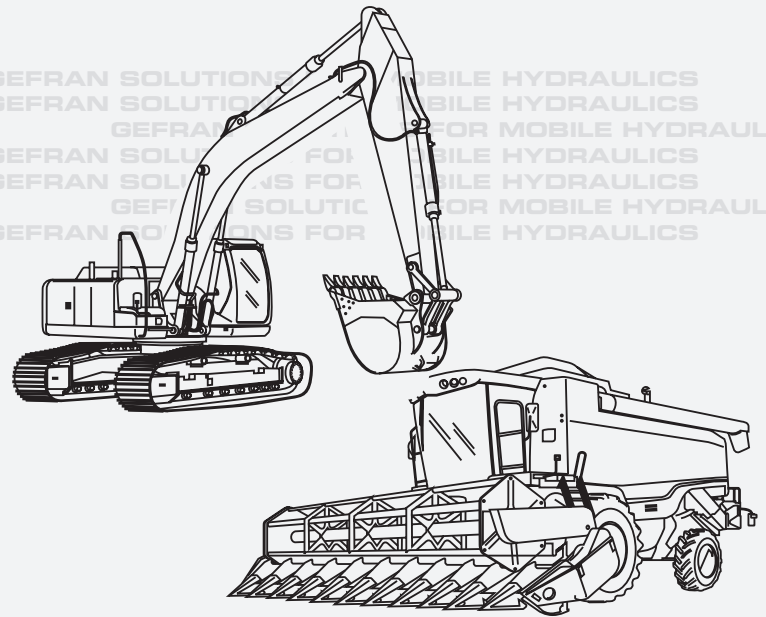


Mobile Hydraulics

GEFRAN SOLUTIONS FOR MOBILE HYDRAULICS



GEFRAN

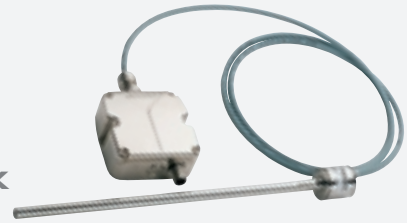
Our Knowhow,
Your Solution.

Gefran Solutions for Mobile Hydraulics

SOLUTION 3 Completely inside the cylinder

Magnetostrictive technology
Sensor is one of the smallest on the market
Analog or CANopen interface for remote installation up to 50 m away
Linearity 0.02% FS
Standard strokes: 50..4000 mm

RK



Potentiometric technology
IP68 system with patented magnetic cursor
Linearity 0.05% FS
Standard strokes: 50..1000 mm

PMI



Potentiometric technology
Exposed track system (compact)
Linearity 0.05% FS, high repeatability
Standard strokes: 50..550 mm

IC



GEFRAN PRESSURE TRANSMITTER

The Gefran pressure sensor most appropriate for mobile hydraulic applications is the TK series with M12 (IP67) connector. Pressure intervals usually range from 200 to 500 bar (3000 to 7500 psi).

- Excellent accuracy (0.25%)
- High protection level (IP67)
- Stability at high temperatures
- Reliability

TK



DISPLAYS AND GRAPHIC TERMINALS

These instruments let you clearly and directly display values provided by installed sensors (for example, tool position), or perform complex calculations for active control of the vehicle.

GF VEDO



2400



4T72



Gefran Solutions for Mobile Hydraulics

Gefran offers solutions that perform specific functions in the field of Mobile Hydraulics.

Gefran linear displacement transducers, displacement sensors, and indicators are ideal for a wide variety of applications: from steering systems through to stability control and to suspensions.

GEFRAN DISPLACEMENT TRANSDUCERS FOR MOBILE HYDRAULICS

Gefran displacement transducers are based on potentiometric and magnetostrictive technology and provide various performance levels according to application requirements.

