

Signal processing

SCAIME can offer various solutions for conditioning, display and transmission of the measurement. Our electronics include functions covering a wide range of applications:

- Process control
- Measurement acquisition
- Safety threshold management

For a use in automation architectures, we can also offer:







- Standard interfaces with the main automated systems (Profibus-DP, Modbus-RTU, CANopen®)



Strain measurement  
Extensometers, Electronics, Accessories

..... **ELECTRONICS** .....

● : Standard - ○ : Option



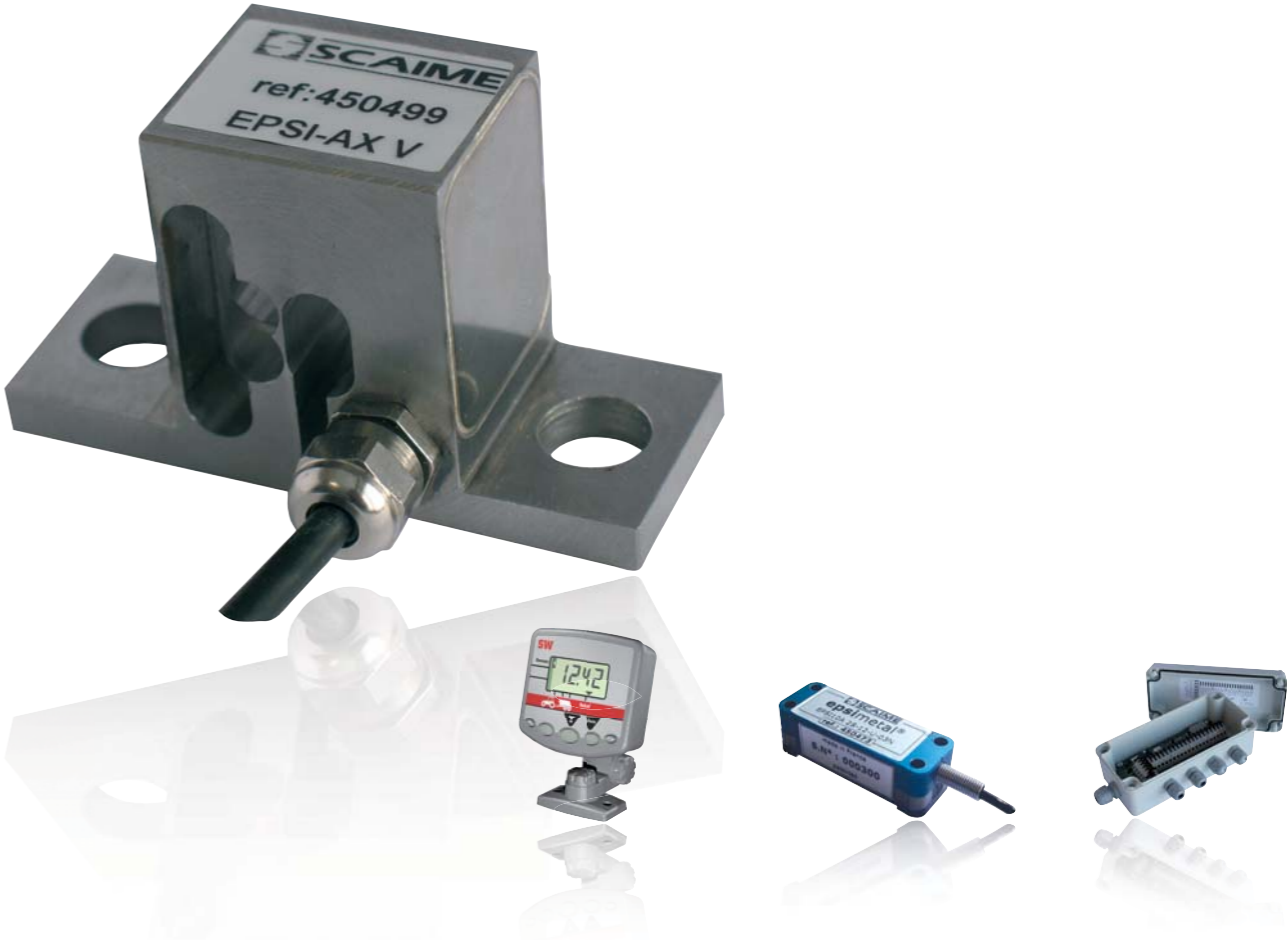
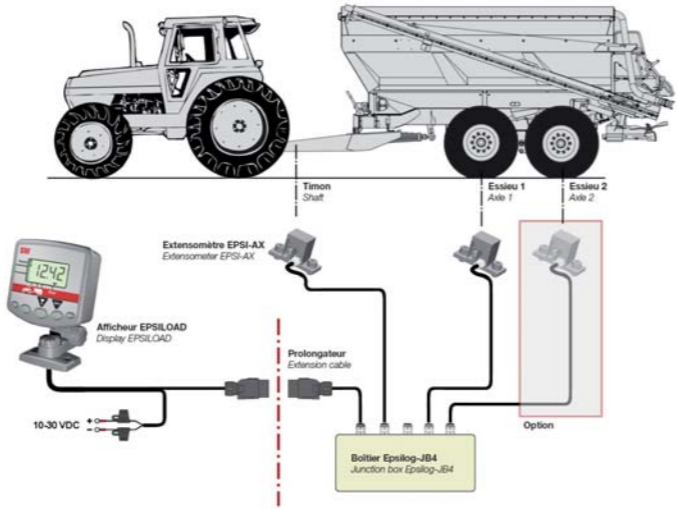
Model	CPJ	eNod4-T	PAX	GM80 PA-TG	SDI-718 B	IPE50 P
Type	Analog transmitter	Digital transmitter	Measurement display	Data acquisition system	Data acquisition system	Weighing indicator
Signal Input	mV/V, potentiometer	mV/V, 4-20 mA, 0-10 V	mV/V	mV/V, 4-20 mA, ±5 V	mV/V, 4-20 mA, ±5 V	mV/V
Accuracy	0.05 %	0.01 %	0.02 %	0.1 %	0.1 %	0.01 %
Measurement rate (meas./s.)	-	1 200	20	1 000	1 000	200
Display	-	-	LED 14 mm	LCD 9 mm	-	LED 18 mm
Digital Input (E) / Output (S) TOR	- / ○ 2 S	● / ○ 2 E / 4 S	● / ○ 2 E / 4 S	● / - 2 E	● / - 1 E	2 E / 2 S
Analog output	●	-	○	-	-	●
Modbus RTU / Profibus DP	-	● / ○ CANopen®	○ / ○	-	Ethernet	● / ●

