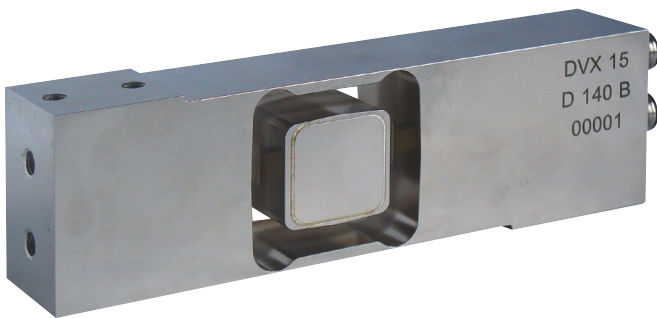
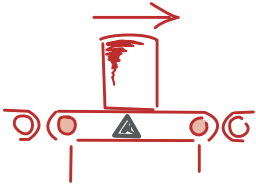


# DVX-C

## 7.5 kg ... 75 kg



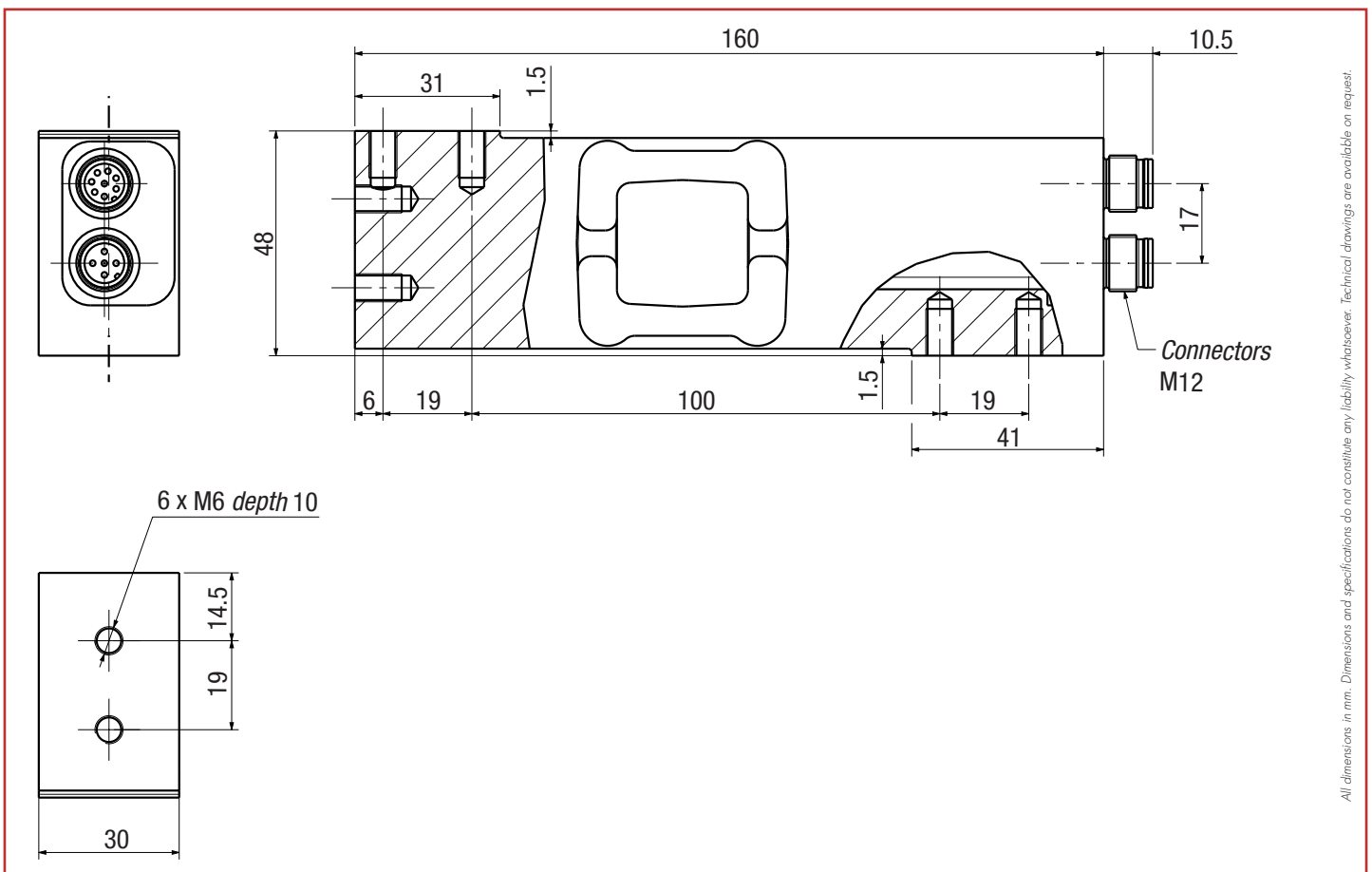
- Digital single point load cell
- Stainless steel construction, sealed IP68/IP69K
- Robust design for dynamic applications
- Function: High speed checkweigher, grading
- 2 digital inputs and 4 outputs
- Serial version: port RS485 Modbus and port CANOpen
- Ethernet version: EtherNet/IP, Profinet, Web server
- Certification OIML R76, R51 (serial version 15kg...75kg)



