

**CARATTERISTICHE MECCANICHE - MECHANICAL SPECIFICATIONS**

Dimensioni - Dimensions: vedi disegni - see drawings

Albero - Shaft: acciaio inox - stainless steel

Carico sull'albero - Shaft loading: assiale - axial: 200 N; radiale - radial 200 N

Numero giri - Shaft rotational speed: 10.000 RPM per brevi periodi - to short cycle time; 6.000 RPM continui - continuous; 2.000 RPM con asse stagno - with proof shaft

Vita dei cuscinetti - Bearings life: 5 x 10<sup>8</sup> giri (minimo) - rev. min.

Peso - Weight: ~ 0,55 kg

**CARATTERISTICHE ELETTRICHE - ELECTRICAL SPECIFICATIONS**

Codici STD - STD codes: GRAY - BINARIO - BCD - ANALOGICO; GRAY - BINARY - BCD - ANALOG

Frequenza in uscita - output frequency: da 0 a 20 KHz (L.S.B. senza errore); from 0 to up 20 KHz (L.S.B. without error)

Protezione - Protection: contro inversione di polarità (escluso 5Vcc); against inversion of polarity (except 5Vcc)

**MATERIALI UTILIZZATI - MATERIALS**

Corpo - Flange: in alluminio anticorrosivo - aluminium non corroding

Custodia - Housing: Alluminio verniciato con trattamento termico a 180° C; Aluminium painted with inhibiting treatment 180° C

**CARATTERISTICHE AMBIENTALI - ENVIRONMENTAL SPECIFICATIONS**

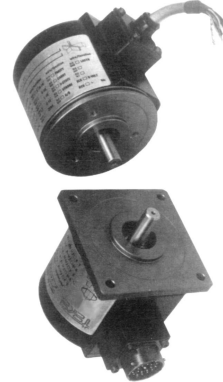
Temperatura di lavoro - Operating temperature range: -10°C + +70°C

Temperatura di stoccaggio - Storage temperature range: -30°C + +80°C

Umidità relativa - Relative humidity : 98% RH senza condensazione - RH without condensing

Vibrazioni - Vibrations: 10 g (da 10 a 2.000 Hz) - (From 10 up to 2.000 Hz)

Schock - Schock: 20 g (per 11 ms) - (for 11 ms)



**CODICE DI ORDINAZIONE - ORDERING CODE**



**MONTAGGIO - ASSEMBLY**

F Flangia Quadra - Square flange  
SG Servo-Graffe - servo-clip

**IMPULSI GIRO - PULSE RATE**

Vedi elenco delle possibili configurazioni  
see the list of the possible configurations

