Innovative System Solutions for Holter

custo guard holter custo flash | custo watch





custo guard holter with custo wing Modern Holter with novel patch electrodes

custo guard holter is the new Holter ECG recorder that combines the benefits of both long-standing experience and continuous development. It excels in high patient comfort, is compact and lightweight, and comes without any disturbing cables or belts. With three channels, motion and pacemaker detection as well as an almost unlimited recording time of several months, the custo guard holter is the perfect solution for an excellent long-term ECG.

custo guard holter: The new all-in-one Holter monitor!

Easy. Wireless. Reliable.



Our benefits:

- 3 channels with two independent leads
- · Completely wireless and perfect for hygienic application
- · Optimum recording quality with the new custo wing electrode
- Fast and stable device communication and data transfer
- Short battery charge times
- Pacemaker detection
- · Position and motion detection
- Check for correct application through PC monitoring
- Bluetooth Low Energy for mobile applications
- LED status display for charge status and HR detection
- Protection class IP65: perfect for disinfection
- Very long recording time (several months)
- Running time up to 120 hours with only one battery
- Very small and lightweight with only 30 g
- Docking station custo base with one or six spots for device communication and as charging station

Various electrode applications are possible:

- Special disposable electrode custo wing: Artefact reduction and signal optimisation due to decentral connections and fully covered adhesive surface – material made of breathable nonwoven fabric
- ECG cable guard 3 and ECG cable guard 4
- custo belt 3

Intelligent interface (guard holter viewer) in custo diagnostic

- · Display for recording stand-by mode and particular device states
- Various configurations and recording modes are possible

custo flash 500/510/510V/501* Classic Holter monitor with 7 days recording time

custo flash 500/510/510V is our classic Holter ECG recorder with three channels and integrated ECG cables for continuous ECG recording up to seven days, without battery change. Compatible with this, different custo adhesive electrodes for optimum ECG signal quality and best skin-compatibility are available.

*custo flash 501 is the inexpensive Holter monitor for evaluation and facility-sharing centres for 24-hour ECG recording.

- Robust design
- Easy to disinfect
- Low operating costs and long lifetime:
 7 x 24 h with only one battery charge
- Skin-friendly adhesive electrodes

custo watch Our comfortable Holter solution with attractive design

custo watch is our comfortable Holter solution, completely without cables and adhesive electrodes. The Holter is recorded with a lightweight chest belt, sent wirelessly to the custo watch and is saved there.

- Adjustable patient display for ECG view, heart rate and connection quality
- · Display of date, time and battery status
- Signal check of ECG channels



Alternative electrode application with custo guard holter:

In addition to use with custo wing, custo belt 3 or ECG cable guard 3, the ECG recorder can also be attached with the new ECG cable guard 4.





custo holter online Multi-user diagnostic service provider: ways for senders

If there is low demand for Holter examinations, it is recommended to participate in multi-user evaluation centre for which the single GP only has to invest in an inexpensive recording device and the holter online software. **The ECG data are sent to the evaluation centre via encrypted data transfer by the holter online software.** If online data transfer is not desired, the ECG data can also be transmitted via USB stick. The holter online system complies with GDPR.



Beside the integrated short analysis, the holter online software provides two different options:



Short analysis

The integrated short analysis function provides the user in the general practice with preliminary information about important pathological events. The analysed ECG is sent as a printout.

Option 1: Visualisation

The analysed ECG is sent online.

Option 2: Reanalysis

It is possible to analyse and confirm the ECG analysed by the evaluation centre on one's own PC.

custo holter ABPM Synchronous recording of Holter and ABPM



3

In order to find out if your hypertension patient is at the same time arrhythmia patient, custo holter ABPM is the right choice.

The combination of custo screen 300/310 and custo guard holter is the perfect solution for simultaneous recording of Holter and ABPM. The system provides high wearing comfort without disturbing and artefact prone Holter cables.



Holter device custo guard holter

2 Innovative electrodes custo wing:

- Easy placement due to snap fasteners
- Ergonomic shape and adhesive on the whole surface, for extraordinary recording quality
- Perfect for Holter ECG thanks to particular material properties

ABPM recorder custo screen 300/310

- Extremely robust recorder for long product life cycle
- Validated according to ESH-IP 2010
- Measuring of the central blood pressure with custo screen 310

(ama)







custo clean

Hygienic and safe – the new disposable bag for your custo med device

- Protects patients and medical staff
- Extends lifetime of the devices
- Easy to handle
- Time-saving preparation of devices
- 100 % recyclable

The disposible bags are also available for custo cardio 300.