All of the products:

- Include a high protection level (IP67-IP68)
- Resist high pressures (350-700 bar for cylinder models)
- Heavy-duty, ready to install in harsh environments or outdoors, and include high resistance to vibration and shock
- Powered with low voltage 10...30 Vcc

Installation of a linear displacement transducer in hydraulic cylinders: Gefran offers 3 solutions

- 1 – external positioning (next to cylinder)
- 2 – installation internal the cylinder with sensor head outside
- 3 – installation completely internal the cylinder

SOLUTION 1 Outside the cylinder

Potentiometric technology
Solution with IP67 system (Patent Pending)
Maximum sturdiness for use in particularly harsh conditions
Linearity 0.05% FS, high repeatability
Standard strokes: 50...750 mm

PC67



Potentiometric technology
System with patented magnetic cursor
Compact
Linearity 0.05% FS
Standard strokes: 50...1000 mm

PMA



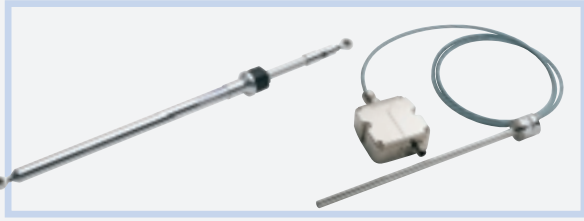
SOLUTION 2 Partially inside the cylinder

Magnetostrictive technology
Wide range of interfaces:
- Analog
- Start/Stop or PWM
- SSI
- CANopen
- Profibus
Linearity 0.02% FS
Standard strokes: 50...4000 mm

