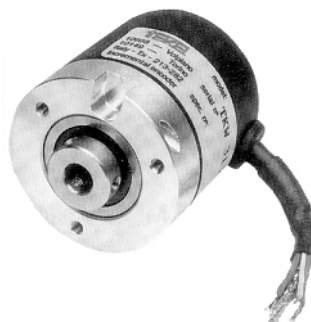


## TIEHT38 Series



### Main features



Extremely rugged mechanical parts despite miniature dimensions



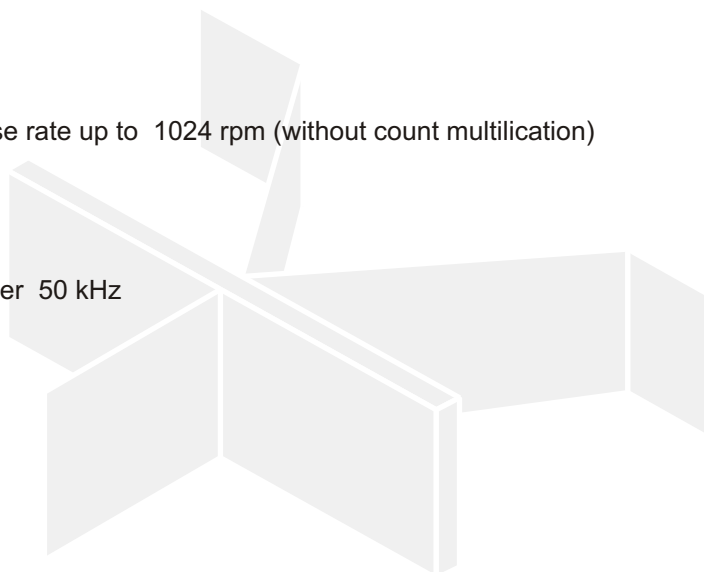
Housing sealed against oil, moisture and dust



Standard pulse rate up to 1024 rpm (without count multiplication)



Frequency over 50 kHz

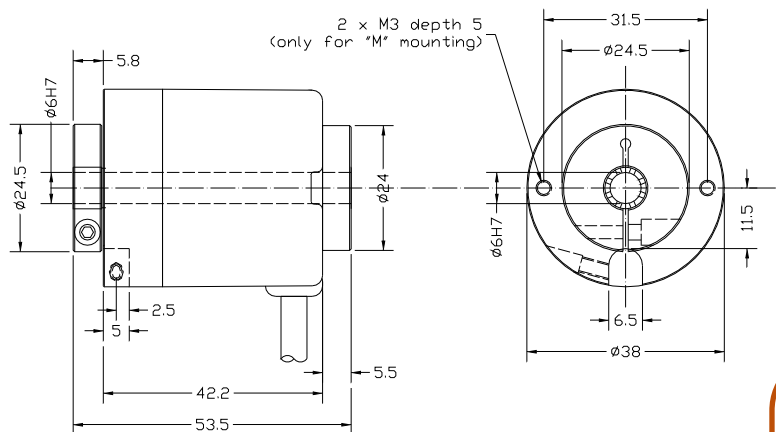


TEKEL Instruments S.r.l. - Via Torino 13/1 - 10060 Roletto (TO) Italia  
Tel +39 0121.343811 (10 linee r.a.) - Fax +39 0121.343888  
<http://www.tekel.it> - e-mail: [tekel@tekel.it](mailto:tekel@tekel.it)

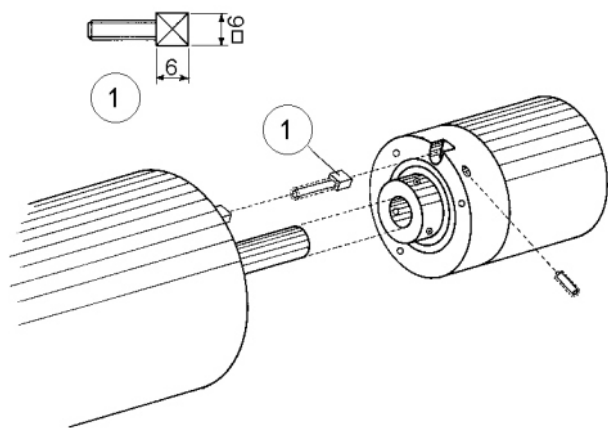




# TIEHT38 Series



**Standard Version**



Part "1" not available

**Mounting example**

## TECHNICAL CHARACTERISTICS

<b>Models</b>	TIEHT310 monodirectional TIEHT311 monodirectional + zero TIEHT320 bidirectional TIEHT321 bidirectional + zero
<b>Standard nr. of increments per revolution</b>	2 - 3 - 5 - 10 - 15 - 20 - 25 - 32 - 36 - 40 - 50 - 60 - 64 - 72 - 78 - 100 - 125 - 128 - 150 - 180 - 200 - 250 - 254 - 256 - 300 - 314 - 360 - 400 - 500 - 512 - 600 - 625 - 720 - 800 - 900 - 1000 - 1024

## MECHANICAL CHARACTERISTICS

<b>Mounting</b>	See drawing
<b>Dimensions</b>	See drawing
<b>Mass</b>	0,1 kg
<b>Max cont. and reversible number of turns</b>	10.000 giri/min for short periods ; 6.000 giri/min continuous
<b>Shaft diameter</b>	
<b>Hollow shaft</b>	Diameter 6 mm; through
<b>Shaft seal</b>	Not available
<b>Starting torque at 25 °C</b>	0,005 Nm without shaft seal; 0,006 Nm with shaft seal
<b>Starting inertia</b>	6 g cm <sup>2</sup>
<b>Acceleration</b>	150.000 rad/s <sup>2</sup> (glas disk); 200.000 rad/s <sup>2</sup> (flexible disk- "DP")
<b>Bearing life</b>	10 <sup>9</sup> revolutions (min.)
<b>Low torque</b>	Not available
<b>Shaft loading</b>	axial 10 N; radial 20 N

