

# **CG100**





# STYLOTEST CG100



STYLOTEST CG100

DRY FILM PULL-OFF GAUGE FOR STEEL SUBSTRATES

- Measurement of paint coatings on steel
- Designed as a pen with a pocket clip
- Magnetic attraction principle featuring a permanent magnet
- Patented HOLD mechanism for last reading
- For open and recessed measuring areas
- Coloured zones for quick go/no-go quality assessment
- No power supply or batteries required





Measuring range	25 microns - 700 microns or 1mm - 28mm
Application	Paint coatings on steel substrates
Principle	Magnetic attraction
Accuracy	±10% of reading
Minimum measuring area	25mm diameter
Standards	Conforms to DIN-EN-ISO2178
Ambient temperature	-10°C 80°C
Dimensions	151mm length, diameter 10mm
Weight	Approx. 150gr

# STANDARD DELIVERY

- Instrument
- Manual
- INNOVATEST® certificate

# **OPTIONAL ACCESSORIES**

• Coating thickness standards

# **ORDER DETAILS**

**CG100** Coating thickness gauge for steel substrates





# TT-220/TT-230







Coating Thickness Gauge

Nonferrous

Nonferrous

TT230

MODE

TT-220 WITH INTEGRATED F PROBE

TT-230 WITH INTEGRATED N PROBE

- Integrated probe: NO CABLES!
- With integrated F probe (TT-220) or integrated N probe (TT-230)
- Any non-magnetic coating on ferrous substrates (TT-220)
- Continuous or single measurement modes
- Statistics: Mean values/Max. values/Min. values/No./S.Dev
- Measurement readings stored
- Low battery indication
- Automatically switch off
- Real time or batch printing with TA-230 printer
- Rechargeable batteries





TECHNICAL SPECIFICATIONS			
Probe type	F (TT-220)		
	N (TT-230)		
Operating principle	Magnetic induction (TT-220)		
	Eddy current (TT-230)		
Application	Any non-magnetic coating on ferrous		
	substrates (TT-220) or		
	insulating coatings on non-ferrous		
	substraten (TT-230)		
Measuring range	0μm - 1250μm		
Minimum resolution	0.1µm (coating thickness <10µm)		
Measuring accuracy			
Zero-point calibration	±(3%H+1µm)µm (TT-220)		
	±(3%H+1.5µm)µm (TT-230)		
Two-point calibration	±(1%~3%H+1µm)µm (TT-220)		
	±(1%~3%H+1.5µm)µm (TT-230)		
	(H= nominal value)		
Sample			
Min. radius workpiece	Convexity 1.5 (TT-220)		
	convexity 3 (TT-230)		
Min. measuring area	ø7mm (TT-220)		
	ø5mm (TT-230)		
Min. sample thickness	0.5mm (TT-220)		
	0.3mm (TT-230)		
Statistics	Average (MEAN),		
	maximum values (MAX),		
	minimum values(MIN),		
	number of measurements (NO),		
	standard deviation (S.DEV.)		
Features	Real time printing or batch printing on TA-230		
	Continuous measurement (CONTINUE) and		
	single measurement (SINGLE)		
	Automatic switch off		
Operating temperature	0°C - 40°C		
Power supply	NiMH batteries, 3.6V		
Dimensions	110mm x 53mm x 22mm		
Weight	150gr		

#### STANDARD DELIVERY

- Instrument
- Charger
- Calibration foil set
- Substrate
- Carrying case
- Pocket case
- INNOVATEST® certificate
- Manual

# **OPTIONAL ACCESSORIES**

- Printer TA-230 with cable
- Certified calibration foils
- Connection cable

#### **ORDER DETAILS**

TT-220 Coating thickness gauge with integrated F/ probe
TT-230 Coating thickness gauge with integrated FN probe







# **TT-260**







TT-260
WITH INTEGRATED PRINTER AND EXTERNAL PROBES

- Robust design with removable integral printer
- Two measuring methods: magnetic induction (F) and eddy current (N)
- Large measuring range with several probes available
- Direct testing mode and block statistics mode (APPL/BATCH)
- Direct print out of statistical values
- Data transmission to pc with Dataview software
- Measurement modes: continuous / single
- Automatic calculation: Mean/Max/Min/No./S.Dev
- Memory up to 495 readings
- Low battery indication
- Switch off modes: manual and auto





