

**Series MM**

**Absolute mechanic multiturn shaft encoder  
24bit (ø65-ø90mm)**

**Series TM**

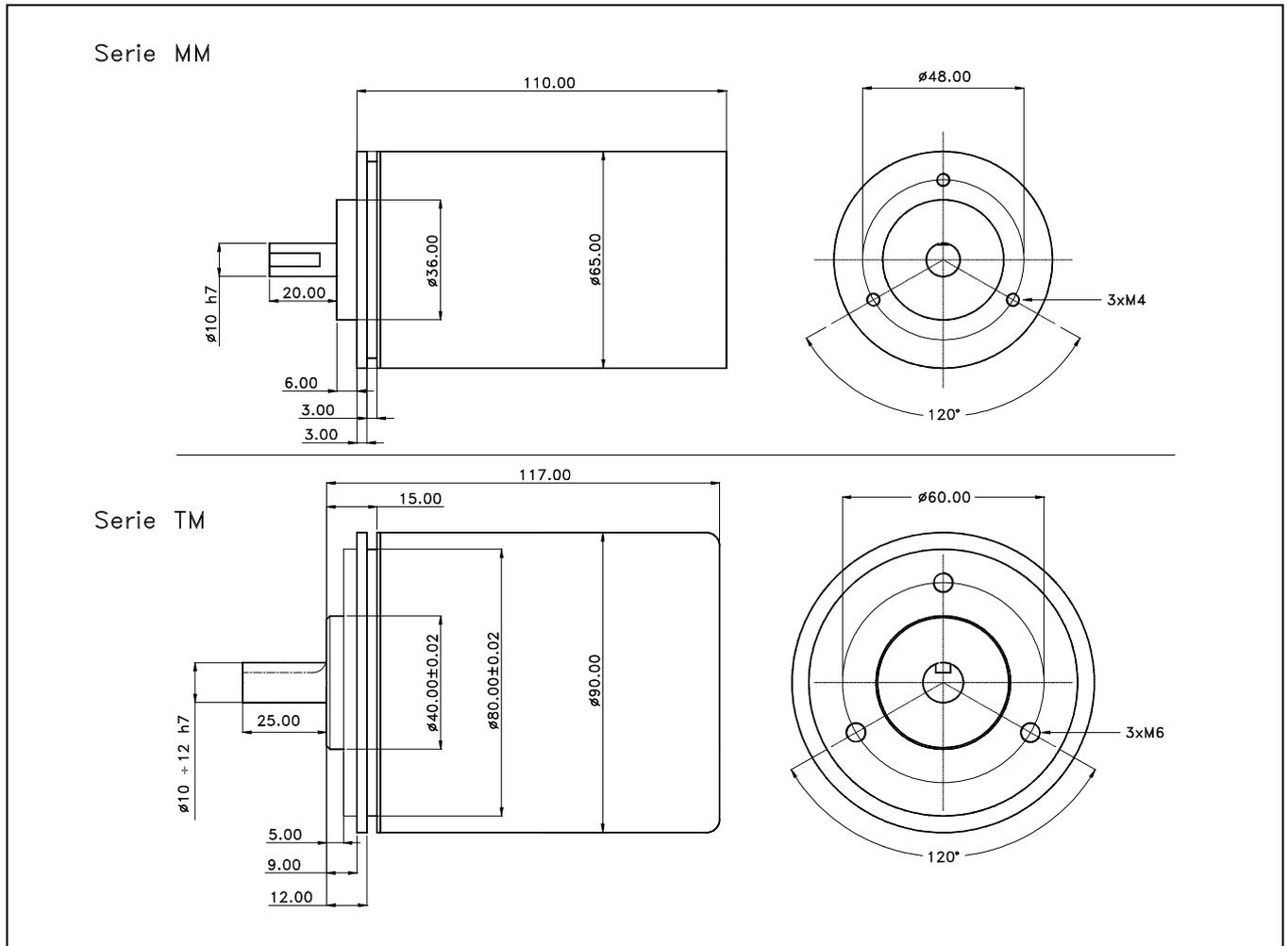
Utilise a very modern technology; a particular code-reading method allows to eliminate every mechanic action of gears to assure a real absolute value of the recording. Furthermore it permits to choose the code and the increment direction having in basic configuration as gray code as binary code as up/down discriminate.