IK



Tracked shovels



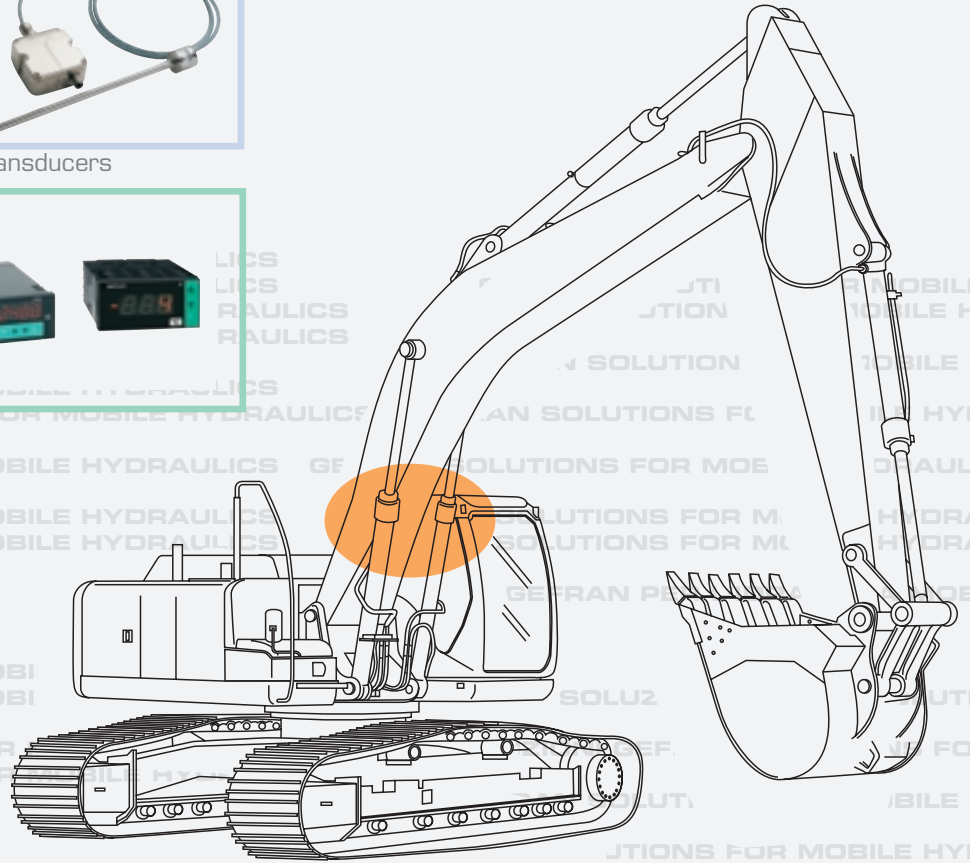
PMA and RK displacement transducers



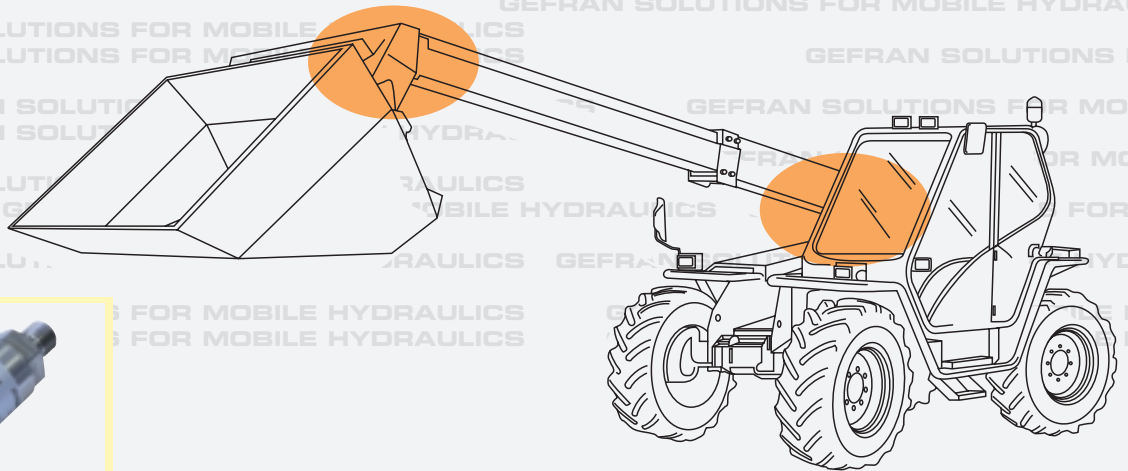
Displays



TK pressure transmitters



Telescopic hoists and loaders



TK pressure transmitters



PC67, PMI and RK displacement transducers



Displays

Articulated or rigid wheel loader

Articulated wheel loaders include hydraulic systems for the movement of each joint. Many wheel loaders include visual or electronic on-off (inductive sensor) systems to adjust the loader arm.

Using a displacement transducer with in-cab display provides more reliable and precise control.

CHECKING PRESSURE IN HYDRAULIC CIRCUIT:

