

Modello 700D

- Motore a magneti permanenti CE
- Doppio riduttore vite senza fine-ruota elicoidale
- Stelo filettato trapezoidale
- Asta traslante in acciaio cromato
- Lubrificazione permanente a grasso
- IP 50 / IP 65
- Temperatura di funzionamento -10°C +60°C
- Impiego intermittente S3 30% (5 min) a 30°C*
- Fine corsa, potenziamento ed encoder a richiesta

(* Per impieghi diversi contattare il Ns Ufficio Tecnico

Model 700D

- Permanent magnet motor CE
- Double worm gearbox
- ACME lead screw
- Chrome plated steel push rod
- Permanent lubrication by grease
- IP 50 / IP 65
- Temperature range -10°C +60°C
- Intermittent duty S3 30% (5 min) @ 30°C*
- Limit switches, potentiometer and encoder on demand

(* For any special duty please contact our offices

700D (Vdc)

Fmax	Velocità	Versione	Taglia motore	Giri motore	1ª Rid.	2ª Rid.	D vite	Passo	Rendimento	Corsa max (mm)	
Fmax	Speed	Version	Motor size	Motor speed	1st Red.	2nd Red.	Screw D	Pitch	Efficiency	Max stroke (mm)	
[N]	[mm/s]			[rpm]			[mm]	[mm]		con FC / with FC	senza FC / without FC
2000	30,0	M01	59	4000	4/20	4/20	16	12	0,38	690	690
2200	20,0	M02	59	4000	4/20	4/20	16	8	0,28	580	655
2500	15,0	M03	59	4000	4/20	3/21	16	8	0,25	580	615
3200	10,0	M04	59	4000	4/20	4/20	16	4	0,24	290	545
3200	7,0	M05	59	4000	4/20	3/21	16	4	0,21	290	545
3200	5,0	M06	59	4000	4/20	2/20	16	4	0,18	290	545
3200	2,5	M07	59	4000	4/20	1/21	16	4	0,18	290	545
3200	1,2	M08	59	4000	2/20	1/21	16	4	0,14	290	545
3200	0,6	M09	59	4000	1/21	1/21	16	4	0,13	290	545

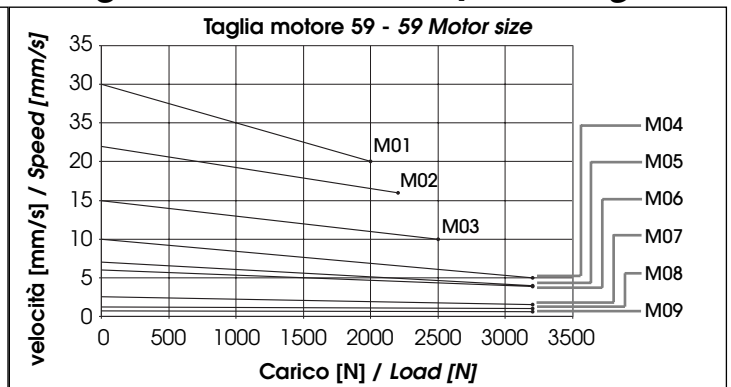
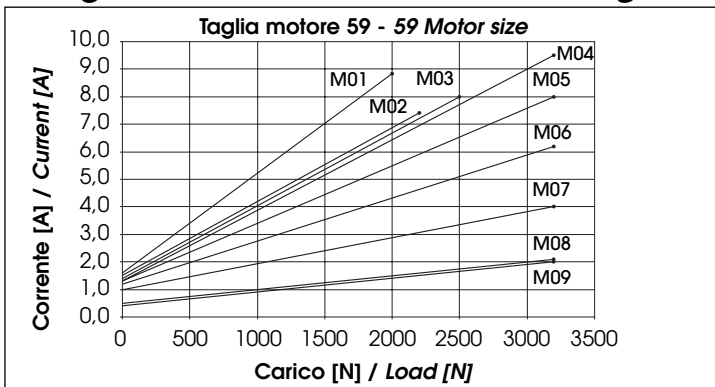
700D-R