EtherNet/IP



CANopen



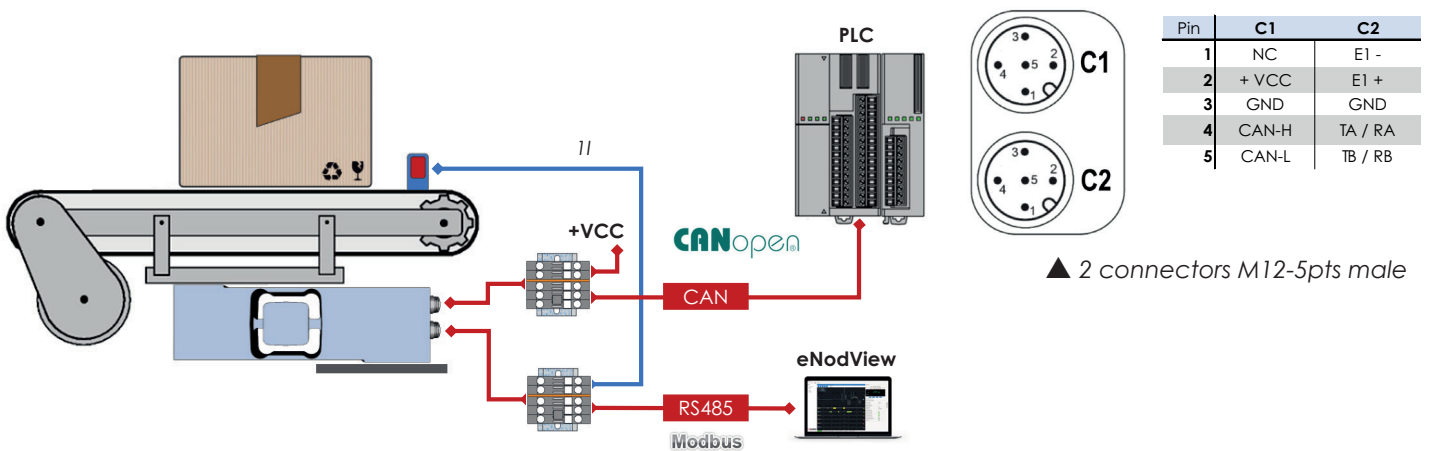
All dimensions in mm. Dimensions and specifications do not constitute any liability whatsoever. Technical drawings are available on request.

