

Continuous dosing

Loss-in-weight feeders



Steady and accurate flow rate...

SCAIME offers high accuracy load cells and versatile controllers for differential gravimetric feeders. Easy to integrate into automated systems, these solutions include comprehensive continuous totalization and flow rate control.

LOAD CELLS:

A comprehensive range...

In order to match with each application, SCAIME load cells cover wide measuring ranges, as well as high level of protection and accuracy:

- Single point, bending beam, shear beam or tension load cells • Capacity from 200 g to 1000 t
- Aluminium or stainless steel
- Many fixing possibilities



Easy and safe mounting solutions:

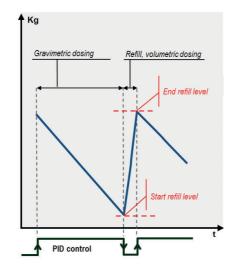
Accessories and mounting kits designed by Scaime for hopper and tank weighing ensure optimal functioning of our load cells as well as reliability and operation safety.

- Mounting kits in compression or tension
- Lift-off prevention device
- Overload and side stoppers
- Elastomere pads for vibration damping





loadce Analog output PID control CANODEN Modbus EtherNet/IP



Designed to communicate:

eNod4 controllers offer a full access to process data and configuration through:

- The industrial network link: CANopen®, Modbus-RTU, PROFIBUS-DP, Modbus-TCP, EtherNet/IP, PROFINET® or EtherCAT®.
- A Web server for EtherNet versions
- USB link with eNodView PC software
- Optional touchscreen eNodTouch
- Bluetooth with Android App

ELECTRONICS:

SCAIME has developped eNod4-F, a powerful and scalable weighing controller, fitted with an application for loss-in-weight gravimetric dosing scales. Designed for an easy integration into automated systems, eNod4-F can also be used without PLC with the optional eNodTouch-M HMI.

eNod4-F offers advanced interfaces and functionnalities to build a loss-in-weight gravimetric feeder:

- 4 logic inputs and 4 outputs for dosing process control and pulse signal for remote totalizer
- Several levels of digital filtering to eliminate vibrations
- 1 adjustable analogue output

Functions of loss-in-weight feeder:

- Loss-in-weight flow rate calculation
- Totalized weight calculation
- Management of flow rate set point and target total
- Flow rate control according to pre-set target, by PID adjustment
- Automatic adjustment of PID parameters by self-learning technology
- Automatic control of gravimetric dosing phases and refilling phases

eNodTouch-M touchscreen:

Multi-channel HMI for configuration and monitoring of 1 to 6 eNod4, eNodTouch-M runs in parallel of the PLC connection or allows to use eNod4 without PLC.

PIC

SOFTWARE:

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<u>PROFT</u> Theit

eNodView PC software allows configuration and calibration of all products of the eNod range. It is as well a powerful acquisition and signal analysis software for:

- Time and frequency graphic display of the signal
- Simulation and set-up of digital filters
- Graphic display of flow rate and PID control output

Mobile application for Androïd™:

The eNodApp app allows you to view the data, control, configure, and calibrate all eNod4 equipped with Bluetooth communication option.



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LOAD CELLS							
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Model	AG	AXL - AXH	AVX - AVS	F60X	SK30X	ZA30X	R10X
Туре		Single point		Bendin	g beam	Tension	Compression
Rated load capacity (C.N.)	1 kg 100 kg	10 kg 500 kg	15 kg 75 kg	5 kg 500 kg	300 kg 5 t	500 kg 7.5 t	250 kg 100 t
Accuracy class	C3 / C6	C3	C3 / C6	C3 / C6	C3 / C6	C3	-
Combined error (% C.N.)	0.017 / 0.008	0.017	0.017 / 0.008	0.017	0.017 / 0.008	0.017	0.05
Construction	Aluminum	Stainless steel	Stainless steel EHEDG version	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Protection	Coated, IP65	Sealed, IP69K	Sealed, IP69K	Sealed, IP68	Sealed, IP68	Sealed, IP68	Sealed, IP68
Maximum platform size (mm)	400 x 400	up to 600 x 600	up to 600 x 400	-	-	-	-
Certifications	OIML, NTEP, ATEX, IECEx, FM	OIML, ATEX, IECEx	OIML, ATEX, IECEx	OIML, ATEX, IECEx, FM	OIML, NTEP, ATEX, IECEx, FM	OIML, ATEX, IECEx, FM	ATEX, IECEx

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• : Standard - O : Optional

Model	eNod4-F STD	eNod4-F IO+					
Туре	Controller / Transmitter						
Capacity (C.N.)	1 channel						
Lay out	Din Rail / Stainless steel box						
Accuracy class	0.005 %						
Certification	-						
Internal resolution	24 bits						
Formated resolution	± 500	± 500 000 pts					
Conversion speed	6.25 20)0 meas./s.					
Interfaces							
Inputs / Outputs	21/40	4 I/4 O					
Analog output	-	•					
Bluetooth	0	0					
Industrial networks / Web server							
Modbus-RTU	•	• / -					
Modbus-TCP	o / o						
CANopen®	• / -						
PROFIBUS-DP	o / -						
PROFINET®	o / o						
EtherNet/IP	0,	o / o					
EtherCAT®	0	o / o					

<u>scaime</u>

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Model	eNodTouch-MS	eNodTouch-ML		
Туре	IHM			
Capacity (C.N.)	Multi-channel, 1 6 eNod4			
Lay out	Colour touchscreen			
Display	LCD TFT 4.3"	LCD TFT 5.7"		
Screen	480 x 272	320 x 240		
Communication	RS485, Modbus-RTU			

eNod4 for your processes safety:

Reliability and safety are essential factors to be taken into account for the control of industrial processes.

In order to ensure this functional safety, eNod4 integrates **a diagnosis of the measuring chain.** This diagnosis simulates a load by shunt resistor and can be triggered at any time by the PLC.

