

Portable and mobile Crack Detectors, working with AC as test current „Portaflux 1000“ to „Portaflux 10000“

To fulfil many testing problems, we manufacture portable crack detectors with different max. test currents.
All these crack detectors units works with AC as test current.

- Portable crack detectors:

- „Portaflux 1000“ Ref.-No.: 1150110-2
- „Portaflux 2000“ Ref.-No.: 1150120-2
- „Portaflux 4000“ Ref.-No.: 1150128-3

- Mobile crack detectors:

- „Portaflux 6000“ Ref.-No.: 1150142-3
- „Portaflux 8000“ Ref.-No.: 1150157-3
- „Portaflux 10000“ Ref.-No.: 1150171-3

All portable and mobile crack detectors are built standard for continuously-magnetization.

- If the test current is switched on over hand- or foot-switch, the test current is adjusted in approx. 200 ms from „0“ to the preselected test current value. Therefore no current input peaks.

Crack detectors can be equipped additionally with:

A.C. demagnetization Ref.-No.: 1150501-2

- The test current is adjusted, over a pre-programmed curve, in approx. 600 msec. down to „0“.
- The run-down time can be shorten or lengthen.

Constant current control* Ref.-No.: 1150502-2

- The test current is automatically regulated to the preselected value, independent from outside-resistance.

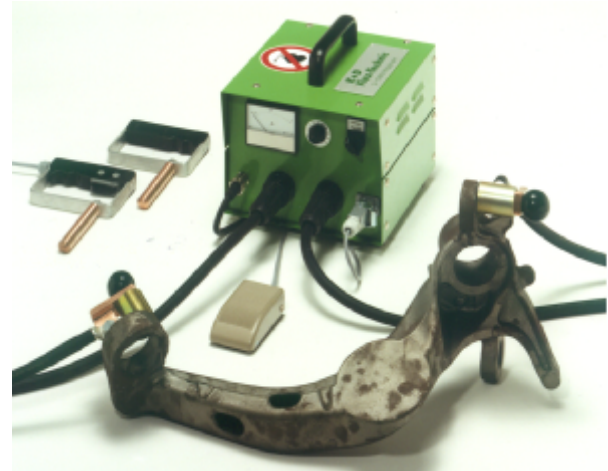
*not for „Portaflux 1000“

Impulse magnetizing device Ref.-No.: 1150503-2

- Principally for testing thin and thinwalled work-pieces.
- The impulse and the pause-interval are fix adjusted,
- 1 secs. on – 1 secs. off.
- The run-down time can be shorten or lengthen.

For the portable crack detectors „Portaflux“ we deliver:

- **High flexible high-current cables with end connectors**
Ref.-No.: 1150531-2 to 1150538-2
- **Hand-electrodes**
Ref.-No.: 1150550-2 to 1150553-2
- **Magnet-electrodes**
Ref.-No.: 1150540-2 to 1150544-2
- **Foot-switch**
Ref.-No.: 1150545-2



„Portaflux 1000“ with accessories



„Portaflux 2000“ and „Portaflux 4000“ with accessories



„Portaflux 6000“ to „Portaflux 10000“ with accessories

Portable and mobile Crack Detectors, working with AC as test current „Portaflux 1000“ to „Portaflux 10000“

