

# SENSORS

# LOAD CELLS AND FORCE TRANSDUCERS



# **GEFRAN**





Thanks to forty years of experience, Gefran is the world leader in the design and production of solutions for measuring, controlling, and driving industrial production processes.

We have 14 branches in 12 countries and a network of over 80 worldwide distributors.

## **QUALITY AND TECHNOLOGY**

Gefran components are a **concentration of technology**, the result of constant study and **cooperation with major Research Centres**.

This is why Gefran is synonymous with **quality and expertise in the design and production of force transducers**. Force transducers are built for machining of solids with a CNC machine.

For this reason, the primary sensing elements are machined from a single block and have no welds, thus guaranteeing maximum accuracy and reliability of measurement as well as maximum strength.

## **SERVICES**

A team of Gefran experts works with the customer to select the ideal product for its application and to help install and configure devices (customercare@gefran.com).

Gefran offers a wide range of courses at different levels for the technical-commercial study of the Gefran product range as well as specific courses on demand.

In addition to foreseeing the market's application needs, Gefran forms partnerships with its customers to find **the best way to optimise and boost the performance of various applications**.



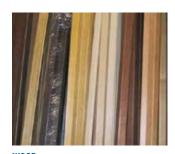
## **APPLICATIONS**







**FLUID POWER** 



WOOD



METAL



INDUSTRIAL LIFTING



FOOD



TEXTILE



AUTOMOTIVE



INDUSTRIAL PRINTING



**PLASTICS** 



MATERIAL TEST MACHINES



TEST BENCHES AND TEST EQUIPMENT



# **TECHNOLOGY**

Gefran load cells and force transducers, built in various sizes and capacities, are available in stainless or in aluminium, with protection levels from IP65 to IP68 and many precision classes.

The cells measure the deformation generated by compression, traction/compression, cutting, double cutting, and bending, and convert it by means of glued strain-gauge technology.

The strain-gauges are linked to form a Wheatstone bridge that converts the deformation into an easily managed electrical signal.

# PRECISION, STRENGTH, ACCURACY

Gefran load cells and force transducers offer precision, strength, and reliability.

They have been developed for all applications demanding **maximum precision** of measurement: automation, industrial control and weighing, robotics.





Load cells and force transducers are used in many industrial applications. They have an electrical output in mV/V and a measurement range from 50 Kg to 50,000 Kg.

The range includes force transducers designed specifically for applications in the plastic film and textile/knitting industry, as well as small cells that are perfect for robotics.

## LOAD CELLS AND FORCE TRANSDUCERS

# **GUIDE TO SELECTION**



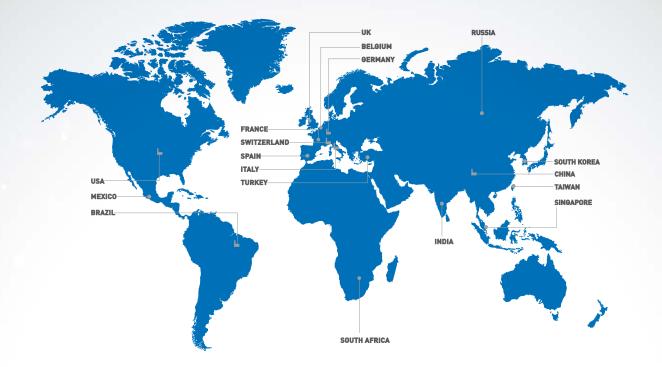
**LOAD CELLS** 

	LOAD TYPE	DIMENSIONS	RANGE	OUTPUT SIGNAL	ACCURACY	PROTECTION Level	PROTECTION LEVEL
	Compression	compact	up to 1000kg	mV/V	0,2%	IP67	cu
		standard	up to 50000kg				СМ
	Traction or Compression	compact	up to 1000kg				TU
		standard	up to 20000k				тс
	Cutting	standard	up to 5000kg		D1 (OIMLR60)	IP66	SB
			up to 10000kg				SH
	Bending		up to 200kg		C1,C2,C3 (OIMLR60)	IP68	СВ



#### **PROTECTION PROTECTION LOAD TYPE DIMENSIONS RANGE OUTPUT SIGNAL ACCURACY** LEVEL LEVEL up to 20kN 1% AM compact up to 1500kN 1% CC Compression standard up to 3000kN 0,5% CT mV/V IP65 Traction or up to 100kN 0,2% ТН Compression standard Bending up to 2kN 0,5% TR

FORCE Transducers



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