Holter features in the custo diagnostic software

- Directly after data download from the recorder and analysis of the saved ECG, the **summary of the Holter recording is available as an overview.** Here, all pathological events are shown, indicating occurrence and maximum frequency.
- In the **example view** all events are displayed. When an example type is double-clicked, all single examples of the selected arrhythmia are shown.
- The **trend view** gives an **overview of all events in the examination period** in an interactive table. Each event can be selected with a mouse click and be shown in the ECG trend.
- The total ECG gives a good overview in freely selectable sizes (from 30 minutes to 30 seconds per page).
- In addition to the number of **spikes and the pacemaker width**, the **pacemaker page** shows a number of useful parameters.
- All **analysis parameters** are based on the latest studies. However, they can be **adjusted according to one's needs if required.**
- The **evaluation comparison** enables the detailed comparison of two evaluations of a patient with only one mouse-click.
- With the **report manager**, you can create significant reports in a very short time. The **export elements and text modules** are very helpful here.
- The **printout** summarises all important aspects (also self-configured ones) and proposals in a clear overview.

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Summary				Heart Rate related Events				Ventricular events			
QRS	total	88560		Arrhythmia		Yes (223)		Ventr.Tach.	Number	1	
HR	maximum	109	16:24	PSVT	Number	71			max. HR	94	19:11
	average	69	11:01		longest	3.7	15:53		longest	4.4	19:11
	minimum	32	13:24	SVPB	Number	7022		Run	Number	8	
QT	average	404			max/h	523	02:00	Couplet	Number	832	
QTc	average	430		Asystelia	Number	9		Bigeminy	Number	178	
AF		37			longest	2.1	01:40		longest	25.4	06:28
	total	19:57	94.3%	Miss. QRS	Number	2317		VPB	Number	8640	
					longest	1.9	16:17		max/h	733	13:00

Clearly arranged total view of all the important values

	User	custo med GmbH	? _
	Patient	Mustermann Franz	10.10.1960 (60
	Examination	Holter 21.03.2020 (10:5	9)-22.03.2020 (08:09) 21:10
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Exemplary overview of all events



custo AF Diagnostics: Detect Atrial Fibrillation at a Glance!



Identification

- In the RR trend, high-frequency areas which may deviate from sinus rhythm can be well identified.
- ★ The Poincaré plot shows, if there are cardiac arrhythmias or atrial fibrillation.
- The summation complex allows visualisation of whether a P-wave is existent or not.

Verification

- In the mountain view ECG, the beginning and end of a paroxysmal fibrillation episode can be simply and quickly recognized.
- The original ECG allows a definitive evaluation. Now unclear and uncertain diagnoses with respect to atrial fibrillation belong to the past.

Template analysis

The analysed morphology classes ("templates") are displayed with the indication of type and the frequency of occurrence. Individual morphology classes can be edited or summarised. A new analysis of the recorded ECG with modified parameters is possible at any time.



ANS Diagnostics – the modern form of HRV analysis

With ANS Diagnostics, stress burden and sleep quality can be identified at a glance. The chrono-cardiogram enables an objective view of sleep quality. With the sympathovagal quotient, presented in red and blue, it is possible to evaluate rapidly if a stress situation is actually given.

The target values are from the database of the Human Research Institute, Weiz (Direction: Univ. Prof. Dr. Maximilian Moser). Therefore, a reliable group comparison as well as a classification of the patient according to age and gender is possible.

ABPM and Holter: custo holter ABPM

In the simultaneous recording of Holter and ABPM, the values are shown in compact and clearly structured format so that they can be seen at a glance. It is possible to change to detailed views and analysing functions at any time.





Normal blood pressure

Example of a Holter ECG + ABPM recording: 32-year-old man, good regulatory capacity



Increased blood pressure Example of a Holter ECG + ABPM r

Example of a Holter ECG + ABPM recording: 39-year-old man, increased blood pressure due to stress

Innovative system solutions for your diagnostics

ABPM Blood Glucose

Since 1982, our brand has been representing innovative system solutions in cardiopulmonary diagnostics. In cooperation with committed and competent sales and service partners, we offer professional solutions taking account of your individual organisational circumstances and IT structures. No matter if your installation is based on a stationary or mobile system, a single-user workstation or multi-site network solution, in a doctor's office or in a hospital – your modular

> Resting ECG

Holter

Cardiac Rehabilitation Stress ECG

Spirometry

custo med system will be a profitable investment for the future.

Our modular platform custo diagnostic is the intelligent link between clinical engineering and administrative software.

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EPR System

PACS

HIS