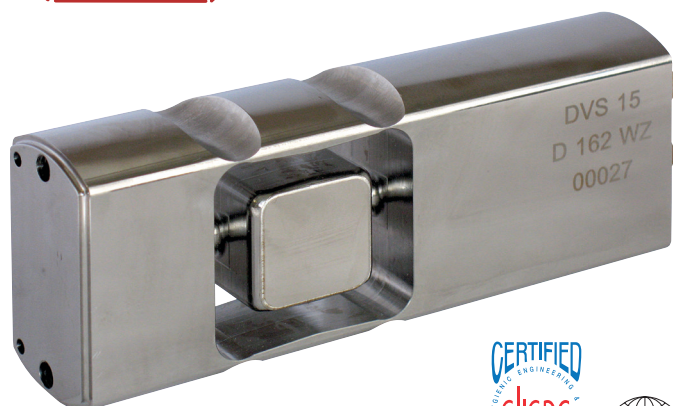
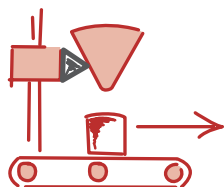


DVS-D

15 kg ... 75 kg



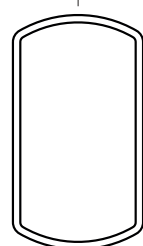
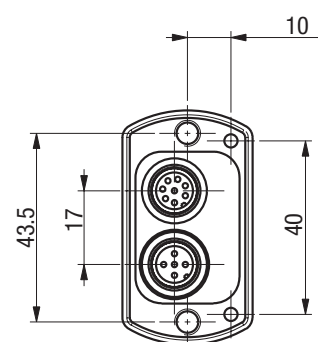
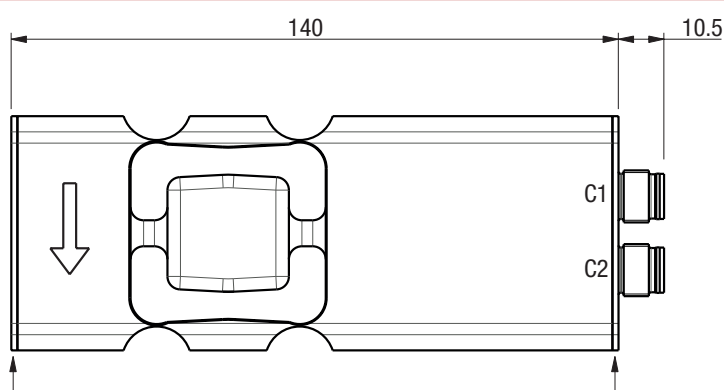
EtherNet/IP



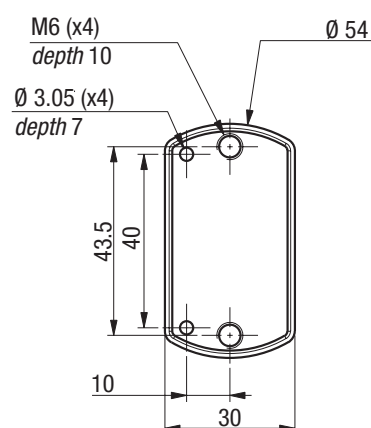
CANopen



- Hygienic digital single point load cell, certified EHEDG, type EL Class I AUX.
- Stainless steel construction, sealed IP68/IP69K
- Robust construction suitable for rotary fillers
- Function: dosing by filling and unloading
- 2 digital inputs and 4 outputs
- Serial version: port RS485 Modbus and port CANOpen
- Ethernet version: EtherNet/IP, Profinet, Web server
- Certification OIML R76, R61 (serial version 15kg...75kg)