Measuring range	Oμm - 1250μm with standard probe F1, N1
	(10.000µm maximum)
Probes available	Several probes available for
	F (ferrous; on steel/iron) and
	N (non-ferrous metals)
Tolerance	F1: ±(1µm + 3% of reading)
	N1: ±(1.5µm + 3% of reading)
Resolution	0.1µm
Display	Alphanumeric with 4 large digits
Operation language	English
Standards	Conforms to DIN, ISO, ASTM, BS
Min. measuring area	ø5mm (standard probe N1),
	ø7mm (standard probe F1)
Min. curvature radius	Convex: 3mm, concave: 50mm
Min. substrate thickness	Type F: 0.5mm, type N: 0.3mm
Calibration	Factory setting, zero and foil calibration
Statistics	Number of measurements, mean, standard
	deviation, maximum and minimum of
	maximum 3000 readings
Data memory	5 blocks of 99 readings can be stored for
•	later reference
Limits	Adjustable with acoustic alarm
Interface	RS-232
Operating temperature	0°C - 40°C
Power supply	NiMH rechargeable batteries,
	1.25V (4 pcs)
Dimensions	270mm x 86mm x 47mm
Weight	530gr

#### STANDARD DELIVERY

- Instrument
- Probe (F or N series selectable)
- Charger
- Substrate
- Calibration foils
- Carrying case
- Manual
- INNOVATEST® certificate

# **OPTIONAL ACCESSORIES**

- Several probes for different applications
- PC software Dataview for online and data transfer
- Certified calibration foils in various thickness
- Connecting cable

#### **ORDER DETAILS**

TT-260 Coating thickness gauge with integrated printer and external probes series F or N





# TT-270







TT-270
WITH INTEGRATED PRINTER AND EXTERNAL PROBE

- The measuring methods of the TT-270 are magnetic induction (F) and eddy current (N).
   When a F series probe is connected, the unit measures non-magnetic coating on ferro substrates, when a N series probe is connected, the unit measures non-conductive coating on non-ferro substrates
- Several types of probes are available for various applications: F400, F1, F1/90, F10, N1, CN02
- Measurement modes: continuous / single
- Automatic calculation: Mean values / Max. values / Min. values / No. of test, S.Dev.
- Memory for maximum 640 readings
- Working modes: direct mode (DIRECT) and Batch mode (APPL)
- With backlight display
- Integrated printer
- Battery low indication
- Switch off modes: manual and auto





#### **STANDARD DELIVERY**

- Controler unit & integrated printer
- Probe F1 or N1
- Charger
- Substrate & calibration foil set
- Printer paper
- Manual
- INNOVATEST® certificate

#### **OPTIONAL ACCESSORIES**

Several probes for different applications

#### **OPTIONAL PROBES AND TECHNICAL SPECIFICATION**

Probe model	F400	F1	F1/90°	F10	N1	CN02
Operating principle	Magnetic	Magnetic	Magnetic	Magnetic	Eddy	Eddy
	induction	induction	induction	induction	current	current
Measuring range (µm)	0-400	0-1250	0-1250	0-10000	0 to 1250 µm	10~200
					0 to 40µm	
					(for chromeplate	
					on copper)	
Low range resolution (µm)	0.1	0.1	0.1	10	0.1	1
Accuracy						
One-point calibration (µm)	±(3%H+1)	±(3%H+1)	±(3%H+1)	±(3%H+10)	±(3%H+1.5)	±(3%H+1)
Two-point calibration (µm)	±[(1~3)H%+0.7]	±[(1~3)H%+1]	±[(1~3)H%+1]	±[(1~3)%H+10]	±[(1~3)%H+1.5]	-
Measuring conditions						
Min curvature of the min area (mm)	Convex 1	1.5	Flatten	10	3	Flatten
Min diameter of the area (mm)	φ3	φ7	φ7	φ40	φ5	φ7
Critical thickness of substrate (mm)	0.2	0.5	0.5	2	0.3	unlimited

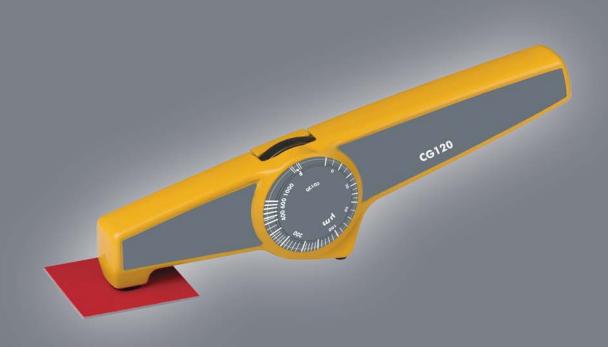
#### **ORDER DETAILS**

TT-270 F Coating thickness gauge with integrated printer and F1 probe
TT-270 N Coating thickness gauge with integrated printer and N1 probe
TT-270 FN Coating thickness gauge with integrated printer and FN probe