Technical Datas		„Portaflux“					
		1000	2000	4000	6000	8000	10000
accord. EN ISO 9934-3		----- portable -----			----- mobile -----		
Test current AC							
eff., max.	A	1000	2000	2830	4240	5660	7100
peak, max.	A	1500	2800	4000	6000	8000	10000
Test current regulation		----- stepless -----					
Open circuit voltage	Volt	3,4	7	10,5	11	18	25
Duty cycle, relatively	%	----- 30 % -----					
Measured with:							
High current cable, length	m	2 x 2,5	2 x 2,5	2 x 3	2 x 3	2 x 3	2 x 3
cross section	mm ²	70	2 x 70	2 x 95	4 x 95	4 x 95	4 x 120
Work-piece, length	mm	300	900	900	900	2000	2000
cross section	mm ²	80 x 4	80 x 4	80 x 4	160 x 4	160 x 4	160 x 4
Crack detector length, approx.	mm	240	460	520	900	1700	1700
width, approx.	mm	260	340	360	620	940	940
height, approx.	mm	210	260	290	840	1350	1350
weight*, approx.	kg	20	45	87	160	740	900
Cable connection on the crack detector							
Dinse-sockets	mm ²	2 x 70	2 x 70	2 x 95			
copper-connectors	mm				80 x 10	80 x 10	80 x 10
accord. VDE							
Power supply**	Volt	----- 3 x 400 -----					
Operating voltage, AC	Volt	----- 15 -----					
Frequency**	Hz	----- 50 -----					
Power consumption	kVA	3,4	14	29	50	95	170

*including high current cables and electrodes

** Other voltages and frequencies on request!

For the portable crack detectors “Portaflux 1000“ to “Portaflux 4000” we deliver:

- Transport trolley

equipped with:

- rugged steel tube frame, with swivelling leg
- fixing to “Portaflux”
- 2 rubber handles
- 4 holders to wind high current cable
- box, made from steel, for accessories
- 2 ball-bearing disc-wheels, covered with hard-rubber

Ref.-No.: 1150510-4



„Portaflux 4000“ with transport trolley

Modifications, serving technical advancement, are reserved!

Portable and mobile Crack Detectors, working with AC or HWDC as test current „Portaflux 1500-G“ to „Portaflux 10000-G“

To fulfill many test problems and international test-specifications, we manufacture transportable crack detectors with different max. test currents. All these crack detectors units can work with AC or HWDC as test current.

- Portable crack detectors:

- „Portaflux 1500-G“ Ref.-No.: 1150210-2
- „Portaflux 3000-G“ Ref.-No.: 1150220-2
- „Portaflux 4000-G“ Ref.-No.: 1150228-3

- Mobile crack detectors:

- „Portaflux 6000-G“ Ref.-No.: 1150242-3
- „Portaflux 8000-G“ Ref.-No.: 1150257-3
- „Portaflux 10000-G“ Ref.-No.: 1150271-3

All portable and mobile crack detectors are built standard for **continuously-magnetization**.

- If the test current is switched on over hand- or foot-switch, the test current is adjusted in approx. 200 ms from „0“ to the preselected test current value. Therefore no input current peaks.

Testing with AC or HWDC

- the crack detectors „Portaflux 1500-G“, „Portaflux 3000-G“ and „Portaflux 4000-G“ are equipped additionally with Dinse-sockets for put in between AC and HWDC.
- By the crack detectors „Portaflux 6000-G“, „Portaflux 8000-G“ and „Portaflux 10000-G“, a mechanical high current-switch serve for the switch-over between AC and HWDC.

Crack detectors can be equipped additionally with:

AC demagnetization

Ref.-No.: 1150501-2

- The test current is adjusted, over a pre-programmed curve, in approx. 600 msecs. down to „0“.
- The run-down time can be shorten or lengthen.

Constant current control

Ref.-No.: 1150502-2

- The test current is automatically regulated to the preselected value, independent from outside-resistance.

Impulse magnetizing device

Ref.-No.: 1150503-2

- Principally for testing thin and thinwalled work-pieces. The impulse and the pause-interval are fix adjusted,
 - 1 secs. on – 1 secs. off.
 The run-down time can be shorten or lengthen.



„Portaflux 1500-G“ to „Portaflux 4000-G“ with accessories



„Portaflux 6000-G“ to „Portaflux 10000-G“ with accessories

For the portable crack detectors „Portaflux-G“ we deliver:

- **High flexible high-current cables with end connectors**
Ref.-No.: 1150531-2 to 1150538-2
- **Hand-electrodes**
Ref.-No.: 1150550-2 to 1150553-2
- **Magnet-electrodes**
Ref.-No.: 1150540-2 to 1150544-2
- **Foot-switch**
Ref.-No.: 1150545-2

Modifications, serving technical advancement, are reserved!

