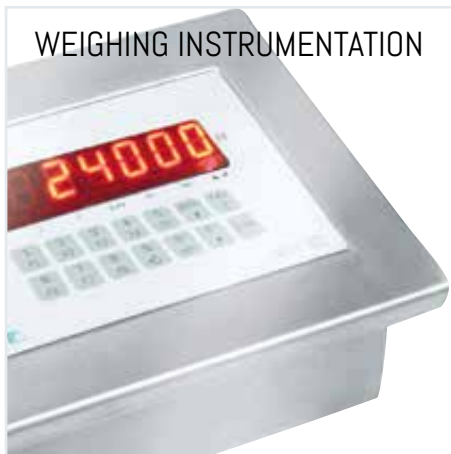




WEIGHING INSTRUMENTATION



LOAD CELLS



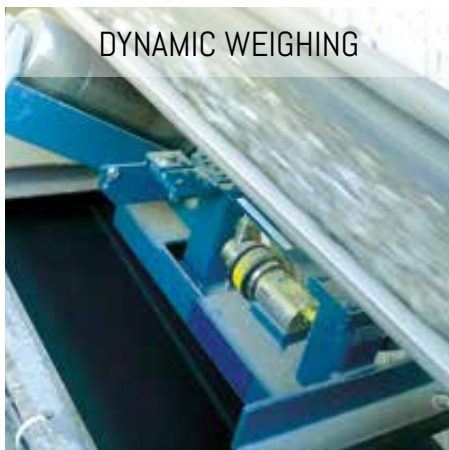
SPECIAL SOFTWARE



WEB TENSION SYSTEMS



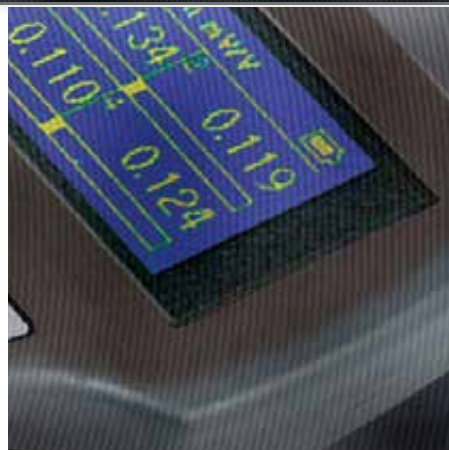
DYNAMIC WEIGHING



PLATFORMS



## THE WEIGHING EXPERTS



# FOLLOW THE GREEN TRIANGLE

Pavone Sistemi is one of the pioneers of industrial weighing, operating in the market of weighing and batching since 1963, with customized products for many different industries.

Thanks to a thorough study of needs and requirements of the market and the support of an internal research and development laboratory Pavone Sistemi is able to achieve reliable measurement products, with a value/price advantage, certified and comply with industry standards.



## FOLLOW THE GREEN TRIANGLE

Our strengths are:

**INNOVATION:** we always aim to improve and innovate our products

**R&D:** thanks to our laboratory we develop products that are more and more efficient and in line with market needs.

**ADVICE:** our project sales manager has have the right know-how to suggest to customers the most suitable solution according to the industrial needs.

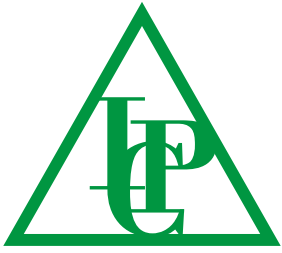
**CUSTOMER CARE:** our service office with his technicians is always ready to take action to solve the problems occurring on the field.

**PRODUCT:** we manufacture precise and reliable products aiming at the best quality/price ratio, of course all is 100% Made in Italy.

**DELIVERY TIME:** thanks to our warehouse we are able to be extremely quick in processing orders.



Pavone Sistemi  
pesatura elettronica industriale



All our products can interface with PC and PLC of the most important international brands - Siemens, Omron, Schneider, Bosch Rexroth, Panasonic, Rockwell Automation, Allen-Bradley, B & R Automaton, Beckhoff, Mitsubishi - by most common fieldbus on market - Profibus, Profinet, Ethernet IP, Ethercat, Devicenet, Canopen -.

For any need related to weighing, batching, measurement Pavone Sistemi has an optimal solution.



### Electronic instrumentation:

Weight indicators, touch screen indicators, dynamic weighing, load limiters for lifting machines, remote display, weight transmitters.

**Load Cells:** off-center, compression, s-type, shear beam, double ended shear beam, bending beam, pin, ring type, high temperature, pre-amplified digital, ATEX (suitable for weighing in potentially explosive atmospheres).

**Platforms and weighing modules:** platforms OIML R60, CE-M, ATEX, industrial platforms (single cell or four load cells), weighing bars, digital crane scales.



# FIELDS OF USE OF OUR

## STEELWORKS



From a historical point of view, the steel industry is the most important sector for Pavone Sistemi. The first applications of weighing equipment date back almost 40 years ago.

## DRILLING



Today the Pavone Sistemi production includes weighing systems specifically designed for maximum efficiency and performance in this industry.

## PAINTS



Paint industry (along with steel) is one of the most important sectors for Pavone Sistemi. Today the production includes weighing systems for maximum performance in this area.

## PACKAGING



Applications on multi-head weighers, vertical packaging machines, filling machines, automatic bagging machines and semi-automatic weighing systems, packaging, marking and packaging.

## FOOD



Over 50 years of activity Pavone Sistemi has become the supplier of the most important international manufacturers of machines and plants for the food industry.

## BEVERAGE



The implementation of systems for weighing silos and tanks is certainly one of our plus.

## SHIPBUILDING



Today the Pavone Sistemi production includes weighing systems specifically designed for maximum efficiency and performance in this industry.

## UPLIFT



Weighing systems and load limitation applicable to overhead traveling cranes, aerial work platforms, cranes, hoists and lifts specially designed according to the specific needs of each client.

## LOGISTICS



Today the Pavone Sistemi production includes weighing systems specifically designed for maximum efficiency and performance in this industry.

# WEIGHING SYSTEMS

## PLASTIC



Pavone Sistemi offers a wide range of indicators and weight transmitters, capable of interfacing to PC/PLC or dedicated boards using the main field bus on the market.

## PAPER



Research and development of multiple solutions for the paper industries. Scales, load cells, weight indicators and transmitters per PC/PLC, integrated into the process automation.

## TEXTILE



Systems for mixing macro/micro components, systems for weighing and batching raw materials, systems for measuring and adjusting fabric tension on the roller.

## PHARMACEUTICAL/CHEMICAL



The applications are very varied: from the weighing of a reactor in the chemical industry to the development of a system for the microdosing of the powders in the pharmaceutical field.

## PETROCHEMICAL



Innovative solutions for the petrochemical industry: load cells, platform scales, weight transmitters and weight indicators. Integrated and interfaced.

## AUTOMOTIVE



Pavone Sistemi production includes load cells, mounting hardware, weight transmitters for PC/PLC, weight and batching indicators and weighing systems specifically designed for maximum efficiency and performance in this industry.

## ENVIRONMENT



Pavone Sistemi is one of the first companies to provide its expertise in the field of weighing for the realization of plant in the ecological sector: recycling of raw materials, fume treatment plants for the production of energy from renewable.

## UNIVERSITY/RESEARCH



Thanks to our experience we support universities in their activities. Where a measurement of grams, kilos or tons or kN is needed here we are. We are proud to say the best universities chose our products!



# LOAD CELLS



## Shear beam

The shear beam load cells are a truly innovative product, developed to overcome one of the most significant problems of the compression load cells: the extreme sensitivity to side loads, which compromises the accuracy of weighing. The shear beam load cells are insensitive to lateral loads, vibration and, when used with its mounting accessories, enable minimum movements of the load to compensate thermal expansions. This makes them particularly suitable for mixing applications.



## Off center

The off-center load cells, also known as single point, overcome one of the typical problems of traditional weighing systems: the loss of precision that occurs when an object is not on the exact centre axis of the cell. With these models of load cells, the weighing is rather exact and precise in any position the object is loaded; this peculiarity makes them ideal for various applications in the field of food packaging, and for the construction of single load cell scales.



## Compression

Compression load cells are the most classic device used in industrial weighing. Easy to install, but with a weakness: they are extremely sensitive to lateral loads and require perfect stability and verticality in the application of the load. For this reason, over the years, construction technique compression has been overtaken by the shear beam load cells.



## Pin

There are several industrial applications, such as bridge cranes, winches, hoists, where it is necessary to measure the lifting force and the use of normal load cells is not possible due to the absence of a support. In such situations, an optimal solution is to use pin load cells, usually mounted as pulley block pins or included as integral parts of the machine, which constitute the axis of load application.



## Double Ended Shear Beam

In industrial applications where you need to weigh with high accuracy or in case of big loads/ lateral forces the double ended shear beam load cells combine precision, sturdiness and compactness. Typical examples of application are weighing tanks and storage silos.



## Universal

Sometimes to a load cell is required the ability to measure forces in opposite directions: in a phase compression, in the next traction. For such needs universal load cells are used, since they are precisely designed for measuring forces in the opposite direction.



## Tension/S-Type

There are many cases, in industry, where a load is not placed, but must be suspended. In these cases the load cells used are the tension ones. The tension load cells are available in various sizes and types, find application wherever there is a body to be weighed hung to a support (a hook).



## Bending Beam

Typically used in single load cell applications, with proper precautions, weighing systems with 3 or 4 load cells can be implemented. Designed for the weighing of small tanks, hoppers, belts, platforms, suspended loads, also used in automatic packaging machines.