2 FKM Viton® flat gaskets included



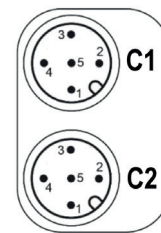
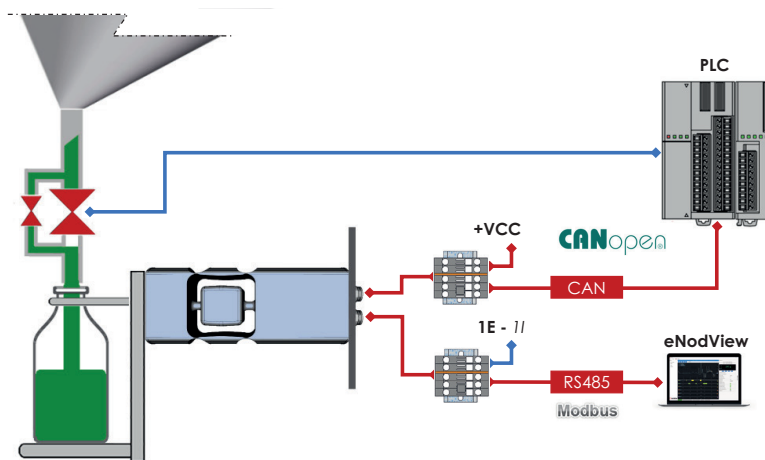
All dimensions in mm. Dimensions and specifications do not constitute any liability whatsoever. Technical drawings are available on request.

Presentation

- **Hygienic digital load cell**
 - Optimized design for use in high-speed rotary fillers.
 - Made in stainless steel with IP68/IP69K protection suitable for high pressure washing
 - Hygienic design EHEDG certified ensuring the effectiveness of the cleaning in place (CIP) process
 - 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
 - Application software for filling control 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

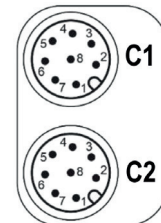
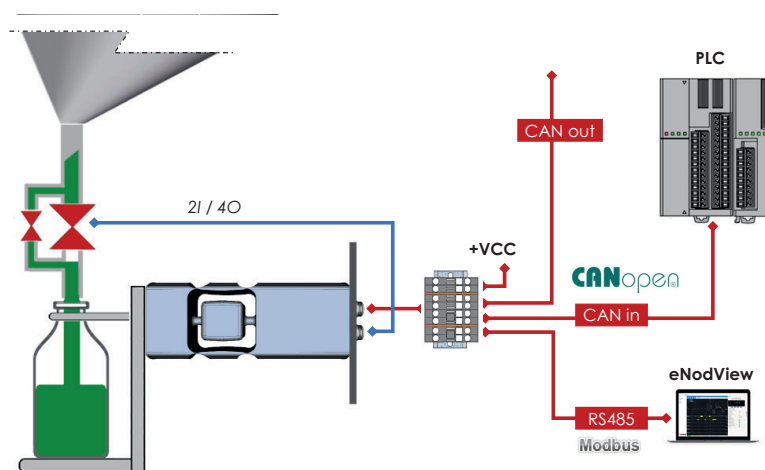
11A wiring: CAN, RS485, 1 digital Input