# **CG120**









#### **CG120 A SERIES**

COATING THICKNESS GAUGE, ANALOGUE

- Highest accuracy with simplest operation
- Several models with ergonomic design (Type 5 = standard version or type 6 = automatic version)
- No calibration necessary
- All gauges without power or battery
- One point measurement with a non-wearing probe
- A robust metal case and system resistant to mechanical shocks, acids and solvents





Standards	DIN-EN-ISO 2178, DIN 50982,
	ASTM B499, E376, D1186, G12, B530,
	BS 5411, ISO 2361
Range	Oμm - 100μm (5G/6G),
	Oμm - 1000μm (5F/6F),
	0.2mm - 3mm (6 S3),
	0.5mm - 5mm (6 S5),
	2.5mm - 10mm (6 S10),
	0μm - 50μm (6 NiFe50)
Tolerance	±1µm or 5% of the reading (5G/6G),
	±5µm or 5% of the reading (5F/6F),
	±5% of the reading (6 S3/S5/S10),
	±(2µm + 8% of the reading) (6 NiFe50)
Minimum base	0.5mm (5G/6G/5F/6F/6 NiFe50),
thickness	1.0mm (6 S3/S5),
	2.0mm (6 S10)
Application	Electroplating and the paint coatings on
	steel** (5G/6G),
	Paint on steel** (5F/6F), Enamel, plastic
	and rubber on steel * (6 S3/S5/S10),
	Electroplated nickel on steel (6 NiFe50)
Minimum surface	ø 20mm (5G/6G/6 NiFe50),
	ø 30mm (5F/6F/6 S3),
	ø 50mm (6 S5/6 S10)
Minimum curvature radius	5mm convex/25mm concave (5G/6G),
of the sample	8mm convex/25mm concave (5F/6F),
	15mm convex/25mm concave (6 S3/S5/S10),
	10mm convex/25mm concave (6 NiFe50)
Ambient temperature	-20°C100°C
Dimensions	215mm x 55mm x 29mm
Weight	Approx. 450gr
** steel ST 33 to ST 60	*** special

#### **STANDARD DELIVERY**

- Instrument
- Plastic case
- Neck cord
- Manual
- INNOVATEST® certificate

#### **OPTIONAL ACCESSORIES**

- Gauges for specific applications
- Leather case for safe transport of the gauge on a belt
- Coating thickness standards
- Wet film gauge for measuring the thickness of wet coatings

#### **ORDER DETAILS**

**CG120 5G/6G** Coating thickness gauge, analogue, 0µm-100µm **CG120 5F/6F** Coating thickness gauge, analogue, 0µm-1000µm

CG120 6 S3 Coating thickness gauge, analogue, 0.2mm-3mm

**CG120 6 S5** Coating thickness gauge, analogue, 0.5mm-5mm **CG120 6 S10** Coating thickness gauge, analogue, 2.5mm-10mm

CG120 6 NIFE50 Coating thickness gauge, analogue, Opm-50pm

THICKNESS GAUGES 3



**CG330** 







CG330
COATING THICKNESS GAUGE WITH 100 BATCHES

- Robust design, top quality instrument
- CG330 memory 10.000 readings, 100 batches
- Large measuring range with 20 probes available
- Direct testing mode and block statistics mode
- Large memory with block statistics computation
- Coating-through-coating feature
- Data output to printer CG300 or pc





#### Models available 20 probes available for F (ferrous; on steel/iron), N (non-ferrous metals) and FN (combined), see list 0 - 1600µm with standard probe Measuring range F1.6 or N1.6 $\pm(1\mu m + 1\% \text{ of reading})$ Tolerance with standard probes Resolution 0.1µm Alphanumeric with 4 large digits Display Operation language English Standards DIN, ISO, ASTM, BS 5mm x 5mm (with standard probe) Min. measuring area Min. curvature radius Convex: 3mm, concave: 50mm Min. substrate thickness Type F: 0.5mm, type N: 50µm Factory setting, zero and foil calibration Calibration Statistics Number of measurements, mean, standard deviation, maximum and minimum of

RS-232

0°C - 50°C

Approx. 270gr

maximum 10.000 readings

10.000 individual readings and maximum

100 batches with individual values

1 x 9V alkaline battery, AC adapter Gauge 150mm x 82mm x 35mm

Adjustable with acoustic alarm

**TECHNICAL SPECIFICATIONS** 

#### STANDARD DELIVERY

- Gauge excluding probe
- Zero plate
- Calibration foils (2 pcs)
- Manual
- INNOVATEST® certificate