Portable and mobile Crack Detectors, working with AC or HWDC as test current „Portaflux 1500-G“ to „Portaflux 10000-G“

Technical Datas		„Portaflux“					
		1500-G	3000-G	4000-G	6000-G	8000-G	10000-G
accord. EN ISO 9934-3		----- portable -----			----- mobile -----		
Test current AC							
eff., max.	A	1060	2120	2830	4240	5660	7100
peak, max.	A	1500	3000	4000	6000	8000	10000
Test current HWDC							
eff., max.	A	750	1500	2000	3000	4000	5000
peak, max.	A	1400	3000	4000	6000	8000	10000
Test current regulation		----- stepless -----					
Open circuit voltage	Volt	5,1	6,6	10,5	11	18	25
Duty cycle, relatively	%	----- 30 % -----					
Measured with:							
High current cable, length	m	2 x 2,5	2 x 2,5	2 x 3	2 x 3	2 x 3	2 x 3
cross section	mm ²	95	2 x 70	2 x 95	4 x 95	4 x 95	4 x 120
Work-piece, length	mm	500	500	2000	1000	2000	2000
cross section	mm ²	80 x 4	80 x 4	80 x 4	160 x 4	160 x 4	160 x 4
Crack detector length, approx.	mm	520	520	520	915	1700	1700
width, approx.	mm	360	360	360	660	940	940
height, approx.	mm	290	290	290	870	1350	1350
weight*, approx.	kg	35	60	96	180	780	900
Cable connection on the crack detector							
Dinse-socket	mm ²	3 x 95	6 x 70	6 x 95			
copper-connectors	mm				80 x 10	80 x 10	80 x 10
accord. VDE							
Power supply**	Volt	----- 3 x 400 -----					
Operating voltage, AC	Volt	----- 15 -----					
Frequency**	Hz	----- 50 -----					
Power consumption	kVA	4,4	16,5	32	58	125	185

*including high current cables and electrodes

** Other voltages and frequencies on request!

For the portable crack detectors “Portaflux 1500-G“ to “Portaflux 4000-G” we deliver:

- Transport trolley

equipped with:

- rugged steel tube frame, with swivelling leg
- fixing to “Portaflux-G”
- 2 rubber handles
- 4 holders to wind high current cable
- box, made from steel, for accessories
- 2 ball-bearing disc-wheels, covered with hard-rubber

Ref.-No.: 1150510-4



„Portaflux 4000-G“ with transport trolley

Mobile Crack Detectors, working with AC or FWDC, „Portaflux 4000-VG“ to „Portaflux 10000-VG“ and „Portaflux 6000-VG-E“ to „Portaflux 12000-VG-E“

To fulfil many test problems and international, preponderant US-American test-specifications, we manufacture mobile crack detectors with different max. test currents and different technical execution.

All these units can be used for working with AC or with FWDC as test current.

The mobile crack detectors „Portaflux-VG“ and „Portaflux -VG-E“ are built standard for **continuously-magnetization**.

- If the test current is switched on over hand- or foot-switch, the test current is adjusted in approx. 200 ms from „0“ to the preselected test current value. Therefor no input current peaks.

- Crack Detectors with preponderant electro-mechanical execution:

- | | |
|------------------------|---------------------|
| - „Portaflux 4000-VG“ | Ref.-No.: 1150304-4 |
| - „Portaflux 6000-VG“ | Ref.-No.: 1150306-4 |
| - „Portaflux 8000-VG“ | Ref.-No.: 1150308-4 |
| - „Portaflux 10000-VG“ | Ref.-No.: 1150310-4 |

These crack detectors are equipped with:

- mechanical high-current switch from F.W.D.C. to A.C.
- mechanical high-current switch, as an pole-turn-switch for demagnetization with D.C.

