

ISOTEST®

High Voltage Holiday Detectors & Accessories for Coatings, Linings and Wrappings.



The shipment is executed according to our terms of delivery.

Revisions in the course of technical progress reserved.

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Your confidence in the ORIGINAL

For decades the ISOTEST® quality standard has been continuously refined by the ELMED engineering team.

No matter which application conditions you are facing you can experience the convincing results in kind of reliability of the test and safety for the operator.

With the original ISOTEST® accessories you will fulfil the high requirements defined for industrial use and construction sites.

Original ISOTEST® accessories: Just look for the ISOTEST® logo to be sure!

ISOTEST® Testing Devices

Part-No.: 0113510001



ISOTEST inspect 35 (set)

testing voltage adjustable from 5 – 35 kV in 0.1 kV steps

Scope of supply:

Testing device, instrument bag with shoulder strap, battery (SLA), charger 230 VAC, grounding cable 10 m with clamping jaw and instrument plug, your choice of one testing electrode up to 500 mm, aluminium transport box, works test certificate

Part-No.: 0118100011



ISOTEST inspect 8.0 (set)

testing voltage adjustable from 0.5 – 8.0 kV in 0.5 kV steps

Scope of supply:

Testing device, instrument bag with shoulder strap, battery (SLA), charger 230 VAC, grounding cable 10 m with clip and instrument plug, grounding cable 15 m with clamping jaws on both ends, your choice of one testing electrode up to 500 mm, aluminium transport box, works test certificate

Part-No.: 0141000010



ISOTEST 4S

testing voltage adjustable from 10 – 25 kV in 5 kV steps

Scope of supply:

Testing device, leather case with carrying and shoulder strap, battery (SLA), charger 230 VAC, grounding cable 10 m with clamping jaw and instrument plug, works test certificate

Part-No.: 0141000001

Optionally available with safety shut-off function

Part-No.: 0141002010



ISOTEST 4S plus

testing voltage 5 – 35 kV with 7 voltage steps of your choice

Scope of supply:

Testing device, leather case with carrying and shoulder strap, battery (SLA), charger 230 VAC, grounding cable 10 m with clamping jaw and instrument plug, works test certificate

Part-No.: 0141002001

Optionally available with safety shut-off function

Part-No.: 0190000140



ISOTEST HV

High voltage voltmeter for impulse voltage

Measuring range:

Impulse voltage: 5 – 35 kV

Scope of supply:

measuring instrument, battery set, measuring accessories, transport box, works test certificate

ISOTEST® Industry solutions

The following industry solutions represent proven test standards in the respective segment and thus simplify the selection of the appropriate device and accessories for your application:

Part-No.: 0141000030



ISOTEST® Test kit: Pipeline

Test kit consisting of:

ISOTEST 4S plus, testing voltage 5 – 35 kV with 7 voltage steps of your choice, works test certificate, leather case with carrying and shoulder strap, rechargeable battery, standard charger 100-240 V / 50 Hz, spare battery for safety button and fuse for rechargeable battery, ground cable 10 m with clip and instrument plug, ground stick including 5 m cable and clamping jaw, trailing ground 6 m, flat brush electrode with angle adjustment (length 250 mm, brass), SlimLine spring electrode of your choice up to NPS 20", SlimLine connector for testing with spring electrodes, aluminium transport box

Part-No.: 0113510020

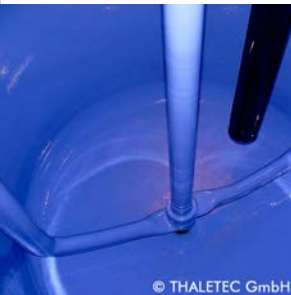


ISOTEST® Test kit: Rubber lining

Test kit consisting of:

ISOTEST inspect 35, testing voltage adjustable from 5 – 35 kV in 0.1 kV steps, works test certificate, aluminium transport box, instrument bag with shoulder strap, rechargeable battery, standard charger 100-240 V / 50 Hz, spare battery for safety button and fuse for rechargeable battery, wire rake electrode (trim length 200 mm, stainless steel), ground cable 10 m with clip and instrument plug, ground cable 15 m with two clamping jaws, extension bar 500 mm with electrode chuck, flat brush electrode with angle adjustment (length 400 mm, brass)

Part-No.: 0118100020



ISOTEST® Test kit: Glass lining

Test kit consisting of:

ISOTEST inspect 8.0, testing voltage adjustable from 0.5 – 8.0 kV in 0.5 kV steps, works test certificate, aluminium transport box, instrument bag with shoulder strap, rechargeable battery, standard charger 100-240 V / 50 Hz, spare battery for safety button and fuse for rechargeable battery, wire rake electrode (trim length 200 mm, stainless steel), ground cable 10 m with clip and instrument plug, ground cable 15 m with two clamping jaws, grounding foil (set), extension bar 500 mm with electrode chuck, extension bar 500 mm without electrode chuck

Part-No.: 0113510010



ISOTEST® Test kit: Vessel & Tank

Test kit consisting of:

ISOTEST inspect 35, testing voltage adjustable from 5 – 35 kV in 0.1 kV steps, works test certificate, aluminium transport box, instrument bag with shoulder strap, rechargeable battery, standard charger 100-240 V / 50 Hz, spare battery for safety button and fuse for rechargeable battery, wire rake electrode (trim length 200 mm, stainless steel), ground cable 10 m with clip and instrument plug, ground cable 15 m with two clamping jaws, flat brush electrode with angle adjustment (length 300 mm, brass), extension bar 500 mm with electrode chuck

Part-No.: 0113510030



ISOTEST® Test kit: Waterproofing

Test kit consisting of:

ISOTEST inspect 35, testing voltage adjustable from 5 – 35 kV in 0.1 kV steps, works test certificate, aluminium transport box, instrument bag with shoulder strap, rechargeable battery, standard charger 100-240 V / 50 Hz, spare battery for safety button and fuse for rechargeable battery, wire rake electrode (trim length 200 mm, stainless steel), ground cable 10 m with clip and instrument plug, ground cable 15 m with two clamping jaws, flat brush electrode with angle adjustment (length 400 mm, brass), extension bar 500 mm with electrode chuck, extension bar 500 mm without electrode chuck

Part-No.: 0113510040



ISOTEST® Test kit: Valves & Fittings

Test kit consisting of:

ISOTEST inspect 35, testing voltage adjustable from 5 – 35 kV in 0.1 kV steps, works test certificate, aluminium transport box, instrument bag with shoulder strap, rechargeable battery, standard charger 100-240 V / 50 Hz, spare battery for safety button and fuse for rechargeable battery, wire rake electrode (trim length 200 mm, stainless steel), ground cable 10 m with clip and instrument plug, ground cable 15 m with two clamping jaws, flat electrode of conductive rubber (length 50 mm)

Accessories for Grounding

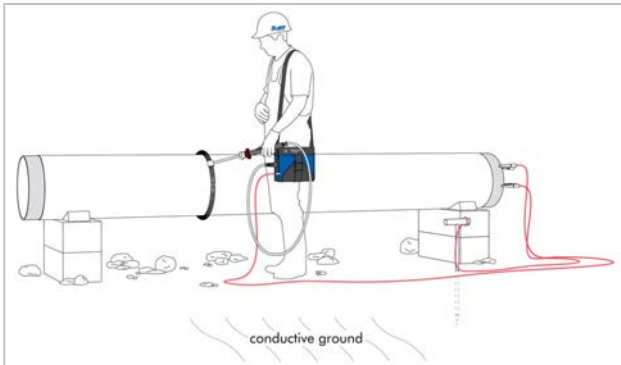
Proper grounding of the high voltage testing instrument is an absolutely essential precondition for all high voltage tests. The power circuit is closed through the grounding, i.e., the test instrument is first connected to the not-insulated, conductive section of the test object, then the test object is connected to the ground potential.