Pin	C1	C2
1	NC	E1 -
2	+ VCC	E1 +
3	GND	GND
4	CAN-H	TA / RA
5	CAN-L	TB / RB

▲ 2 connectors M12-5pts male

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

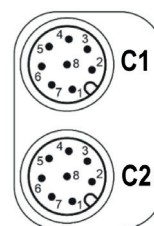
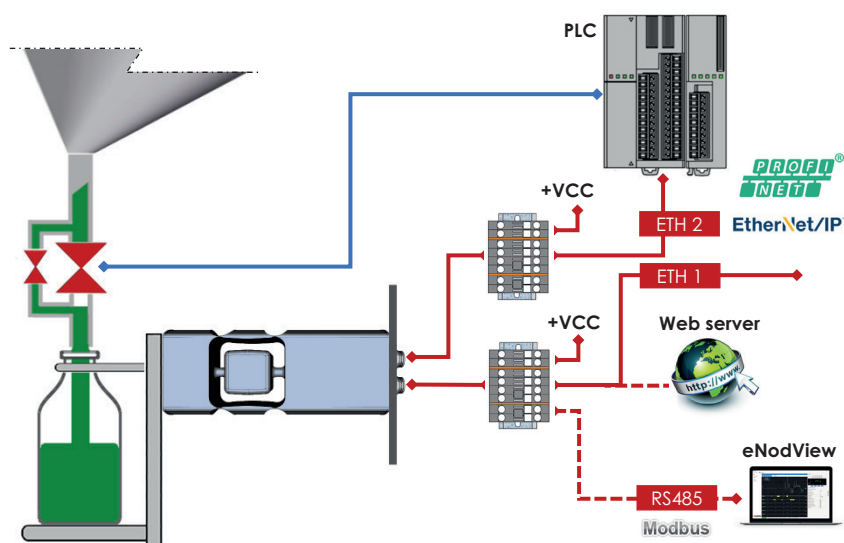


Pin	C1	C2
1	GND	E _{COM} -
2	+ VCC	E1 +
3	CAN-H in	E2 +
4	CAN-L in	S _{COM} +
5	CAN-H out	S1
6	CAN-L out	S2
7	TA / RA	S3
8	TB / RB	S4

▲ 2 connectors M12-8pts male

Interfaces diagram, Ethernet versions

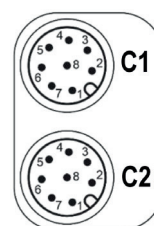
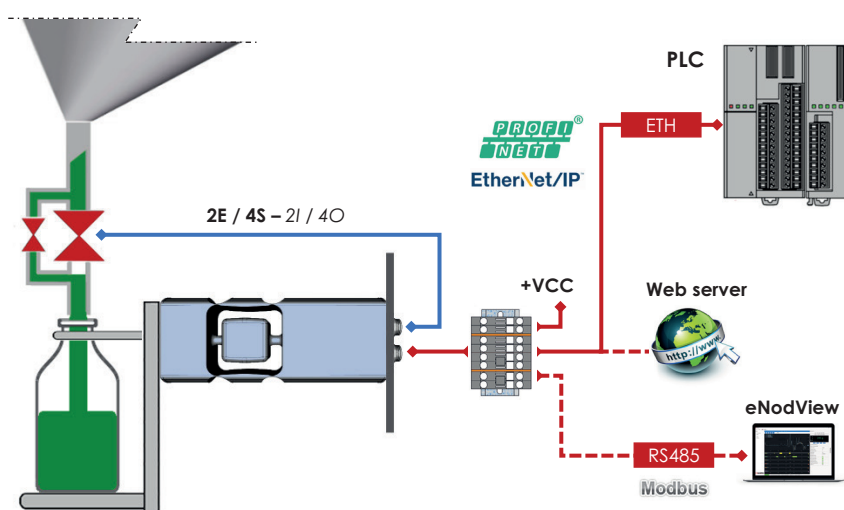
22B wiring: dual-Ethernet & switch, RS485