On-Board weighing system



SCAIME offers EPSILOAD, an On-board system dedicated to trailer weighing. It includes:

- 2 or 3 EPSIAX extensometers to be fixed on the axles
- An EpsilogJB4 junction box and all the cables
- An EPSILOAD display to be installed in the cabin



# Your machines and structures monitored...

Scaime has developed a range of extensometers using an innovative mechanical principle. Easy to use, accurate and free of any shift, they are meant to simplify load measurement by monitoring directly the strain on the structure.



## Designed for industrial environments...



- > Miniature versions
- > Stainless steel and sealed versions
- > No mechanical adjustment needed, no modification to the structure
- > Easy mounting by bonding or screwing
- > High sensitivity and wide measuring range
- > Quick response time
- > High or low level analog output
- > Versions with in-built electronics for digitally adjustable offset, span and temperature compensation

## For all your applications ...

We provide all elements required to process or monitor either slow or fast signals.

- A new generation of extensometers suitable for harshest environments
- A comprehensive range of electronics allowing measurement acquisition and transmission
- Assistance from the definition of your specification to the design and commissioning of the measurement system

## Silo level measurement

Strain sensing easily turn your existing silo into a scale. The extensometers measure the deformation of the silo structure, proportional to the product weight inside the silo. Quickly and easily installed on the silo structure without modification, this cost-effective measuring method is an excellent alternative to traditional level sensing.

EPSI-AX extensometers fixed on each silo foot



Silo level measurement ▲

## EXTENSOMETERS / ADJUSTMENT BOXES



Model	Epsimetal mV	Epsi-AX mV	Epsi-AX V	Epsilog-VX	Epsilog-JB4
Type	Miniature extensometer	Stainless steel, sealed extensometer	Stainless steel, sealed extensometer	Connection box to PC/USB	Adjustment and junction box
Capacity	±500 µm/m	±500 µm/m	±500 µm/m	for EPSI-AX V	for EPSI-AX V
Measurement mode	Tension or compression	Tension or compression	Tension or compression	Digital Offset/Span adjustment with included PC software	Direct Offset/Span adjustment Up to 4 extensometers wiring
Output	4.5 mV/V	1 mV/V	0-5 V ou 0-20 mA		
Resolution	1 µm/m	1 µm/m	1 µm/m		
Construction	Aluminum	Stainless steel	Stainless steel	ABS	ABS
Protection level	IP54	IP68	IP68	IP54	IP54

## ACCESSORIES



Model	Flat mounting plates to be bonded	Cylindrical mounting plates to be bonded	Mounting template	Bounding kit	Mounting plates to be welded
For extensometer	Epsimetal	Epsimetal	Epsimetal	Epsimetal	EPSI-AX

## On-board applications

- Force monitoring on chassis
- On-board weighing on trailer
- Tilting prevention
- Overload prevention



◀ Tilting prevention

Extensometer fixed to the axle

## Structures monitoring

- Deflection measurement under load
- Fatigue cycles monitoring
- Measuring strains in the structure frames
- Analysis of structures behavior, characterization of mechanical elements