**Albero - Shaft**

6	Ø 6 mm
8	Ø 8 mm
9,52	Ø 9,52 mm
10	Ø 10 mm

**Custom**

**OPZIONI - OPTIONS**

vedi tabella pag. seg. ; see table next page

**CODICE - CODE**

<b>A</b>	Uscita analogica (1024/360°-180°-90°-45°) Analog output (1024/360°-180°-90°-45°)	
<b>B</b>	codice Binario naturale Binary code natural	
<b>B/0</b>	codice Binario troncato al centro Binary code centrally cut	
<b>B/7</b>	codice Binario /eccesso (18) Binary code/exc (18)	
<b>B/14</b>	codice Binario /eccesso (36) Binary code/exc (36)	
<b>B/19</b>	codice Binario /eccesso (90) Binary code/exc (90)	
<b>B/28</b>	codice Binario /eccesso (72) Binary code/exc (72)	
<b>B/38</b>	codice Binario /eccesso (180) Binary code/exc (180)	
<b>B/62</b>	codice Binario /eccesso (900) Binary code/exc (900)	
<b>B/76</b>	codice Binario /eccesso (360) Binary code/exc (360)	
<b>B/124</b>	codice Binario /eccesso (1800) Binary code/exc (1800)	
<b>B/152</b>	codice Binario /eccesso (720) Binary code/exc (720)	
<b>B/248</b>	codice Binario /eccesso (3600) Binary code/exc (3600)	
<b>B/304</b>	codice Binario /eccesso (1440) Binary code/exc (1440)	
<b>B/608</b>	codice Binario /eccesso (2880) Binary code/exc (2880)	
<b>D</b>	codice BCD (100+7200) BCD code (100+7200)	
<b>E</b>	codice Gray Exc 3 (100+7200) Excess 3 Gray code (100+7200)	
<b>G</b>	codice Gray naturale Natural Gray code	
<b>G/0</b>	codice Gray troncato al centro Centrally cutted Gray code	
<b>G/7</b>	codice Gray /eccesso (18) Gray code/exc (18)	
<b>G/14</b>	codice Gray /eccesso (36) Gray code/exc (36)	
<b>G/19</b>	codice Gray /eccesso (90) Gray code/exc (90)	
<b>G/28</b>	codice Gray /eccesso (72) Gray code/exc (72)	
<b>G/38</b>	codice Gray /eccesso (180) Gray code/exc (180)	
<b>G/62</b>	codice Gray /eccesso (900) Gray code/exc (900)	
<b>G/76</b>	codice Gray /eccesso (360) Gray code/exc (360)	
<b>G/124</b>	codice Gray /eccesso (1800) Gray code/exc (1800)	
<b>G/152</b>	codice Gray /eccesso (720) Gray code/exc (720)	
<b>G/248</b>	codice Gray /eccesso (3600) Gray code/exc (3600)	
<b>G/304</b>	codice Gray /eccesso (1440) Gray code/exc (1440)	
<b>G/608</b>	codice Gray /eccesso (2880) Gray code/exc (2880)	

**CIRCUITI DI USCITA - OUTPUT CIRCUITS**

<b>00</b>	TTL log+ (solo 5V - 5 V only)	<b>10</b>	NPN 40 mA Open Collector log+
<b>11</b>	TTL log- (solo 5V - 5 V only)	<b>11</b>	NPN 40 mA pull-up log+ (solo 11/30V - 11/30V only)
<b>02</b>	TTL 3-state log+ (solo 5V - 5 V only)	<b>12</b>	NPN 40 mA Open Collector log-
<b>03</b>	TTL 3-state log- (solo 5V - 5 V only)	<b>13</b>	NPN 40 mA pull-up log- (solo 11/30V - 11/30V only)
<b>50</b>	TTL log+ Latch (solo 5V - 5V only)	<b>60</b>	NPN open collector + latch
<b>51</b>	TTL log- Latch (solo 5V - 5V only)	<b>61</b>	NPN 40 mA pull-up log+ Latch (solo 11/30V - 11/30V only)
<b>52</b>	TTL 3-state log+ Latch (solo 5V - 5V only)	<b>62</b>	NPN 40 mA Open Collector log-
<b>53</b>	TTL 3-state log- Latch (solo 5V - 5V only)	<b>63</b>	NPN 40 mA pull-up log- Latch (solo 11/30V - 11/30V only)
<b>20</b>	PNP 100 mA Open Collector log+	<b>31</b>	Uscita analogica 4+20 mA (solo 18/30V) Analog output 4+20 mA (18/30V only)
<b>21</b>	PNP 100 mA pull-down log+ (solo 11/30V - 11/30V only)	<b>32</b>	Uscita analogica 1+5 V (solo 18/30V) Analog output 1+5 V (18/30V only)
<b>22</b>	NPN 100 mA Open Collector log-	<b>33</b>	Uscita analogica 0+10 V (solo 18/30V) Analog output 0+10 V (18/30V only)
<b>23</b>	NPN 100 mA pull-up log- (solo 11/30V - 11/30V only)	<b>70</b>	PNP 100 mA Open Collector log+ Latch
<b>30</b>	Push Pull protetto cc (solo 11/30V) Push Pull cc protect (11/30V only)	<b>71</b>	PNP 100 mA pull-down log+ Latch (solo 11/30V-11/30V only)
<b>70</b>	PNP 100 mA Open Collector log+ Latch	<b>72</b>	NPN 100 mA Open Collector log Latch
<b>71</b>	PNP 100 mA pull-down log+ Latch (solo 11/30V-11/30V only)	<b>80</b>	Push Pull protetto cc Latch (solo 11/30V-11/30V only)
<b>72</b>	NPN 100 mA Open Collector log Latch		

