

Dräger Interlock XT

The Dräger Interlock XT is a breath-alcohol measuring instrument with a vehicle immobilizer. After taking a breath alcohol measurement, it prohibits a driver who has consumed alcohol from starting the motor. It can easily be installed into the vehicle. By installing a Dräger Interlock XT, you can avoid accidents caused by alcohol consumption. Additionally, long-term changes in the drinking attitude may be an added benefit.



Components

The Dräger Interlock XT comprises two main components: the breath-alcohol measuring instrument with the measuring system, which is situated inside the vehicle, and the control unit which is generally installed under the dashboard and allows or prevents current being supplied to the vehicle's starter system.

Operation

When the ignition is switched on, the Dräger Interlock XT requests a breath sample from the driver. The result of the breath-alcohol concentration measurement determines whether the vehicle's starter is released and the engine can be started.

Application

Car drivers find long waits after switching on the ignition particularly annoying. Therefore, during development of the Dräger Interlock XT, particular attention was paid to ensuring that the instrument would be ready for use quickly.

Because the Dräger Interlock XT even works perfectly at -40°C (during the Scandinavian winter, for example) and at 85°C (in blazing sunlight, for example), it was given the name "XT", for "eXtended Temperature".

Measuring technique

The Dräger Interlock XT determines the breath alcohol concentration by means of an electrochemical sensor system, as it is used also in breath-alcohol measuring instruments of police authorities. It reacts with high specificity to alcohol. As a result, other exhaled substances or cigarette smoke do not distort the measurement result.

Data storage

While the vehicle is in use, all relevant events are recorded in the Dräger Interlock XT's data log: date, time, submission of or refusal to submit a breath sample, measured alcohol concentration, engine starts and stops, electrical bypassing of the Interlock and any other attempts to tamper with the device. The data can be downloaded and compiled in a data record.

Manipulation

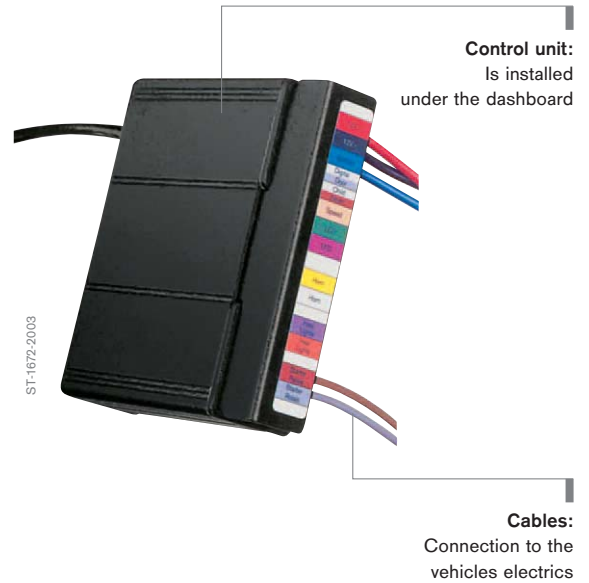
The use of auxiliary means to circumvent the Dräger Interlock XT, as for example an air pump or the use of filters, is reliably detected and starting the motor is prevented. A vehicle start-up as by push-start without previous delivery of an accepted breath sample is recorded in the data log.



Dräger Interlock XT
A safe start

Properties of the Dräger Interlock XT

- Prevents the starting of the vehicle when alcohol is detected in the driver's breath
- Leads to immediate separation of alcohol intake and driving
- Prevents accidents while under the influence of alcohol
- Is resistant to tampering
- Offers the possibility for cyclic retests
- Records all events in data storage for later review
- Increases safety for drivers and passengers
- Can improve the image of transport companies
- Supports long-term attitude changes towards overcoming alcohol problems



1. Turn ignition on



2. Receive request to blow into Dräger Interlock XT



3. Measurement of breath alcohol concentration takes place



4. Accepted breath sample: motor starter is enabled



5. Start motor

Breath alcohol measurement

Dräger is world market leader in breath alcohol measurement. The Alcotest® family of products is the most successful breath alcohol measuring instrument world-wide.

The well known Alcotest tube with the sample bag is probably the oldest method

of obtaining proof of alcohol consumption. Today, most alcohol detection devices are electronic.

They are used on all five continents for traffic safety by police authorities, for workplace alcohol testing, as well as aiding in the diagnosis of medical patients.

Dräger's long term experience and time proven measuring technique establishes the basis of the Dräger Interlock XT.

ST-15161-2008



Dräger Interlock XT
Use in a bus

ST-1670-2003



Dräger Interlock XT
Fits in the dashboard

ST-1674-2003



Dräger Interlock XT
Use in private car

TECHNICAL DATA

Measuring principle	Electrochemical sensor
Ambient conditions for operation	Temperature -40 to 85 °C (-40 to 185 °F) Pressure 600 to 1100 hPa No influence of changes in altitude on the measurement result
Sensitivity drift	typically 1 % of measured value / month
Ready for test	< 20 sec. (above 20 °C / 68 °F) < 3 min. (at -40 °C / -40 °F)
Display	graphic LC-display in the handset with full text messages
Calibration interval	typically 12 months
Data memory	in control unit, for more than 30.000 events
Dimensions (H x W x D)	Handset approx. 150 mm x 70 mm x 40 mm Control unit approx. 115 mm x 105 mm x 40 mm
Weight	Handset approx. 175 g Control unit approx. 320 g
Voltage supply	12 to 24 V; Starter relay may switch up to 48 V
Relay for the lead starter relay	< 16 A, continuous; < 40 A, peak
Current consumption	< 2 A; maximum; < 20 mA; stand-by
Approvals	Radio interference (Directive 2006/28/EC) General German Operating Permission (Allgemeine Betriebserlaubnis) EN 50436-1: 2005, EN 50436-2: 2007

ORDER INFORMATION

Description	Order-no.
Dräger Interlock XT	83 19 600
Breath alcohol controlled vehicle immobilizer (handset and control unit) for installation in motor vehicles, mouthpieces (5 pieces) and mounting accessories	
Mouthpieces with non-return valve (5 pieces) separately packed	68 10 478
Mouthpieces with non-return valve (300 pieces) separately packed	68 11 325
Mouthpieces without non-return valve (50 pieces) separately packed	68 12 288
Mouthpieces without non-return valve (300 pieces) separately packed	68 11 815
Mouthpiece caps (1000 pieces) per 20 pieces in bag	68 11 483

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