



# Dosing process

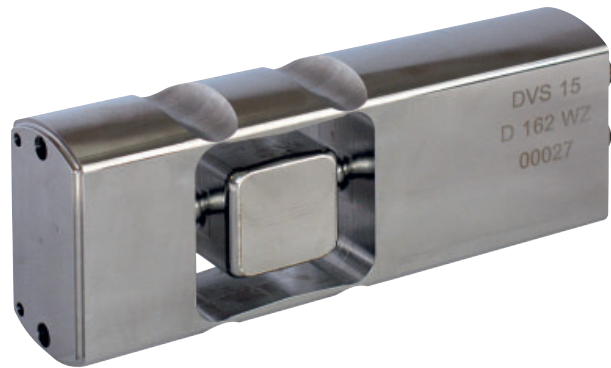
Filling, Batching control





# Dosing control... at high speed.

SCAIME designs solutions offering speed, accuracy and functions adapted to the specific requirements of dynamic weighing. SCAIME's load cells, electronics and software are a perfect match for filling and dosing applications.



## LOAD CELLS:

### DVS



SCAIME's wide range of load cells allow customers to solve their specific requirements for high speed and accurate weighing.

### DVX



## High speed digital load cells...

SCAIME have developed a range of high performance digital load cell specially designed for dynamic applications in hardest environments.

### AAD



- Single point load cells
- Capacities from 5 to 75 kg
- Integrated eNod electronics
- Dosing and filling functions
- 2 digital inputs and 4 outputs
- CANopen® and MODBUS Communication
- Stainless steel IP69K (DVX/DVS) or aluminum IP65 (AAD)
- Hygienic design, EHEDG compliant (DVS)

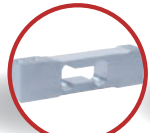
## A comprehensive range...

- Single point, bending beam, shear beam tension and compression load cells
- Capacities from 200 g to 1 000 t
- Aluminum or stainless steel
- Protection level up to IP69K
- Numerous mounting possibilities

### AVX



### AG



### F60X



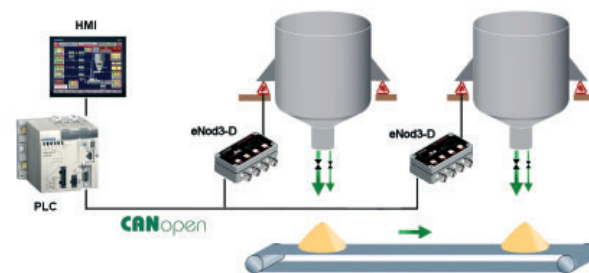
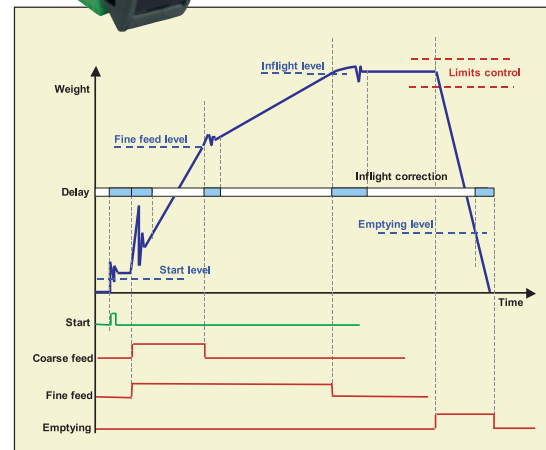
### R10X