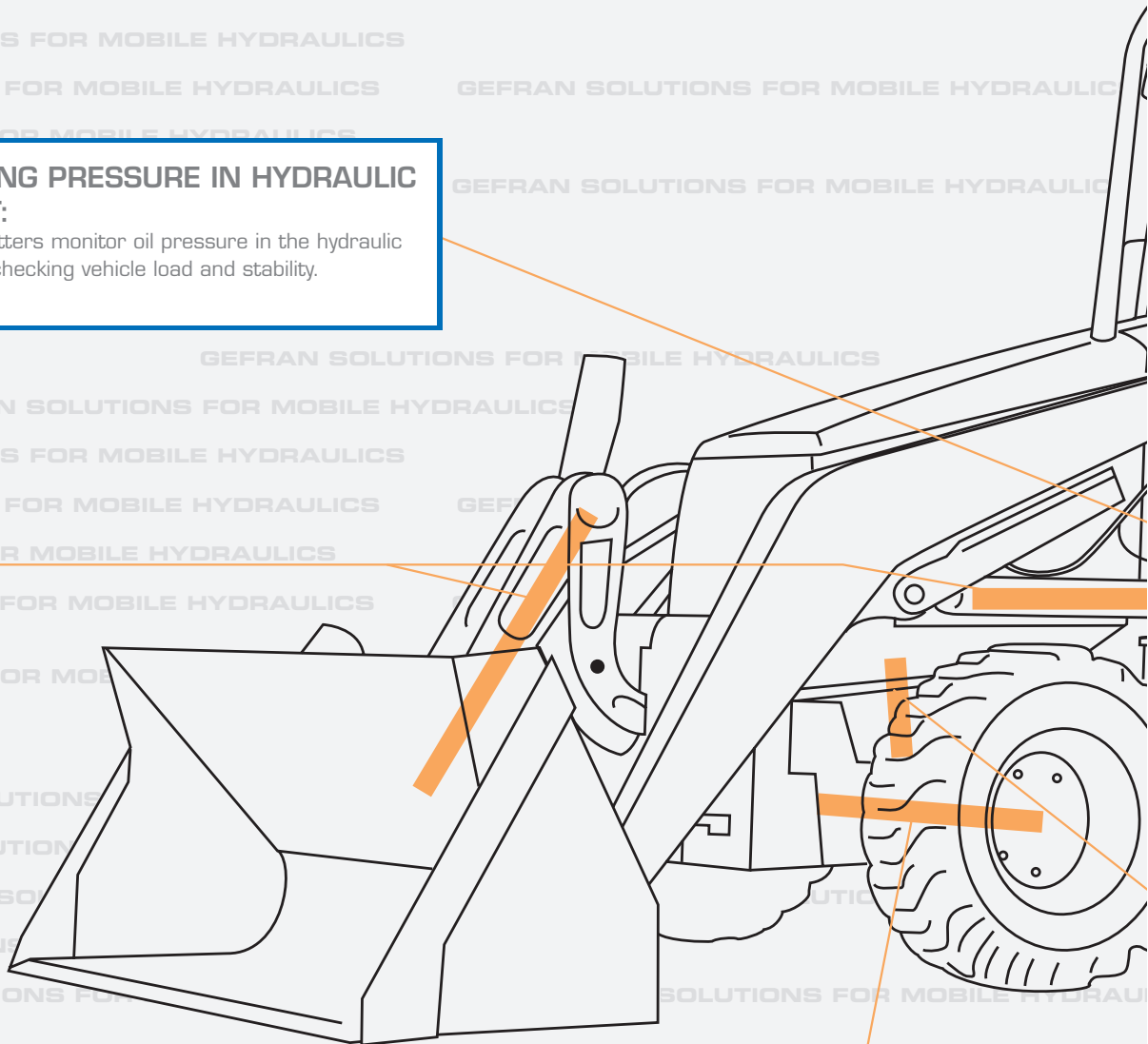
TK transmitters monitor oil pressure in the hydraulic circuit for checking vehicle load and stability.

ROLL-OVER PREVENTION:

the synergy of displacement transducers inside (IC, RK) or outside (PC67, PMA) the cylinder with pressure transmitters (TK) guarantees total working control of the bucket to maintain tilt even during load handling. Load control guarantees greater stability and safety.

STEERING SYSTEM:

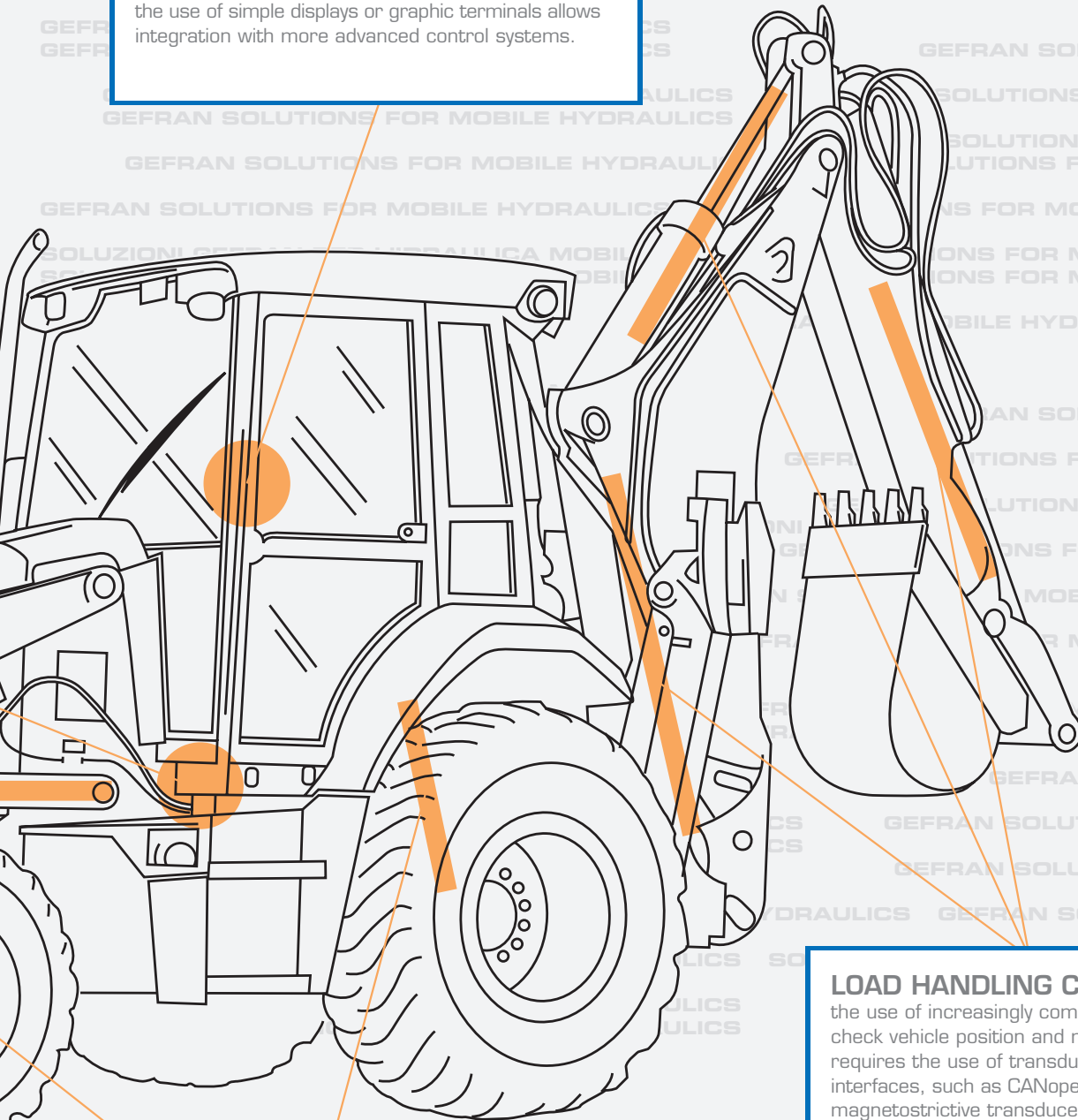
RK displacement transducers are ideal for installation inside single-action cylinders normally used with hydrostatic steering units. The sensor is designed to guarantee resistance against vibration and shock typical in this application.



Loaders

DISPLAY:

the use of simple displays or graphic terminals allows integration with more advanced control systems.



LOAD HANDLING CONTROL:

the use of increasingly complex control systems to check vehicle position and movement of each joint requires the use of transducers with advanced interfaces, such as CANopen, available on all Gefran magnetostrictive transducers.

STABILITY CONTROL:

suspension cylinders are an integral part of a sophisticated, electronically controlled system that guarantees vehicle flexibility and stability based on applied weights, work load, and ground conditions. RK and IC transducers are designed to provide precise and positive control in this type of application.