## BLH Nobel KIS-1

The most sophisticated, technically advanced and precise weighing load cells that can be found today in the market. Result of years of research and development. Nothing is like a KIS.



# PLATFORMS

## PLATFORM PQ SERIES



**PQ and PM Series:**  
Ideals for the plastic, food and pharmaceutical industry.



### Structure in stainless steel.

Screwed load floor in painted steel, thickness 5 or 6 mm.  
Available on request in stainless steel.  
Shear beam load cells in nickel-plated steel, OIML certified, IP67 (or stainless steel, IP68).  
Aluminum junction box, IP67.  
Support on 4 jointed feet and adjustable height in nickel-plated steel or stainless steel.  
Always on demand flush floor version, and completely sealed boundary ditch frame.

## PLATFORM PM SERIES

Structure in oven painted steel and optionally in stainless steel. Load floor in AISI 304 stainless steel. Anodized aluminum Off-Center load cell, OIML certified, IP65.  
Support on 4 jointed feet and adjustable height. Availability of ATEX versions. High performance, accuracy and durability and low price. Easy to clean.

## PALLET SCALES

Low profile pallet weighing scales easily transportable, suitable for industrial and commercial applications.  
Also available in stainless steel and ATEX Ex II 2GD IIB. Available with IP67 load cells, (option IP68 load cells)



WEIGHING BEAMS



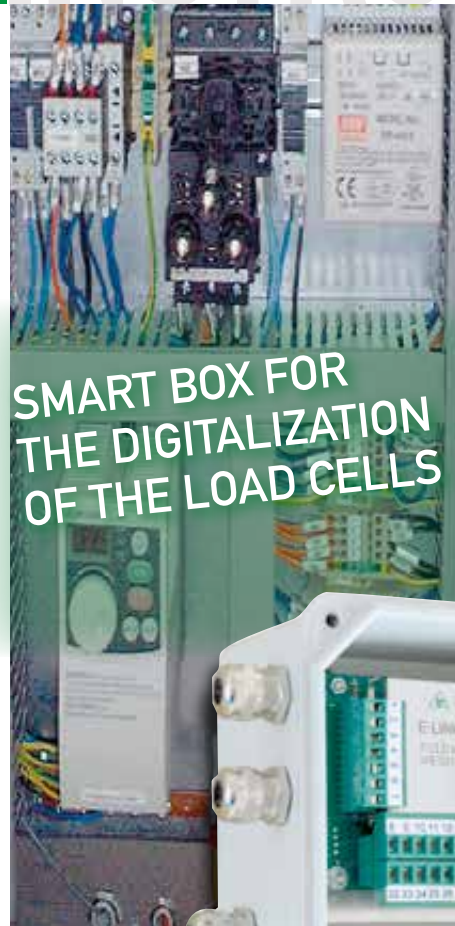
CRANE SCALES



HAND PALLET TRUCK SCALE

For more details visit our web-site.

# ELECTRONIC INSTRUMENTATION



SMART BOX FOR THE DIGITALIZATION OF THE LOAD CELLS



## E-LINK

Available with options  
**PROFIBUS DP and DEVICE NET, ETHERNET IP, PROFINET.**

Weight transmitter.  
 Acquisition and simultaneous control of 4/8 load cells.  
 Software for programming.  
 It provides in real time the individual signals and weights of the load cells.  
 It facilitates the detection and research for anomalies on each load cell.  
 In systems where it's required continuous monitoring of the load cells.



**Pavone Sistemi**  
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# ELECTRONIC INSTRUMENTATION



HAS  
REVOLUTIONIZED  
THE WEIGHING  
SYSTEMS  
START-UP  
TECHNIQUE!

## TESTER 1006



**Incredible device,  
a real must have.**

The Tester 1006 if used with Pavone Sistemi devices allows you to store data up to 100 weighing systems which can be downloaded on your PC. They can be recalled and managed for any repairs WITHOUT removing the load on the cells.



# ELECTRONIC INSTRUMENTATION



## TESTER 1006

## Why buy it

1. immediate control of the correct mechanical installation and related electrical connections
2. rapid diagnosis of faults: times required are very short
3. calibration function; in fact the Tester 1006 generates signals in mV / V to calibrate the instrument used for weighing
4. possibility to store the peak value for the systems subjected to impacting loads
5. the product comes with a set of boards and cables that allow to use it both with the Pavone Sistemi junction boxes and weighing equipment and other manufacturers' devices.

EASY TO USE, USER-FRIENDLY!



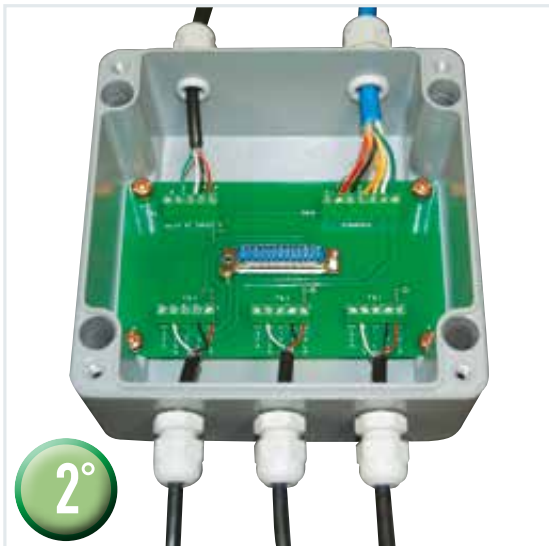
# EXAMPLE OF TESTER 1006 APPLICATION WITH PAVONE SISTEMI JUNCTION BOX



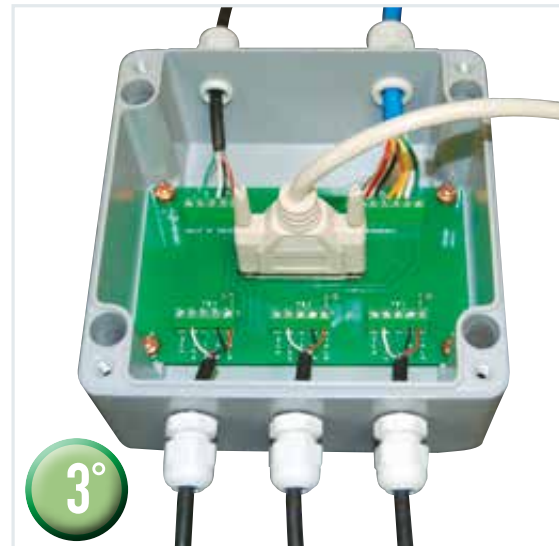
Start



Open the junction box and ...



... unplug the connector



Connect the Tester cable and make measurements

Finished measurements disconnect the cable from the Tester, then plug-in the connector in its place (1°) to restore the original configuration.

# ELECTRONICS DEVICES



## DAT 200

DIN Rail Mounting  
20-pole terminal strip for connection of 4 load cells  
20 to 28 Vdc power  
Input signal from 3 to 30mV  
Adjusting Zero and Full Scale through Dip-switch and trimmer



## DAT S 400 (ATEX 2,22)

Configuration and calibration from front panel or serial port with the program Inovation™ (MS Windows). Upload and download function for programming in 1006 TESTER.  
10 points linearization.



## DAT 400 / DAT 500

Pavone Sistemi's WORLDWIDE EXCLUSIVE DEALING, high performance and reliability  
Upload and download function for programming with TESTER 1006  
10 points linearization



## MC 353

5.2" monochrome LCD display, backlit and touch screen with protection IP65. It works both as a meter and as a flow controller maintaining the flow by analog PID and tolerance alarm.  
Continuous transmission of the capacity



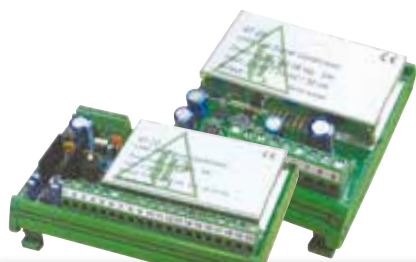
## MC 302

Fulfills various needs in the field of weighing, from simple level setpoint to complicated batching procedures. Production of special software. 24-bit A/D converter. Fiscal memory up to 160.000 weighings -option-



## DAT 400 PBL E PBS

Available with 24 Vdc, high performance and reliability. USB port, output RS232 or RS422/RS485, ASCII Protocols or MODBUS RTU.  
Upload and download function for programming with 1006 TESTER.



## AT 8 / AT 10

DIN Rail Mounting. 20-pole terminal strip for connection of 4 load cells. 20 to 28 Vdc power  
Input signal from 3 to 30mV. Adjusting Zero and Full Scale through Dip-switch and trimmer.



## TESTER 1006

For the simultaneous control of up to 4 load cells in any weighing system  
Functioning as a calibrator and a peak detector.  
Upload and download function for programming tools DAT and MC 302 series



## CEM 4 / CGS4 C

Junction boxes for up to 4 load cells. IP65 ABS case. Connector for rapid connection to our 1006 Testers for the load cells.

Aluminium case. Stainless steel case (option). IP66. Connector for rapid connection to our 1006. Tester for the load cells.



## UWT 600

DIN Rail Mounting.  
Output RS232 or RS422/RS485, ASCII Protocols or MODBUS RTU.  
High performance and reliability.



## DISPLAY RIP

Automatic brightness adjustment. Four different models with digit height respectively of 20, 60, 100 and 160mm. The RIP HA60, HE100 and HE160 are in stainless steel cases. IP65. The RIP model H20 is only available in ABS plastic.