While testing with high voltage instruments, it is of utmost importance to always establish a connection with the ground potential by means of suitable accessories.

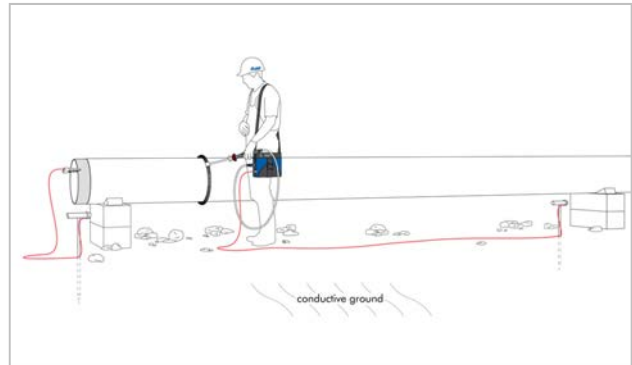
ISOTEST® instruments allow 3 different grounding forms:

(Example: Grounding of a pipe with parent coating or field joint coating)

Direct Grounding

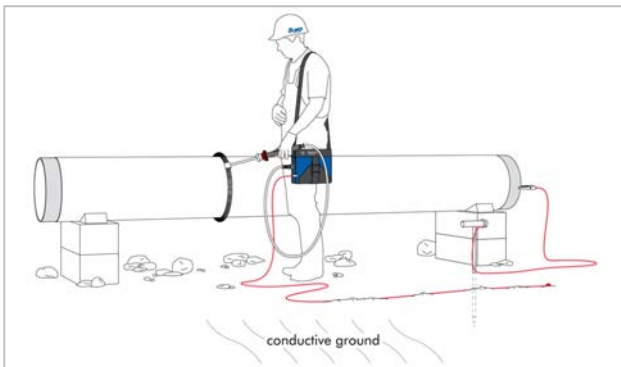


Direct grounding with the standard grounding cable 10 m
The direct, conductive connection between the testing instrument and the non-insulated pipe end to be tested is the most reliable form of grounding, and is to be preferred to all other options. The pipe to be tested must also be grounded for any high voltage test, e.g. with a grounding stick and a 2 m grounding cable.



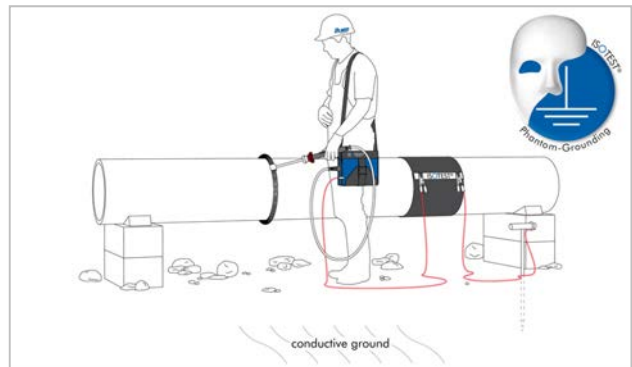
The additional **grounding stick incl. 15 m grounding cable** allows the **direct grounding** of the testing device, when the bare pipe end cannot be connected using the standard grounding cable.

Indirect Grounding



Indirect grounding by means of the trailing ground enables pipeline testing without obstructing cables, if direct grounding is not possible.

Phantom-Grounding (Capacitive Grounding)



The grounding collar or a special grounding film is used if a conductive connection with the object to be tested is not possible. The grounding collar is also recommended in case of bad-conducting or extremely dry soil. The grounding collar consists of a special, carbon infused rubber. This represents a form of **capacitive grounding** which can only be implemented while using pulse voltage. Wound around the pipe to be tested in the fitting size and tightened, one side of the collar is connected to the soil (grounding cable with grounding rod), the other side is connected to the testing instrument.