Coppia max [Nm]	Velocità [rpm]	Versione	Taglia motore	Giri motore [rpm]	1ª Rid.	2ª Rid.	Rendimento
Max torque [Nm]	Speed [rpm]	Version	Motor size	Motor speed [rpm]	1st Red.	2nd Red.	Efficiency
6	160	R01	59	4000	4/20	4/20	0,64
8	120	R02	59	4000	4/20	3/21	0,58
10	80	R03	59	4000	4/20	2/20	0,50
20	40	R04	59	4000	4/20	1/21	0,48
30	20	R05	59	4000	2/20	1/21	0,37
30	10	R06	59	4000	1/21	1/21	0,36

700D

Diagrammi di corrente - Current diagram

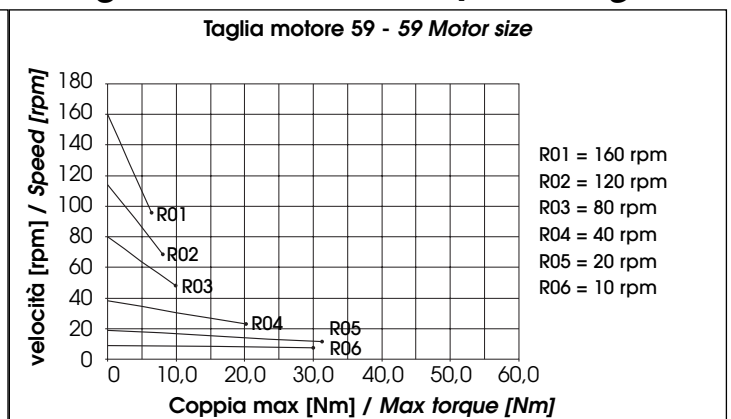
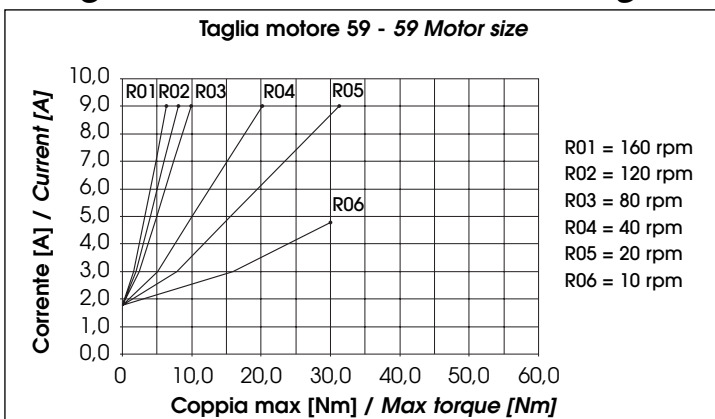
Diagrammi di velocità - Speed diagram



700D-R

Diagrammi di corrente - Current diagram

Diagrammi di velocità - Speed diagram



Diagrammi riferiti alla tensione di alimentazione 24Vdc. Per tensione 12Vdc raddoppiare il valore di corrente e ridurre il valore di carico del 20%. Per tensione 36Vdc ridurre il valore di corrente del 30% e lasciare inalterata la velocità.

