

# Series

SS-SM (ø58mm)  
SMS-SMM (65mm)  
STS-STM (90mm)

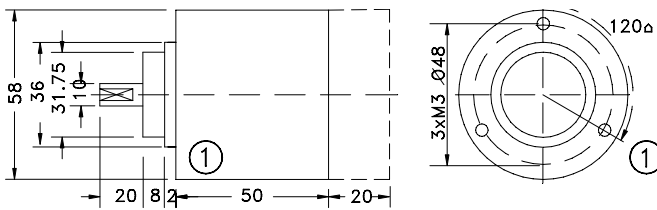
# Serial Encoder Synchronous SSI



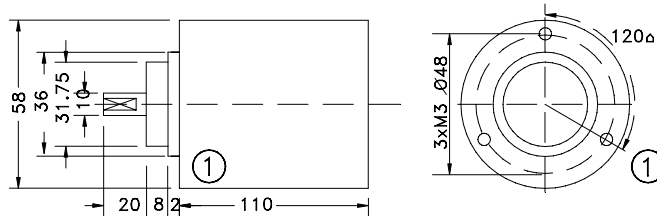
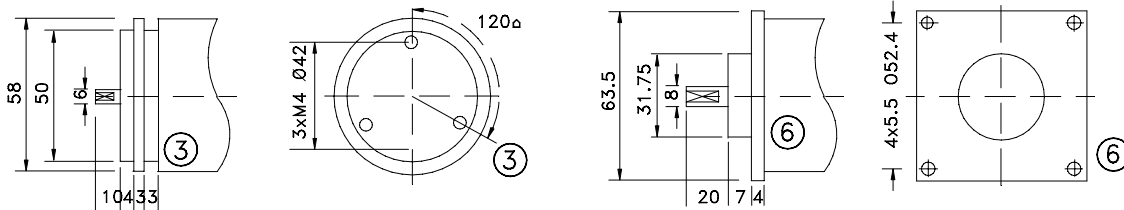
## Mechanics Data

|                |  |
|----------------|--|
| Cover:         | Aluminium                              |
| Body:          | Aluminium                              |
| Solid shaft:   | Stainless steel                        |
| Bearings:      | 2, ballraces                           |
| Weight:        | 350gr. (single turn) 500gr (multiturn) |
| Protection:    | IP65                                   |
| Rpm:           | 3000 Max                               |
| Torque:        | 5Ncm                                   |
| Inertia:       | 100gcm <sup>2</sup>                    |
| Shaft loading: | Axial 50N - Radial 50N (max value)     |