## MATERIALS

<b>Main frame</b>	"Al" anticorodal thermally stabilised
<b>Housing</b>	Polyamide with fibre glas reinforcement
<b>Shaft</b>	Stainless steel
<b>Light source</b>	GaAsAl Diod - MTBF 10 <sup>5</sup> h min
<b>Receivers</b>	Differential reading system

## ENVIRONMENTAL CHARACTERISTICS

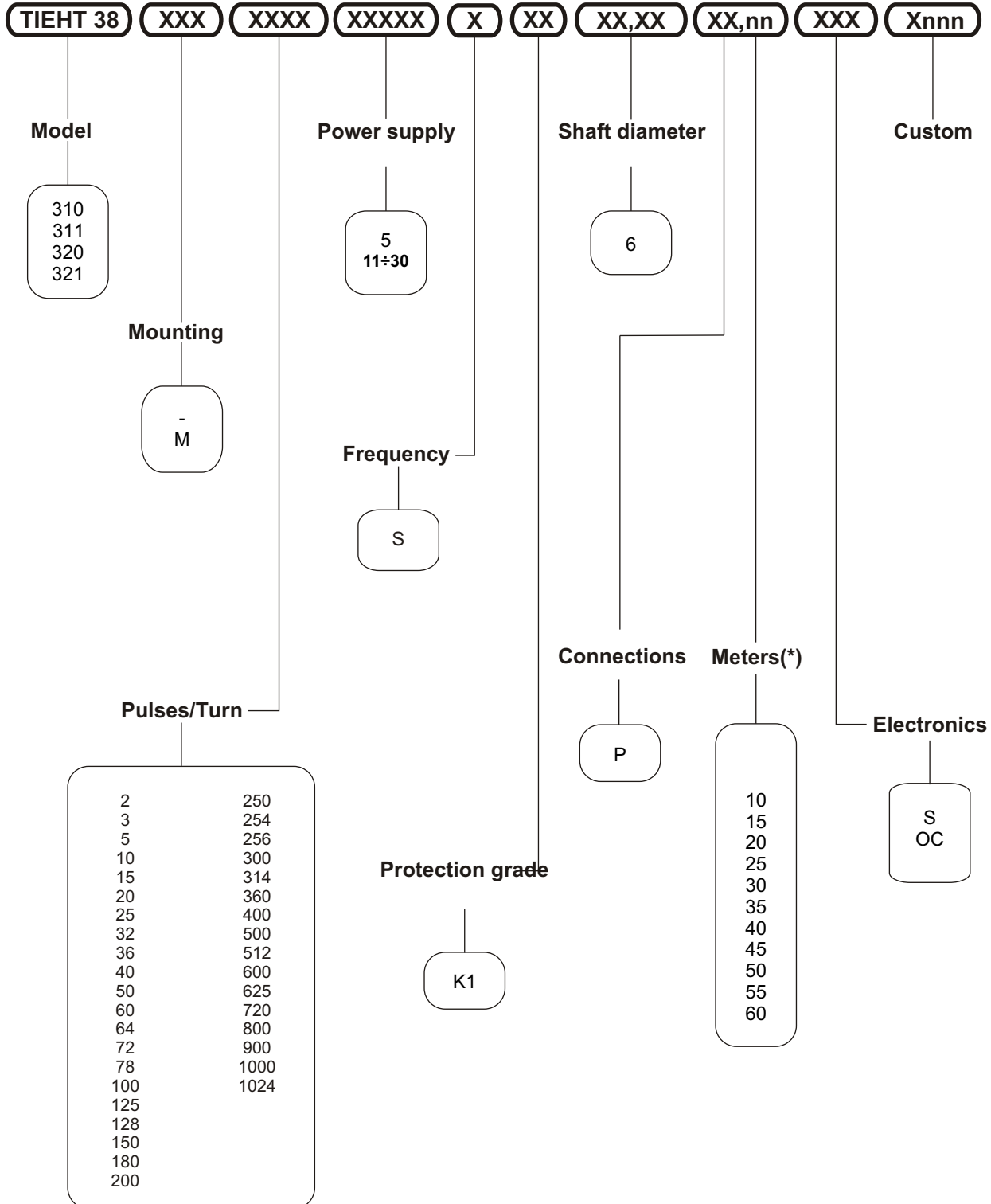
<b>Operating conditions</b>	-10 ÷ +70 °C
<b>Storing temperature</b>	-30 ÷ +80 °C
<b>Umidity</b>	98 % RH without condensation
<b>Protection</b>	K1 IP 55 per DIN 40050
<b>Vibration</b>	10 g (from 10 to 2000 Hz)
<b>Shock</b>	20 g for 11 ms

## ELECTRICAL CHARACTERISTICS

<b>Zero Synchronisation</b>	Zero gated on channel A (standard)
<b>Power supply (c.c.)</b>	5 V ±5 % 11÷ 30 V
<b>Power consumption</b>	30 mA max
<b>Protections</b>	Against polarity reverse (excluded 5 Vcc)
<b>Frequency (T = -10 °C ÷ +70 °C)</b>	From 0 to 50 kHz (standard)
<b>Outputs</b>	<b>S</b> NPN standard (Pull up resistance included) <b>OC</b> NPN open collector

## ELECTRIC CONNECTIONS

<b>NPN output</b>	P only radial cable 1 m length
-------------------	--------------------------------



(\*) 10 = 1,0 m ... 60 = 6,0 m