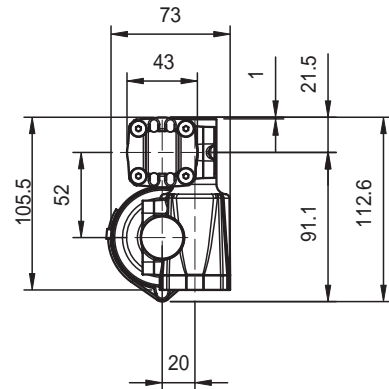
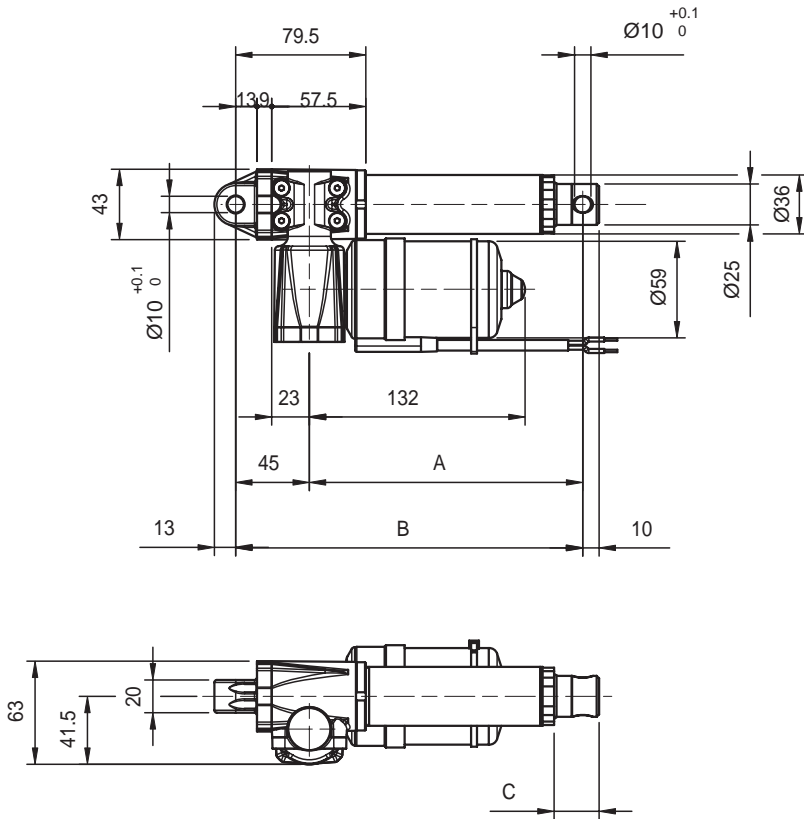
Per una corretta scelta dell'attuatore idoneo alla Vs. applicazione si devono utilizzare le informazioni tecniche che trovate al capitolo "Guida alla Scelta degli Attuatori e dei Martinetti Elettromeccanici".

Diagrams valids for 24Vdc power supply.

For 12Vdc power supply currents are doubled and loads are 20% slower. For 36Vdc power supply currents are 30% lower and speeds remain the same.