# DAT 1400



# MCT 1302

Powerful, faster than any other product in its category, precise, multifunction!

For more info contact  
Our call center  
+39 039 9162656



**Pavone Sistemi**  
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# EXAMPLES OF APPLICATIONS



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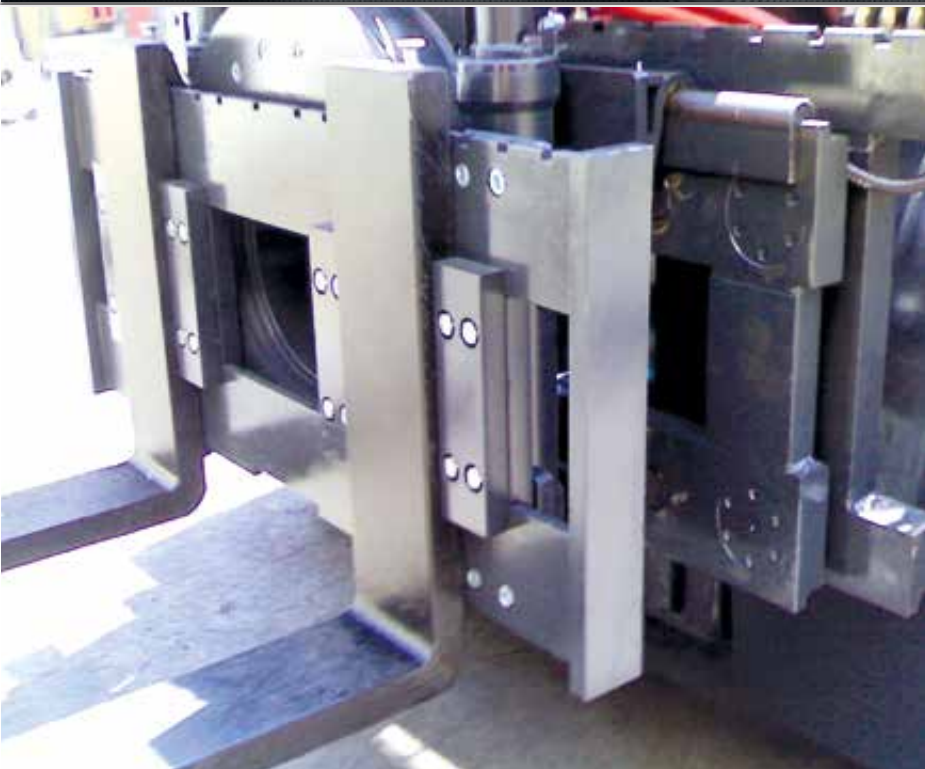
## EXAMPLES OF APPLICATIONS



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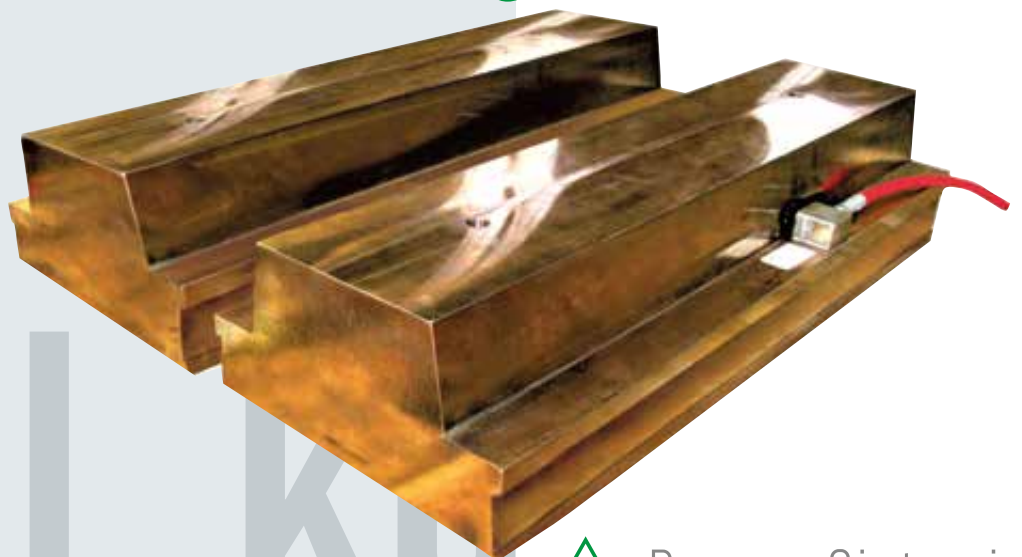


## EXAMPLES OF APPLICATIONS

ONLY FEW  
COMPANIES  
CAN OFFER  
A PRODUCT  
LIKE THIS!

# 1MIL kg load cell

A SUPER  
CUSTOM  
SOLUTION!




**LOAD CELLS**
**shear beam**
**65023**

Engineered for the weighing of hoppers and reservoirs and for the construction of platforms of low profile

OIML 3000 div approved

Avoid the use of mechanical restraints when used with its mounting accessories

Excellent linearity and precision

Resistance to 50% lateral loads in excess

Made of plated steel and stainlesssteel

Watertight protection for use in harsh environments

Also available in special versions for high temperature

**TECHNICAL CHARACTERISTICS 65023**

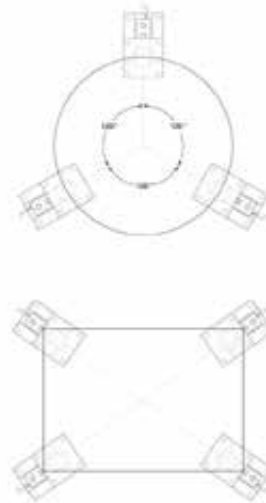
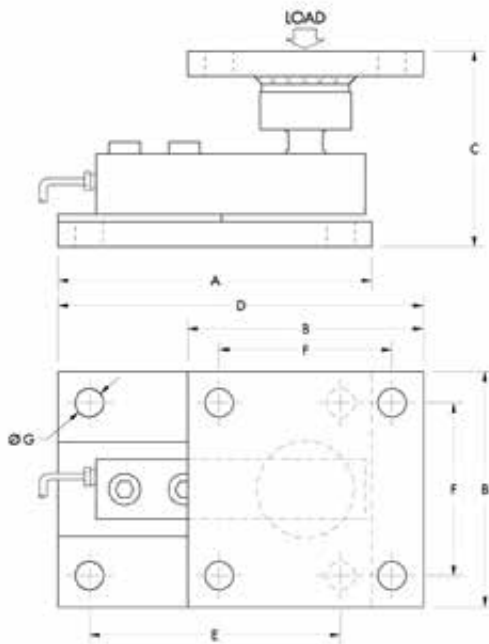
Rated load (R.L.):	125, 250, 500, 750, 1000, 1500, 2000, 3000, 5000 Kg
Combined error:	±0.02 % of R.O.
Repeatability:	±0.01 % of R.O.
Creep (20 minutes):	±0.017% of R.L.
Safe overload:	150% of R.L.
Maximum overload:	300% of R.L.
Recommended input:	5÷15 Vdc/Vac
Input resistance:	343÷357 Ohms
Output resistance:	349 ± 355 Ohms
Insulation resistance:	> 1000 M Ohms
Rated output (R.O.):	3 ± 0.25% mV/V
Zero balance:	±1% of R.O.
Temperature range:	-18 ÷ +65°C
Compensated temperature range:	-10 ÷ +40°C
Temperature effect on zero balance:	±0.018% of R.O./10°C
Temperature effect on output:	±0.012% of output/10°C
Max load deflection:	0.33÷0.89 mm
Degree of protection:	IP67
Material:	Nickel steel, stainless steel
Electrical connection:	4 conductors shielded cable; length 6 m
Precision class:	3000 n. OIML only for carrying capacity from 500 to 5000kg
Clamping force without any load:	125÷2000 kg : 136 Nm 3000÷5000kg : 205 Nm



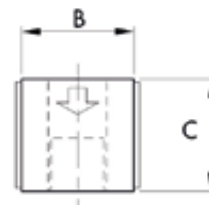
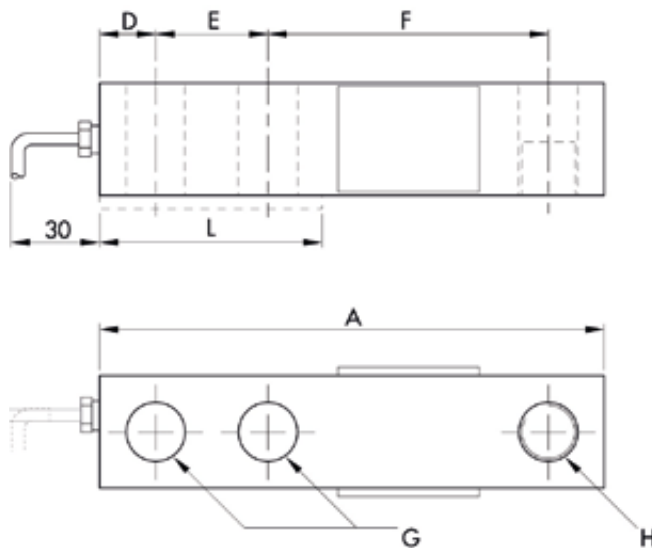
**LOAD CELLS**

shear beam

65023



CAPACITY kg	125-250	500-2000	3000-5000
A	150	150	200
B	100	100	150
C	91/94	98/101	120/123
D	181.6	181.6	248.4
E	120	120	160
F	70	70	110
G	13	13	18



**Electrical Connections**

+Excitation	Red
-Excitation	Black
+Signal	Green
-Signal	White
Shield	Cable Shield