Dimensioni in millimetri

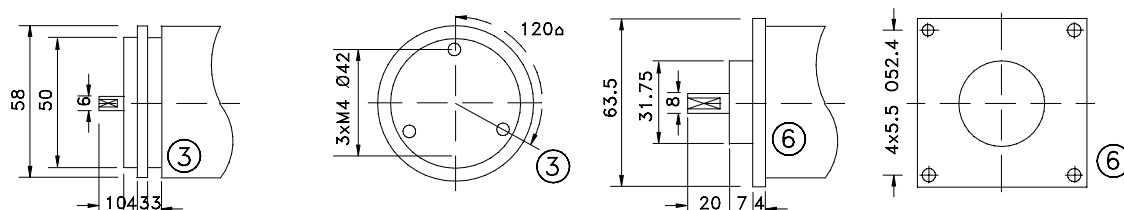


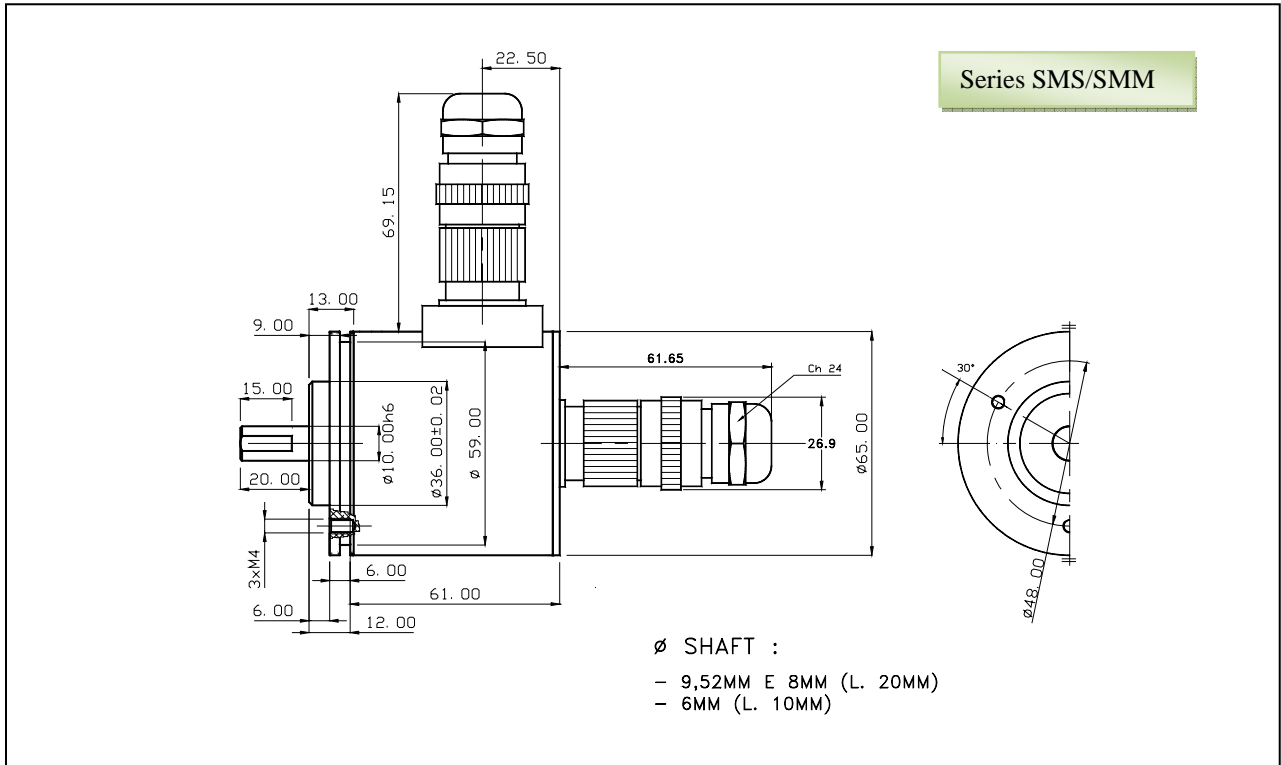
Series SS



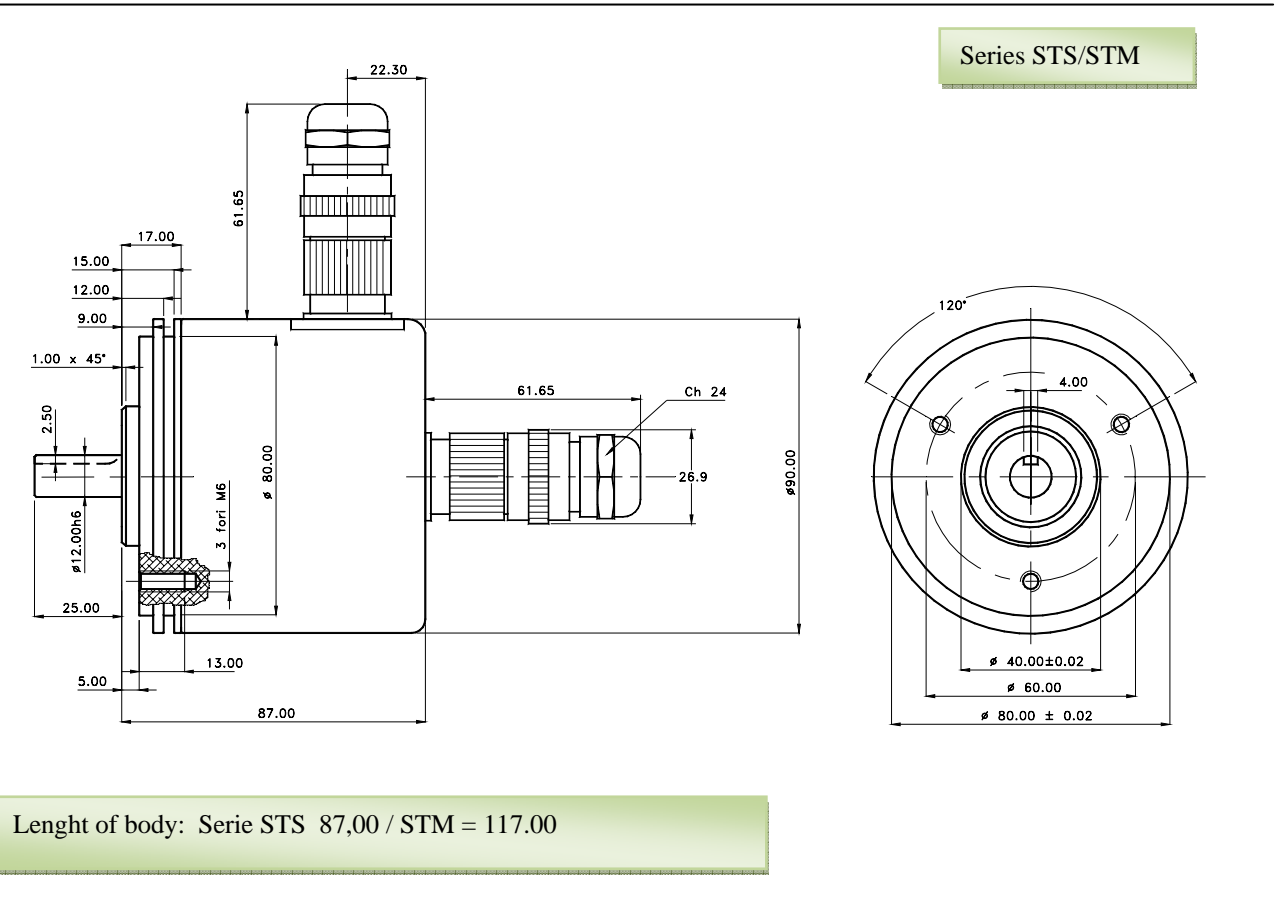
Series SSM

NB: ENCODER LENGTH CHANGE SECOND ELECTRONICS AND CONNECTION REQUEST





Length of body: Series SMS = 61.00 / SMM = 103.00



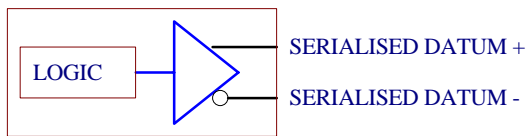
**Series**  
**SS-SM**  
( $\varnothing$ 58mm)  
**SMS-SMM**  
( $\varnothing$ 65mm)  
**STS-STM**  
( $\varnothing$ 90mm)

**Electronics Data**

Resolution: Single turn 13 Bit  
Multiturn 24 bit (12 Bit single turn - 12 bit multiturn)  
Power supply: 11-24V +/- 5%  
Current consumption: Single turn 3Watt max.  
Multiturn 6 Watt max.  
Input : Opto-coupler balanced in RS422 (Clock)  
Synchronism frequency: 80KHz-1MHz  
Outputs: Differential in RS422  
Programmable Code: Gray/Binary  
Programming: Line in RS232  
Operating Temp.: 0/60°C

