

# Incremental encoders

Stainless steel housing, shaft with clamping flange

Resolution 5...6000 pulses

## GE355



GE355 with clamping flange

### Features

- Encoder with clamping flange
- Stainless steel design
- Optical sensing
- Resolution max. 6000 ppr
- Clamping flange with shaft  $\varnothing$ 10 mm

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm$ 10 % 4.75...30 VDC
Reverse polarity protection	Yes (4.75...30 VDC)
Consumption w/o load	$\leq$ 30 mA (24 VDC) $\leq$ 60 mA (5 VDC)
Resolution (steps/turn)	5...6000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq$ 150 kHz
Output signals	A 90° B, N + inverted
Output circuit	Linedriver RS422 Push-pull short-circuit proof
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	UL approval / E63076

### Technical data - mechanical design

Housing	$\varnothing$ 58 mm
Shaft	$\varnothing$ 10 mm (clamping flange)
Flange	Clamping flange
Protection DIN EN 60529	IP 67
Operating speed	$\leq$ 10000 rpm
Starting torque	$\leq$ 0.03 Nm IP 67
Rotor moment of inertia	14.5 gcm <sup>2</sup>
Admitted shaft load	$\leq$ 20 N axial $\leq$ 40 N radial
Materials	Housing: stainless steel 1.4305 Flange: stainless steel 1.4305
Operating temperature	-25...+85 °C
Relative humidity	95 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 16-2000 Hz DIN EN 60068-2-27 Shock 200 g, 6 ms
Weight approx.	500 g
Connection	Cable 1 m

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## Part number

GE355. **A**

See part number (pulses)

### Connection

31 Cable 1 m, axial

41 Cable 1 m, radial

### Voltage supply / signals

22 5 VDC / linedriver RS422

70 4.75...30 VDC / push-pull

72 4.75...30 VDC / linedriver  
RS422 (5 VDC)

### Flange / Shaft

A Clamping flange /  $\varnothing$ 10 mm IP 67

## Part number (pulses)

49 (5)	57 (128)	22 (1000)	30 (2500)
36 (10)	06 (200)	23 (1024)	31 (3600)
50 (25)	09 (250)	24 (1250)	34 (4096)
39 (50)	13 (360)	26 (1500)	35 (5000)
40 (60)	14 (400)	28 (2000)	48 (6000)
41 (100)	15 (500)	29 (2048)	

Other pulse numbers upon request.

Example: order key 23 = 1024 pulses

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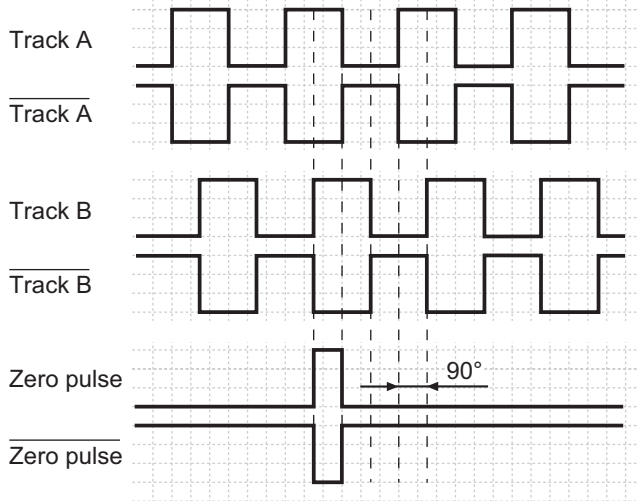
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### Output signals

Clockwise rotating direction when looking at flange.



### Terminal assignment

Core colour	Assignment
pink	Track B inv.
blue	UB-Sense
red	Track N (zero pulse)
black	Track N inv. (zero pulse inv.)
brown	Track A
green	Track A inv.
–	–
grey	Track B
–	–
white/green	GND
white	GND-Sense
brown/green	UB

UB-Sense and GND-Sense are directly connected to UB resp. GND.

Please use cores twisted in pairs (for example track A / track A inv.) for extension cables of more than 10 m length

### Trigger level

Outputs	Linedriver RS422
Output level High	>2.5 V (I = -20 mA)
Output level Low	<0.5 V (I = 20 mA)
Load High	<20 mA
Load Low	<20 mA

Outputs	Push-pull short-circuit proof
Output level High	>UB -3 V (I = -20 mA)
Output level Low	<0.5 V (I = 20 mA)
Load High	<20 mA
Load Low	<20 mA

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## Dimensions

