

# ROTAPULS

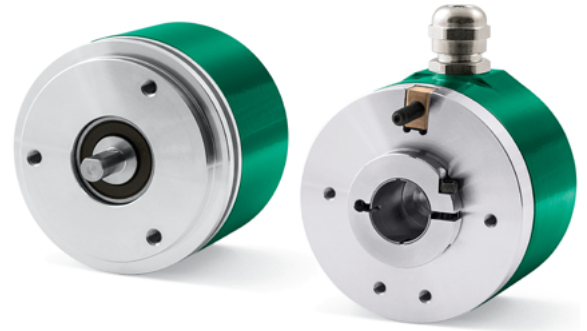
ATEX incremental encoders

Series

IX58 • IX58S • CX58 • CX59



- Solid and hollow shaft mounting
- Pulse rates up to 10000 PPR
- Universal output circuit
- ATEX cat. 3 certification for zones 2, 22



IX58 • CX58

## ENVIRONMENTAL SPECIFICATIONS

Certification:	Ex II 3GD, Ex nA IIB T5 Gc, Ex tc IIIC T100° Dc, IP65
Shock:	100 g, 6 ms
Vibrations:	10 g, 5-2000 Hz
Protection:	IP65
Operating temperature range:	-25°C +85°C (-13°F +185°F)
Storage temperature range:	-25°C +85°C (-13°F +185°F) (98% R.H. without condensation)

## MECHANICAL SPECIFICATIONS

Dimensions:	see drawing
Shaft diameter:	Ø 6, 8, 9.52, 10, 12 mm
Hollow shaft diameter:	Ø 14, 15
Reducing sleeves BR1-xx from Ø 15 mm to:	Ø 6, 8, 9.52, 10, 11, 12 mm
Shaft loading (axial, radial):	100 N max.
Shaft rotational speed:	typ. 6000 rpm / 12000 temporary
Starting torque at 20°C:	IX58: 0,15 Ncm / IX58S, CX58, CX59: 0,4 Ncm (typical)
Bearings life:	400 x 10 <sup>6</sup> rev. min. (10 <sup>9</sup> rev. min. with 20 N shaft loading max.)
Electrical connections:	cable output 1 m (3.3 ft)
Weight:	~ 200 g (7 oz)
Options:	• additional cable