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

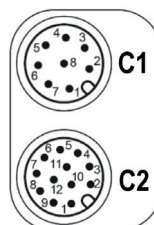
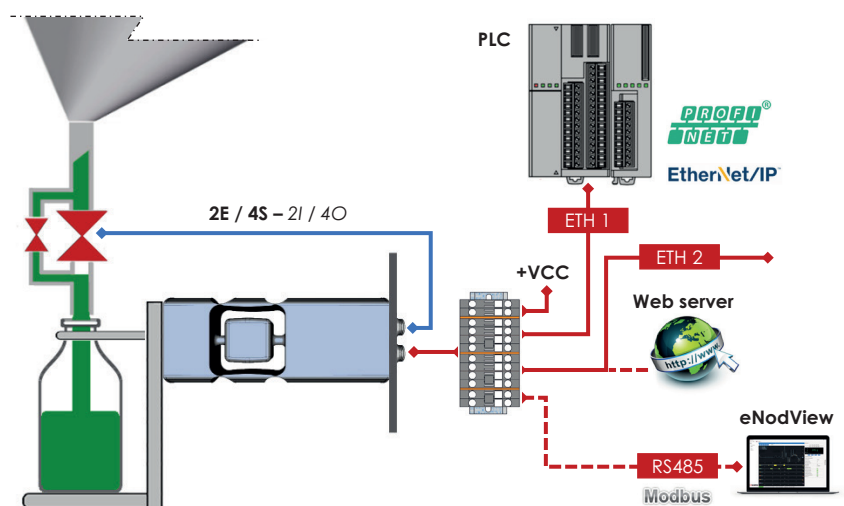
22C wiring: Single-Ethernet, RS485, 2I / 4O



Pin	C1	C2
1	E _{COM} -	GND
2	E1 +	+VCC
3	E2 +	TA / RA
4	S _{COM} +	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, 2I / 4O



Pin	C1	C2
1	E _{COM} -	GND
2	E1 +	+VCC
3	E2 +	TA / RA
4	S _{COM} +	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