#### **OPTIONAL PROBES**

 Probes (F or N or FN series selectable) see overview

#### **OPTIONAL ACCESSORIES**

- Carrying case with accessories
- 20 probes for different applications, see overview
- PC software for online and data transfer
- Calibration foils in various thickness

#### **ORDER DETAILS**

Data memory

Power supply

Dimensions Weight

Ambient temperature

Limits

Interface

**CG330** Coating thickness gauge with external probes, 10.000 readings, 100 batches

**CG300 PRINTER** 







# **PRINTER FOR CG SERIES**



CG300 PRINTER

- Reliable and fast mini-printer for CG250/310/320/330/340/600
- Prints numerical values
- EPSON print head
- RS-232 input
- Power adapter included





Display	4 digit LCD
Functions	Paper feed, on/off
Data transmission	RS-232C
Print head	5 x 7 matrix Epson
Paper	50mm
Power	Storage battery 5V
Charger	5V / 2.4A
Dimensions	85mm x 152mm x 48mm
Weight	0.5kg

# **STANDARD DELIVERY**

- Printer CG300
- Charger 5V
- Printer rolls (2 pcs)
- Storage battery 5V

# **OPTIONAL ACCESSORIES**

- Data cable
- Printer paper (set of 5)
- Printer ribbon

#### **ORDER DETAILS**

**CG300** Printer for CG series







# **PROBES FOR NON-FERROUS**

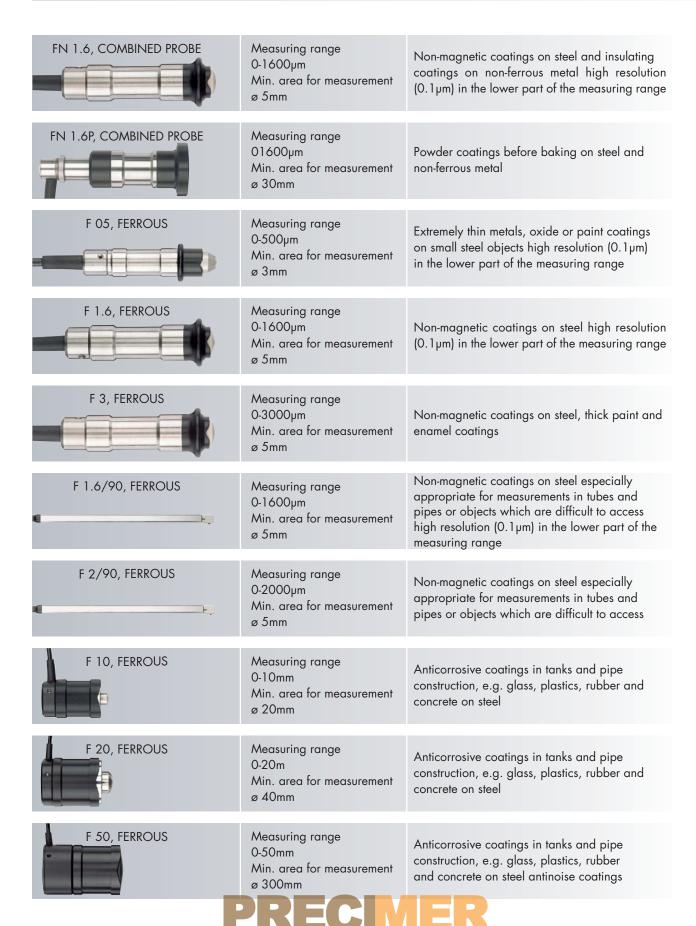
N 02, NON-FERROUS	Measuring range 0-200µm Min. area for measurement ø 2mm	Extremely thin insulating coatings, e.g. paint or anodising coatings on non-ferrous metal high resolution (0.1µm) in the lower part of the measuring range
N 08CR, NON-FERROUS	Measuring range 0-80µm Min. area for measurement ø 5mm	Extremely thin chrome coatings on copper, aluminum or brass
N 1.6, NON-FERROUS	Measuring range 0-1600µm Min. area for measurement ø 5mm	Thin insulating coatings, e.g. paint or anodising coatings on non-ferrous metal high resolution (0.1µm) in the lower part of theme asuring range
N 1.6/90, NON-FERROUS	Measuring range 0-1600µm Min. area for measurement ø 5mm	Thin insulating coatings, e.g. paint or anodising coatings on non-ferrous metal especially appropriate for measurements in tubes and pipes or objects which are difficult to access high resolution (0.1µm) in the lower part of the measuring range
N 2/90, NON-FERROUS	Measuring range 0-2000µm Min. area for measurement ø 5mm	Insulating coatings, e.g. paint, on non-ferrous metal especially appropriate for measurements in tubes and pipes or objects which are difficult to access
N 10, NON-FERROUS	Measuring range 0-10mm Min. area for measurement ø 50mm	Insulating coatings, e.g. rubber, plastics, glass, on non-ferrous metal
N 20, NON-FERROUS	Measuring range 0-20mm Min. area for measurement ø 70mm	Insulating coatings, e.g. rubber, plastics, glass, on non-ferrous metal
N 100, NON-FERROUS	Measuring range 0-100mm Min. area for measurement ø 200mm	Insulating coatings, e.g. rubber, plastics, glass, compounds etc., on non-ferrous metal
CN 02, NON-FERROUS	Measuring range 10-200mm Min. area for measurement Ø 7mm	Non-ferrous metal coatings, e.g. copper, on insulating substrates