Grounding Collars



Grounding Collar of Special Conductive Rubber

For the grounding of fully coated, buried pipes in which direct galvanic grounding is not possible.

The use of a grounding collar is also recommended in case of bad-conducting or extremely dry soil. Wound around the pipe to be tested in the fitting size and tightened, one side of the collar is connected to the soil (grounding cable with grounding rod), the other side is connected to the testing instrument.

	NPS mm	NPS inch
Part-No.: 0174401020	type 1 for NPS 100 – 200	4 – 8
Part-No.: 0174402040	type 2 for NPS 200 – 400	8 – 16
Part-No.: 0174403060	type 3 for NPS 300 – 600	12 – 24
Part-No.: 0174450100	type 4 for NPS 500 – 1000	20 – 40
Part-No.: 0174410140	type 5 for NPS 1000 – 1400	40 – 56

Grounding Sticks

Part-No.: 0174200000

Grounding Stick incl. 2 m Cable with Clamping Jaw
(clamping range up to 20 mm)



Part-No.: 0174200001

Grounding Stick incl. 10 m Cable with C-Clamp
for large-diameter pipes and tanks



Part-No.: 0174200004

Grounding Stick incl. 15 m Cable with Plug Connector
suitable for direct grounding of ISOTEST 3P, 4S and inspect



Trailing Ground



Trailing Ground - Plug Connection Ø 6 mm (for ISOTEST 3P, 4S and inspect)

The use of a trailing ground allows pipeline testing without obstructing cables, if direct grounding is not possible.

An important precondition is a sufficiently conductive ground that ensures a good, large-surface contact with the trailing ground.

Length

Part-No.: 0174120000

6 m

Part-No.: 0174120001

9 m

Grounding Cable Assemblies



Grounding Cable (for ISOTEST 3P, 4S and inspect)

End connection: Clamping jaw / Plug connector

Length

Part-No.: 0174200002

10 m

Part-No.: 0174320000

15 m

Part-No.: 0174200100

Grounding Cable 15 m - with Clamping jaw at both ends



Part-No.: 0174250010

Grounding Cable Y-shaped

for simultaneously grounding of test sample and ISOTEST® testing device

End connection: Clamping jaw – Clamping jaw / 6 mm plug

Length: 10 m / 2 m – 2 m

Part-No.: 0174250020

Grounding Cable Y-shaped

for simultaneously grounding of grounding electrodes and ISOTEST® testing device

End connection: clamping jaw – 6 mm plug / 6 mm plug

Length: 10 m / 2 m – 2 m

Brush Electrodes (for grounding only)



Brush Electrodes (for grounding only)

Special grounding accessories for valves and fittings to be tested without connection to ground potential. Use exclusively with ISOTEST inspect.

Design:

Metall brush with stainless steel trimming

Caution: Inappropriate for using as test electrode! (s. page 16)

	NPS mm	NPS inch
Part-No.: 0165400025	NPS 25	1
Part-No.: 0165400032	NPS 32	1 ¼
Part-No.: 0165400040	NPS 40	1 ½
Part-No.: 0165400050	NPS 50	2
Part-No.: 0165400065	NPS 65	2 ½
Part-No.: 0165400080	NPS 80	3
Part-No.: 0165400100	NPS 100	4
Part-No.: 0165400125	NPS 125	5
Part-No.: 0165400150	NPS 150	6
Part-No.: 0165400175	NPS 175	7
Part-No.: 0165400200	NPS 200	8
Part-No.: 0165400250	NPS 250	10

Testing Electrodes

The right choice of the testing electrode depends primarily on the diameter of the pipe to be tested. All testing electrodes are available in different widths and suitable for all pipe diameters.