CAPACITY kg	125-250	500-2000	3000-5000
A	130	130	171.5
B	31	31	38.1
C	25.4	31	38.1
D	15.8	15.8	19.1
E	25.4	25.4	38.1
F	76.2	76.2	95.3
G	13.5	13.5	20.6
H	M12x1.75	M12x1.75	M20x2.5
L	57	57	76


**LOAD CELLS**
**double-ended shear beam**
**460**

- Suitable for weighing tanks and silos
- ATEX (optional)
- Approved 3000 division O.I.M.L. R60 C Class
- Stainless steel
- Fully welded airtight
- IP68 Protection (EN 60529)
- Easy to install
- High linearity and low mechanical profile
- High temperature version (optional)
- 3 ton version -NO OIML, NO ATEX-

**TECHNICAL CHARACTERISTICS 460**

Rated load (R.L.):	3 ton (NO OIML), 5, 10, 20, 30, 50, 75, 100 ton
Combined error:	< ±0.017% of R.O.
Repeatability:	< ±0.015% of R.O.
Creep (20 minutes):	< ±0.016% of R.L.
Safe overload:	150% of R.L.
Ultimate overload:	200% of R.L.
Recommended input:	5÷15 Vdc/Vac
Input resistance:	800 ± 20 Ohm
Output resistance:	700 ± 3 Ohm
Insulation resistance:	> 5000 M Ohm
Rated output (R.O.):	2 ± 0.1% mV/V
Zero balance:	< ±2% of R.O.
Temperature range:	-30 ÷ +70 °C
Compensated temperature range:	-10 ÷ +40 °C
Temperature effect on zero balance:	< ±0.010% of R.O./5°K
Temperature effect on output:	< ±0.006% on output/5°K
Max load deflection:	0.6÷1 mm
Precision class:	3000 n. OIML
Degree of protection:	IP68
Electrical connection:	6 conductors shielded cable; length 12 m

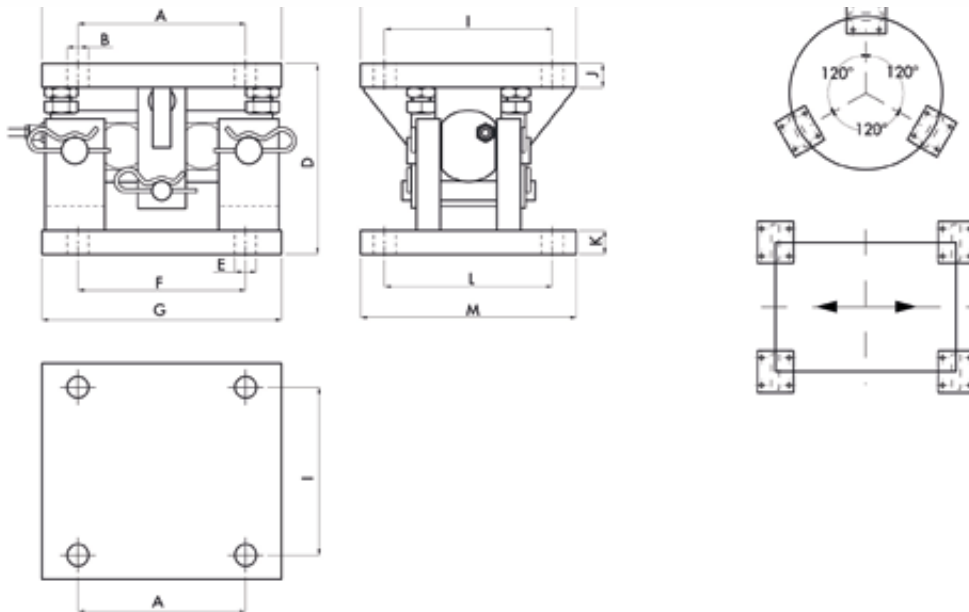




**LOAD CELLS**

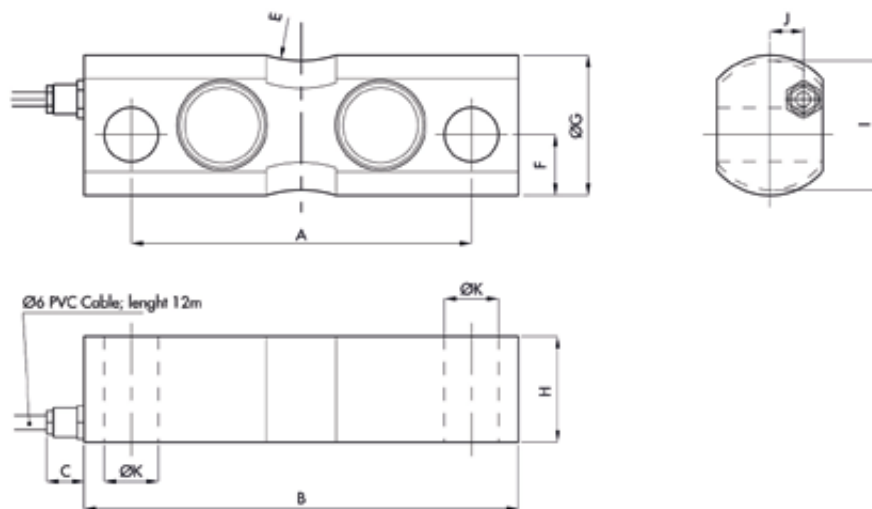
**double-ended shear beam**

460



	3-20t	30-50t	75-100t	3-20t S.Steel	30-50t S.Steel	75-100t S.Steel
MAX. PERMISSIBLE SIDE LOAD OFFSET TRANSVERSE TO LOAD CELL	±5mm	±5mm	±10mm	±5mm	±5mm	±10mm
MAX. PERMISSIBLE LIFTING FORCE	6.4 T	10.3 T	21.1 T	8 T	13 T	21.8 T
MAX. PERMISSIBLE FORCE TRANSVERSE TO LOAD CELL	4.2 T	7 T	9.7 T	3.6 T	5.4 T	7.4 T
MAX. PERMISSIBLE FORCE LONGITUDINAL TO LOAD CELL	9.4 T	14.6 T	15.4 T	7.2 T	14.4 T	18.4 T

CAPACITY	A	OB	C	D	OE	F	G	H	I	J	K	L	M	WEIGHT
3-20t	140	18	200	160	18	140	200	180	140	20	20	140	180	17kg
30-50t	175	22	300	200	22	175	300	220	175	25	25	175	220	39kg
75-100t	220	26	370	270	26	220	370	300	220	30	30	220	300	82kg



Electrical Connection	
+Excitation	Green
-Excitation	Black
+Sense	Blue
-Sense	Yellow
+Signal	Red
-Signal	White
Shield	Cable shield

CAPACITY	A	B	C	D	E	F	OG	H	OI	J	OK	WEIGHT
5-20t	145	185	16	41	r.50	25.7	59.5	45	55	14	23	3.2kg
30-50t	220	285	16	48	r.50	29.7	74.5	60	66	22	30	8kg
75-100t	280	340	16	66	r.50	37.2	99.5	80	91	32	50	14.3kg



## LOAD CELLS

### compression

#### CC3

The CC-3 load cell has been designed to meet the requirements of a wide range of applications for industrial weighing

ATEX (option)

Double bridge version, exit 8-conductor shielded cable (option)

The low profile pattern and small-size dimensions require a very contained mounting space

Good characteristics of precision and sturdiness

The CC-3 is made of stainless steel to ensure maximum impact and overload resistance

Temperatura compensation up to 120°C on request

### TECHNICAL CHARACTERISTICS CC3

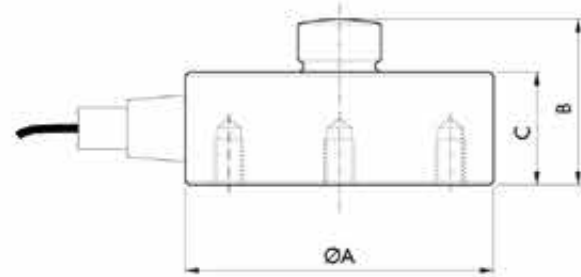
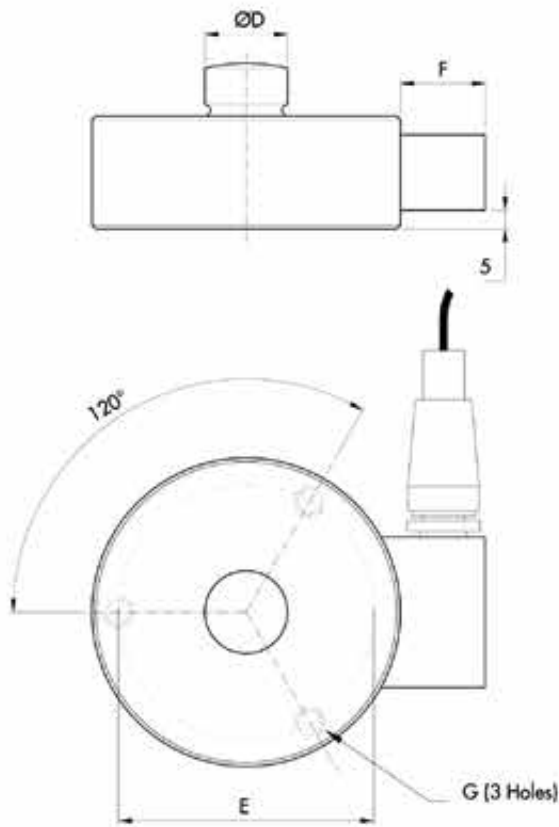
Rated load (RL):	0.1÷10, 15, 20, 25, 35, 50, 100, 200 t
Combined error:	< ±0.05% of R.O.
Repeatability:	< ±0.02% of R.O.
Creep (20 minutes):	< ±0.02% of R.O.
Safe overload:	150% of R.L.
Ultimate overload:	300 % of R.L.
Recommended input:	5÷15 Vdc/Vac
Input resistance:	700 ±10 Ohm
Output resistance:	700 ±3 Ohm
Insulation resistance:	> 2000 M Ohm
Rated output (R.O.):	2.0 mV/V
Zero balance:	< ±1% of R.O.
Temperature range:	-20 ÷ +70 °C
Compensated temperature range:	-10 ÷ +50 °C
Temp. effect (-10° to +50°C) on zero balance:	0.003% of R.O./°C
Temp. effect (-10°C to +50°C) on output:	0.002% on output/°C
Electrical connection:	4 conductors shielded cable; length 5 m
Protection Degree	IP 68