**S13D** SSI 13 bit allin destra (solo 11/30V) - SSI 13 bit right alignment (11/30V only)

**CONNESSIONI ELETTRICHE - ELECTRICAL CONNECTIONS**

vedi tabella pag. seg. ; see table next page

**Alimentazione (Vdc) - Voltage supply**

<b>5</b>	+5 V ±5 %	<b>11/30</b>	+11V +30 V
<b>18/30</b>	+18V +30 V solo analogico - only analog		

**Grado di protezione - Protection class**

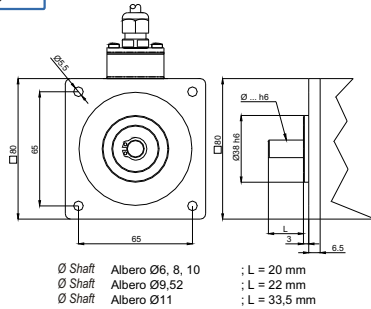
<b>K4</b>	IP 64 (EN60529)
<b>K5</b>	IP 65 (EN60529)
<b>K6</b>	IP 66 (EN60529)

**PASSI PER GIRO - STEPS**

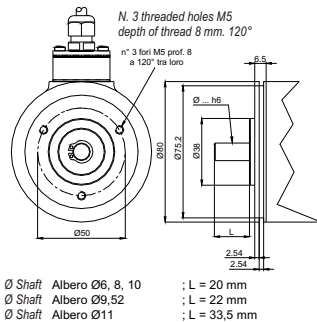
<b>16</b>	16 passi/giro G;B	steps/turn G;B	<b>512</b>	512 passi/giro G;B	steps/turn G;B	<b>100</b>	100 passi/giro E;D	steps/turn E;D	<b>90</b>	90 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>18</b>	18 passi/giro G;B	steps/turn G;B	<b>720</b>	720 passi/giro G;B	steps/turn G;B	<b>250</b>	250 passi/giro E;D	steps/turn E;D	<b>180</b>	180 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>32</b>	32 passi/giro G;B	steps/turn G;B	<b>900</b>	900 passi/giro G;B	steps/turn G;B	<b>360</b>	360 passi/giro E;D	steps/turn E;D	<b>250</b>	250 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>36</b>	36 passi/giro G;B	steps/turn G;B	<b>1000</b>	1000 passi/giro G;B	steps/turn G;B	<b>400</b>	400 passi/giro E;D	steps/turn E;D	<b>360</b>	360 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>64</b>	64 passi/giro G;B	steps/turn G;B	<b>1024</b>	1024 passi/giro G;B	steps/turn G;B	<b>500</b>	500 passi/giro E;D	steps/turn E;D	<b>500</b>	500 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>90</b>	90 passi/giro G;B	steps/turn G;B	<b>1440</b>	1440 passi/giro G;B	steps/turn G;B	<b>720</b>	720 passi/giro E;D	steps/turn E;D	<b>720</b>	720 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>100</b>	100 passi/giro G;B	steps/turn G;B	<b>2000</b>	2000 passi/giro G;B	steps/turn G;B	<b>900</b>	900 passi/giro E;D	steps/turn E;D	<b>1000</b>	1000 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>128</b>	128 passi/giro G;B	steps/turn G;B	<b>2048</b>	2048 passi/giro G;B	steps/turn G;B	<b>1000</b>	1000 passi/giro