

CORRSYS

DATRON

Sensorsysteme GmbH



Hand-Lever Force Sensor

*for
Measurement of force applied on
the hand-brake lever of motorcycles*

USER MANUAL

Notes:

Contents

General Information	4
Safety Instructions	5
1. Overview	6
2. Extent of Delivery	7
3. Technical Data	8
3.1 Specifications	8
3.2. Pin Assignment	8
4. Set-up and Connection	9

In a continuous effort to improve our products CORRSYS-DATRON reserves the right to change specifications without prior notice.

General Information

Legal Notice

Information furnished is believed to be accurate and reliable. However, CORRSYS-DATRON assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of CORRSYS-DATRON. Specifications mentioned in this publication are subject to change without notice and do not represent a commitment on the part of CORRSYS-DATRON. This publication supersedes and replaces all information previously supplied.

All brand names are trademarks of their respective holders.

Copyright

©Copyright 2008, CORRSYS-DATRON

Revision

PedalForce-Bike_m-010-e-rev001 10/08

Contact

International Headquarters:

CORRSYS-DATRON Sensorsysteme GmbH

Charlotte-Bamberg-Str. 12

35578 Wetzlar / Germany

Phone ++49 (6441) 9282-0

Hotline ++49 (6441) 9282-82

Fax ++49 (6441) 9282-17

E-mail sales@corrsys-datron.com

URL www.corrsys-datron.com

North American Headquarters:

CORRSYS-DATRON Sensorsystems, Inc.

40000 Grand River, Suite 503

Novi, MI 48375 / USA

Phone ++1 (248) 615-2035

Toll-free++1 (800) 832-0732

Fax ++1 (248) 615-2184

E-mail USA-sales@corrsys-datron.com

URL www.corrsys-datron.com

China Headquarters:

CORRSYS-DATRON Sensorsysteme GmbH, China Office

Room 610, JinTianDi International Mansion,

No. 998 RenMin Road, Shanghai (200021), P.R.China

Tel.: ++86-21-63114144

Fax: ++86-21-63114154

E-mail: Xiaoying.Li@corrsys-datron.com.cn

URL: www.corrsys-datron.com.cn

Safety Instructions

Please read carefully before operating the equipment.

CORRSYS-DATRON is not responsible for damage that may occur when this system is used in any way other than that for which it is intended.

To assure safe and proper operation, all supplied equipment, components and/or accessories must be carefully transported and stored, as well as professionally installed and operated. Careful maintenance and usage in full accordance with operating instructions is imperative.

CORRSYS-DATRON equipment should be installed and operated only by qualified persons who are familiar with devices of this type.

Local regulations may not permit the operation of motor vehicles on public highways while the equipment is mounted on the vehicle.

- Use the equipment only for intended applications. Improper application is not advised.
- Do not modify or change the equipment or its accessories in any way.
- Improper use or mounting of the equipment may affect the safety of the vehicle and/or occupants.
- The equipment must not be mounted and/or operated in any way that may compromise vehicle or and/or occupant safety.
- Equipment must be mounted firmly and securely.
- Use only original equipment, components and/or accessories included in the scope of delivery.
- Do not use defective or damaged equipment, components and/or accessories .
- Always note correct pin assignments and operating voltages when connecting equipment to power supplies, data acquisition/evaluation systems, and/or any other applicable system or component. Equipment may be damaged if not properly connected and/or operated.
- For additional information, please call the CORRSYS-DATRON Hotline: ++49 (6441) 9282-82 or: hotline@corrsys-datron.com



Accident Risks!

- **Improper mounting may cause unintentional activation of the brake.**
The sensor must be mounted securely, as follows:
 - the sensor base must be positioned firmly upon the brake lever
 - the mounting strap must be fully tightened
 - the head of the brake lever must be placed through the aperture in the sensor base to prevent the unit from slipping
- **There is risk of very serious injury to the hand if the operator falls while holding onto the brake lever!**
- **The signal cable must be routed and mounted so that it cannot wind around steering components or come into contact with the wheels.**



Disconnect power from the sensor if the vehicle is stationary for extended periods.

CORRSYS**DATRON**

Sensorsysteme GmbH

1. Overview



Hand-Lever Force Sensor

*for
Measurement of Force
Applied on the Hand-Brake
Lever of Motorbikes*

Art. no.

Hand-Lever Force Sensor
including cable

14300

Features

- Records the hand-lever force independent of the angle of activation
- Applicable for use with brake test stands and for normal driving
- Mounts quickly and easily using a rubber strap.

Application

The CORRSYS-DATRON Hand-Lever Force Sensor is specially designed for the measurement of hand forces applied on brake levers of motorcycles.

This compact sensor mounts directly on the hand-brake lever. An overload safety device protects the Hand-Lever Force Sensor against mechanical destruction.

The sensor is available with an optional integrated measuring amplifier for output of analog measurement values to data acquisition.