## Presentation

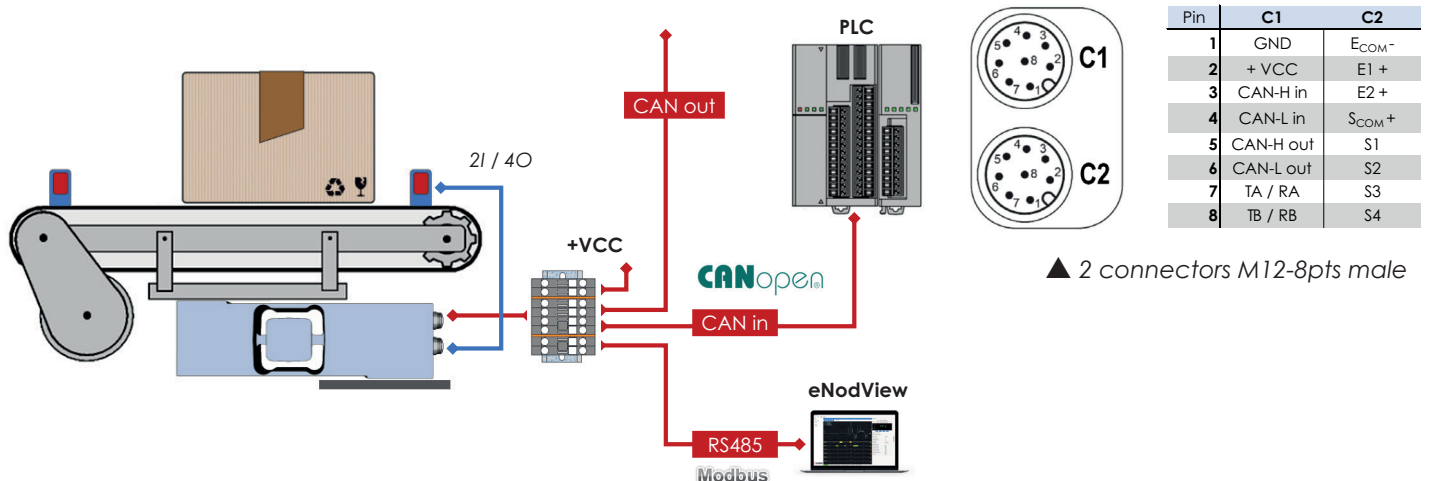
- **High performance digital load cell**
  - Optimized design use for use in checkweighers and packaging machines
  - Made in stainless steel with IP68/IP69K protection suitable for high pressure washing
  - Built-in electronics with 24-bits A/D converter allowing a resolution up to 500,000 points
  - Digital filters dedicated to the elimination of vibrations and mechanical disturbances
  - Software for dynamic checkweighing, grading, or high-speed measurement transmission
- **In-built Inputs/Outputs for process control**
  - 2 digital inputs and 4 outputs fully configurable (depending on wiring version)
- **PLC connectivity - Serial version**
  - 1 PLC link RS485 MODBUS-RTU or CANopen
- **PLC connectivity - version Ethernet**
  - PLC connection EtherNet/IP or PROFINET
  - Integrated web server

## Interfaces diagram, serial versions

11A wiring: CAN, RS485, 1 digital Input

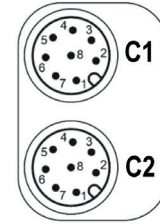
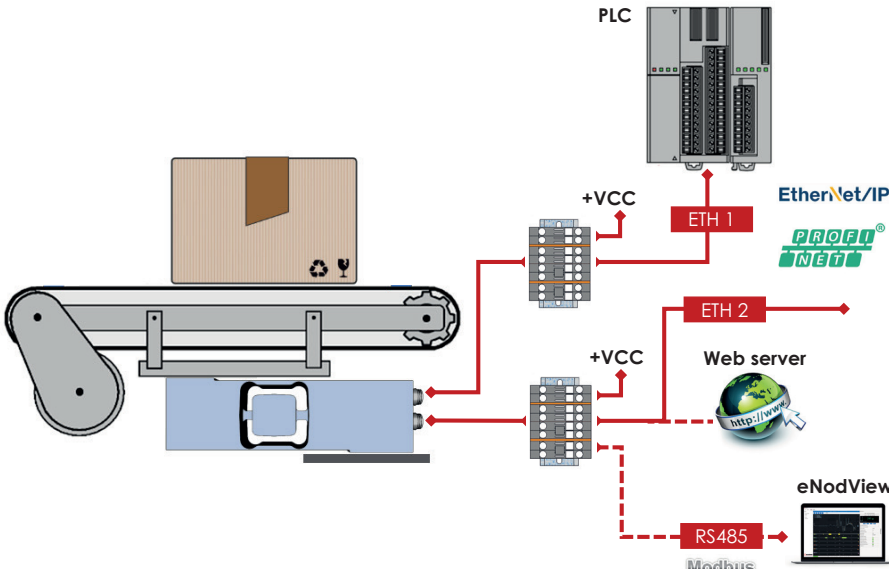