#### PROBES FOR FERROUS AND NON-FERROUS

CG-330



THICKNESS GAUGES 7



# **CG500**

Wall Thickness Gauge





#### WALL THICKNESS GAUGES



#### **CG500**

WALL THICKNESS GAUGE FOR METALS, GLASS AND PLASTICS

#### **FEATURES**

- New: Considerably improved measuring properties through SIDSP!
- Non-destructive wall thickness measurement up to 4mm and/or 10mm
- Up to 20 measurements per second
- For all non-magnetic materials such as plastics, wood, glass, ceramics, glass fiber, carbon fiber laminates, non-ferrous metals, etc.
- For hollow parts and containers of all kinds such as bottles, cans, injection moulding products, etc.
- Also for plastic sheets, automotive body parts, glass panes, SMC plastics other large-sized components, etc.
- Complete measuring technique is integrated in the sensor

With this totally new SIDSP procedure, all necessary measuring signals are created and completely processed in the sensor itself. Only the completely processed digital readings are transferred to the base unit for display, statistical evaluation and data storage. Unlike the commonly used analogue procedures, the new SIDSP procedure excludes any error influences on the measuring data during transfer over the probe cable. The result is a measuring accuracy and constancy of readings, unmatched so far. Further innovations to increase measuring accuracy: the new process technology manufacture the reference balls used to results an increased reproducibility of over 0.5% and the calibration method enabling up to 5 calibration points. Calibration can be done over the complete range or over defined ranges.

# Innovative menu control and data filing system

The new CG500 is very easy to opearate. The menu-controlled user surface offers a user-friendly data filing system similar to common PC applications and a contextsensitive on-line help.

#### **Data processing**

The gauge features display of minimum and maximum readings, an offset mode (related to the set value), automatic storage of readings into the statistics as well as visual display of the continuously taken readings (real-time diagram).



Measuring principle	Magneto-static		
Measuring rate	Up to 20 readings per second		
Number of readings	1, 2, 5, 10, 20 readings/sec to choice		
memorized in the statistics			
Measuring range	Omm 1.5mm with 1.5mm reference ball		
FH4 probe	Omm 2.5mm with 2.5mm reference ball		
	0mm 4.0mm with 4.0mm reference ball		
Measuring range	Omm 2.5mm with 2.5mm reference ball		
FH10 probe	0mm 4.0mm with 4.0mm reference ball		
	0mm 10.0mm with 6.0mm reference ball		
Low range sensitivity	0.1µm		
Measuring tolerance of	Omm 1.5mm: ± (5µm + 1 % of reading)		
FH4 probe	$0 \text{mm} \dots 2.5 \text{mm}$ : ± $(5 \mu \text{m} + 1 \% \text{ of reading})$		
	Omm 4.0mm: ± (10µm + 1 % of reading)		
Measuring tolerance of	Omm 2.5mm: ± (5µm + 1 % of reading)		
FH 10 probe	Omm 4.0mm: ± (10µm + 1 % of reading)		
	$0 \text{mm} \dots 10.0 \text{mm}$ : ± ( $20 \mu \text{m} + 1 \% \text{ of reading}$ )		
Calibration modes	Zero, 2-point, 3-point, 4-point and 5-point		
	calibration		
Display	LCD 160x160 pixel with backlight		
Measuring units	Metric (µm, mm), imperial (mils, inch)		
Data memory	100,000 readings		
Statistical evaluation	Numeric, trend and histogram		
Languages	English, German, French		
Interface	Cable, (RS-232 TTL) and/or combination		
	port for foot switch, external contact, Infra-		
	red (IrDA 1.1)		
Operating temperature	-10°C +60°C		
Storing temperature	-20°C +80°C		
Dimensions	153mm x 89mm x 32mm (CG500)		
	17mm ø x 96mm (FH4 probe)		
	29.5mm ø x 125mm (FH10 probe)		
Weight	310gr (batteries incl.) (CG500)		
	90gr (FH4 probe)		
	300gr (FH10 probe)		
Plastics carrying case	365mm x 450mm x 140mm		
Power supply	4 x AA (LR06),		
	power unit (90V - 240V~ / 48Hz - 62Hz)		