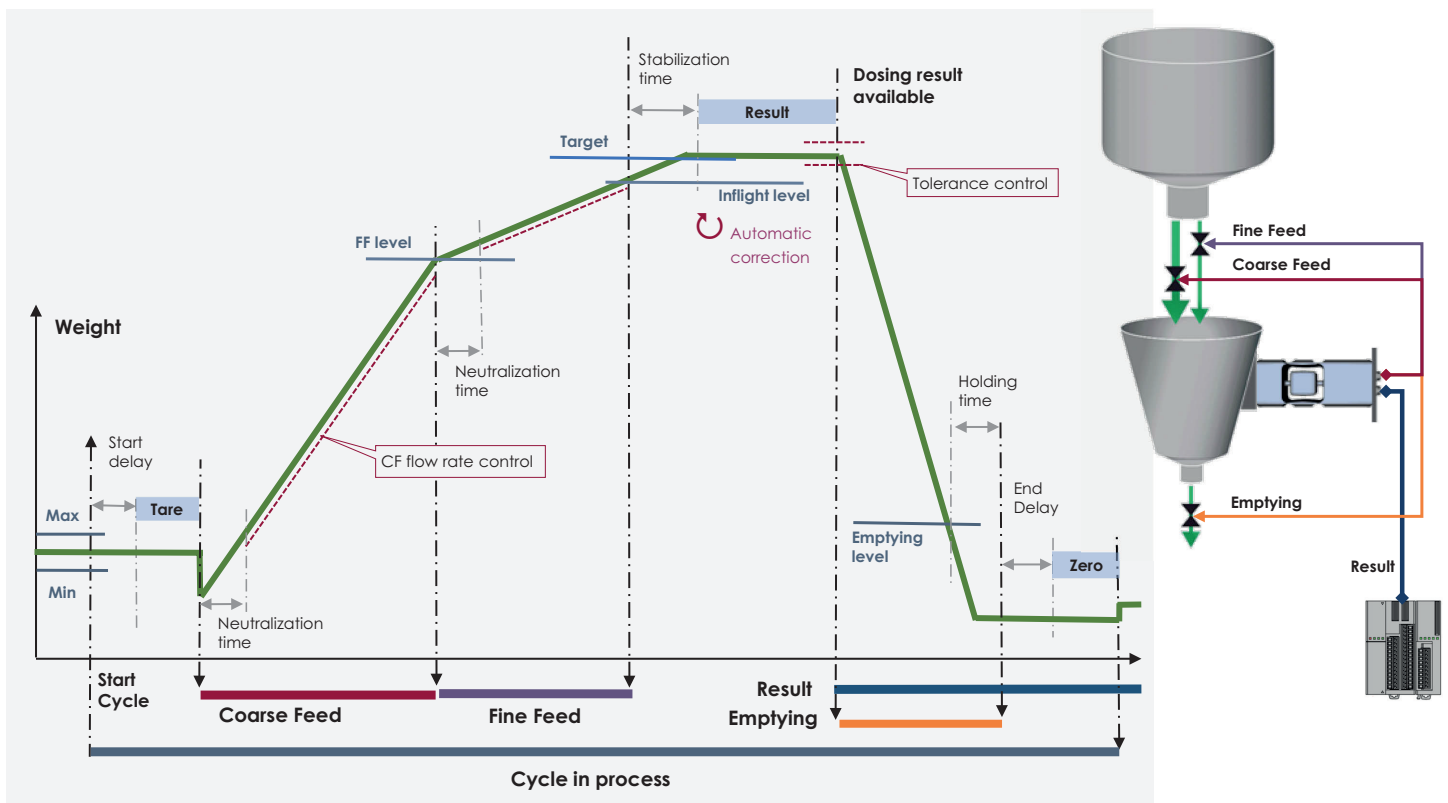
General functionalities

- **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 rate: 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

Dosing functionalities

- **Control of single-product dosing cycle:**
 - Filling or unloading, control of 1, 2 or 3 feeds
 - Configurable starting conditions
 - Tare at start and/or zero at end of cycle
 - Automatic correction of inflight level
 - Management of emptying/ejection (in filling) or loading (in unloading)
 - Control of dosing tolerances
- **Optimized functions for rotary fillers**
 - Dynamic calculation mode for result
 - Filtering mode with configurable cut-off frequencies according to the cycle steps.
 - Monitoring of filling flow rate

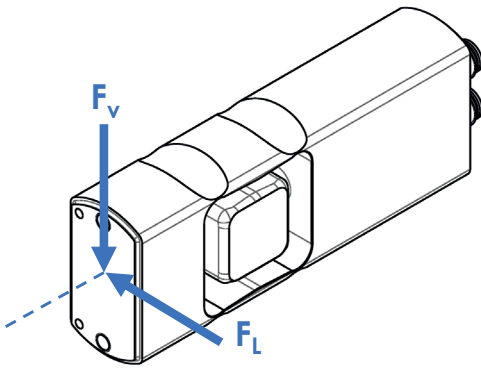
Example of filling cycle management



Environnemental protection

Withstand the toughest environments

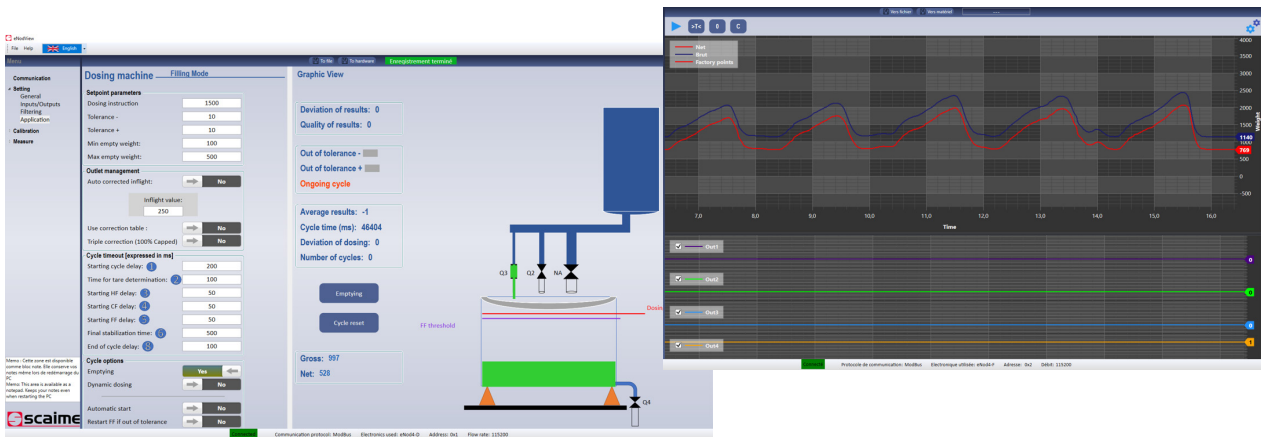
- Full hermetically sealed stainless-steel construction, IP68 / IP69K protection levels.
- Tested in moisture, temperature, shocks and vibrations by an independent laboratory.
- High resistance to accidental overloads and lateral or torsional forces.