22A wiring: CAN output in Y, RS485, 2I / 4O



## Interfaces diagram, Ethernet versions

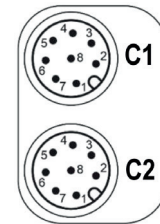
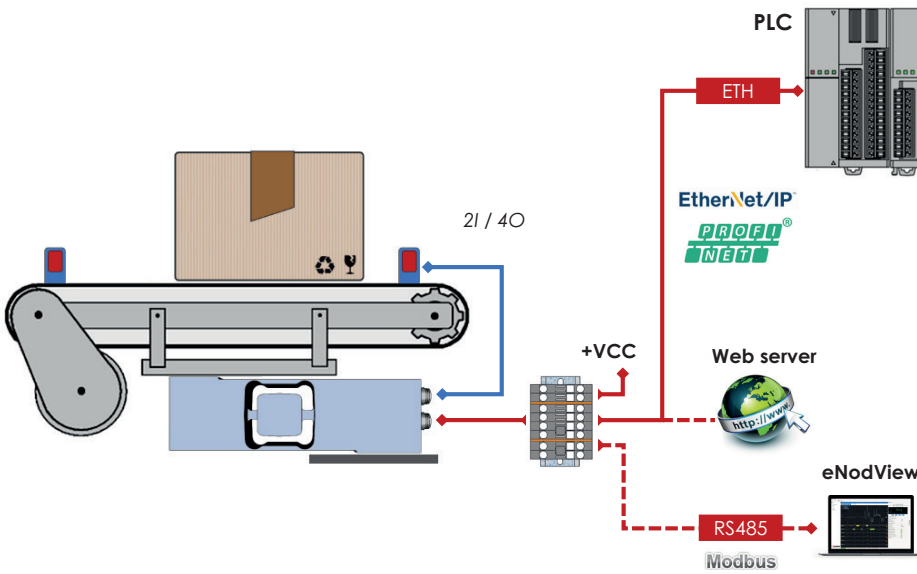
22B wiring: dual-Ethernet & switch, RS485



Pin	C1	C2
1	GND	GND
2	+VCC	+VCC
3	TA / RA	TA / RA
4	TB / RB	TB / RB
5	RXP2	RXP1
6	RXN2	RXN1
7	TXP2	TXP1
8	TXN2	TXN1

▲ 2 connectors M12-8pts male

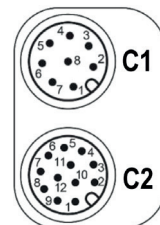
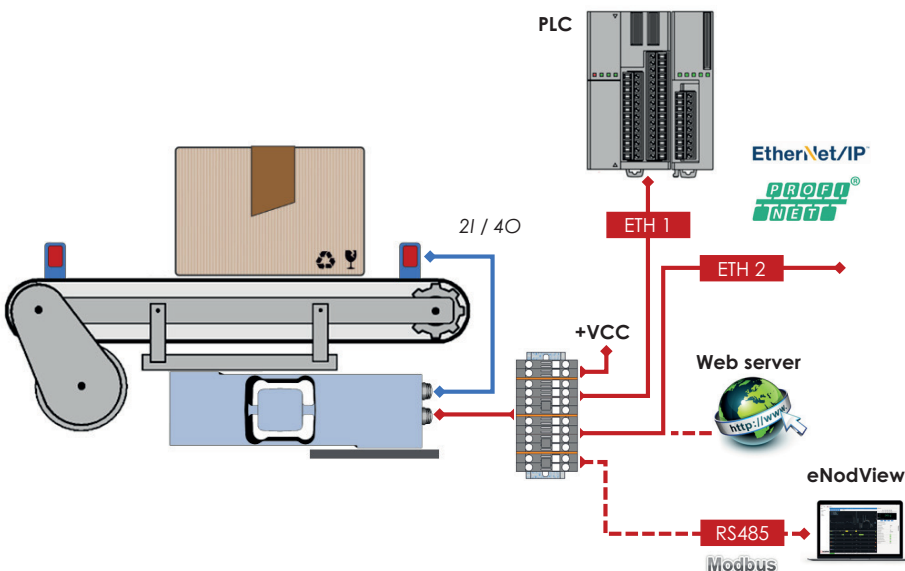
22C wiring: Single-Ethernet, RS485, 21 / 40