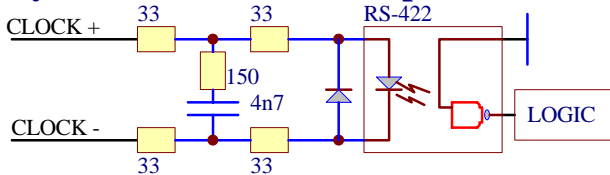
**Output circuits**

**Output Driver RS-422**

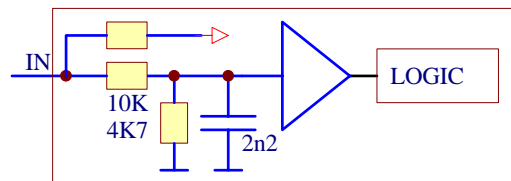


**Input circuits**

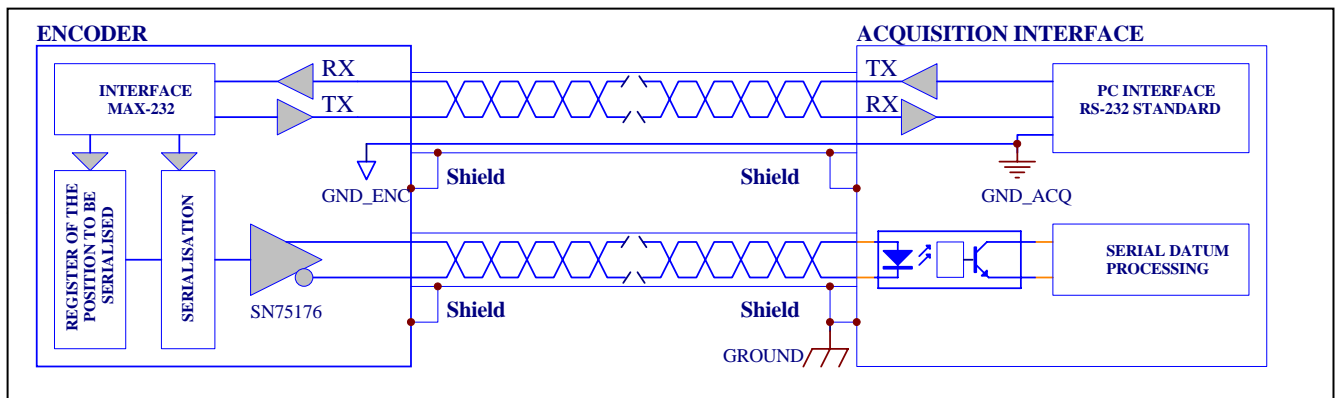
**Synchronisation Clock Input**



**Programming Bit Input**



**Data transmission**



## Ordering code

| *  | * | * | -  | * | *                                    | *                | *  | *       | /           | * | / | * |
|--|---|---|--|---|--------------------------------------|------------------|--|---------|-------------|---|---|---|
| Series                                       |   |   | Shaft  |   | Flanges                              | Outputs          | Connections  | Options | Pulses/Turn |   |   |   |
| Ø58mm<br>SS = Singleturn<br>SSM = Multiturn  |   |   | Ø58mm<br>3=Ø 6mm L10mm<br>6=Ø 8mm L20mm<br>1=Ø10mm L20mm           |   | Ø58mm<br>1=See<br>3= page<br>6= draw | 1=RS422<br>RS485 | 1=9416 Axial<br>2=9416 Rad.<br>9= Axial cable<br>3= Radial cable | 0=None  |             |   |   |   |
| Ø65mm<br>SMS = Singleturn<br>SMM = Multiturn |   |   | Ø65mm<br>3=Ø 6mm 10mm(SMS)<br>6=Ø 8mm L20mm (SMS)<br>1=Ø10mm L20mm |   | Ø65mm<br>3=Ø 65mm                    |                  |  |         |             |   |   |   |
| Ø90mm<br>STS = Singleturn<br>STM = Multiturn |   |   | Ø90mm<br>1=Ø 10mm L25mm<br>2=Ø 12mm L25mm                          |   | Ø90mm<br>3=Ø 90mm                    |                  |  |         |             |   |   |   |

| CABLE        |    | Contact 12P<br>IP65 | <i>Connections</i>           |                       |
|--------------|----|---------------------|------------------------------|-----------------------|
| Pink         | 1  | CLOCK +             | Clock +                      |                       |
| Pink/Gray    | 2  | CLOCK -             | Complementary clock +        |                       |
| Brown        | 3  | DATA S. +           | Data +                       |                       |
| Brown/Gray   | 4  | DATA S. -           | Complementary Data +         |                       |
| Blue         | 5  | PROG_TX             | Programming Input            |                       |
| Blue/red     | 6  | PROG_RX             | Programming Input            |                       |
| Beige        | 7  | BIN/GRAY            | Binary and Gray (active low) |                       |
| Violet       | 8  | UP/DOWN             | Up/Down (active low)         |                       |
| Yellow/White | 9  | PSET 1              | RESET                        | 1 Preset (active low) |
| Yellow/Brown | 10 | PSET 2              |                              | 2 Preset (active low) |
| Red          | 11 | POWER +             | Power + (11-24V)             |                       |
| Black        | 12 | POWER. -            | Power - (0V)                 |                       |

In configuration standard, the encoder is: 12 Bit (singleturn) or 24 Bit (multiturn) of resolution, Parity inactive, increase clockwise and Binary code.  
The programming encoder parameter, effect in RS232 with a module for PC supply in equipment.