Gaps that might occur due to heavily soiled or bent bristles when using semicircular electrodes might jeopardise the whole test. The same applies for spring electrodes that are not precisely adjusted to the pipe diameter.

Choice of Testing Electrodes

In order to provide for a safe and trouble-free testing it is compulsory to consider all testing conditions and procedures before choosing the necessary accessories and the right size and type of the testing electrodes. The user is responsible for the application-related choice of accessories and electrode size, for their proper use as well as their related regular maintenance of all components.

Flat Brush Electrodes



Flat Brass Brush Electrodes with Angle Adjustment

Adjustable up to 90°, particularly made for convenient inspection of large surfaces without operator fatigue.

Type:

High quality full brass brushes, robust and durable for best possible testing results.

	Length mm
Part-No.: 0167100050	50
Part-No.: 0167100100	100
Part-No.: 0167100150	150
Part-No.: 0167100200	200
Part-No.: 0167100250	250
Part-No.: 0167100300	300
Part-No.: 0167100350	350
Part-No.: 0167100400	400
Part-No.: 0167100450	450
Part-No.: 0167100500	500
Part-No.: 0167100550	550
Part-No.: 0167100600	600
Part-No.: 0167100700	700
Part-No.: 0167100800	800
Part-No.: 0167100900	900
Part-No.: 0167101000	1000

Long trimming on request



Flat Brass Brush Electrodes

Fit for all-purpose application, e.g. for the inspection of tanks and containers.

Type:

High quality full brass brushes, robust and durable for best possible testing results.

Length mm

Part-No.: 0162100050	50
Part-No.: 0162100100	100
Part-No.: 0162100150	150
Part-No.: 0162100200	200
Part-No.: 0162100250	250
Part-No.: 0162100300	300
Part-No.: 0162100350	350
Part-No.: 0162100400	400
Part-No.: 0162100450	450
Part-No.: 0162100500	500
Part-No.: 0162100550	550
Part-No.: 0162100600	600
Part-No.: 0162100700	700
Part-No.: 0162100800	800
Part-No.: 0162100900	900
Part-No.: 0162101000	1000

Long trimming on request



Flat Brush Electrodes of Stainless Steel with Angle Adjustment

Adjustable up to 90°, particularly made for convenient inspection of large surfaces without operator fatigue.

Type:

High quality stainless steel brushes, robust and durable for best possible testing results.

Length mm

Part-No.: 0162600200	200
Part-No.: 0162600300	300
Part-No.: 0162600400	400



Flat Brush Electrodes of Stainless Steel

Fit for all-purpose application, e.g. for the inspection of tanks and containers.

Type:

High quality stainless steel brushes, robust and durable for best possible testing results.

Length mm

Part-No.: 0162500200	200
Part-No.: 0162500300	300
Part-No.: 0162500400	400



Flat Electrodes of Conductive Rubber with Angle Adjustment

Adjustable up to 90°, are particularly made for convenient inspection of delicate or thin film coatings without operator fatigue.

Length mm

Part-No.: 0167200050	50
Part-No.: 0167200100	100
Part-No.: 0167200150	150
Part-No.: 0167200200	200
Part-No.: 0167200250	250
Part-No.: 0167200300	300
Part-No.: 0167200350	350
Part-No.: 0167200400	400
Part-No.: 0167200450	450
Part-No.: 0167200500	500
Part-No.: 0167200550	550
Part-No.: 0167200600	600



Flat Electrodes of Conductive Rubber

Flat electrodes made of special conductive rubber are particularly designed for testing objects with a delicate or thin surface e.g. paint, varnish etc.

Length mm

Part-No.: 0162200050	50
Part-No.: 0162200100	100
Part-No.: 0162200150	150
Part-No.: 0162200200	200
Part-No.: 0162200250	250
Part-No.: 0162200300	300
Part-No.: 0162200350	350
Part-No.: 0162200400	400
Part-No.: 0162200450	450
Part-No.: 0162200500	500
Part-No.: 0162200550	550
Part-No.: 0162200600	600

Part-No.: 0166000005



Angle Adjustment for Flat Brush Electrodes

Adjustable up to 90°

Type: Stainless steel

Wire Rake & Paint Brush Electrodes



Wire Rake Electrodes

Wire rake electrodes are suitable for almost every application, for example: testing of tanks, containers and fittings.