Crack detectors can be equipped additionally with:

AC demagnetization Ref.-No.: 1150501-2

- The test current is adjusted, over a pre-programmed curve, in approx. 600 msecs. down to to „0“.
- The run-down time can be shorten or lengthen.

Constant current control Ref.-No.: 1150502-2

- The test current is automatically regulated to the preselected value, independent form outside-resistance.

Impulse magnetizing device Ref.-No.: 1150503-2

- Principally for testing thin and thinwalled work-pieces. The impulse and the pause-interval are fix adjusted, 1 sec. on – 1 sec. off.
- The run-down time can be shorten or lengthen.

- Crack detectors with electronically/electrical and mechanical execution:

- | | |
|--------------------------|---------------------|
| - „Portaflux 6000-VG-E“ | Ref.-No.: 1150316-4 |
| - „Portaflux 8000-VG-E“ | Ref.-No.: 1150318-4 |
| - „Portaflux 10000-VG-E“ | Ref.-No.: 1150320-4 |
| - „Portaflux 12000-VG-E“ | Ref.-No.: 1150322-4 |

These crack detectors are equipped with:

- 30-steps automated electronically low-frequency demagnetization. Run-down time approx. 30 secs. with motorized high-current switch, as pole-turn-switch for demagnetization with DC.
- AC demagnetization
The test current is adjusted, over a pre-programmed curve, in approx. 600 msecs.* down to „0“.
- Constant current control
The test current is automatically regulated to the preselected value, independent from outside-resistance.
- Impulse magnetizing device
Principally for testing thin and thinwalled work-pieces. The impulse and the pause-interval are fix adjusted, - 1 secs.* on – 1 secs.* off.
*The run-down time can be shorten or lengthen.
- motor-driven high-current switch, for switch over between FWDC to AC.



„Portaflux 4000-VG“ to „Portaflux 10000-VG“ and „Portaflux 6000-VG-E“ to „Portaflux 12000-VG-E“ with accessories

Mobile Crack Detectors, working with AC or FWDC, „Portaflux 4000-VG“ to „Portaflux 10000-VG“ and „Portaflux 6000-VG-E“ to „Portaflux 12000-VG-E“

Technical Datas	Type	Portaflux				
accord. EN ISO 9934-3	VG	4000	6000	8000	10000	
	VG-E		6000	8000	10000	12000
Test current A.C.						
eff., max.	A	2800	4200	5600	5600	-
peak , max.	A	4000	6000	8000	8000	-
Test current F.W.D.C.						
eff./peak, max.	A	4000	6000	8000	10000	12000
Test current regulation		----- stepless -----				
Open circuit voltage, approx.	Volt	13,5	18	30	30	30
Duty cycle, relatively	%	----- 30 % -----				
Measured with:						
High current cable, length	m	2 x 3	2 x 4,5	2 x 4,5	2 x 4,5	2 x 4,5
cross section	mm ²	4 x 95	4 x 120	4 x 150	4 x 150	4 x 150
Test cable length	m	6	9	9	9	9
cross section	mm ²	380	480	600	600	600
Crack detector length, approx.	mm	1700	1700	1700	1700	1900
width, approx.	mm	940	940	940	940	1000
hidth, approx.	mm	1350	1350	1350	1350	1650
weight*, approx.	kg	710	795	885	950	1020
Cable connection on the crack detector						
copper-connectors	mm	100 x 10	100 x 10	100 x 10	100 x 10	100 x 10
accord. VDE						
Power supply**	Volt	----- 3 x 400 -----				
Operating voltage, DC	Volt	----- 24 -----				
Frequency**	Hz	----- 50 -----				
Power consumption, approx.	kVA	76	110	245	300	350

* without high current cables and electrodes

** Other voltages and frequencies on request!

Deliverable accessories for the crack detectors:

- **High flexible high-current cables with end connectors**
 Ref.-No.: 1150535-2 to 1150539-2

- **Magnet-electrodes**
 Ref.-No.: 1150540-2 to 1150544-2

- **Hand-electrodes**
 Ref.-No.: 1150550-2 to 1150553-2

- **Foot-switch**
 Ref.-No.: 1150545-2

Modifications, serving technical advancement, are reserved!