E;D	steps/turn E;D	<b>1440</b>	1440 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>180</b>	180 passi/giro G;B	steps/turn G;B	<b>2880</b>	2880 passi/giro G;B	steps/turn G;B	<b>1440</b>	1440 passi/giro E;D	steps/turn E;D	<b>2880</b>	2880 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>200</b>	200 passi/giro G;B	steps/turn G;B	<b>3600</b>	3600 passi/giro G;B	steps/turn G;B	<b>2000</b>	2000 passi/giro E;D	steps/turn E;D	<b>3600</b>	3600 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>250</b>	250 passi/giro G;B	steps/turn G;B	<b>4000</b>	4000 passi/giro G;B	steps/turn G;B	<b>2500</b>	2500 passi/giro E;D	steps/turn E;D	<b>7200</b>	7200 passi/giro G;0;B;0	steps/turn G;0;B;0
<b>256</b>	256 passi/giro G;B	steps/turn G;B	<b>4096</b>	4096 passi/giro G;B	steps/turn G;B	<b>3600</b>	3600 passi/giro E;D	steps/turn E;D			
<b>360</b>	360 passi/giro G;B	steps/turn G;B	<b>5000</b>	5000 passi/giro G;B	steps/turn G;B	<b>4000</b>	4000 passi/giro E;D	steps/turn E;D			
<b>400</b>	400 passi/giro G;B	steps/turn G;B	<b>7200</b>	7200 passi/giro G;B	steps/turn G;B	<b>5000</b>	5000 passi/giro E;D	steps/turn E;D			
<b>500</b>	500 passi/giro G;B	steps/turn G;B	<b>8192</b>	8192 passi/giro G;B	steps/turn G;B	<b>7200</b>	7200 passi/giro E;D	steps/turn E;D			
<b>1024/360</b>	1024 passi/360° (solo uscita analogica) 1024 steps/360° (analog output only)		<b>256/90</b>	256 passi/90° (solo uscita analogica) 256 steps/90° (analog output only)		<b>18</b>	18 passi/giro G/7;B/7	steps/turn G/7;B/7	<b>180</b>	180 passi/giro G/38;B/38	steps/turn G/38;B/38
<b>512/180</b>	512 passi/180° (solo uscita analogica) 512 steps/180° (analog output only)		<b>128/45</b>	128 passi/45° (solo uscita analogica) 128 steps/45° (analog output only)		<b>36</b>	36 passi/giro G/14;B/14	steps/turn G/14;B/14	<b>360</b>	360 passi/giro G/76;B/76	steps/turn G/76;B/76
						<b>72</b>	72 passi/giro G/28;B/28	steps/turn G/28;B/28	<b>720</b>	720 passi/giro G/152;B/152	steps/turn G/152;B/152
						<b>90</b>	90 passi/giro G/19;B/19	steps/turn G/19;B/19	<b>1440</b>	1440 passi/giro G/304;B/304	steps/turn G/304;B/304