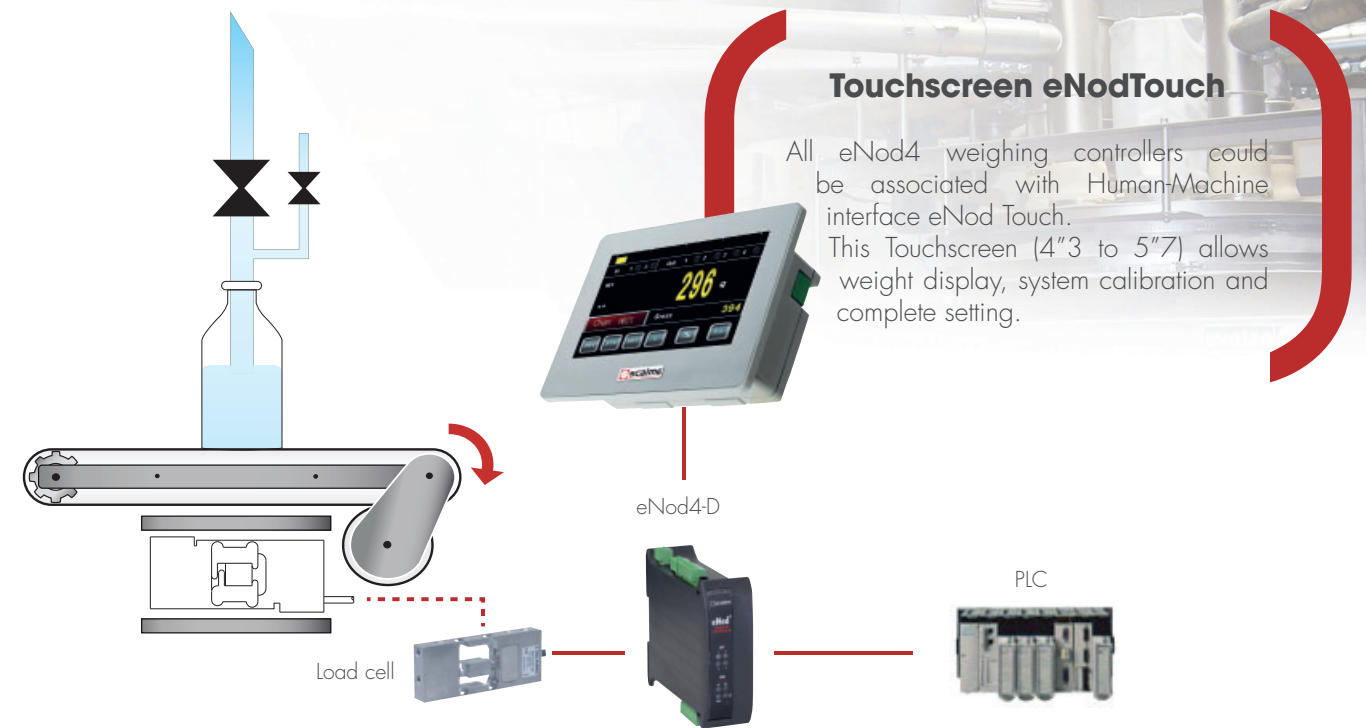
### SK30X



### ZA30X



▲ Example of 2 products batching (by unloading)



## Touchscreen eNodTouch

All eNod4 weighing controllers could be associated with Human-Machine interface eNod Touch. This Touchscreen (4"3 to 5"7) allows weight display, system calibration and complete setting.



## ELECTRONICS:

eNod controllers and DVX/DVS/AAD digital load cells are dedicated to integration into industrial automated systems. These intelligent devices take control of all measurements and provide complete dosing/filling process management, unloading PLC resources.

## Powerful functionalities:

In addition to offering 1000 measurement/second transmission rate with an available resolution of  $\pm 500\,000$  divisions, eNod and DVX/DVS/AAD integrate specific application software dedicated to dosing process control:

- It takes care of complete signal processing
- It includes powerful digital filters dedicated to vibration noise cancellation
- It includes functionality dedicated to mono-product dosing/filling. According to parameters sent from a PLC, it manages a two feed dosing cycle by loading or unloading
- Each device is available with 2 digital inputs and 4 outputs in order to control the process

## Designed for communication:

eNod controllers and DVX/DVS/AAD digital load cell are designed to easily be connected to all kinds of PLC's using CANopen®, Modbus-RTU, Modbus-TCP, Profibus-DP, EtherNet/IP, PROFINET® et EtherCAT® protocols.