**Mechanics Data**

|                |  |
|----------------|--|
| Cover:         | Aluminium                                    |
| Body:          | Aluminium                                    |
| Solid shaft:   | Stainless steel                              |
| Bearings:      | 2, ballraces                                 |
| Weight:        | Approx.500gr. (TM 800gr)                     |
| Protection:    | IP65   |
| Rpm:           | 3000 Max                                     |
| Torque:        | 5Ncm   |
| Inertia:       | 100gcm <sup>2</sup> (270gcm <sup>2</sup> TM) |
| Shaft loading: | Axial 50N - Radial 50N                       |



Dimensions in mm.

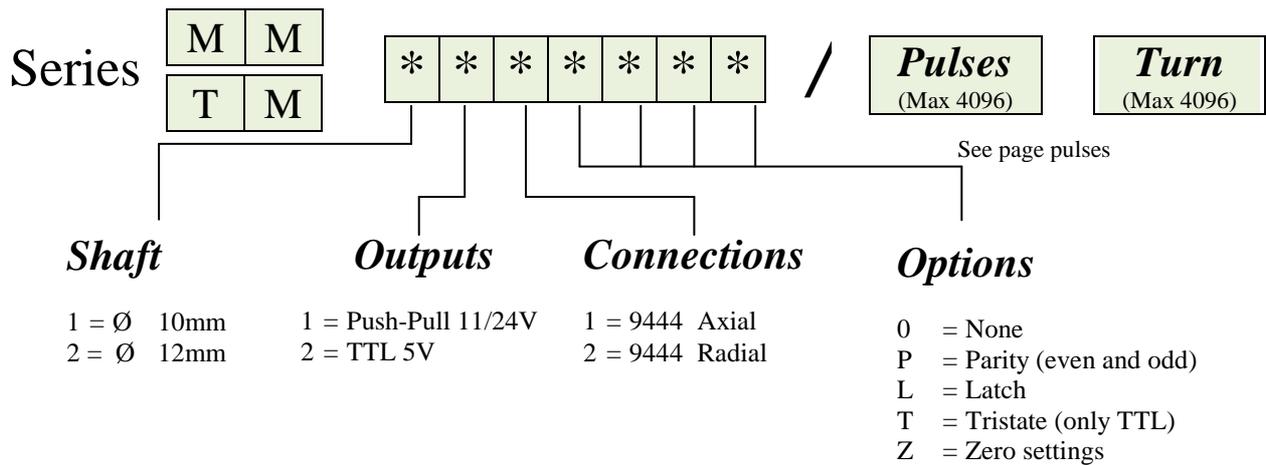


Series MM  
Series TM

*Electronics Data*

Power supply: from 5 to 24V depends on the electronics circuit  
 Current consumption: 150/300mA depends on the electronics circuit  
 Permissible load: 20mA  
 Frequency: 10KHz (standard in LSB)  
 Protections: Against short circuit, reversal polarity  
 Operating Temp.: 0/+60°C

*Ordering code*



| Connector 9444 | 0<br>Volt      | +<br>Volt | 0<br>2     | 1<br>2  | 2<br>2         | 3<br>2  | 4<br>2        | 5<br>2  | 6<br>2  | 7<br>2  | 8<br>2    | 9<br>2  | 10<br>2 |
|----------------|----------------|-----------|------------|---------|----------------|---------|---------------|---------|---------|---------|-----------|---------|---------|
|                | P1             | P2        | P3         | P4      | P5             | P6      | P7            | P8      | P9      | P10     | P11       | P12     | P13     |
|                | 11<br>2        | 12<br>2   | 13<br>2    | 14<br>2 | 15<br>2        | 16<br>2 | 17<br>2       | 18<br>2 | 19<br>2 | 20<br>2 | 21<br>2   | 22<br>2 | 23<br>2 |
|                | P14            | P15       | P16        | P17     | P18            | P19     | P20           | P21     | P22     | P23     | P24       | P25     | P26     |
|                | GRAY<br>BINARY |           | UP<br>DOWN |         | PARITY<br>EVEN |         | PARITY<br>ODD |         | LATCH   |         | TRI-STATE |         | STROBE  |
|                | P38            |           | P39        |         | P40            |         | P41           |         | P42     |         | P43       |         | P44     |

Encoder inputs are internally connected to logical "ONE".

Standard configuration:

- Output code GRAY
- increase (UP) clockwise
- High impedance output (TRI-STATE active)
- LATCH deactivate

Connecting input to logical "ZERO" the configuration change:

- Output code binary ;
- Decrease (UP) anticlockwise;
- True output (TRI-STATE) deactivate;
- LATCH active