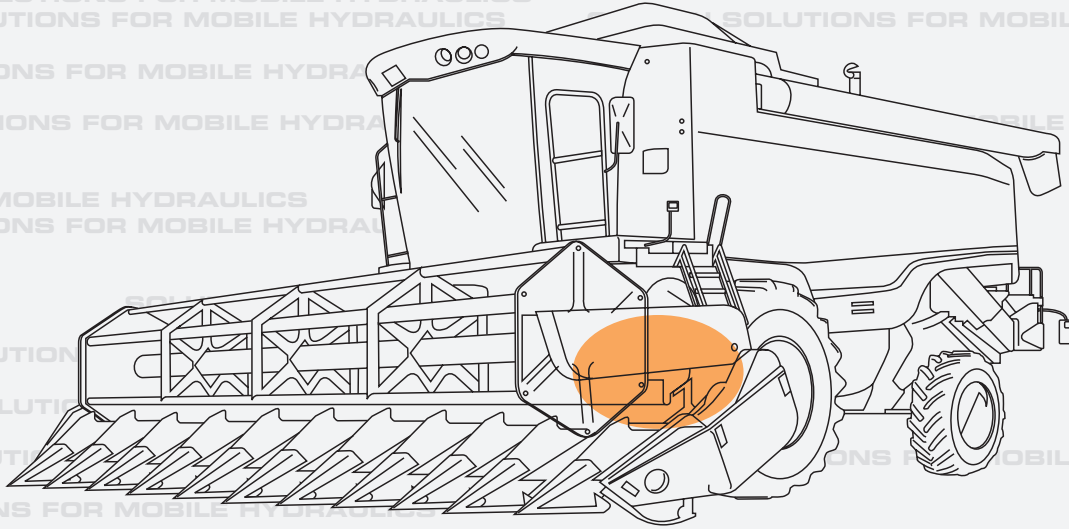
Combine harvesters and pick-up balers



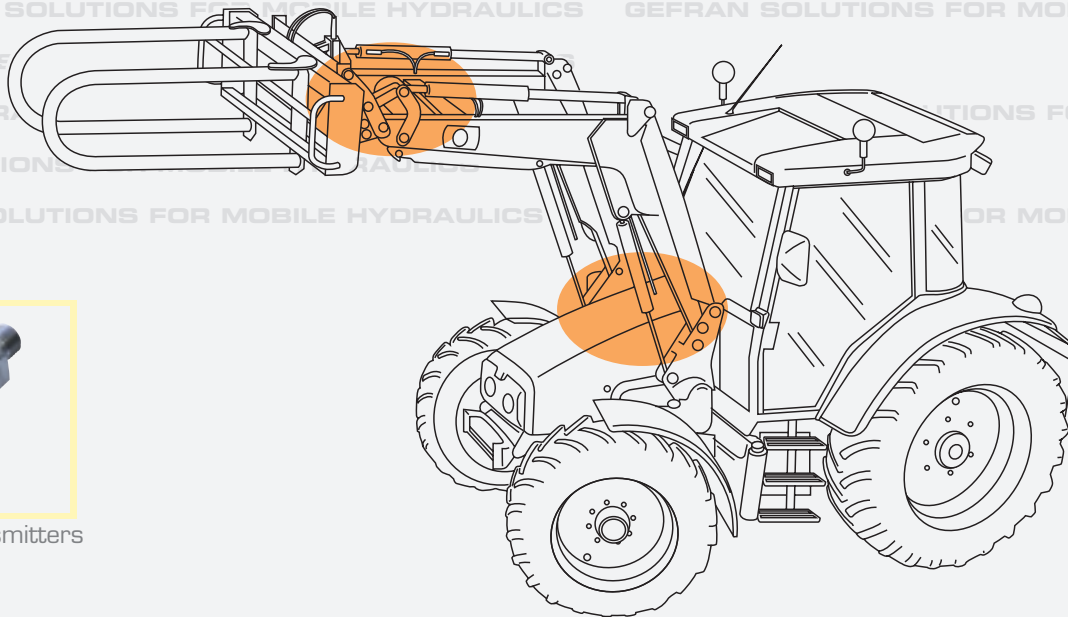
IC, RK and IK displacement transducers



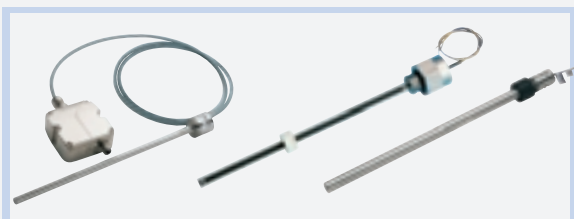
Displays



Loading clamp



TK pressure transmitters



RK, IC and PMI displacement transducers



Displays

GEFRAN

Our Knowhow,
Your Solution.

Headquarter

GEFRAN Spa

Via Sebina, 74
25050 PROVAGLIO D'ISEO (BS)
ITALY
Ph. +39 03098881
Fax +39 0309839063
www.gefran.com
info@gefran.com



Motion Control Unit

Via Carducci, 24
21040 GERENZANO (VA) ITALY
Ph. +39 02967601
Fax +39 029682653
www.gefransiei.com
info@siei.it



www.gefran.com
www.gefransiei.com

GEFRAN BENELUX

Lammerdries, 14A
B-2250 OLEN
Ph. +32 (0) 14248181
Fax. +32 (0) 14248180
info@gefran.be

**GEFRAN BRASIL
ELETROELETRÔNICA**

Avenida Dr. Altino Arantes,
377/379 Vila Clementino
04042-032 SÃO PAULO - SP
Ph. +55 (0) 1155851133
Fax +55 (0) 1155851425
gefran@gefran.com.br

GEFRAN DEUTSCHLAND

Philipp-Reis-Straße 9a
63500 SELIGENSTADT
Ph. +49 (0) 61828090
Fax +49 (0) 6182809222
vertrieb@gefran.de

GEFRAN SUISSE

Rue Fritz Courvoisier, 40
2302 LA CHALUX-DE-FONDS
Ph. +41 (0) 329684955
Fax +41 (0) 329683574
office@acom.ch

