



## Euro Encoder ES 381

Optical incremental encoder, small and efficient, **case height only 30 mm**

### Resolution

#### Resolution (Pulses/Revolution):

20	30	32	40
50	60	100	125
200	256	300	360
400	500	512	600
800	900	1000	1024
1200	1500	1800	2000
2048	2500	3600	

### Type explanation

#### ES 381-6-3600-05-D-S

Encoder type	Incremental
Flange diameter	ø 38 mm
Case diameter	ø 38 mm
Number of channels	3 = A + B + M 6 = AA + BB + MM
Resolutions	xxxx = Impulse pro Umdrehung
Supply voltage	05 = 5 VDC ±5% 12 = 4,5 ... 13 VDC 24 = 10,8 ... 26 VDC
Output driver	D-RS422 C R P
Position of connection	S
Shaft diameter	ø 6 mm

## Technical data

### Mechanical data

Rotational speed	? 6000 min <sup>-1</sup>
Torque	? 0,1 Ncm
Moment of inertia	8 g cm <sup>2</sup>
shaft loading	? 30 N radial ? 20 N axial
Angular acceleration	? 10 <sup>5</sup> rad/sec <sup>2</sup>
Weight	? 0,15 kg

### Environmental conditions

Vibration	150 ms <sup>-2</sup> (50 Hz / 1h)
Shock	490 ms <sup>-2</sup> (11 ms)
Operating temperature	-10 ... +70°C
Storage temperature	-30 ... +80°C
Atmospheric humidity	? 85% r.h.
Protection class	IP 50 (DIN 40050/IEC 144)

### Electrical data

Scanning type	Optical, without contact
Transmitter, infrared	LED
Receiver	Photo-Transistor
Supply voltage	Vcc = 5 VDC ±5%, output D Vcc = 4,5 ... 13 VDC, output R, C Vcc = 10,8 ... 26 VDC, output C, P
Power consumption	? 80 mA, output C, R, P ? 150 mA, Output D
Output frequency	? 200 kHz
Signal level	High > Vcc -1 V Low < 0,5 V (20 mA)
Load capacity of the outputs	20 mA
Dielectric strength of outputs	+50 V

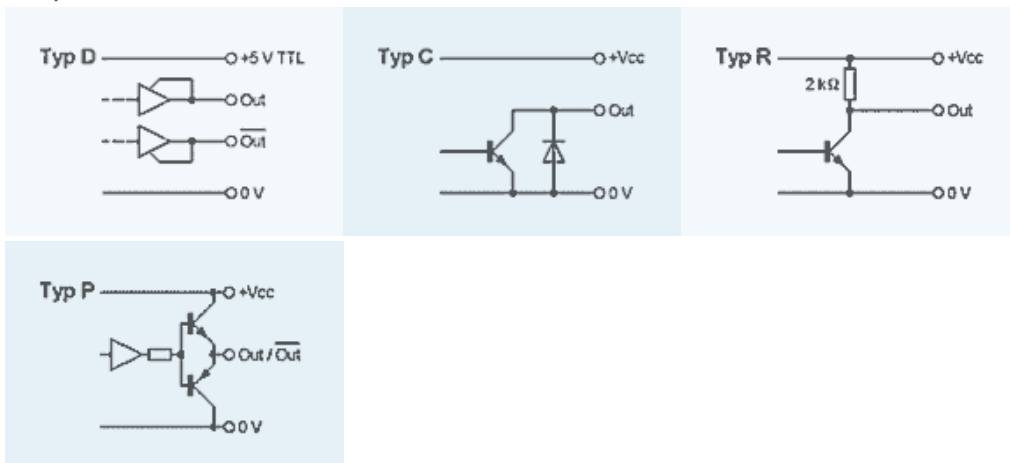
### Cable 3 channels

Wire colour	Signal
Brown	+Vcc
Grey	0 V GND
Green	Signal A
White	Signal B
Yellow	Signal M
Shield	N.C.

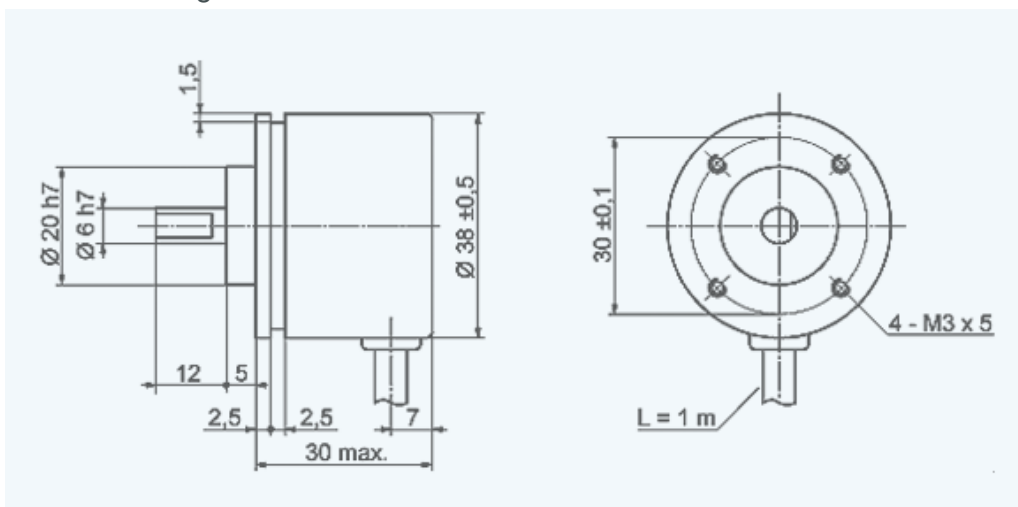
### Cable 6 channels

Wire colour	Signal
Brown	+Vcc
White	0 V GND
Green	Signal A+
Grey	Signal A-
Yellow	Signal B+
Pink	Signal B-
Blue	Signal M+
Red	Signal M-
Shield	N.C.

### Output driver



### Outline drawing



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