17 1



#### Angle Bracket 5/8"





#### Professional design with angle scale

Tripod adapter for aligning inclines

For all laser measuring devices with 5/8" threads.

ORDER NO.	EAN-CODE	PU
080.75	4 021563 662821	1

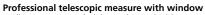


red

greer

#### **TelePilot** 5 m





- Allows even great heights to be read with accuracy
- Guided, inside steel tape measure
- For inside and outside measurement
- With lock for each individual section

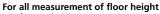


ORDER NO.	EAN-CODE	PU
075.105	4 011879 6353	98 1



### Flexi Levelling Staff





- Reference height approx. 80-190 cm ± 50 cm measurement range, max. length approx. 240 cm
   Height difference can be read off directly with
- no calculation necessary
- Unmatched by any normal levelling staff

#### Flexi levelling staff red

- Ideal for red lasers

#### Flexi levelling staff green

- Ideal for green lasers



	ORDER NO.	EAN-CODE	PU
	080.50	4 011879 631147	1
n	080.51	4 021563 664948	1



#### Flexi-Slider





#### Optimum positioning aid for laser receiver at Flexi levelling staff – Smooth slider for quick and easy use

- With quick-action clamp



ORDER NO.	EAN-CODE	PU
080.52	4 021563 673292	1



#### **Telescopic Levelling Staff**



#### Easily legible, highly stable levelling staffs for use even under extreme conditions

- Made of strong aluminium sectionFor optical levels and rotary lasers
- Telescopic Levelling Staff 4 m: max. height 4 m, min. height 1.19 m
- Telescopic Levelling Staff 5 m: max. height 5 m, min. height 1.22 m

#### Optional: softbag



ORDER NO.	EAN-CODE	
080.40	4 011879 630966	4 m
080.41	4 011879 630973	5 m
080.40.1	4 021563 652921	softbag

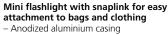


### **Laserliner Store**



#### Brand shop

#### PersonalMicroLight **PML 25**



- Metal, black



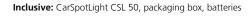
Inclusive: PersonalMicroLight PML 25, packaging box,

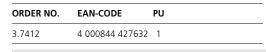
ORDER NO.	EAN-CODE	PU
3.7414	4 021563 6796	545 1

#### CarSpotLight CSL 50

#### Compact flashlight for cigarette lighter

- 12 Volt, for any make of vehicle
- Metal, black









CarryMax

NEW

#### Compact, digital hanging scale that allows for the easy and comfortable measurement of luggage, backpacks, bags etc.

Wide measuring range

- Can be operated with one hand or two hands for heavy objects
- Auto-Hold function
- Tara function to determine differences in weights Hook with strap holder to safely hang the objects to be measured

Measuring range: 0...55 kg Resolutie: 50 g

Inclusive: CarryMax, fishing hook, battery

ORDER NO.	EAN-CODE	PU
085.101A	4 021563 688852	1







### Modern watch date display - Graduated turning bezel – for deceleration

- every minute
  Black plastic housing with silicon bracelet
- Three-hand clockwork
- Clock face glows in the dark
- Waterproof to 5 ATM



Inclusive: PersonalWatch, metal box, battery

ORDER NO.	EAN-CODE	PU		
020.210A	4 021563 688463	3 1		





#### Laserpointer **Business Green**

#### Modern business presentation aid for pointing in bright environments

- Green laser pointBlack metal housing with soft-grip surface
- Laser class 2, < 1mW
- Range 100 m



Inclusive: Laserpointer Green, metal box, batteries

ORDER NO.	EAN-CODE	PU	
020 1004	1 021562 6652	65 1	















#### Brand shop

#### **ThermoMaître**

## Professional thermometer for grilling, cooking and roasting with display for ideal temperatures for beef, pork, lamb, chicken and fish

- To determine core temperatures
- Short measuring times thanks to tried and tested
- High-speed sensor technology
   Measurement in °C or °F
   Fold-out probe for insertion with very thin tip that is easy to insert
   Large LC display
- Sturdy, practical housing in an appealing design

Measuring range:	-40°C230°C
Accuracy:	<-18°C ± 4°C, -18°C100°C ± 2°C,
	>100°C ± 4°C

Inclusive: ThermoMaître, batteries

ORDER NO.	EAN-CODE	PU	
082.029A	4 021563 688203	5	

HIGH V







The temperatures for different types of meat are marked on the device.

#### **Laserliner Polo-shirt /** T-shirt



### ...01 / Polo-shirt: Long sleeve, black - Printed on one side

- 100% heavy-duty cotton

#### ...03 / T-shirt: Short sleeve, black

- Printed on one side100% heavy-duty cotton

ORDER NO.	EAN-CODE	PU
01 /03	4 021563	
020.83M	665068 /666300	1
020.83L	665075 /665679	1
020.83XL	665082 /665686	1
020.83XXL	665099 /665693	1

# Laserliner



- Comfortable stretch shirt

   Long sleeve, black

   Fitted waist with logo print
- With breast pocket97% cotton / 3% spandex

ize	М
ize	L
ize	XL
ize	XXL

Size M Size L Size XL Size XXL

ORDER NO.	EAN-CODE	PU	
020.83.05M	4 021563 688753	1	
020.83.05L	4 021563 688760	1	
020.83.05XL	4 021563 688784	1	
020.83.05XXL	4 021563 688791	1	

#### Flag



- 1. Outdoor flag

   Size: Upright format 1.50 x 3.50 m

   2-colour, UV-resistant polyester,
- With reinforced seams
- 4 snap hooks

#### 2. Outdoor flag

Version as above for flag pole with extension arm

3. Indoor flag

– Version as above with hemstitch at top and bottom, with white hanging cord

#### Inclusive: softbag

_	ORDER NO. FAN-CODE PL		PU
_	NDEN NO.	EAN-CODE	FU
1	020.940.01	4 021563 669097	1
2	020.940.02	4 021563 680504	1
3	020.940.03	4 021563 680511	1

#### Showroom

#### LaserlinerShop

Shop in shop solution:
Sales display with integrated product demo
Optimum product presentation for sales room

- Black sales wall with light boxes on the outside
- Demo area accessible, closed on three sides, white particle board walls, suspended ceiling and floor slab
  – Size: 224 x 260 x 128 cm (W x H x D)



ORDER NO.	EAN-CODE	PU
020.86	4 021563 68353	5 1

# Round **Tower**

### Free standing, rotating sales display for product presentation

- Black case, can be equipped from three sides
  With two bottom shelves and 20 Euro hooks,
- 20 cm long
- Size: 120 x 200 cm (ø x H)



ORDER NO.	EAN-CODE	PU
020.88	4 021563 687961	1

### Store display case 60 cm Product presentation in illuminated display case (not including measuring instruments)

- Body black on outside, white on inside,
- with glass shelf, lighting and rear panel
   Size: 60 x 80 x 45 cm (W x H x D)





ORDER NO. **EAN-CODE** 020.80.8-19 4 011879 643942 1









