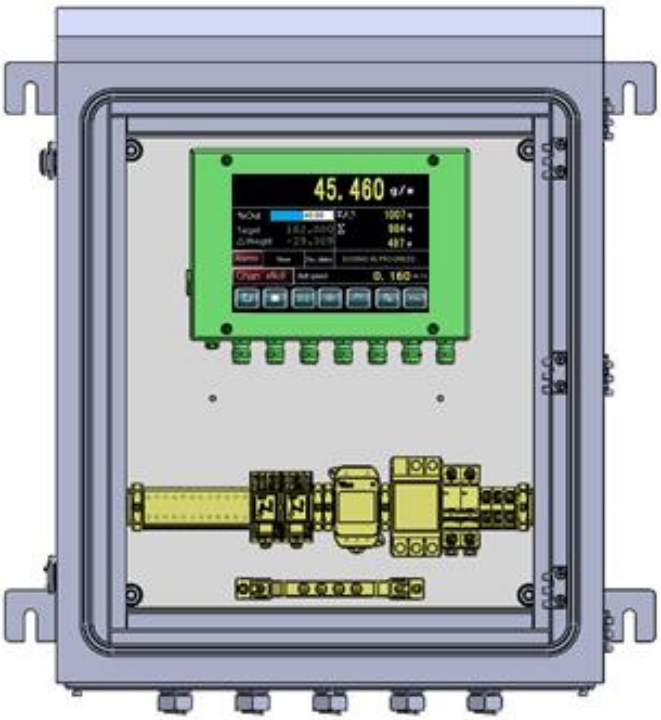
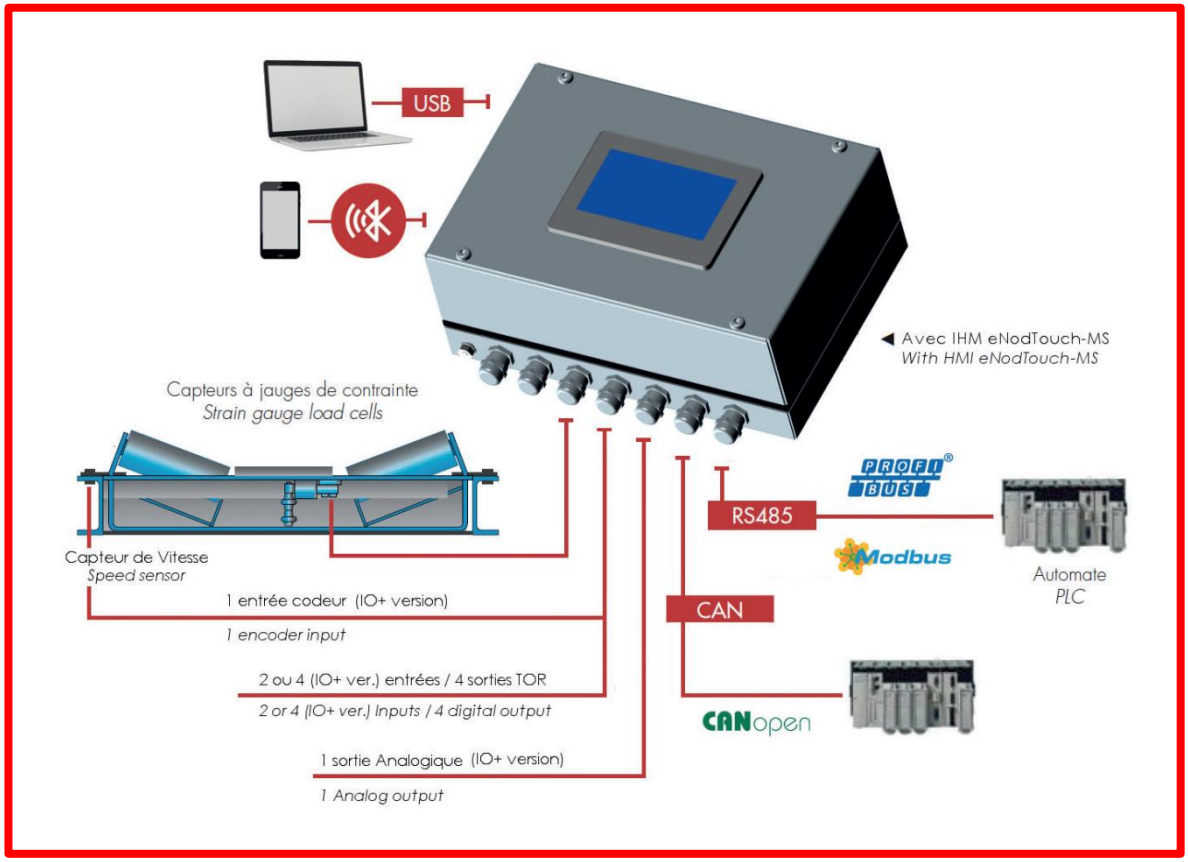
EN-ENOD4-B