## ELECTRICAL SPECIFICATIONS

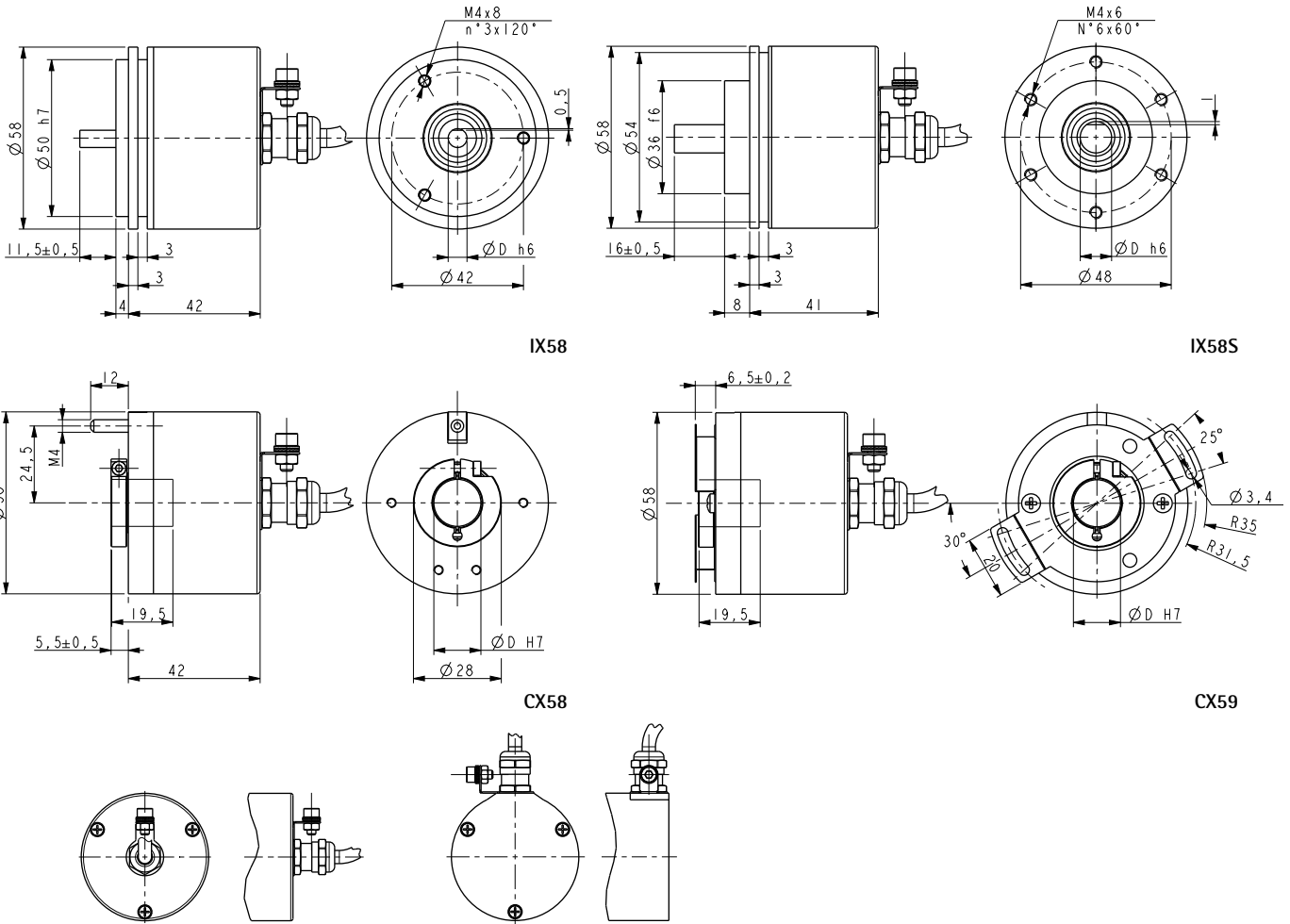
Resolution (PPR): (output circuit N, P, Y, L, H)	2-4-5-6-8-10-12-15-16-20-24-25-30-35-36-40-50-60-70-80 100-120-125-150-160-200-250-256-300-360-400-500-512 600-720-750-900-1000-1024-1200-1250-1440-1500-1800 2000-2048-2400-2500-3000-3600-4000-4096-5000-6000 8192-9000-10000
Resolution (PPR): (output circuit V)	500-512-1000-1024-1250-2000-2048-2500
Counting frequency:	100 kHz max.
Output circuits:	NPN, PNP, Push-Pull, Line Driver, Universal circuit, Sine/cosine
Power supply:	+5V±5%, +10V +30V, +5V +30V (sine/cosine only +5V±5%)
Consumption:	70 mA (typical)
Output current (each channel):	40 mA max.
Protection:	against inversion of polarity and short-circuit (except L and V circuit)
EMC:	electro-magnetic immunity, according to: EN 61000-4-2 EN 61000-4-4
Optoelectronic life:	100.000 hrs min.
Option:	• Line Driver 24/5V

## MATERIALS

Flange:	anticorrosive, UNI EN AW-6082
Housing:	anticorrosive, UNI EN AW-6082
Bearings:	ABEC 5
Shaft:	stainless steel, non-magnetic - UNI EN 4305
Light source:	GaAl diodes

## ACCESSORIES

BR1-xx:	reducing sleeves
PAN/PGF:	flexible couplings
LKM-386:	fixing clamps



Order code

IX58	-	X	-	XXXXX	XXX	X	XX	X	X	/Sxxx
IX58S		Ⓐ		Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ
CX58										
CX59										

<p>Ⓐ OUTPUT CIRCUITS</p> <p>N = NPN o.c.                  P = PNP o.c.                  Y = Push Pull                  L = Line Driver (RS422)                  H = PP/LD universal circuit                  V = 1 Vpp sine/cosine</p> <p>Ⓑ RESOLUTION (PPR)</p> <p>See electrical specifications</p>	<p>Ⓒ OUTPUT SIGNALS / CONNECTIONS</p> <p>ZNF = ABO, cable output (except V output)                  ZCU = ABO /ABO, cable output</p> <p>Ⓓ SUPPLY VOLTAGE</p> <p>1 = +5V±5% (L, V output circuit)                  2 = +10V÷ +30V (N, P, Y output circuit)                  4 = +5V÷ +30V (H output circuit)</p>	<p>Ⓔ SHAFT DIAMETER</p> <p>6 = 6 mm                  8 = 8 mm                  P9 = 9.52 mm - 3/8"                  10 = 10 mm                  12 = 12 mm                  14 = 14 mm (only CX58, CX59)                  15 = 15 mm (only CX58, CX59)</p>	<p>Ⓕ CONNECTION POSITION</p> <p>- = axial                  R = radial</p> <p>Ⓖ CABLE LENGTH</p> <p>- = cable output 1 m (standard)                  L2 = cable output 2 m                  Lx = cable output x m</p>
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Ⓗ CUSTOM VERSION