2. Extent of Delivery



Standard extent of delivery

1.- 3. (1) Art. no. 14300 Hand-Lever Force Sensor (1), including rubber mounting strap (2) and signal cable, approx. 2.5 m Lemo (3)

optional: open end cable (approx. 2.5 m)

3. Technical Data

3.2 Specifications

Overall Specifications

Nominal load:	0 ... 500 N
Accuracy:	0.5% f.s.
Protection standard:	IP 65
Cable:	2.5 m Lemo or open end

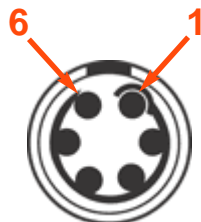
Specifications Type 1 (with integrated measurement amplifier)

Power supply:	12 V DC
Output signal:	0 ... 2 V
Operating temperature range:	-10° C ... +50° C

3.2 Pin Assignment

3.2.1 Pin assignment: 6 pin Lemo, male, approx. 2.5 m

Pin	Signal
Pin 1	n.c.
Pin 2	+12V excitation
Pin 3	Signal GND
Pin 4	n.c.
Pin 5	Positive signal
Pin 6	Excitation GND

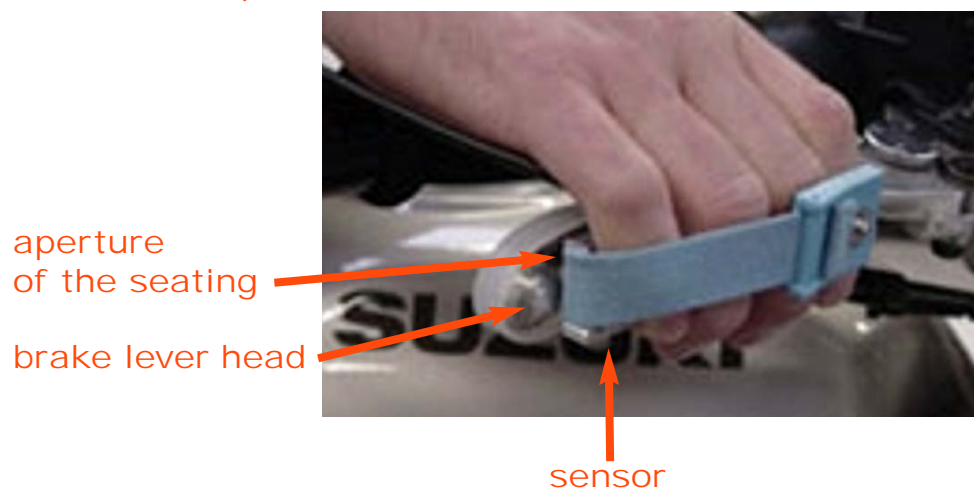
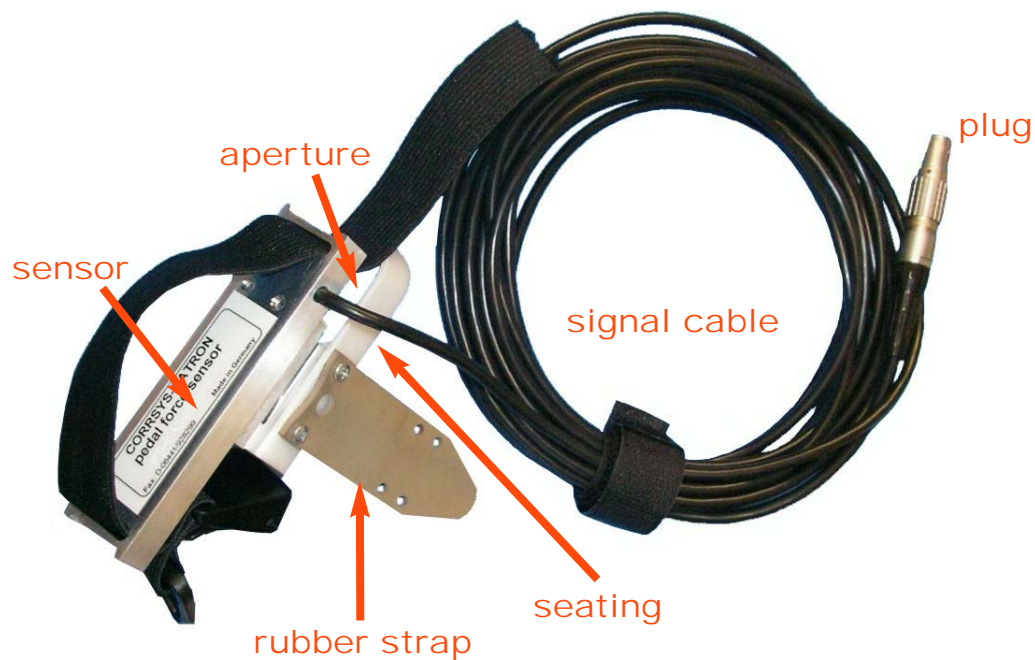


6-pol. Lemo, male

3.2.2 Open end cable, approx. 2.5 m

Color	Signal
brown	power supply
white	GND
green	Out +
yellow	Out -

4. Set-up and Connection



Before installation, please note all safety instructions on page 5 of this manual!

- Place the sensor base on the brake lever, as shown above.
- Insert the head of the brake lever through the aperture in the base.
- Secure the sensor firmly onto the brake lever with the rubber mounting strap
- Route the signal cable and secure it so that it cannot wind around steering components or come into contact with the wheels.
- Connect the signal cable to the analog input of the data acquisition system (e.g. CORRSYS-DATRON DAS-3).



DANGER: There is risk of very serious injury to the hand if the operator falls while holding onto the brake lever!