Features

- Vertical housing for installation on DIN rail
- Up to 8 load cells conditioning
- Continuous fl ow rate and weight total calculation
- 1 input for belt speed sensor
- 2 digital inputs (4 with IO+ version) and 4 outputs
- Analog output 0-10 V or 4-20 mA (IO+ version)
- USB link for PC and RS485 link for HMI eNodTouch
- Optional Bluetooth communication



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EN-ENOD4-B

Presentation

- High speed, Accurate and reliable measurement
  - 400 meas./s., ± 500 000 points
  - Detection of cable break
  - Diagnosis of the measuring chair triggerable by PLC
- PLC connectivity - version CAN / RS485
  - 1 PLC Modbus-RTU or CANopen®
- PLC connectivity - version PROFIBUS®
  - 1 PROFIBUS-DP V1 output
- PLC connectivity - version EtherNet
  - PLC connection on dual-port EtherNet with Modbus-TCP, EtherNet/IP, PROFINET® or EtherCAT® protocols
  - Integrated web server
- In-built Inputs/Outputs for process control
  - 1 pulse input and 1 power supply output for belt speed sensor (IO+ version)
  - Up to 4 digital inputs and 4 outputs fully configurable
  - Analog output (IO+ version) configurable
- USB port for PC connection with eNodView
- Options eNod4 stainless steel housing
  - Integrated HMI eNodTouch-MS or ML
  - Board for connection and equalization of 4 load cells
  - Internal power adaptor 110-240 VAC
- Wireless connectivity
  - Optional Bluetooth 4.2 communication board

General functionalities

- Calibration
  - Physical or theoretical calibration
  - Automatic belt rate calibration
  - Weight and Flow rate unit adjustable
- Digital Adjustable filters
  - Low-pass filter, Notch filter and sliding-average

Optional eNodTouch

Human-machine interface with LCD color Touchscreen 4.3''(MS) or 5.7''(ML)

- Displaying measurement, status and results
- Function keyboard: Zero, Tare and functions related to the application.

- Full configuration of parameters
- Physical or theoretical calibration

Application cases



Belt Scale



Belt feeder

Enersys co.,ltd.