Model:

Made of stainless steel, robust and durable for maximum inspection reliability.

Trim length mm

Part-No.: 0168100000	100
Part-No.: 0168200000	200



Paint Brush Electrodes

Testing electrodes 'paint brush' type are designed for surfaces with difficult access, e.g. drill-holes

Trim length mm

Part-No.: 0166015100	100
Part-No.: 0166015200	200

Pipeline Coils / Spring Electrodes

The easiest and fastest way to check even longer pipe sections. Before burying the pipe the complete pipe surface can be checked in a single work process using spring electrodes. ISOTEST® spring electrodes have excellent rolling characteristics and therefore guarantee accurate and reliable test results.



SlimLine spring electrodes, corrosion resistant stainless steel design, Ø 21 mm

The new SlimLine spring electrodes reduce the electric load of the ISOTEST® testing device. Thus, stable test voltages are guaranteed even for damp surfaces and pipes with a diameter up to 1600 mm (64"). The excellent rolling characteristics allow a comfortable and reliable test of the entire pipe coating in one single work process. SlimLine spring electrodes are available for all sizes from 2" (NPS 50 mm) up to 64" (NPS 1600 mm).

	NPS mm	NPS inch
Part-No.: 0161200050	50	2
Part-No.: 0161200080	80	3
Part-No.: 0161200100	100	4
Part-No.: 0161200125	125	5
Part-No.: 0161200150	150	6
Part-No.: 0161200200	200	8
Part-No.: 0161200250	250	10
Part-No.: 0161200300	300	12
Part-No.: 0161200350	350	14
Part-No.: 0161200400	400	16
Part-No.: 0161200450	450	18
Part-No.: 0161200500	500	20
Part-No.: 0161200550	550	22
Part-No.: 0161200600	600	24
Part-No.: 0161200650	650	26
Part-No.: 0161200700	700	28
Part-No.: 0161200750	750	30
Part-No.: 0161200800	800	32
Part-No.: 0161200850	850	34
Part-No.: 0161200900	900	36
Part-No.: 0161200950	950	38
Part-No.: 0161201000	1000	40
Part-No.: 0161201050	1050	42
Part-No.: 0161201100	1100	44
Part-No.: 0161201150	1150	46
Part-No.: 0161201200	1200	48
Part-No.: 0161201400	1400	56
Part-No.: 0161201500	1500	60
Part-No.: 0161201600	1600	64

Part-No.: 0176000100



Connector for SlimLine spring electrodes

You always need a matching SlimLine connector when testing with SlimLine spring electrodes.

Semicircular Electrodes



Semicircular Electrodes

In case the pipe is already lowered into the trench, the semicircular electrodes are the appropriate solution for the holiday detection test.

Thanks to their fully trimmed design ISOTEST® semicircular electrodes are robust and durable. Only the overall contact between surface and electrode guarantees correct testing results.

	NPS mm	NPS inch
Part-No.: 0163000050	50	2
Part-No.: 0163000075	75	3
Part-No.: 0163000080	80	3
Part-No.: 0163000100	100	4
Part-No.: 0163000125	125	5
Part-No.: 0163000150	150	6
Part-No.: 0163000200	200	8
Part-No.: 0163000250	250	10
Part-No.: 0163000300	300	12
Part-No.: 0163000350	350	14
Part-No.: 0163000400	400	16
Part-No.: 0163000500	500	20
Part-No.: 0163000600	600	24
Part-No.: 0163000700	700	28
Part-No.: 0163000800	800	32
Part-No.: 0163000900	900	36
Part-No.: 0163001000	1000	40

Special sizes? No problem, ☎ Just call!