Rated capacity C_n	15 kg	30 kg	75 kg
Max. vertical permissible load - F_v	400%	350%	300%
Max. lateral permissible load - F_L	1500%	1100%	1000%

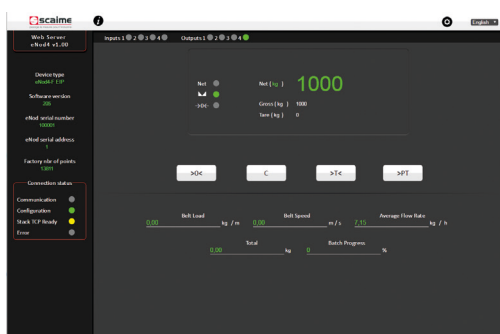
eNodView PC Freeware

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



DVS Ethernet Web server

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



Specifications

METROLOGICAL				
Rated capacity (Cn)	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)	3 000			d
Serial version - e (OIML R76)	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	400	350	300	%Cn
Deflexion at Cn	0.25	0.2	0.2	
Tightenning 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	0.95			kg
DIGITAL I/OS		NB		
Digital inputs	2	Class 3: 11 ... 30 VDC / 12.6 mA		
Digital outputs (static relays)	4	53 VDC / 37VAC max. / 400 mA max.		
COMMUNICATION				
1 RS485	Half Duplex, 9 600 ... 115 200			
- Protocols	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®	CAN 2.0A / 10 kbps ... 1 Mbps			
- Protocols	CANOpen, LSS v3.0			
ETHERNET VERSION				
Ethernet Dual or Single-Port	100 base-TX			
- Protocols	EtherNet/IP, PROFINET			
EtherNet/IP	CLASS 1 cyclic, CLASS 3 Acyclic, DLR			
PROFINET	PROFINET IO Slave, MRP			

Accessoires

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

Ordering references

Application software	
-C	Checkweigher
-D	Batch dosing, Filling
Rated capacity	
-015	15 kg
-030	30 kg
-075	75 kg
Legal for trade	
-000	No OIML approved ⁽¹⁾
-ML3	OIML approved 3 000d ⁽¹⁾
PLC connectivity	
-SC	CANOpen / RS485 Modbus-RTU
-EI	Ethernet, EtherNet/IP
-EP	Ethernet, Profinet
Wiring	
-11A	2xM12-5p, CAN wiring ⁽²⁾
-22A	2 xM12-8p, CAN wiring ⁽²⁾
-22B	2xM12-8p, ETH Dual wiring ⁽³⁾
-22C	2xM12-8p, ETH IO wiring ⁽³⁾
-32A	1xM12-12p, 1xM12-8p, ETH wiring ⁽³⁾

DVS							-000
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- (1) HML: Ethernet (EI, EP)
 (2) Only with SC connectivity
 (3) Only with EI, EP connectivity

Application cases

▼ Rotary filler



For a flawless operation into rotary filling machines, the DVS resists to high pressure washing and to the rough handling of the bottles. The EHEDG-certified hygienic design makes the DVS ideal for applications with stringent hygiene and sterility standards, such as food & beverage or pharmaceutical industries.

