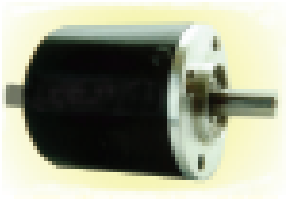
HIDA 28

PRECISION ROTARY ENCODER

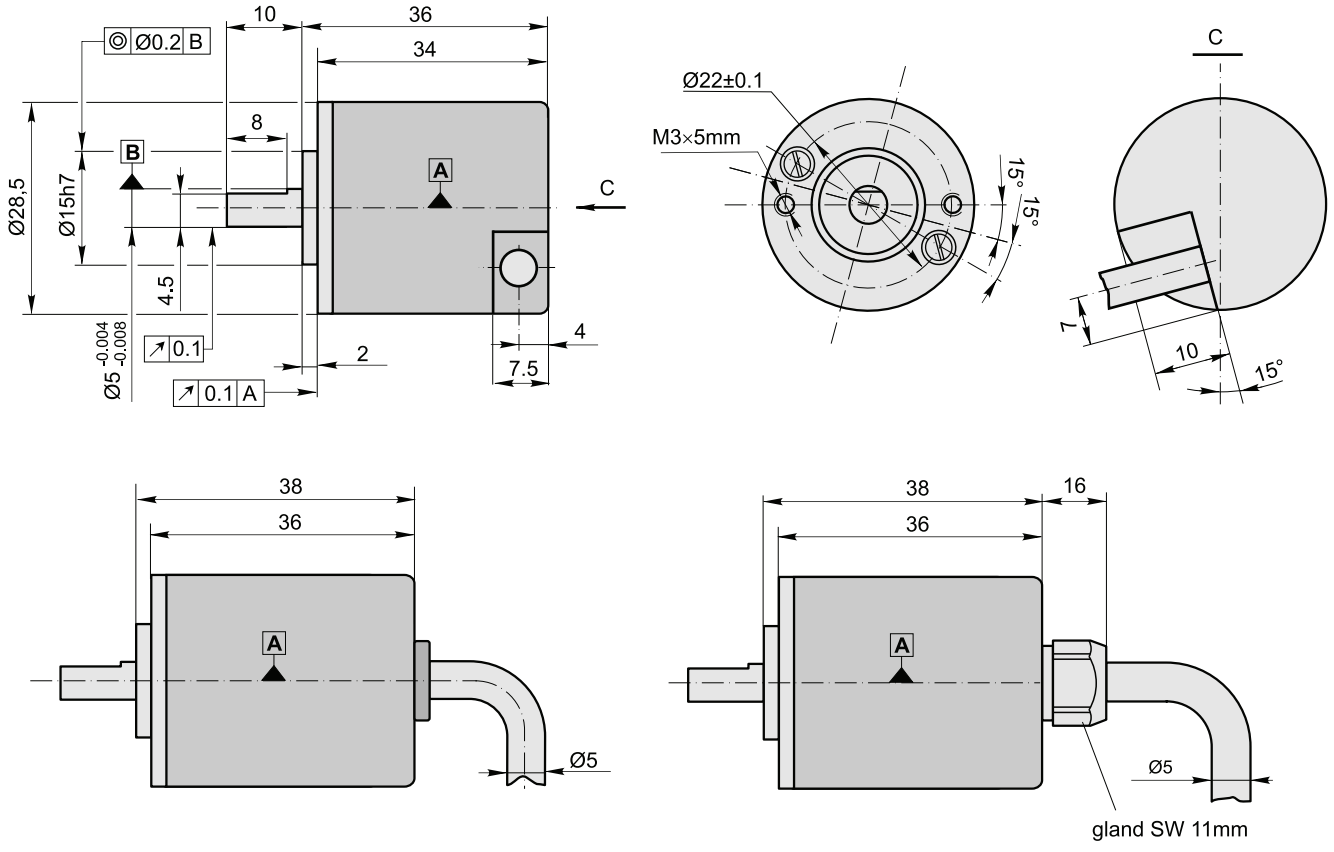


The precision rotary encoder **HIDA28** is used to establish an informational link between the key components of machines, industrial robots, comparators and DCC, NC or Digital Readout units. It gives information about the value and direction of the motion components. The encoder is used in automatic control, on-line gauging, in process monitoring systems, etc.