Zubehör für trag- und fahrbare Magnetpulver-Rissprüfgeräte

Accessories for portable and mobile magnetic particle crack detectors



Hand-Elektroden

zum Anschluss von Hochstromkabeln mit Kabelschuhen

Einfache Elektrode

Bestell-Nr.: 1150551-2

Elektrode mit Handschalter und Steuerkabel

Bestell-Nr.: 1150550-2

Beide Elektroden können auch mit Dinse-Steckbuchsen zum Anschluss der Hochstromkabel ausgerüstet werden.

Hand-electrodes

for connection of high current cables with cable lug

Simple electrode

Ref.-No.: 1150551-2

Electrode with hand-switch and control cable

Ref.-No.: 1150550-2

Both electrodes can also be equipped with dinse-plug, for connection of high current cables.



Magnet-Elektroden, rund

zum Anschluss von Hochstromkabeln mit Kabelschuhen

Durchmesser 40 mm

Bestell-Nr.: 1150542-2

Durchmesser 50 mm

Bestell-Nr.: 1150543-2

Durchmesser 63 mm

Bestell-Nr.: 1150544-2

Alle Magnete können auch mit Dinse-Steckbuchsen zum Anschluss der Hochstromkabel ausgerüstet werden.

Magnet electrodes, round

for connection of high current cables with cable lugs

Diameter 40 mm

Ref.-No.: 1150542-2

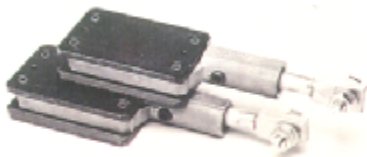
Diameter 50 mm

Ref.-No.: 1150543-2

Diameter 63 mm

Ref.-No.: 1150544-2

All magnets can also be equipped with dinse-plugs, for connection of high current cables.



Magnet-Elektroden, flach

zum Anschluss von Hochstromkabeln mit Kabelschuhen

DIX PM 50

Bestell-Nr.: 1150540-2

DIX PM 70

Bestell-Nr.: 1150541-2

Alle Magnete können auch mit Dinse-Steckbuchsen zum Anschluss der Hochstromkabel ausgerüstet werden.

Magnet-electrodes

for connection of high current cables with cable lugs

DIX PM 50

Ref.-No.: 1150540-2

DIX PM 70

Ref.-No.: 1150541-2

All magnets can also be equipped with dinse-plugs, for connection of high current cables.



Puderball,

für Trockenpulver

Bestell-Nr.: 1150699-4

Spritzflasche, ohne Pumpe

Inhalt: 0,5 Liter

Bestell-Nr.: 1150700-2

Spritzflasche,

mit Hand-Sprühpumpe

Inhalt: 1 Liter

Bestell-Nr.: 1150702-2

Powder ball,

for dry powder

Ref.-No.: 1150699-4

Spray bottle, without pump

Capacity: 0,5 Litre

Ref.-No.: 1150700-2

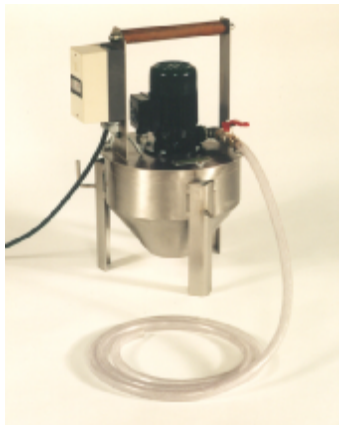
Spray bottle,

with hand spray pump

Capacity: 1 Litre

Ref.-No.: 1150702-2

Prospekt-Nr.: 034-46/99 d + e



Tragbare Prüfmittel-Pumpe

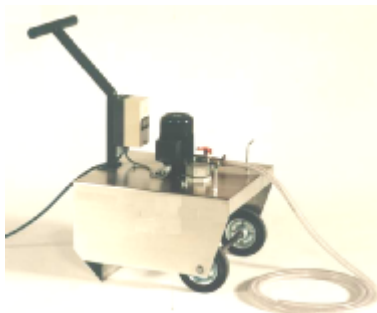
- mit:
- Edelstahl-Prüfmittelbehälter auf drei Winkelfüßen
 - Handreguliertventil
 - Prüfmittelschlauch