- \*1. Set of standards for 5 points calibration/FH-4 probe and ball diameter 4 mm.

  1 Precision standard in approx. 0.43mm, 0.75mm, 1.3mm, 2.2mm and 3.6mm.
- \*2. Set of standards for 5 points calibration/FH-10 probe and ball diameter 6 mm.

  1 Precision standard in approx. 1.0mm, 1.7mm, 3.0mm, 5.2mm and 9.0mm.

#### **ORDER DETAILS**

CG500 Wall thickness gauge for metals, glass and plastics

#### STANDARD DELIVERY

- Instrument
- Batteries AA LRO6(4 pcs)
- Manual available in German/ English/French
- Short manual
- Carrying case
- Magnetic screwdriver

#### **OPTIONAL ACCESSORIES**

- Portable printer CG550
- Probe FH4 including operating stand
- Probe FH10 including operating stand
- Rubber protection case

# STANDARD ACCESSORIES FOR PROBE FH4 '1

- Calibration cap:
   0.3mm, 1mm, 3mm
- 3 zero calibration standards: ø1.5mm, ø2.5mm, ø4mm
- Set of 100 balls ø1.5mm
- Set of 100 balls ø2.5mm
- Set of 50 balls ø4mm

# STANDARD ACCESSORIES FOR PROBE FH10 '2

- Calibration cap: 1mm, 3mm, 8mm
- 4 zero calibration standards:
   ø2.5mm, ø4mm, ø6mm, ø9mm
- Set of 100 balls ø2.5mm
- Set of 50 balls ø4mm
- Set of 25 balls ø6mm
- Set of 10 balls ø9mm





# **CG600**

Ultrasonic Coating Thickness Gauge





# **ULTRASONIC COATING THICKNESS GAUGES**



**CG600**FOR PAINT, PLASTIC, ENAMEL AND OTHER INSULATING COATING

- Designed for non-destructive coating thickness measurement
- Paint, varnish, plastics and other insulation coatings applied on wood, plastics, glass, ceramics, etc. as well as for polymer layers on metal
- Total thickness as well as the individual layers in one measuring process
- Appropriate for use in laboratory
- Data output to printer CG300 or pc





	Field of applications and measuring ranges:	Single layers: 10µm 500µm Multi-layers: maximum 500µm total coating thickness Wall thickness of metals: 0.1mm 8mm Wall thickness of plastics: 0.2mm 3mm
	Resolution	l µm
	Measuring uncertainty < 100µm	± (2µm + 3 %*) (*of reading)
	Measuring uncertainty > 100µm	± (2µm + 2 %*) (*of reading)
	Display	Alphanumeric with 4 large digits
	Operation language	English
	Standards	DIN, ISO, ASTM, BS
	Statistics	n, x-, s, kvar, max, min, with time and date of print-out and reading
	Data memory	Maximum 10,000 measuring values in maximum 500 batches
	Limits	With optical and acoustic warning when limits are exceeded
	Interface	RS-232
	Ambient temperature	-15°C - 55°C
	Power supply	2.4 V
		2 x 1.2 V AA NiMH or NiCd
		(approx. 2,500 measurements)
	Charger	90 V~ to 264 V (charging time: 4 hours)
	Dimensions	Gauge 150mm x 82mm x 35mm
_	Weight	Approx. 150gr

#### STANDARD DELIVERY

- Gauge with probe
- Charger
- Rechargeable batteries
- Plastic case
- Coupling liquid
- Software
- Manual
- INNOVATEST® certificate

# **OPTIONAL ACCESSORIES**

- Rubber protection case with mounting device
- Printer CG300
- Belt case set (two cases of different size for gauge and accessories)
- Carrying case for gauge
- Carrying case for gauge and printer