**LOAD CELLS**

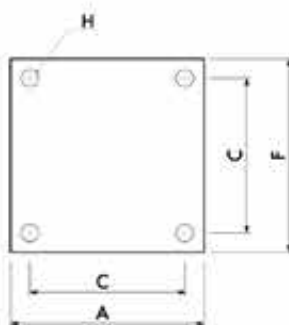
compression

CC3

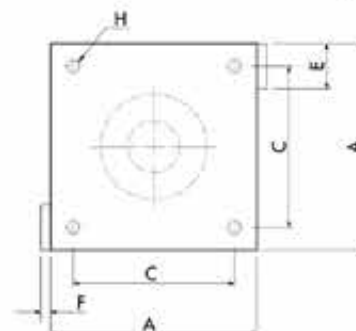


CAPACITY	ØA	B	C	ØD	ØE	F	G
0.1+10t	82	44	32	22	70	22	M8x15
15+20t	100	48	35	28	80	22	M10x15
25+35t	128	54	40	35	105	22	M12x20
50+100t	165	85	60	60	130	22	M16x20
200t	200	85	60	85	185	22	M16x20

Electrical Connections	
+Excitation	Red
-Excitation	Black
+Signal	Green
-Signal	White
Shield	Cable Shield

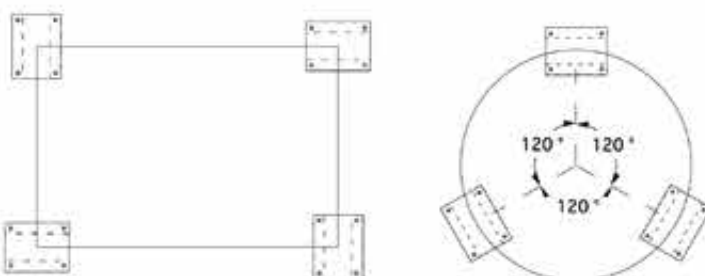


CAPACITY 0.1+10t



CAPACITY 15+100t

**LOAD MODULE ORIENTATION**



CAPACITY	A	B	C	D	E	F	G	H
0.1+10t	175	95	115	10	-	150	14	M12
15+20t	200	102	160	10	35	12	17	M12
25+35t	250	132	185	12.5	61	12	20	M18
50+100t	320	155	250	15	70	15	23	M20



## ACCESSORIES

junction boxes

CGS4-C

Aluminium case

Stainless steel case (option)

IP66

Connector for rapid connection to our 1006 Tester for the load cells

### TECHNICAL CHARACTERISTICS CGS4-C

Temperature range:	-10 ÷ +50 °C
Storage Temperature:	-20 ÷ +70 °C
Electrical connection:	Terminal screw pass 5 mm
Dimensions:	160 x 160 x 90 mm (L x H x D)
Drilling template:	140 x 110 mm (L x H)

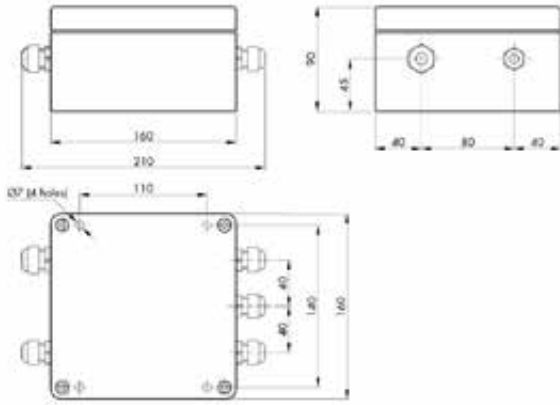




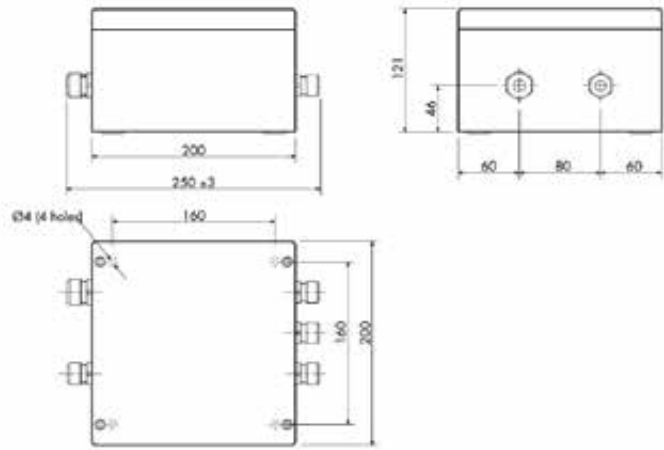
**ACCESSORIES**

junction boxes

CGS4-C



Aluminium housing



Stainless Steel housing

LOAD CELLS COLOUR CODE				
+Exc	Red	Red/Green	Red	Red/Blue
-Exc	Black	Black	White	Black/Brown
+Sgn	Green	Green/White	Green	Green
-Sgn	White	Red/White	Blue	White
Shd	Shield	Shield	Shield	Shield
	SENSORTRONICS	NOBEL	MINEBEA	PAVONE


**WEIGHING INSTRUMENTATION**

weight transmitters

**DAT 400**

 Pavone Sistemi's **WORLDWIDE EXCLUSIVE DEALING**, high performance and reliability

 Upload and download function for programming with **TESTER 1006**

10 points linearization

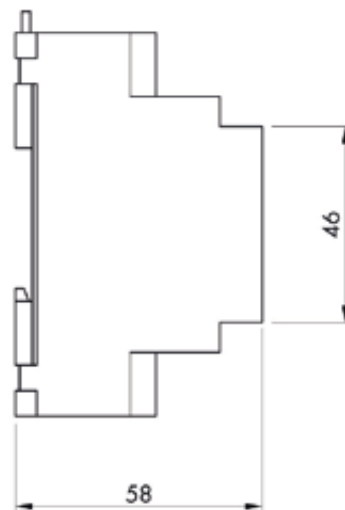
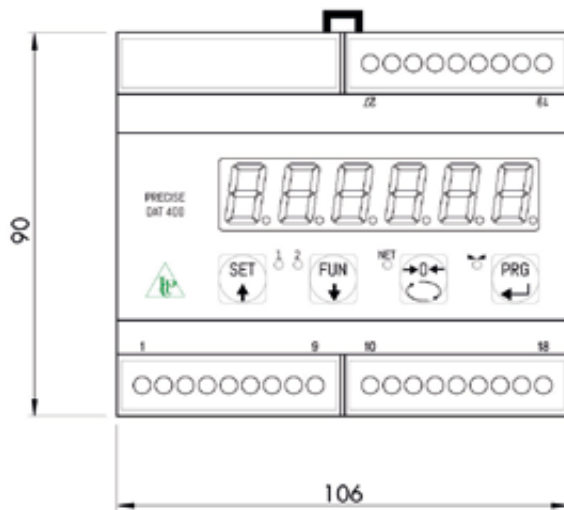
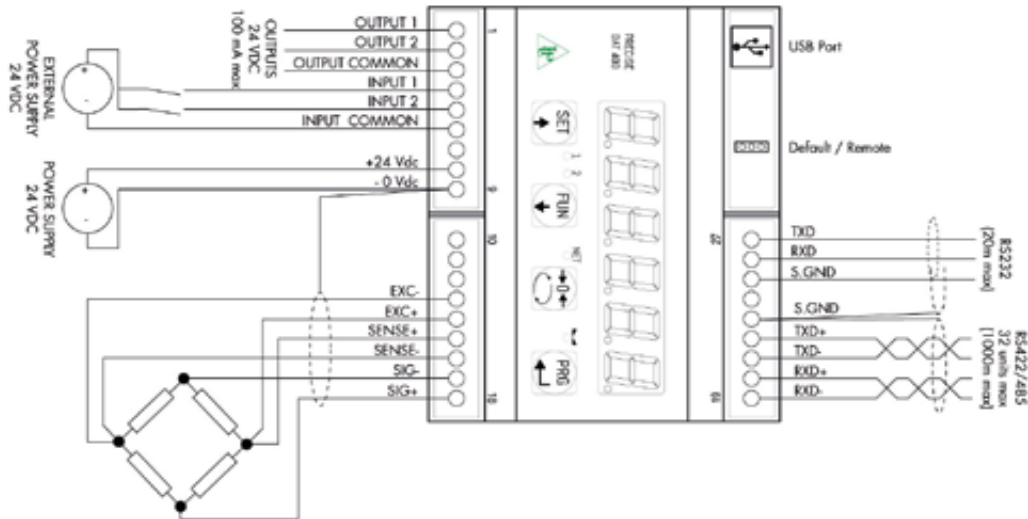
Datasheet or deadload calibration