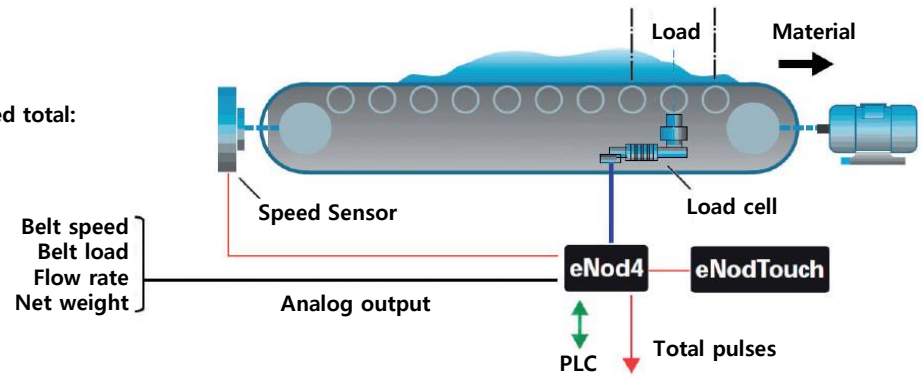
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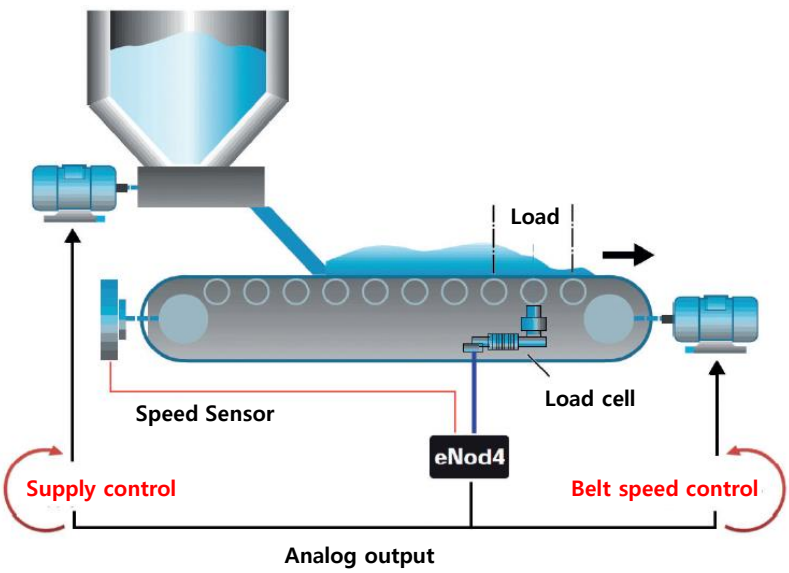
Belt scale functions

- Determination of belt speed
- Weight integration by unit of length
- Calculation of instantaneous flow, average flow
- Calculation of continuous total weight
- Alarms on Min/Max flow, Belt load
- Accumulated pulse output function
- Management of loading cycle with targeted total: Start, Stop, Material feed



Weigh belt feeder additional functions

- Management of target flow
- Flow regulation by PID controller with action on belt speed or material feed.
- Function of automatic adjustment of PID parameters by self-learning



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EN-ENOD4-B

specifications

Electronics EN-ENOD4-B

Power supply	10 ... 28 (option 1 : 110 ... 240 VAC) VDC		
Max. consumption	2.2 CAN / 3.4 PROFIBUS® / 4.4 EtherNet +3 IO+ / +7.7 eNodTouch-MS / +6.8 ML		
Bridge excitation voltage	5 VDC		
Input sensor range min./max.	±7.8 mV/V		
Min. input sensor resistance	43 Ω		
Min. signal by division	0.02 µV		
Housing	Inox / IP65 - Stainless steel / IP65		
Cable gland qty	4 (option 2 : 7)		
Nominal temperature range	-10 ... +40 ° C		
Classe de précision Accuracy class	±0.005 % F.S.		
Thermal Zero/Span shift	±0.00015 typ./ ±0.0002 typ %/° C		
Internal/Scaled resolution	24 bits/ ±500 000 pts		
Conversion rate	400 Conv./s.		
Integral methode	Quadratic polynominal		
Integral period	250 ms		
Pulse input - Encoder - TTL: Range low/high - HTL: Range low/high	Max. 4 kHz 0 ... 0.5 / 2.4 ... 5 VDC 0 ... 2.5 / 5 ... 30 VDC		
Supply output (speed sensor)	12.5 ±2 VDC / 30 mA		
Digital inputs	Class 3 : 11 ... 30 VDC / 12.6 mA		
Digital outputs (static relays)	24 VDC/ 400 mA max		
Analog output - Resolution - Type	 16 bits 0-5 V/0-10 VDC, 4-20 mA/0-20 mA/0-24 Ma		
Galvanic isolation	1 000 V		
1 RS485 (Auxiliary) - Baud Rate	Half Duplex 9 600 ... 115 200 bauds		
1 USB	2.0		
Max. update frequency of data (measurement) on the bus	CANopen®	RS485/USB	EtherNet
	1 000/s.	200/s.	100/s.
1 RS485 (API) - Baud Rate - - Protocols	Half Duplex 9 600 ... 115 200 bauds Modbus RTU		
CANbus output/CANopen®	CAN 2.0 A		
PROFIBUS-DP V1 output	9.6 ... 12 000 Mbps		

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