

The figure consists of two parts: a pin connection diagram on the left and an internal block diagram on the right.

Pin Connection Diagram (Left):

- Pin 1:** A/ $\bar{A}$
- Pin 2:** B/ $\bar{B}$
- Pin 3:** C/ $\bar{C}$
- Pin 4:** V_e/V_0
- Pin 5:** 24V/0V
- Pin 6:** N1/N2
- Pin 7:** Latch/Gate
- Pin 8:** Ref/Screen (screen)
- Pin 9:** Shield/Screen (screen)

Internal Block Diagram (Right):

- Power Supply:** 24V and 0V inputs connected to a DC-DC converter block.
- Logic Inputs:** A, B, C and $\bar{A}$, $\bar{B}$, $\bar{C}$ inputs connected to a logic block.
- Control Inputs:** N1/N2, Latch, Gate/Ref, and Shield/Ref inputs connected to various logic blocks.
- Outputs:** V_e , V_0 , and a Log output.
- Internal Blocks:** The diagram includes a DC-DC converter, a logic block with inputs A, B, C, a comparator block with inputs N1/N2, a latch block, and a reference block with inputs Gate/Ref and Shield/Ref.

The shield (screen) is directly connected to the carrier rail.

Technical Data	
Sensor connection	A, $\bar{A}$, B, $\bar{B}$, C, $\bar{C}$
Current consumption (internal)	110 mA
Counter	32 bits binary
Max. operating frequency	250 kHz
Quadrature decoder	4-fold report
Zero impulse latch	32 bits
Commands	read, set, enable
Voltage supply	DC 24 V (-15 % ... +20 %)
Current consumption (typ.)	35 mA without load
Operating voltage of sensor	DC 5 V
Sensor max. output current	300 mA
Internal bit width	1 x 32 bits data
	1 x 8 bits control/status
Digital outputs (N1, N2)	
Output voltage	DC 24 V
Output current (max.)	0.5 A short-circuit protected
Digital inputs (Latch, Gate, Ref)	
Signal voltage (0)	DC -3 V ... +5 V
Signal voltage (1)	DC 15 V ... 30 V
Input current (typ.)	Latch 5 mA, Gate 7 mA, Ref. 7 mA
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Width	24 mm
Weight	100 g
EMC  Immunity to interference	acc. to EN 50082-2 (1996)
EMC  Emission of interference	acc. to EN 50081-1 (1993)