Inhalt: max. ca. 8 Liter
 - mit Motorschutzschalter
 - mit 3 m langem Anschlusskabel und Schuko-Stecker
 - Netzanschluss 230 V, 1-phasig
 - Frequenz 50/60 Hz
 Bestell-Nr.: 1150703-2

Portable test solution pump

- with:
- stainless steel container on three angle-feet
 - hand regulated valve
 - test agent hose

Capacity: max. approx. 8 Litre
 - with motor-protecting switch
 - with 3 m long connecting cable and Schuko-plug
 - Voltage 230 V, single phase
 - Frequency 50/60 Hz
 Ref.-No.: 1150703-2



Fahrbare Prüfmittelpumpe

- mit:
- Gestell aus abgekanteten Edelstahl
 - 2 kugelgelagerten Laufrädern
 - Transportgriff
 - Edelstahl-Prüfmittelbehälter
 - Handreguliertventil
 - Prüfmittelschlauch

Inhalt: max. ca. 8 Liter
 - mit Motorschutzschalter
 - mit 3 m langem Anschlusskabel und Schuko-Stecker
 - Netzanschluss 230 V, 1-phasig
 - Frequenz 50/60 Hz
 Bestell-Nr.: 1150704-2

Mobile test solution pump

- with:
- frame, made from stainless steel
 - 2 wheels with ball bearings
 - transport handle
 - stainless steel container
 - hand regulated valve
 - test agent hose

Capacity: max. approx. 8 Litre
 - with motor-protecting switch
 - with 3 m long connecting cable and Schuko-plug
 - Voltage 230 V, single phase
 - Frequency 50/60 Hz
 Ref.-No.: 1150704-2



Geschlossene Magnetisierungs-Spulen
 mit 3 Windungen, aus 4-kant-Aluminium, zum Anschluss von Hochstromkabeln mit Kabelschuhen

Lichter Innendurchmesser:

100 mm	Bestell-Nr. 1150600-2
200 mm	Bestell-Nr. 1150601-2
350 mm	Bestell-Nr. 1150602-2
500 mm	Bestell-Nr. 1150603-2

Beide Spulenanschlüsse können auch mit Dinse-Steckbuchsen zum Anschluss der Hochstromkabel ausgerüstet werden.

Closed magnetizing coils
 with 3 turns, made from square aluminium-profile, for connection to the high current cables

Inner diameter:

100 mm	Ref.-No. 1150600-2
200 mm	Ref.-No. 1150601-2
350 mm	Ref.-No. 1150602-2
500 mm	Ref.-No. 1150603-2

Both coil-connections can also be equipped with dinse-sockets for the connection to the high current cables.



Aufklappbare Magnetisierungs-Spulen
 mit 3 Windungen, aus Aluminium-Profilmaterial, zum Anschluss von Hochstromkabeln mit Kabelschuhen

Lichter Innendurchmesser:

200 mm	Bestell-Nr. 1150605-2
350 mm	Bestell-Nr. 1150606-2
500 mm	Bestell-Nr. 1150607-2

Beide Spulenanschlüsse können auch mit Dinse-Steckbuchsen zum Anschluss der Hochstromkabel ausgerüstet werden.

Hinged magnetizing coil
 with 3 turns, from flat aluminium-profile, for connection to the high current cable

Inner diameter:

200 mm	Ref.-No. 1150605-2
350 mm	Ref.-No. 1150606-2
500 mm	Ref.-No. 1150607-2

Both coil-connections can also be equipped with dinse-socket for the connection to the high current cables.