Part-No.: 0181000000

Insulating Handle

An additional insulating handle is needed when working with semicircular electrodes for pipes larger than DN 500 / NPS 20 inch.



Brush Electrodes for Internally Coated Pipes



Brush Electrodes for Internally Coated Pipes

The brush electrodes are drawn through the pipe during the holiday test using a high voltage extension cable or an insulated extension bar.

High voltage extension cables are available in 4 m and 7 m lengths.
Extension bars are available in 0.5 m and 1 m lengths.

Design:

brush electrode with two sections of stainless steel and a nylon-reinforced trimming in the middle section.

	NPS mm	NPS inch
Part-No.: 0165300025	25	1
Part-No.: 0165300032	32	1 ¼
Part-No.: 0165300040	40	1 ½
Part-No.: 0165300050	50	2
Part-No.: 0165300065	65	2 ½
Part-No.: 0165300080	80	3
Part-No.: 0165300100	100	4
Part-No.: 0165300125	125	5
Part-No.: 0165300150	150	6
Part-No.: 0165300175	175	7
Part-No.: 0165300200	200	8
Part-No.: 0165300250	250	10



Extension Cable for High Voltage Testing of Internally Coated Pipes

The brush electrodes are drawn through the pipe during the holiday test using a high voltage extension cable. High voltage extension cables are available in 4 m and 7 m lengths.

	Length
Part-No.: 0176000004	4 m
Part-No.: 0176000007	7 m

Insulated Extension Bars



Insulated Extension Bars

To extend the probe for applications where a long reach is required.

Extension bars can be combined up to 3 m.

You always need one section with electrode chuck.

Part-No.: 0177500000	Extension Bar 500 mm with electrode chuck
Part-No.: 0177600000	Extension Bar 1000 mm with electrode chuck
Part-No.: 0177100000	Extension Bar 500 mm without electrode chuck
Part-No.: 0177200000	Extension Bar 1000 mm without electrode chuck

Batteries & Chargers

Part-No.: 0176110451

Battery for ISOTEST IIT, RT, 3P, 4S and inspect
6 V / 4.5 Ah (SLA)



Part-No.: 0176200700

Battery Fuses
(spare parts - 5 pieces)

Part-No.: 0172100000

Charger

Supply voltage (wide-range-input): 100 – 240 VAC / 50 – 60 Hz



Part-No.: 0172800012

Charger (Car-Version)

Fig. s.a.

Supply voltage: 12 VDC

Part-No.: 0172800024

Charger (Car-Version)

Fig. s.a.

Supply voltage: 24 VDC

Transport Box

Part-No.: 0177200002

ISOTEST® Transport Box

for ISOTEST 3P, 4S and inspect, robust aluminium storage compartment for testing device and accessories.

Dimensions: 667 x 350 x 340 mm (W x H x D)



Calibration & Service

Part-No.: 0920500001



ISOTEST® Service for holiday detectors inspect / 4S
Including works test certificate

- Control of the high voltage in relation to the pre-set scale value using PTB* traceable measuring equipment
- Test and function control of the electronic
- Test and function control of high voltage generation
- General visual inspection

Part-No.: 0920500004

ISOTEST® Service for holiday detectors IIT/RT / 3P

Part-No.: 0940001001

Calibration certificate for ISOTEST® holiday detectors
According to the requirements of DIN EN ISO/IEC 17025

* PTB = Physikalisch-Technische Bundesanstalt – the national metrology institute of Germany

Order form

E-mail: isotest@elmedgmbh.com

Fax: +49 (0)2056 / 9329-33

Sender:

Company:	
Street:	
ZIP-CODE / City:	
Person in charge:	
Remarks:	

Order:

Quantity	ELMED-Part-No.	Article description	Price / pc	Total

Total amount: _____

Signature