## MONTAGGIO MECCANICO MECHANICAL ASSEMBLY

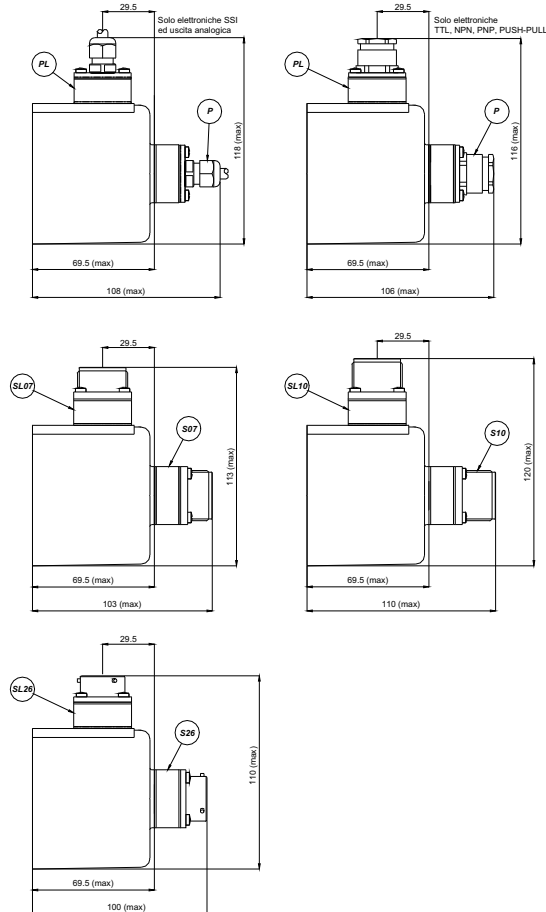
### F Flangia Quadra F Square flange



### SG Servo-graffe SG Servo-clip



## CONNESSIONI ELETTRICHE ELECTRICAL CONNECTIONS



### CONNESSIONI ELETTRICHE - ELECTRICAL CONNECTIONS

- Pnn** pressacavo assiale con cavo da 1 a 6 m; *on axial cable gland with cable 1 + 6 m long*  
**PLnn** pressacavo radiale con cavo da 1 a 6 m; *radial cable gland with cable 1 + 6 m long*  
**S 07** connettore circolare militare assiale a 7 poli; *on 7 pins axial MIL connector*  
**S 10** connettore circolare militare assiale a 10 poli; *on 10 pins axial MIL connector*  
**S 26** connettore circolare militare assiale a 26 poli; *on 26 pins axial MIL connector*  
**SL 07** connettore circolare militare radiale a 7 poli; *on 7 pins radial MIL connector*  
**SL 10** connettore circolare militare radiale a 10 poli; *on 10 pins radial MIL connector*  
**SL 26** connettore circolare militare radiale a 26 poli; *on 26 pins radial MIL connector*

nn Lunghezza cavo - Cable length (es. PL10 = 1 m. ... PL60 = 6 m)

### OPZIONI - OPTIONS

- U** Up/Down NPN  
**D** Up/Down PNP  
**S** Strobe standard (NO x SSI)  
 vedi tabella a lato; *see list to side*  
**I** Strobe invertito - *Strobe inverted* (NO x SSI)  
 vedi tabella a lato; *see list to side*  
**Z** Segnale di zero - *Zero signal* (NO x SSI)  
**V** Zero visualizzato - *Zero displayed* (NO x SSI)  
**E** "Even" o parità Pari - *Even parity* (NO x SSI)  
**O** "Odd" o parità Dispari - *Odd parity* (NO x SSI)

### VALORI STROBE - STROBE VALUE

S=	Strobe custom	Strobe custom	S 200	Strobe 20 $\mu$ s	Strobe 20 $\mu$ s
I 200	Strobe invertito 20 $\mu$ s	<i>Inverted strobe 20 <math>\mu</math>s</i>	S 500	Strobe 50 $\mu$ s	<i>Strobe 50 <math>\mu</math>s</i>
I 500	Strobe invertito 50 $\mu$ s	<i>Inverted strobe 50 <math>\mu</math>s</i>	S 101	Strobe 100 $\mu$ s	<i>Strobe 100 <math>\mu</math>s</i>
I 101	Strobe invertito 100 $\mu$ s	<i>Inverted strobe 100 <math>\mu</math>s</i>	S 201	Strobe 200 $\mu$ s	<i>Strobe 200 <math>\mu</math>s</i>
I 201	Strobe invertito 200 $\mu$ s	<i>Inverted strobe 200 <math>\mu</math>s</i>	S 501	Strobe 500 $\mu$ s	<i>Strobe 500 <math>\mu</math>s</i>
I 501	Strobe invertito 500 $\mu$ s	<i>Inverted strobe 500 <math>\mu</math>s</i>	S 102	Strobe 1 ms	<i>Strobe 1 ms</i>
I 102	Strobe invertito 1 ms	<i>Inverted strobe 1 ms</i>	S 202	Strobe 2 ms	<i>Strobe 2 ms</i>
I 202	Strobe invertito 2 ms	<i>Inverted strobe 2 ms</i>	S 502	Strobe 5 ms	<i>Strobe 5 ms</i>
I 502	Strobe invertito 5 ms	<i>Inverted strobe 5 ms</i>	S 103	Strobe 10 ms	<i>Strobe 10 ms</i>
I 103	Strobe invertito 10 ms	<i>Inverted strobe 10 ms</i>	S 203	Strobe 20 ms	<i>Strobe 20 ms</i>
I 203	Strobe invertito 20 ms	<i>Inverted strobe 20 ms</i>	S 503	Strobe 50 ms	<i>Strobe 50 ms</i>
I 503	Strobe invertito 50 ms	<i>Inverted strobe 50 ms</i>	S 104	Strobe 100 ms	<i>Strobe 100 ms</i>
I 104	Strobe invertito 100 ms	<i>Inverted strobe 100 ms</i>	S 204	Strobe 200 ms	<i>Strobe 200 ms</i>
I 204	Strobe invertito 200 ms	<i>Inverted strobe 200 ms</i>			