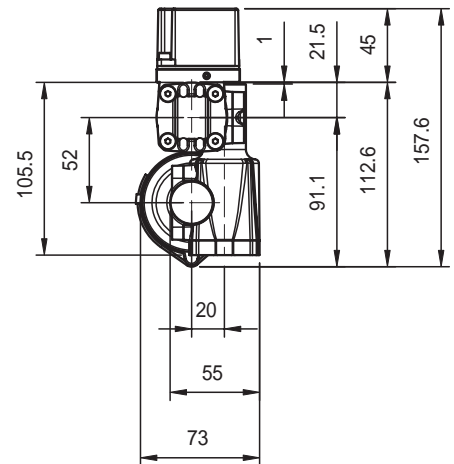
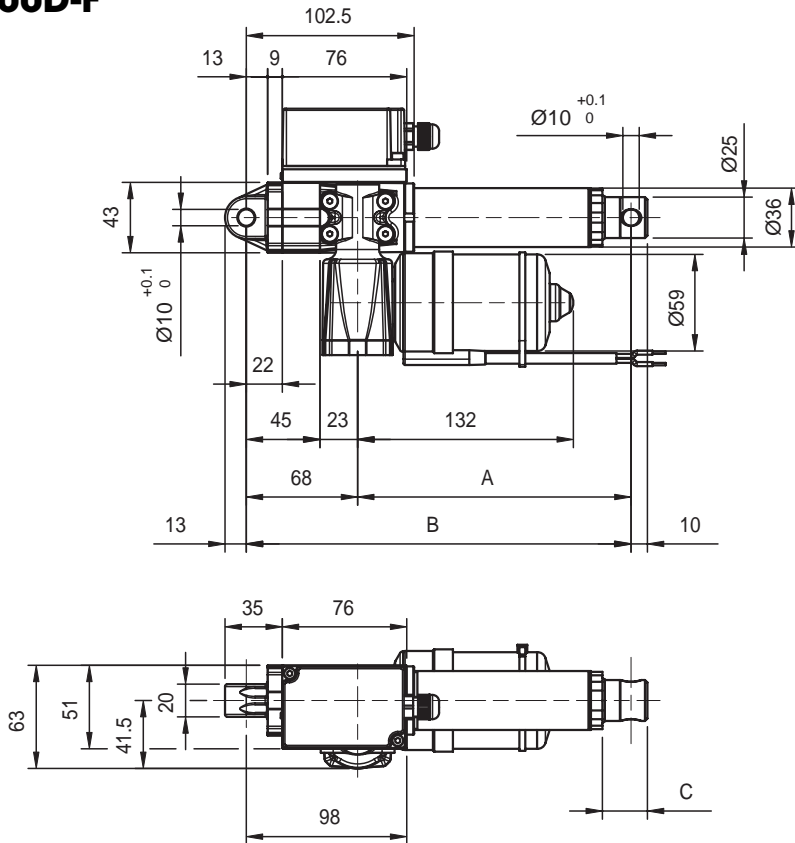
Elements and technical information available in "Electromechanical Actuators + Jack Choice Guideline" have to be carefully considered in order to perform a proper actuator selection according to your application.

700D



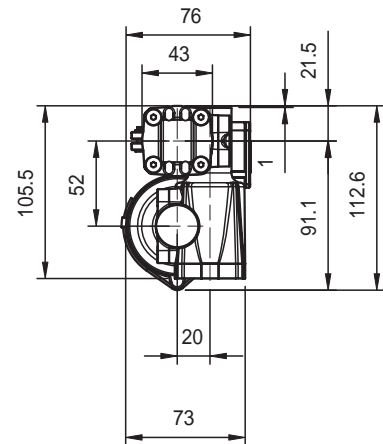
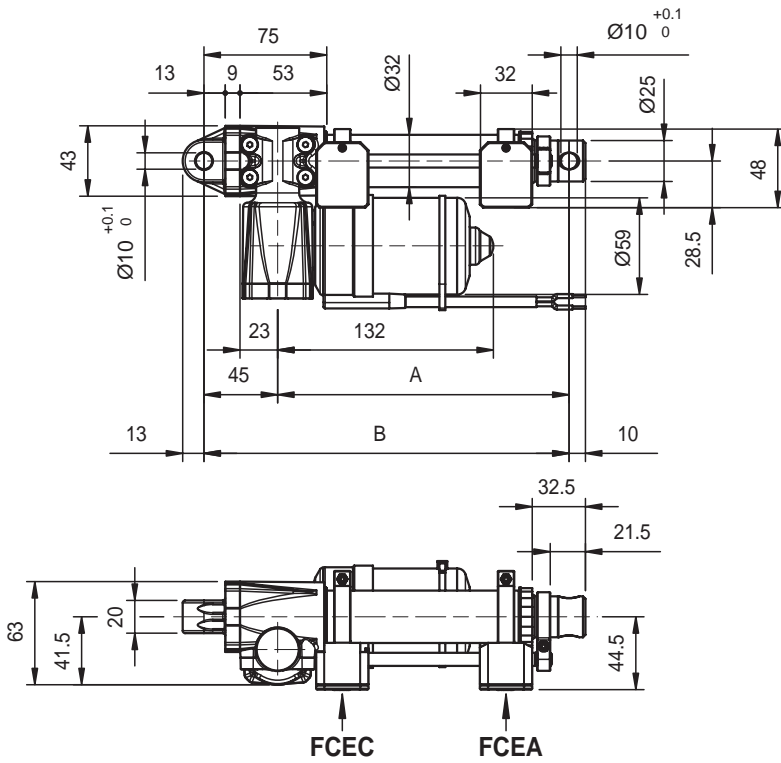
QUOTA	Corsa < a 320 mm.	Corsa > a 320 mm.
MEASURE	Stroke < to 320 mm.	Stroke > to 320 mm.
A	67 + corsa/stroke	77 + corsa/stroke
B	112 + corsa/stroke	122 + corsa/stroke
C	27.5	37.5