Configuration and calibration via front panel or PC with Innovation software; USB serial port available

**ON REQUEST: DAT 400 BIPOLAR VERSION**
**TECHNICAL CHARACTERISTICS DAT 400**

Trasducer input voltage:	5 V (max 6 load cells 350 Ohm)
Measuring range:	-0.5 ÷ +3.5 mV/V (-3.9 ÷ +3.9 mV/V optional)
Input sensitivity:	0.02 microV/division
Linearity:	< 0.01% FS
Temp. drift:	< 0.001% FS/ °C
Display:	6 digit, red LED (7 segments), h 14 mm
A/D Converter:	24 bit
Resolution:	> 16.000.000 counts
Display resolution:	60.000 divisions displayable on net weight
Divisions value (adjustable):	x1, x2, x5
Decimal:	0.0 ; 0.00 ; 0.000
Filter:	0.1÷25 Hz adjustable
Keyboard:	4 push buttons
Tool voltage:	24 Vcc ±15% - power 5 W
Temperature range:	-10 ÷ +50 °C
Storage Temperature:	-20/+70°C
Logic output:	2 Solid-state relays, (maximum load 24 Vdc / 100 mA each)
Logic input:	2 optoisolated 24 Vdc PNP (External voltage)
Serial ports:	Nr. 2 - USB/RS232C, RS422/485 with ASCII or Modbus RTU protocols
Transmission distance:	15m (RS232C) and 1000m (RS422 e RS485)
Peak Hold function:	only for dynamics measures
Baud rate:	2400, 9600, 19200, 38400, 115200 adjustable (for RS232)
Regulatory compliance:	EN61326-1, EN55011 and EN55014 for EMC; EN61010-1 for electrical security
Electrical connection:	Screw terminals 5 mm
Dimensions and weight:	106 x 90 x 58 mm (L x H x P); 250 g






**WEIGHING INSTRUMENTATION**

## weight transmitters

**DAT 500**

RS232 or RS422/RS485 output, ASCII Protocols or MODBUS RTU

High performance and reliability

Upload and download function for programming with 1006 TESTER

The connection can also be done through the external converter  
10 points linearization

Calibration done using certificates of transducers

Configuration and calibration from the front panel or PC via RS232/RS485 with the program INNOVATION™ (MS Windows)

**TECHNICAL CHARACTERISTICS DAT 500**

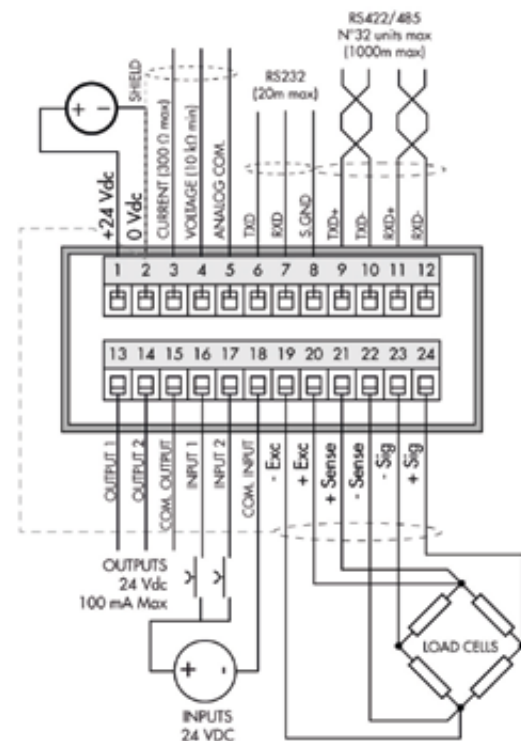
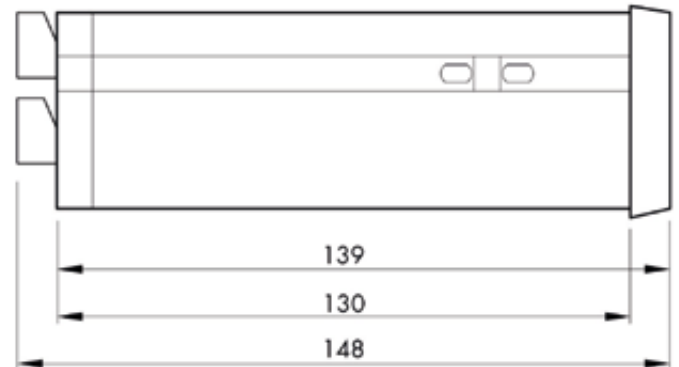
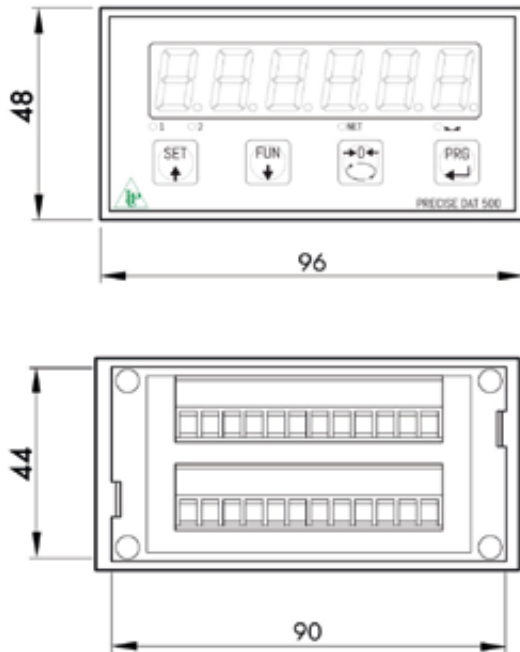
Trasducer input voltage:	5 V (max 6 load cells 350 Ohm)
Measuring range:	-0.5÷+3.5 mV/V (-3.9÷+3.9 mV/V optional)
Input sensitivity:	0.02 µV/ per count
Linearity:	<0.01% of full scale
Gain drift:	<0.001% full scale/ °C
Display:	6 digit, red LED (7 segments), h 14 mm
A/D Converter:	24 bit
Resolution:	> 16.000.000 counts
Visible resolution:	60.000 divisions displayable on net weight
Divisions value (adjustable):	x1, x2, x5
Set decimal:	0.0 ; 0.00 ; 0.000
Filter:	0.1 ÷ 25 Hz adjustable
Tool voltage:	24 V c.c. ±15% - power 5 W
Temperature range:	-10 ÷ +50 °C
Storage temperature:	-20 ÷ +70 °C
Logic output:	2 Solid-state relays, (maximum load 24 Vdc / 100 mA each)
Logic input:	2 optoisolated 24 V c.c. PNP (External voltage)
Serial door:	RS232C or RS422/RS485 with ASCII or Modbus RTU protocols
Transmission distance:	15m (RS232C), 1000m (RS422 e RS485)
Peak Hold function:	for dynamic measures
Baud rate:	2400, 9600, 19200, 38400, 115200 adjustable
Regulatory compliance:	EN61326-1, EN55011 and EN55014 for EMC; EN61010-1 for electrical security
Electrical connection:	Terminal screw pass 5 mm
Dimensions and weight:	96 x 48 x 120 mm (L x H x D); 250 g
Bipolar optional output:	only in voltage ±10V



**WEIGHING INSTRUMENTATION**

weight transmitters

DAT 500




**WEIGHING INSTRUMENTATION**

## weight transmitters

**DAT 1400**

- Frequency acquisition A/D C signal up to 1000 Hz
- DATALOGGER function (optional)
- Capacitive keyboard
- Fieldbus + analog output on board at the same time
- Removable screw terminal blocks
- Mounting Type: DIN rail & assembly kits for front-panel
- All Fieldbus available: Profinet, Ethercat, Ethernet IP, Ethernet, Devicenet
- Future options:
  - Two independent weighing channels
  - Analog voltage/current input
  - Connection to I-BOX external via RS485