Pin	C1	C2
1	E <sub>COM</sub> -	GND
2	E1 +	+VCC
3	E2 +	TA / RA
4	S <sub>COM</sub> +	TB / RB
5	S1	RXP1
6	S2	RXN1
7	S3	TXP1
8	S4	TXN1

▲ 2 connectors M12-8pts male

32B wiring: dual-Ethernet & switch, RS485, 21 / 40



Pin	C1	C2
1	E <sub>COM</sub> -	GND
2	E1 +	+VCC
3	E2 +	TA / RA
4	S <sub>COM</sub> +	TB / RB
5	S1	RXP1
6	S2	RXN1
7	S3	TXP1
8	S4	TXN1
9		RXP2
10		RXN2
11		TXP2
12		TXN2

▲ 1 M12-12 pts male, 1 M12-8pts male

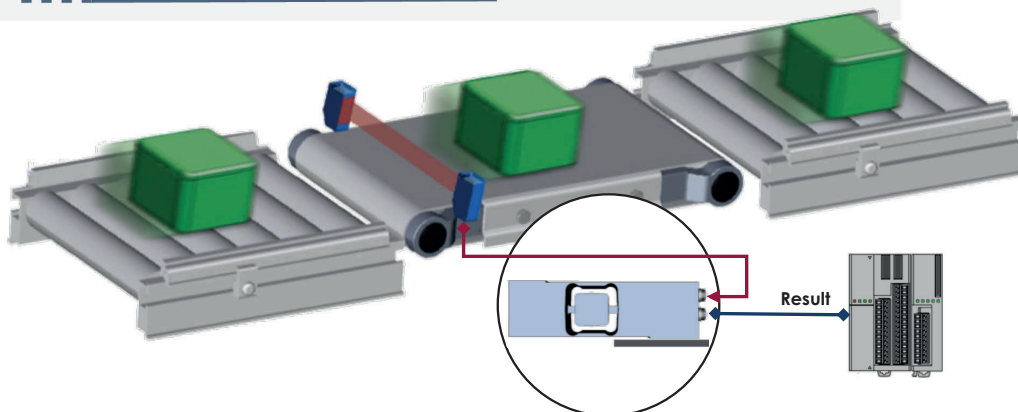
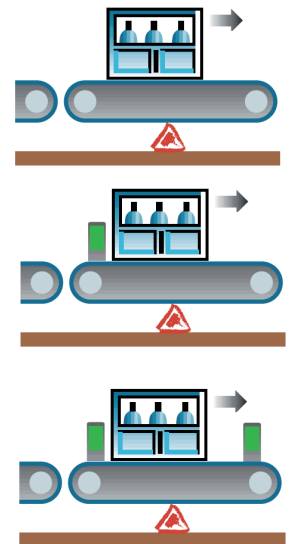
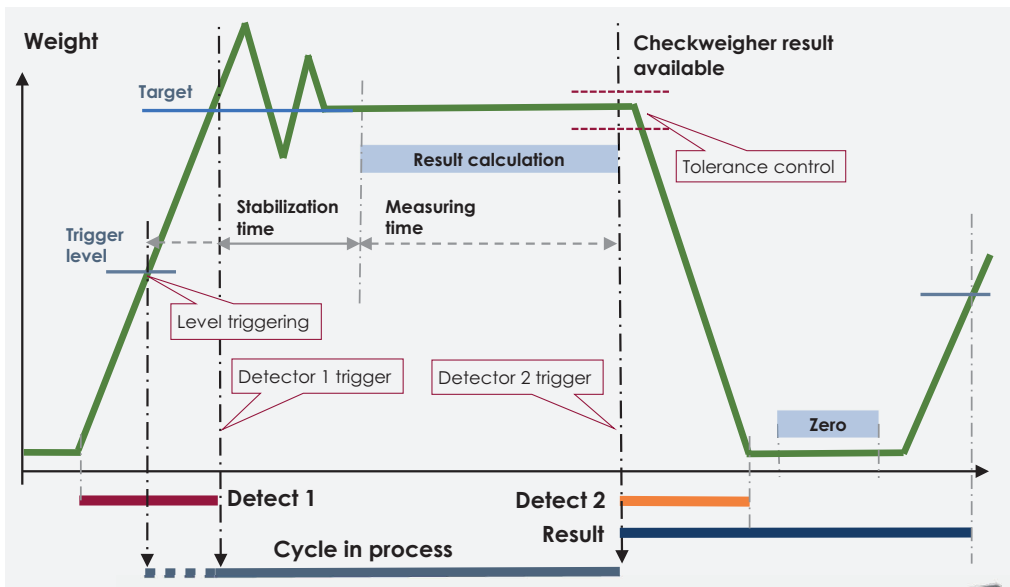
## General functionalities