■ Mechanical Data

•Line number on disc (z)	60 100 200 250 360 500 1000 1024 1500 2000 2500
•Number of output pulses per revolution Square-wave version:	Z x k, where k=1,2,3,4,5,8,10
•Maximum shaft speed	6000 rpm
•Maximum shaft load:	
- axial	5 N
- radial (at shaft end)	10 N
•Accuracy (T_1-period of lines on disc)	$\pm 0.1 T_1$ arc. sec
•Starting torque at 20°C	≤ 0.1 Ncm
•Moment of inertia of rotor	< 2 gcm²

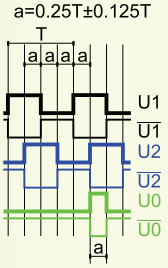
•Protection (IEC 529)	
- for axial outlet of cable	IP54
- for axial outlet of cable through gland and for radial outlet of cable	IP67
•Maximum weight without cable	0.045 kg
•Operating temperature	-10...+70 °C
•Storage temperature	-30...+80 °C
•Maximum humidity (without condensation of moisture)	98 %
•Permissible vibration (55 to 2000 Hz)	≤ 100 m/s²
•Permissible shock (11 ms)	≤ 300 m/s²



■ Electrical Data

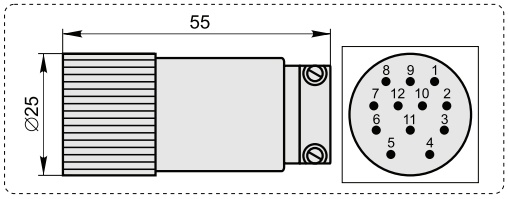
•Power supply	+5 V ±5%
•Maximum consumed current (without load)	120 mA
•Light source	LED
•Incremental signals	Square-wave U1, U2 and their inverted $\overline{U1}$, $\overline{U2}$ Signal levels at 20 mA load current: - low ("0" logic) ≤ 0.5 V - high ("1" logic) ≥ 2.4 V
•Reference signal	One square-wave U0 and its inverted $\overline{U0}$ per revolution. Signal levels at 20 mA load current : - low ("0" logic) ≤ 0.5 V - high ("1" logic) ≥ 2.4 V
•Maximum operating frequency	160 kHz
•Direction of signals	U2 lags U1 with clockwise rotation (viewed from shaft side)
•Maximum rising and falling time	< 0.5 µs
•Standard cable length	0.5 m; without connector
•Maximum cable length	25 m

Note: If cable extension is used the power supply conductor section should be not smaller than 0.5 mm^2.

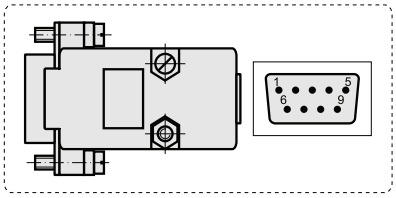


■ Accessories

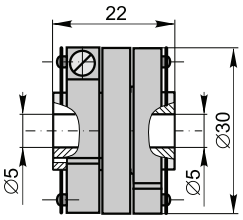
P12
12-pin round connector



D9
9-pin flat connector



HIDA28 - SC30
Coupling



■ Order form

HIDA 28 - □□□□ - □□ - □□□ / □

Line number:
100...

2500

Output:
05L - 5VDC Line driver TTL

Cable length and outlet:
500 - 0,5m (5-radial outlet)
501 - 1m
502 - 2m
400 - 0,5m (4-axial outlet)
401 - 1m
402 - 2m
4X00 - 0,5m (4X-axial outlet through gland)
4X01 -1m
.....15 -15m (max)

Type of connector:
N - without connector
D9 - flat, 9 pins
P12 - round, 12 pins

Coupling:
HIDA28-SC30