**TECHNICAL CHARACTERISTICS DAT 1400**

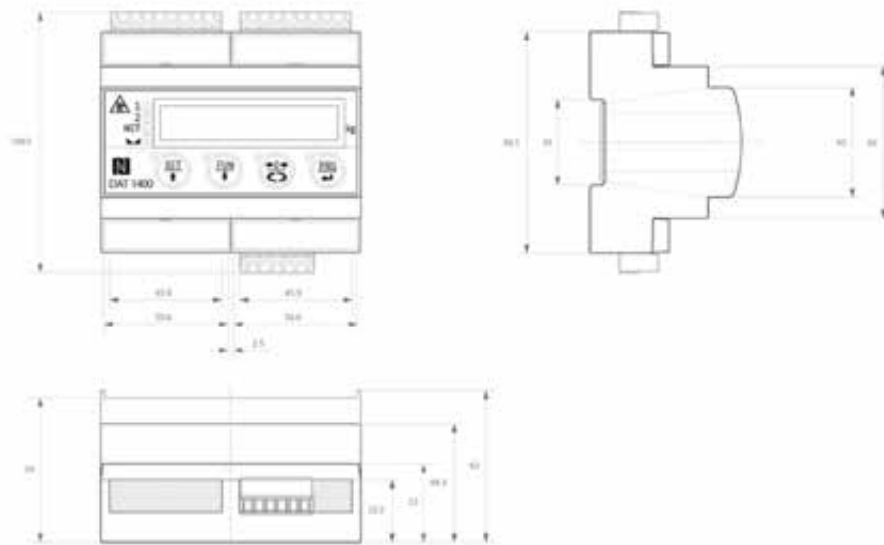
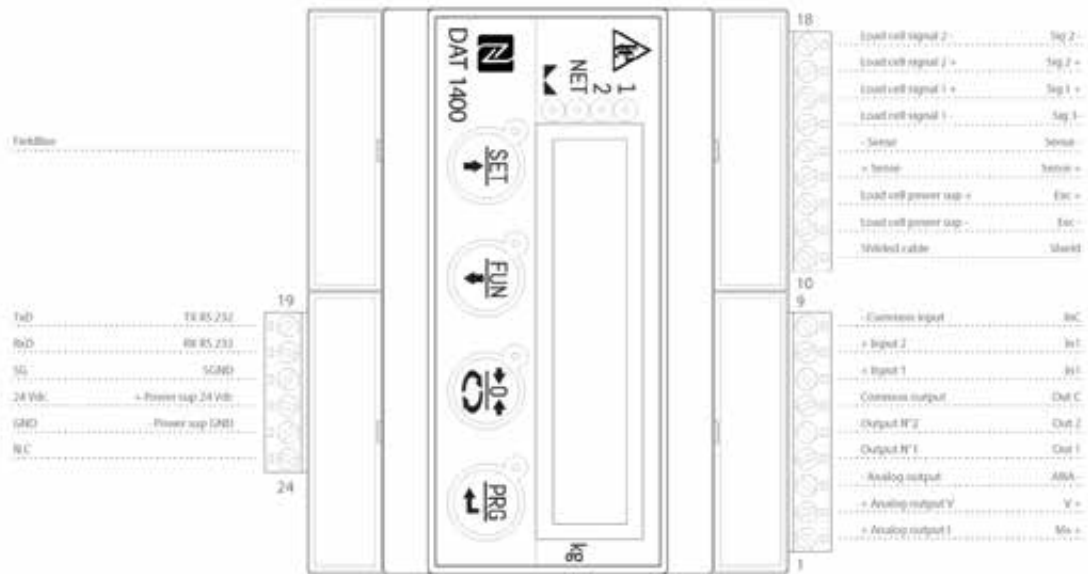
Instrument power supply:	12-24 Vdc $\pm$ 15% - Power consumption 5 W
Measuring range:	-3.9 $\div$ +3.9 mV/V
Input sensitivity:	0.02 microV/div
Linearity:	< 0.01% FS
Temperature drift:	< 0.001% FS/ °C
Display:	6 digit, 7-segment LED red, height 14mm
A/D converter:	24 bit
Internal resolution:	> di 16.000.000 points
Frequency signal acquisition:	12 $\div$ 1000 Hz
Display resolution:	999.999 displayable divisions on net weight
Value divisions (selectable):	x1, x2, x5, x10, x20, x50
Decimals setting:	0.0 ; 0.00 ; 0.000; 0.0000
Filter:	Selectable 0.5 to 1000 Hz
Keyboard:	capacitive, 4 keys
Transducer input voltage:	5 Vdc (max 8 -350 Ohm- load cells)
Operating temperature:	-10/+ 50 ° C (humidity max 85% no condensation)
Storage temperature:	-20/+70°C
Logic outputs:	2 opto-isolated; MAX 24 Vdc/100 mA each
Logic inputs:	2 opto-isolated 24 Vdc PNP (external power supply)
Serial ports:	1 USB device + 1 RS232C + 1 RS485/Fieldbus; ASCII or Modbus RTU protocol
Peak Hold function:	for dynamic measurements
Optional analogue output:	optoisolated 16-Bit Voltage: 0 to 5/10 V (R min10 K Ohm), Current: 0/4 to 20 mA (R max 300 Ohm)
Analog output linearity:	< 0.02% FS
Temperature drift analog output:	0,001% FS / °C
Microcontroller:	ARM Cortex M0 + 32 bit 256KB Flash reprogrammable onboard from USB
Data storage:	64 Kbytes expandable up to 1024 Kbytes (optional)
Regulatory Compliance:	EN61000-6-2, EN61000-6-3 for EMC; EN61010-1 for Electrical Safety
Electrical connections:	5 mm terminal blocks, removable



**WEIGHING INSTRUMENTATION**

weight transmitters

DAT 1400



RS 485/Modbus

Profibus

CANopen



Ethernet



DEVICE NET



Ethercat

Ethernet/IP

PROFINET

Serial communication interface



Touch screen weight indicator perfect for any type of weighing

Practical, easy to install and use

Perfect for static weighing and loading-unloading and multicomponent dosage

Customizable according to necessity

Multilingual menu

Available in Profinet, Ethernet IP, Ethernet, EtherCAT

6 inputs and 6 outputs (optoisolated 24 Vdc)

Internal data memory 64 Kbytes expandable up to 1024 Kbytes

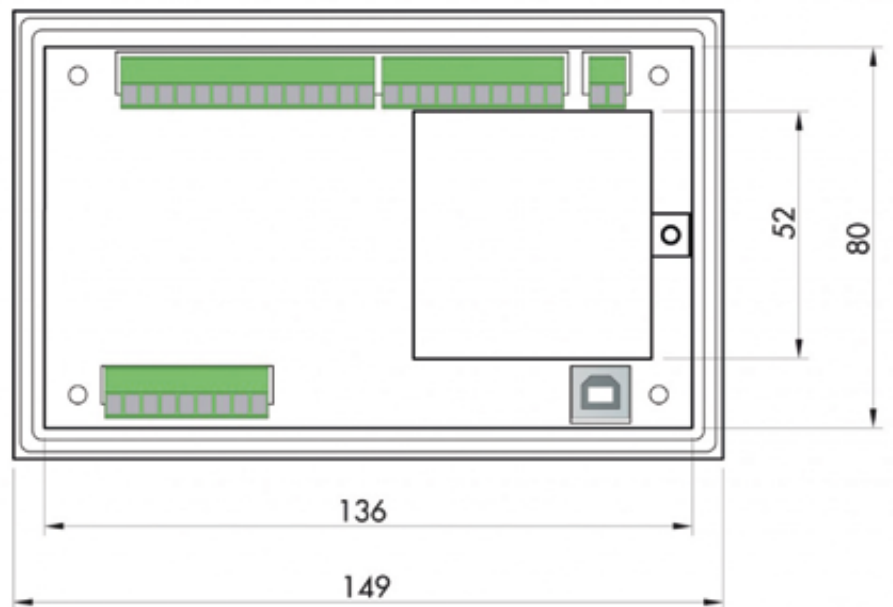
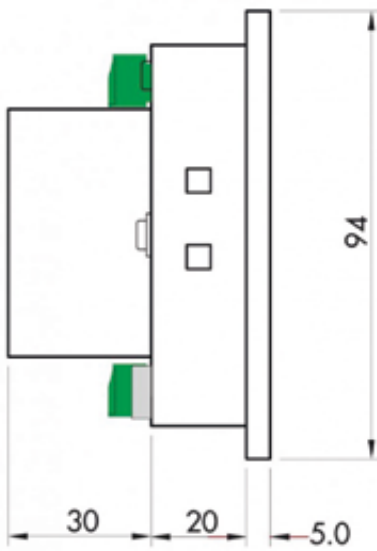
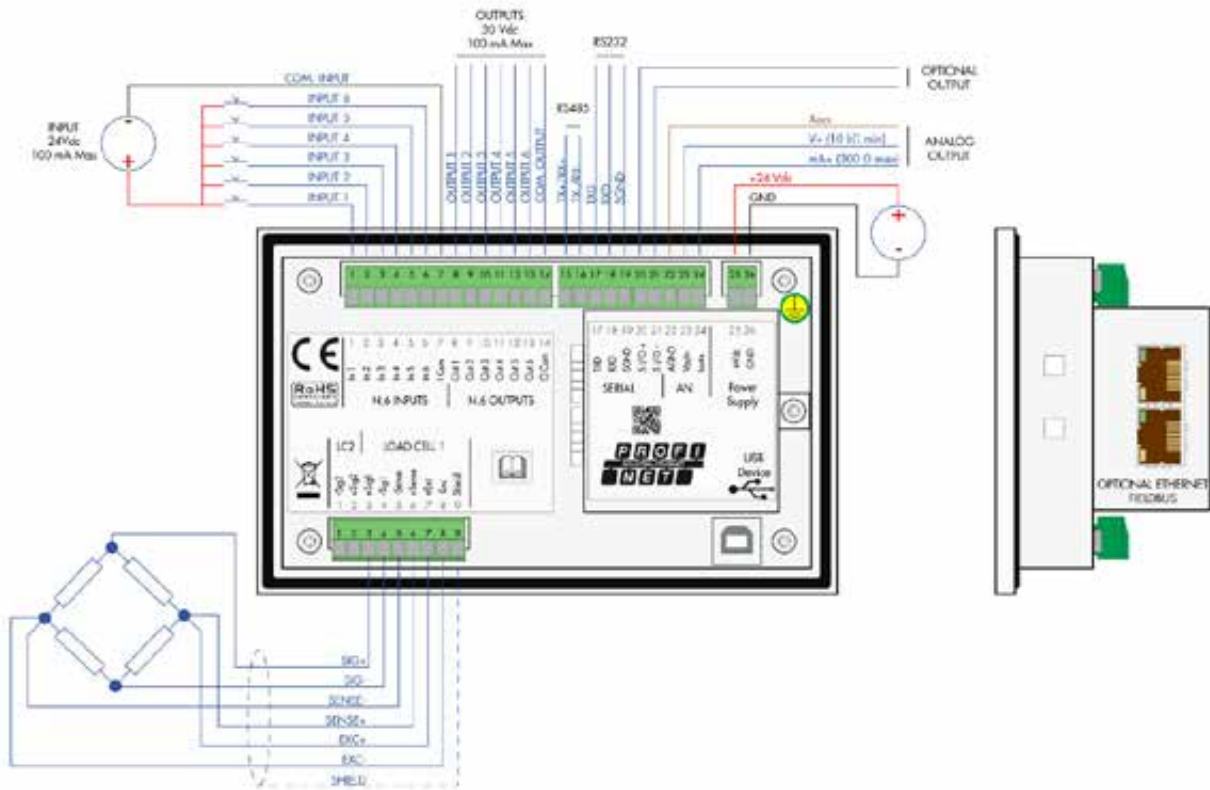
Fieldbus + analog output on board at the same time

