

Incremental encoders

Shaft with clamping or synchro flange

Resolution 5...6000 pulses

GI355, GI356



GI355 with clamping flange

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

Features

- Encoder with shaft \varnothing 10 mm or \varnothing 6 mm
- Resolution max. 6000 ppr
- Optical sensing
- Clamping flange or synchro flange
- Industrial standard
- High rotation speed max.10000 rpm
- Compact design

Optional

- Stainless steel design GE355
- ATEX-approved, see X 700

Technical data - mechanical design

Housing	\varnothing 58 mm
Protection DIN EN 60529	IP 54 without shaft seal IP 65 with shaft seal
Operating speed	\leq 10000 rpm
Starting torque	\leq 0.015 Nm IP 54 \leq 0.03 Nm IP 65
Rotor moment of inertia	14.5 gcm ²
Admitted shaft load	\leq 20 N axial \leq 40 N radial
Materials	Housing: aluminium Flange: aluminium
Operating temperature	-25...+100 °C (5 VDC) -25...+85 °C (24 VDC)
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.	250 g
E-connection	Connector or cable
GI355	
Shaft	\varnothing 10 mm
Flange	Clamping flange
GI356	
Shaft	\varnothing 6 mm
Flange	Synchro flange

Incremental encoders

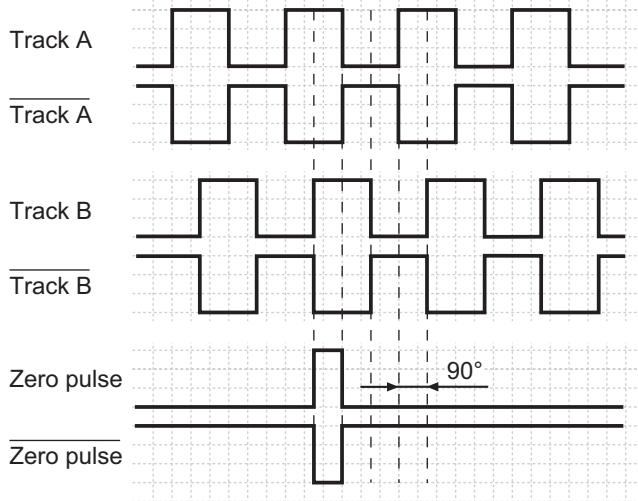
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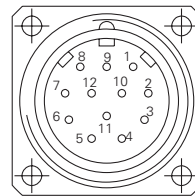
Output signals

Clockwise rotating direction when looking at flange.



Terminal assignment

Connector	Core colour	Assignment
Pin 1	pink	Track B inv.
Pin 2	blue	UB-Sense
Pin 3	red	Track N (zero pulse)
Pin 4	black	Track N inv. (zero pulse inv.)
Pin 5	brown	Track A
Pin 6	green	Track A inv.
Pin 7	–	–
Pin 8	grey	Track B
Pin 9	–	–
Pin 10	white/green	GND
Pin 11	white	GND-Sense
Pin 12	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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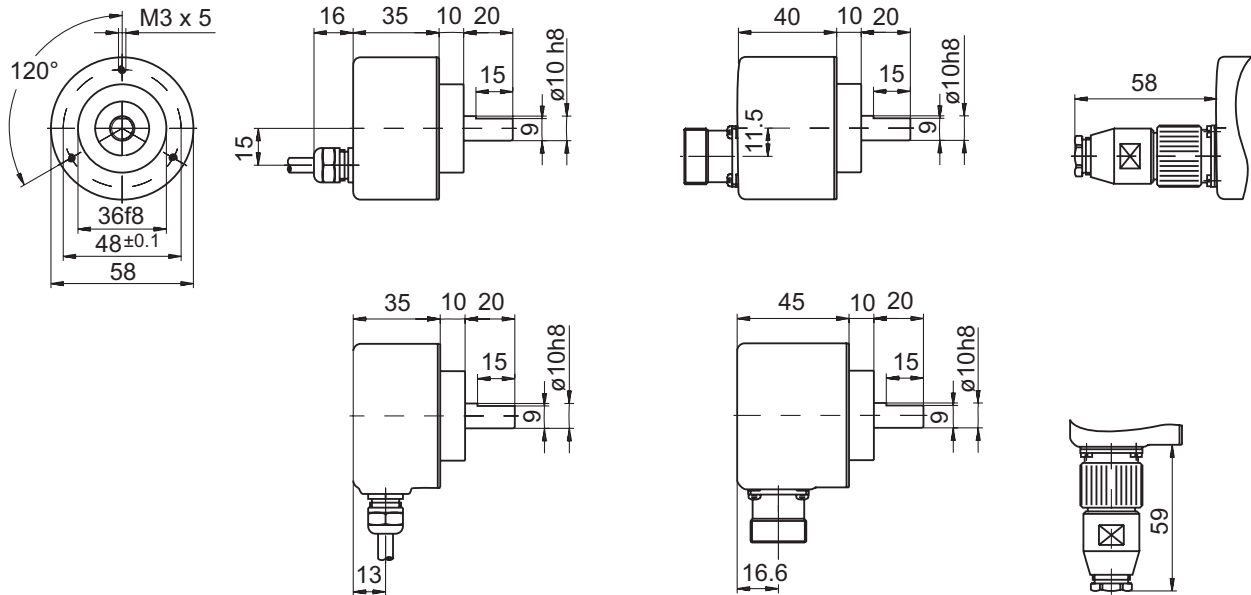
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Dimensions

GI355 clamping flange



GI356 synchro flange