- **Calibration**
  - Factory calibration: 500 000 pts at rated capacity
  - Measurement scaling
  - Digital identification: Mark, Model, serial N°, capacity, unit, user data.
- **Signal processing**
  - High speed measurement rat: Internal up to 1600Hz, transmission up to 800 Hz.
  - Configurable digital Low-pass filter
  - Configurable digital Notch filter
- **Functions**
  - Zero, tare, zero tracking, Stability control

## Checkweighing functionalities

- **Control of dynamic weighing process:**
  - Operating mode dedicated to High-speed dynamic weighing (sorting, checkweighing...)
  - Automatic calculation of weight value passing on the load receiver
  - Weight level or external triggering with 1 or 2 digital inputs
  - Dynamic Zero functions
  - Statistical functions

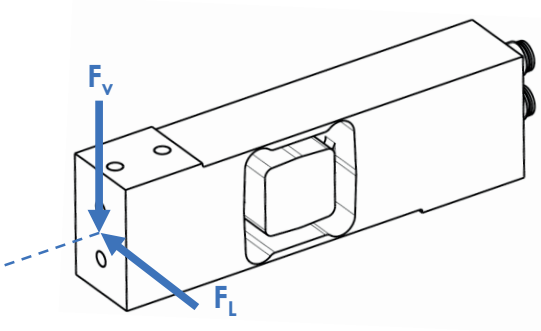
Example of dynamic weighing on conveyor



## Environnemental protection

- Withstand the toughest environments

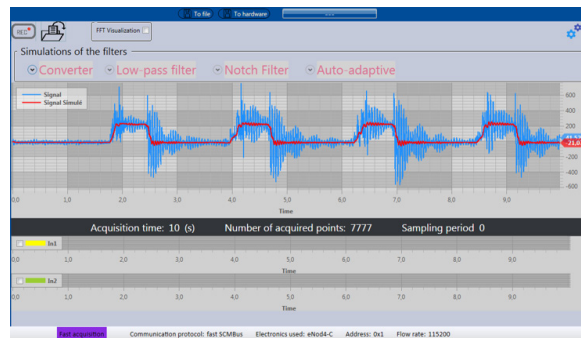
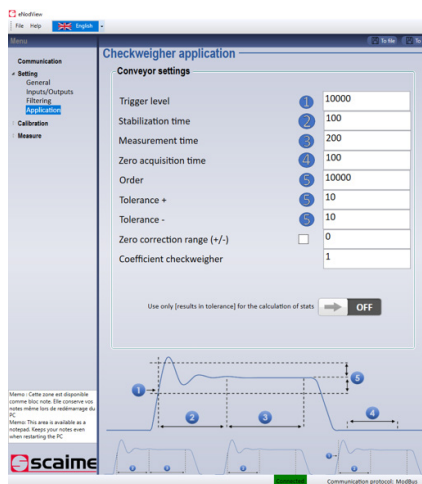
- Full hermetically sealed stainless-steel construction, IP68 / IP69K protection levels.
- Tested in moisture, temperature, shocks and vibrations by an independent laboratory.
- High resistance to accidental overloads and lateral or torsional forces.