**TECHNICAL CHARACTERISTICS MCT 1302**

Power supply:	5 Vdc (max 8 -350 Ohm- load cells)
Measuring range:	-3.9 ÷ +3.9 mV/V
Input sensitivity:	0.02 microV min
Linearity:	< 0.01% FS
Temperature drift:	< 0.001% FS/ °C
Display:	graphic LCD (240x128 pixel)
A/D converter:	24 bit; internal resolution up to 16.000.000
Frequency signal acquisition:	12 ÷ 1000 Hz
Displayable resolution:	999.999 displayable divisions on net weight
Value divisions (selectable):	x1, x2, x5, x10, x20, x50; 4 decimal point
Filter:	selectable 0.1÷250 Hz
Keyboard:	4 wires resistive touch screen
Power supply:	10-30 Vdc - Power consumption 5 W
Operating temperature:	-10/+ 50°C (humidity max 85% no condensation)
Storage temperature:	-20 ±+70°C
Logic outputs:	6 opto-isolated; max 24 Vdc/100mA each
Logic inputs:	6 optically isolated 24 Vdc PNP (external power supply)
Additional I/O:	up to 4 external modules with 4 in/8-out each (16 in/32 out, total) by independent RS485
Serial ports:	1 USB device + 1 RS232C + 1 RS485/Fieldbus
Optional analogue output:	optoisolated 16-Bit Voltage: 0 to 5/10 V (R min10 K Ohm), Current: 0/4 to 20 mA (R max 300 Ohm)
Analog output calibration:	keyboard (touch screen)
Analog output linearity:	< 0,02% FS
Temperature drift analog output:	0,001% FS/°C
Microcontroller:	ARM Cortex M0 + 32 bit 256KB Flash reprogrammable onboard from USB
Data storage:	64 Kbytes expandable up to 1024 Kbytes
Regulatory Compliance:	EN61000-6-2, EN61000-6-3 for EMC; EN61010-1 for Electrical Safety, EN45501 for metrology
Electrical connections:	removable screw terminal blocks (3.81mm pitch)
	150x95x26mm (LxWxH) including terminal blocks;








**WEIGHING INSTRUMENTATION**

## weight indicators

**MC 302**

Fulfills various needs in the field of weighing, from simple level setpoint to complicated batching procedures

Production of special software

24-bit A/D converter

Fiscal memory up to 160.000 weighings -option-

Totalisation of dosed weights according to recipe and component

RS422/485 and RS232 serial outputs with ASCII protocols and/or Modbus RTU

Profibus-DP, DeviceNet and Ethernet optional

50 different recipes can be stored and automatically printed

Upload and download function for programming by TESTER 1006

**TECHNICAL CHARACTERISTICS MC 302**

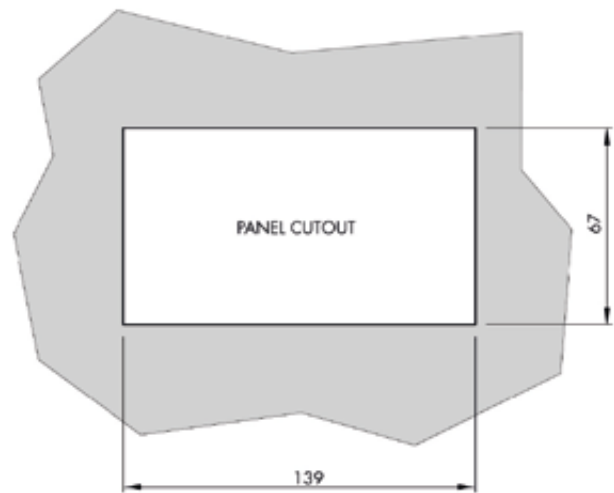
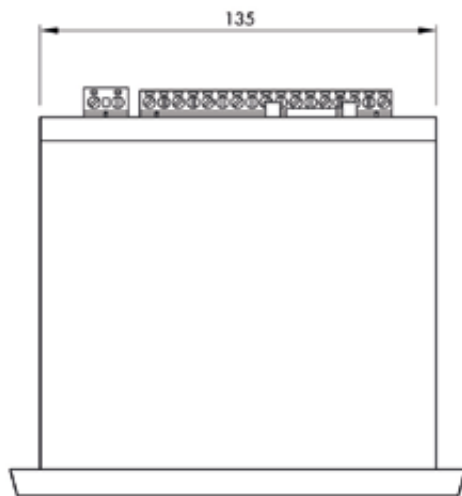
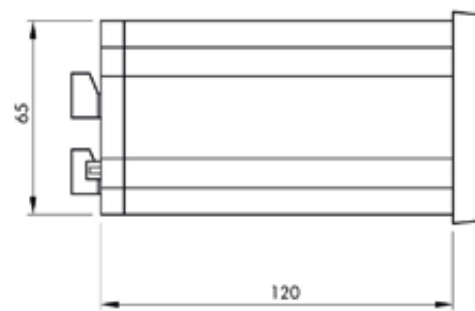
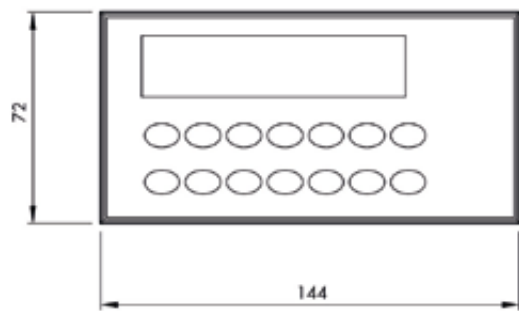
Trasduser input voltage:	5 V (max 8 load cells da 350 Ohm in parallel)
Measuring range:	-3.9 ÷ +3.9 mV/V
Input sensitivity:	0.02 µV/ per count
Linearity:	<0.01% of full scale
Gain drift:	<0.0003% full scale/ °C
A/D Converter:	24 bit
Internal resolution:	> 16.000.000 counts
Visible resolution:	600.000 divisions displayed on net weight
Divisions value (adjustable):	x1, x2, x5
Set decimal:	0.0 ; 0.00 ; 0.000; 0.0000
Filter:	0.2 ÷ 50 Hz. 100 Hz during dosage
Tool voltage:	230 Vac ±10% - 50/60 Hz absorbed power 7 VA (115 Vac on demand)
Temperature range:	-10 ÷ +50°C
Storage temperature:	-20 ÷ +70°C
Logic output:	6 relays (NA) MAX 115 Vac /30 Vdc 0.5 A cad.
Logic input:	8 optoisolated 12 / 24 Vdc PNP
Serial door:	COM1: RS232 half duplex COM2: RS422/RS485 half duplex
Transmission distance:	15m (RS232C), 1000m (RS422 and RS485)
Protocol:	ASCII, Modbus RTU
Baud rate:	1200 ÷ 115200 adjustable
Regulatory compliance:	EN45501 for Metrological Norms EN50081-1 and EN50082-2 EMC EN61010-1 for Electrical Safety
Optional dosage software:	until 12 components with 8 relays external module with aggregation of component values and recipe. Management and inventory control max 50 programmable recipes
Fiscal optional memory:	> 160.000 weighed
Analog optional output:	Optically isolated 16-Bit Voltage: 0÷5 or 0÷10V (R> 10 Ohm) Current: 0÷20 or 4÷20mA (R <300 Ohm); Linearity 0.03% of full scale; Temperature drift 0.001% of full scale /°C
Optional fieldbus available:	Profibus DP, DeviceNet and Ethernet TCP-IP external mounting on DIN guide



**WEIGHING INSTRUMENTATION**

weight indicators

MC 302



# BRANDS

**BLH NOBEL**  
A VPG Brand

**VPG** PERFORMANCE THROUGH PRECISION

**Thames Side**

**TRANS•TEK**  
INCORPORATED

**SEG**

**NMB**  
a Minobea Company

Over the years  
we have acquired  
the exclusive  
representation  
of some prestigious  
companies.

# CERTIFICATIONS



Through the years we have gained all available certification for guaranteeing you nothing but the best in products and services.

# CONTACTS

[www.pavonesistemi.it](http://www.pavonesistemi.it)

**Pavone Sistemi s.r.l.**

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E-mail: [pavone@pavonesistemi.it](mailto:pavone@pavonesistemi.it)

**SCIENCE  
GATE**  
Your Automation Partner

**SCIGATE AUTOMATION (S) PTE LTD**

No 1 Bukit Batok Street 22 #01-01 Singapore 659592  
Tel: (65) 6561 0488 Fax: (65) 6561 0588  
Email: [sales@scigate.com.sg](mailto:sales@scigate.com.sg) Web: <https://scigate.com.sg/>

Business Hours: Monday - Friday 8:30AM - 6:15PM



**Pavone Sistemi**  
pesatura elettronica industriale