#### **ORDER DETAILS**

**CG600** Ultrasonic coating thickness gauge for paint, plastic, enamal and other insulating coating

**CG300 PRINTER** 







# **CG700**

Portable Coating Thickness Gauges



# THICKNESS GAUGES CG700



# **FEATURES**

- Correct readings with interference free measurement with precise evaluation through SIDSP®
- Extended field of application through exchangeable sensors to cover different ranges up to 15 mm (600 mils) thickness (with CG740)
- High flexibility of use through versatile sensors (the CG740 sensor can be changed from built-in to external sensor on a lead)
- · Automatic substrate identification with FN sensors accelerates measurements and helps avoiding operating errors
- Efficient temperature compensation eliminates errors caused by changes in temperature
- High precision characteristic curves achieved during the manufacturing process by calibrating up to 50 calibration points
- Large memory capacity for storing up to 100,000 readings in 10 and/or 100 batches
- Readings and statistical values can be called-up individually
- Large, easy-to-read backlit graphics display, with 180° rotatable display orientation
- Easy menu-guided operation, 25 menu languages are available
- Built-in IrDA port for infrared data transmission to printer or PC
- Future-proof through downloadable sensor and gauge software updates





Models available	Probes available for
	F (ferrous; on steel/iron),
	N (non-ferrous metals) and
	FN (combined), see list
Sensor model	Built-in (CG720),
	external (CG730) or
	changeable from built-in to external
	(CG740)
Number of data memories	10 (CG720/730) or 100 (CG740)
Number of storable	Maximum 10,000 readings (CG720/730);
	Maximum 100,000 readings in total (CG740)
Statistics	Number of readings, minimum, maximum,
	average, standard deviation, coefficient of
	variation, block statistics (norm-conforming
	/free configurable)
Calibration procedures	According to international norms and
	standards ISO, SSPC, "Swedish",
	"Australian"
Calibration modes	Factory calibration, Zero calibration,
	2-point and 3-point calibration,
	user adjustable offset value
Monitoring of limits	Visual and audible alarm to
	indicate limit deviations
Measuring units	μm, mm, cm; mils, inch, thou
Operating temperature	- 10°C 60°C; 14°F 140°F
Storing temperature	- 20°C 70°C; - 4 °F 158°F
Data port	IrDA 1.0 (infrared)
Power supply	2 Mignon/AA batteries
Norms and standards	DIN EN ISO 1461, 2064, 2178, 2360,
	2808, 3882, 19840; ASTM B244, B499,
	D7091, E376; AS 3894.3, SS 1841 60,
	SSPC-PA 2
Dimensions	157mm x 75.5mm x 49mm
Weight built-in/external	Approx. 175gr (CG720)
	Approx. 210gr (CG730)
	Approx. 175gr / 230gr (CG740)

#### STANDARD DELIVERY

- Plastic case with gauge
- Probe as chosen
- Calibration set with calibration standards and zero reference plate(s)
- Batteries AA (2 pcs)
- Manual
- INNOVATEST® certificate

#### **OPTIONAL PROBES**

 Probes (F or N or FN series selectable), see overview

#### **OPTIONAL ACCESSORIES**

- Measuring stand for F1.5/N0.7/FN1.5 sensors
- Rubber protection case
- Software basic edition data transfer
- IrDA adapter-USB for wireless data transfer



#### **ORDER DETAILS**

**CG720** Coating thickness gauge with built-in sensor

**CG730** Coating thickness gauge with external sensor **CG740** Coating thickness gauge with changeable from

built-in to external sensor







# **TT-210**







TT-210 WITH INTEGRATED F/FN PROBE

- Easy to use
- Automatic substrate recognition
- Automatic calculation: Mean/Max/Min/No./S.Dev
- Upper-lower limit setting and sound alarm
- Data output RS-232 to printer TA-230 or PC
- Storage function for 500 measuring results
- Measurement modes: continuous/single
- Battery operated
- Automatic selection of measuring methods
- Upper-lower limit setting and sound alarm
- 2 stop ways: Manual/automatic





Operating principle	Magnetic induction,	
	eddy current	
Measurement range	Oμm to 1250μm,	
	Oμm ~ 40μm	
Measuring system	Selectable mm/inch	
Minimum resolution	0.1µm (coating thickness <100µm)	
Measuring accuracy		
Zero-point calibration	±(3%H+1µm)µm (F probe)	
	±(3%H+1.5µm)µm (N probe)	
Two-point calibration	±(1%~3%H+1µm)µm (F probe)	
	±(1%~3%H+1.5μm)μm (N probe)	
	(H= nominal value)	
Sample		
Min. radius workpiece	Convexity 1.5 (F probe)	
	convexity 3 (N probe)	
Min. measuring area	ø7mm (F probe)	
	ø5mm (N probe)	
Min. sample thickness	0.5mm (F probe)	
	0.3mm (N probe)	
Statistics TT-210	Average (MEAN), MAX., MIN.,	
	number of measurements (NO.),	
	standard deviation (S.Dev)	
Power supply	Battery AAA 1.5V (2 pcs)	
Display	LCD with backlight	
Dimensions	110mm x 50mm x 23mm	
Weight	100gr	