GEFRAN FRANCE

4, rue Jean Desparmet - BP 8237
69355 LYON Cedex 08
Ph. +33 (0) 478770300
Fax +33 (0) 478770320
commercial@gefran.fr
contact@sieifrance.fr

GEFRAN Inc.

8 Lowell Avenue
WINCHESTER - MA 01890
Toll Free 1-888-888-4474
Ph. +1 (781) 7295249
Fax +1 (781) 7291468
info@gefraninc.com
14201 D South Lakes Drive
CHARLOTTE - NC 28273
Ph. +1 (704) 3290200
Fax +1 (704) 3290217
salescontact@sieiamerica.com

SIEI AREG - GERMANY

Zachersweg, 17
D 74376 - Gemmrigheim
Ph. +49 7143 9730
Fax +49 7143 97397
info@sieiareg.de

GEFRAN SIEI - UK Ltd

7 Pearson Road - Central Park
Telford - TF2 9TX
Ph. +44 (0) 8452 604555
Fax +44 (0) 8452 604556
sales@gefran.co.uk
sales@sieiuuk.co.uk

GEFRAN SIEI - ASIA

Blk.30 Loyang Way
03-19 Loyang Industrial Estate
508769 Singapore
Ph. +65 6 8418300
Fax +65 6 7428300
info@sieiasia.com.sg

GEFRAN SIEI Electric Pte Ltd

Block B, Gr.Flr, No.155, Fu Te Xi
Yi Road,
Wai Gao Qiao Trade Zone
Shanghai, 200131
Ph. +86 21 5866 7816
Ph. +86 21 5866 1555
gefransh@online.sh.cn

SIEI DRIVES TECHNOLOGY

No.1265, B1, Hong De Road,
Jia Ding District
201821 Shanghai
Ph. +86 21 69169898
Fax +86 21 69169333
info@sieiasia.com.cn

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