Rated capacity $C_n$	7.5 kg	15 kg	30 kg	75 kg
Max. vertical permissible load - $F_v$	200%	400%	350%	300%
Max. lateral permissible load - $F_L$	800%	800%	800%	600%

## eNodView PC Freeware

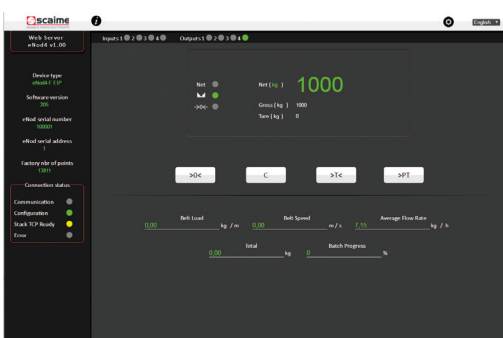
- Setting, user calibration and control
- Measurements, results and I/O display
- Digital filters optimization by FFT analysis and filter effect simulation



▲ Simulation of digital filtering effect with eNodView software

## DVX Ethernet Web server

- Read / write configuration parameters
- Measurements, results and I/O display
- DVX remote control
- Load cell update, save/restore configuration



## Specifications

METROLOGICAL					
Rated capacity (Cn)	7.5	15	30	75	kg
Combined error	±0.019				%Cn
Temp. effect on zero	±0.0011				%Cn/°C
Temp. effect on sensitivity	±0.0016				%Cn/°C
Creep error (30 min.)	±0.028				%Cn
Maximum platform size	400 x 400				mm
Serial version - n (OIML R76)	No	3000			d
Serial version - e (OIML R76)	No	1	2	5	g
Nominal temperature range	-10 ... +40				°C
Service temperature range	-20 ... +75				°C
ELECTRICAL					
Power supply	10 ... 28 VDC / 0.6 W				
A/D converter	24-bits / 4kHz				
Rated sensitivity at Cn	500 000				pts
Zero balance	±300				pts
Internal conversion rate	6 ... 1 600				Conv./s
GENERAL					
Safe load limit	200	400	350	300	%Cn
Deflexion at Cn	0.22	0.25	0.2	0.2	
Tightening torque	12				Nm
Protection level	IP68 / IP69K				EN60529
Material					
Load cell body	Stainless steel				
connector	Stainless steel				
Connection	M12 male - 5 / 8 / 12 pts				
Fixing (screw, quality, penetration)	M6x1, Cl A4-80, 6 min - 10 max				
Net weight	1.5				kg
DIGITAL I/Os					
	NB				
Digital inputs	2	Class 3: 11 ... 30 VDC / 12.6 mA			
Digital outputs (static relays)	4	53VDC / 37VAC max. / 400 mA max.			
COMMUNICATION					
1 RS485 - Protocols	Half Duplex, 9 600 ... 115 200 Modbus-RTU				
Max. update frequency of data (measurement) on the bus	CAN 800/s	RS485 200/s	Ethernet 800/s		
CAN SERIAL VERSION					
CANbus output / CANopen® - Protocols	CAN 2.0A / 10 kbps ... 1 Mbps CANopen, LSS v3.0				
ETHERNET VERSION					
Ethernet Dual or Single-Port - Protocols	100 base-TX EtherNet/IP, PROFINET				
EtherNet/IP PROFINET	CLASS 1 cyclic, CLASS 3 Acyclic, DLR PROFINET IO Slave, MRP				

## Accessoires

Connection cables	2 m / 5 m - M12 5 / 8 / 12 poles
Converter	RS485 / USB