# **STANDARD DELIVERY**

- Instrument
- Calibration foil set
- Substrate
- AAA 1.5V battery (2 pcs)
- Manual
- INNOVATEST® certificate
- Carrying case

# **OPTIONAL ACCESSORIES**

- Printer TA-230 with cable
- Connecting cable
- Dataview software

#### **ORDER DETAILS**

TT-210 Coating thickness gauge with integrated F/FN probe







# TT-211







TT-211 WITH INTEGRATED F PROBE

- Easy to use
- Integrated probe F
- Auto off
- Single point measurement mode
- Easy calibration on zero point
- High speed data collection
- Mm/inch selectable
- Resolution selectable
- Battery operated





Operating principle	Magnetic induction
Measurement range	Oμm to 1250μm
Measuring system	Selectable mm/inch
Minimum resolution	Selectable 1µm, 5µm, 10µm
Measuring accuracy	
Zero-point calibration	±(3%H+10µm)µm
Sample	
Min. radius workpiece	Convexity 1.5
Min. measuring area	ø7mm
Min. sample thickness	0.5mm
Power supply	Battery AAA 1.5V (2 pcs)
Display	LCD
Dimensions	110mm x 50mm x 23mm
Weight	100gr

# **STANDARD DELIVERY**

- Instrument
- Zero plate
- Substrate
- AAA 1.5V battery (2 pcs)
- Manual
- INNOVATEST® certificate
- Carrying case

# **ORDER DETAILS**

**TT-211** Coating thickness gauge with F probe







# TT-220/TT-230







Coating Thickness Gauge

Nonferrous

Nonferrous

TT230

MODE

TT-220 WITH INTEGRATED F PROBE

TT-230 WITH INTEGRATED N PROBE

- Integrated probe: NO CABLES!
- With integrated F probe (TT-220) or integrated N probe (TT-230)
- Any non-magnetic coating on ferrous substrates (TT-220)
- Continuous or single measurement modes
- Statistics: Mean values/Max. values/Min. values/No./S.Dev
- Measurement readings stored
- Low battery indication
- Automatically switch off
- Real time or batch printing with TA-230 printer
- Rechargeable batteries





TECHNICAL SPECIFICATIONS		
Probe type	F (TT-220)	
	N (TT-230)	
Operating principle	Magnetic induction (TT-220)	
	Eddy current (TT-230)	
Application	Any non-magnetic coating on ferrous	
	substrates (TT-220) or	
	insulating coatings on non-ferrous	
	substraten (TT-230)	
Measuring range	0μm - 1250μm	
Minimum resolution	0.1µm (coating thickness <10µm)	
Measuring accuracy		
Zero-point calibration	±(3%H+1µm)µm (TT-220)	
	±(3%H+1.5µm)µm (TT-230)	
Two-point calibration	±(1%~3%H+1µm)µm (TT-220)	
	±(1%~3%H+1.5µm)µm (TT-230)	
	(H= nominal value)	
Sample		
Min. radius workpiece	Convexity 1.5 (TT-220)	
	convexity 3 (TT-230)	
Min. measuring area	ø7mm (TT-220)	
	ø5mm (TT-230)	
Min. sample thickness	0.5mm (TT-220)	
	0.3mm (TT-230)	
Statistics	Average (MEAN),	
	maximum values (MAX),	
	minimum values(MIN),	
	number of measurements (NO),	
	standard deviation (S.DEV.)	
Features	Real time printing or batch printing on TA-230	
	Continuous measurement (CONTINUE) and	
	single measurement (SINGLE)	
	Automatic switch off	
Operating temperature	0°C - 40°C	
Power supply	NiMH batteries, 3.6V	
Dimensions	110mm x 53mm x 22mm	
Weight	150gr	

#### STANDARD DELIVERY

- Instrument
- Charger
- Calibration foil set
- Substrate
- Carrying case
- Pocket case
- INNOVATEST® certificate
- Manual

# **OPTIONAL ACCESSORIES**

- Printer TA-230 with cable
- Certified calibration foils
- Connection cable

#### **ORDER DETAILS**

TT-220 Coating thickness gauge with integrated F/ probe
TT-230 Coating thickness gauge with integrated FN probe



