

Type 01-08

- Optical Shaft Encoder
- ATEX / IECEx / UKCA
- Resolution 10 to 250
- 1 to 3 output channels



The incremental shaft encoder 01-08 series has been designed for heavy-duty applications, especially for use in environments where potentially explosive atmospheres can be expected. This makes the 01-08 especially suitable for use in petrol, LPG and diesel dispensing systems.

The rugged and compact construction is also an advantage in other applications such as machine control and monitoring.

Electrical Specification (generic)

Type	Incremental
Resolution	10 to 250 pulses/rev.
Supply Voltage VCC	Fixed: 5/12/24V _{DC} Variable: min. 4.5V _{DC} to max. 25V _{DC}
Current consumption	1ch. typ. 15mA 2ch. typ. 25mA 3ch. typ. 35mA
Output Voltage V_o	Low: V _{OL} < 0.8V _{DC} High: V _{OH} > 0.9*VCC
Output current I_o	I _o max. 30mA load per channel
Output formats dc: duty cycle ps: phase shift	1ch. dc:50% 2ch. Quadrature dc:50% / ps:25% 2ch. 500µs oneshot ps:50% 3ch. dc:50 / ps:33%/66%
Duty-cycle accuracy	40% ≤ dc ≤ 60%
Phase Shift accuracy 2channels	ps : (90°) 20% ≤ dc ≤ 30%
Phase Shift accuracy 3channels	ps 1→2: (120°) 28% ≤ ps ≤ 38% ps 1→3: (240°) 61% ≤ ps ≤ 72%
Output types	NPN / PNP / TOT
Output options	Pullup resistor 1k / 3k3 / 4k7 Pulldown resistor 1k / 3k3 / 4k7 Serial resistor 274R
Electrical Protection	Reverse polarity protected
Noise Immunity	EN 61000-6-4:2007 / A1:2011 EN 61000-6-2:2005
Labels	Marking plate Wire connection label

Approvals and EX marking

Flameproof enclosure	ATEX / IECEx / UKCA II 2 G Ex db IIB T6 Gb
Intrinsic + Flameproof enclosure	ATEX / IECEx II 1 G Ex d+ib IIB T4 Ga
MID	Parts certificate: TC8655

Mechanical Specification

Material enclosure	Housing: Aluminium Cover: Aluminium
Material shaft coupling	Brass / Stainless steel / POM plastic
Bearing	Self-lubricating bronze
Weight	≈ 440g incl. 2m. cable
Shaft speed	Max. 600rpm for Ex Max. 1000rpm for non Ex
Sealing	1 screw in cover
Mounting	4 x M4 screws

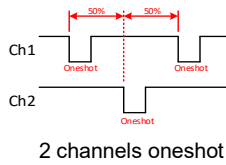
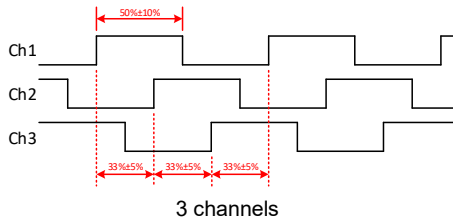
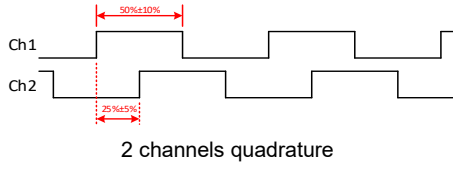
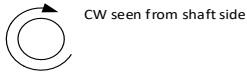
Environmental Specification

Operating Temp.	-30°C to +70°C fixed mounted cable -25°C to +60°C movable cable
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Connection options

Cable	4wires 0.25mm ² shielded 6wires 0.25mm ² shielded 4wires 0.25mm ² armoured and shielded
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Output waveform



Code Disc resolution

10	25	50	70	100
125	200	250		

Accessories

7 digit mechanical totalizer

Mounted onto the encoder or remote driven by a flex-cable.



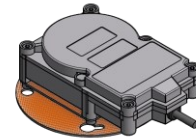
Kits for mechanical registers

With printer
Without printer

Cover aluminium



Mounting brackets



Mechanical dimensions