## PC SOFTWARE:



eNodView is the software for DVX/DVS/AAD or eNod's calibration and programming:

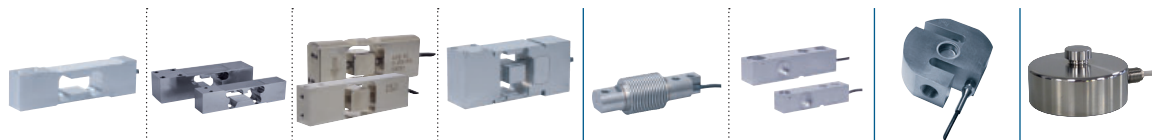
- Graphic visualization of the signal in frequency and time
- Simulation and programming of integrated digital filters
- Full real time view of dosing cycle
- Management of all parameters for easy setting of cycle

## Mobile application for Android™:

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

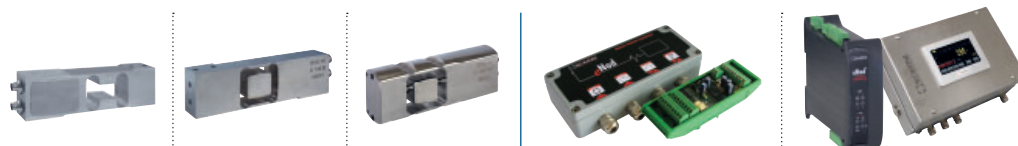


## LOAD CELLS



Model	AG	AXL - AXH	AVX - AVS	AK	F60X	SK30X	ZA30X	R10X
Type	Single point				Bending beam		Tension	Compression
Rated load capacity (Cn)	2.5 kg ... 100 kg	15 kg ... 500 kg	15 kg ... 75 kg	6 kg ... 300 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	C3 / C6	C3 / C6	C3	-
Combined error (% Cn)	0.017 / 0.008	0.017	0.017 / 0.008	0.017	0.017 / 0.008	0.017 / 0.008	0.017	0.1
Construction	Aluminum	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Protection	Coated, IP65	Sealed, IP69K	Sealed, IP69K EHEDG	Sealed, IP68	Sealed, IP68	Sealed, IP68	Sealed, IP68	Sealed, IP68
Admissible platform size (mm)	400 x 400	up to 600 x 600	up to 600 x 400	up to 600 x 600	-	-	-	-
Certifications	OIML, NTEP, ATEX, IECEx, FM	OIML, ATEX	OIML, ATEX, IECEx	OIML, NTEP, ATEX, IECEx	OIML, ATEX, IECEx, FM	OIML, NTEP, ATEX, IECEx, FM	OIML, ATEX, FM	ATEX, IECEx

## ELECTRONICS



● : Standard - ○ : Optional

Model	AAD	DVX	DVS	eNod3 -Din / -Box	eNod4 -Din / -Box
Type	Digital Load Cells			Controller / Transmitter	
Rated load capacity (Cn)	5 kg ... 75 kg	15 kg ... 75 kg	15 kg ... 75 kg	-	-
Accuracy class	OIML 3 000 d	OIML 3 000 d	OIML 3 000 d	0.005 % / OIML 6 000 d	OIML 6 000 d
Internal resolution	24 bits	24 bits	24 bits	24 bits	24 bits
Calibrated resolution	500 000 pts	500 000 pts	500 000 pts	±500 000 pts	±500 000 pts
Max. measuring speed	6.25 ... 1600 meas./s.	6.25 ... 1600 meas./s.	6.25 ... 1600 meas./s.	6.25 ... 1600 meas./s.	6.25 ... 1600 meas./s.
Logic Input (I) / Output (O)	● / ● 2 I / 4 O	● / ● 2 I / 4 O	● / ● 2 I / 4 O	● / ● 2 I / 4 O	○ / ● 4 I / 4 O
Analog output	-	-	-	-	○
Bluetooth	-	-	-	-	○
Communication	RS485, CANbus	RS485, CANbus	RS485, CANbus	RS232, RS485, CANbus	USB, RS485, CANbus, EtherNet
Construction	Aluminium	Stainless steel	Stainless steel	Rail DIN support / Aluminum box	Rail Din support / Stainless steel Housing
Protocols	Modbus CANopen®	Modbus CANopen®	Modbus CANopen®	Modbus CANopen®	Modbus, Profibus-DP CANopen® EtherNet/IP, PROFINET® EtherCAT®
Protections	IP65	Sealed, IP69K	IP69K, EHEDG	- / IP67	- / IP65
Display	-	-	-	-	○ 4"3 - 5"7

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