700D-F



QUOTA	Corsa < a 320 mm.	Corsa > a 320 mm.
MEASURE	Stroke < to 320 mm.	Stroke > to 320 mm.
A	67 + corsa/stroke	77 + corsa/stroke
B	135 + corsa/stroke	145 + corsa/stroke
C	27.5	37.5

700D-FCE

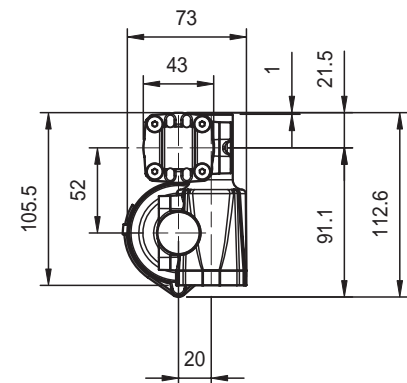
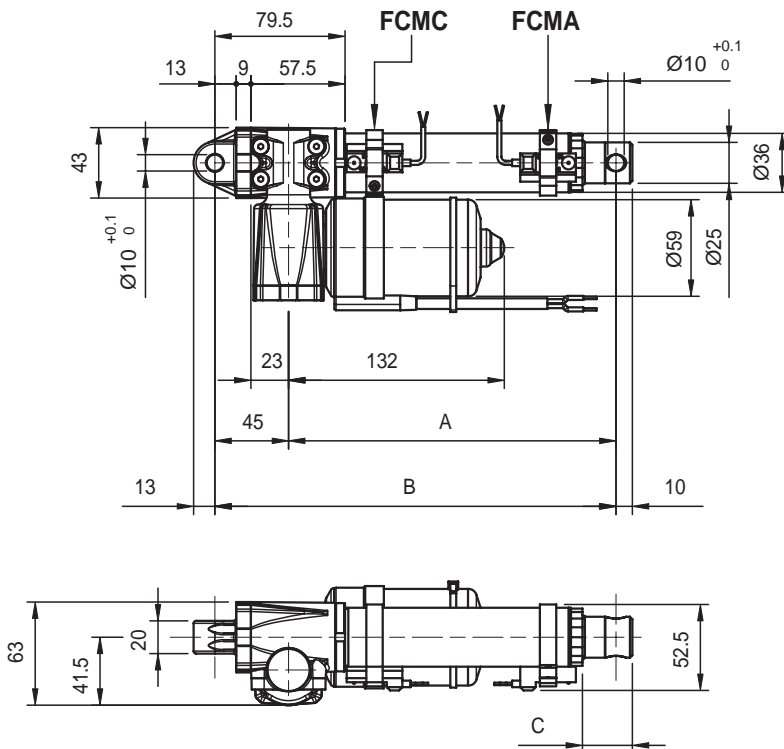


QUOTA	Corsa < a 320 mm.	Corsa > a 320 mm.
MEASURE	Stroke < to 320 mm.	Stroke > to 320 mm.
A	78 + corsa/stroke	88 + corsa/stroke
B	123 + corsa/stroke	133 + corsa/stroke

FCEC = Finecorsa meccanico chiusura
FCEA = Finecorsa meccanico apertura

FCEC = Closing mechanical switch
FCEA = Opening mechanical switch

700D-FCM

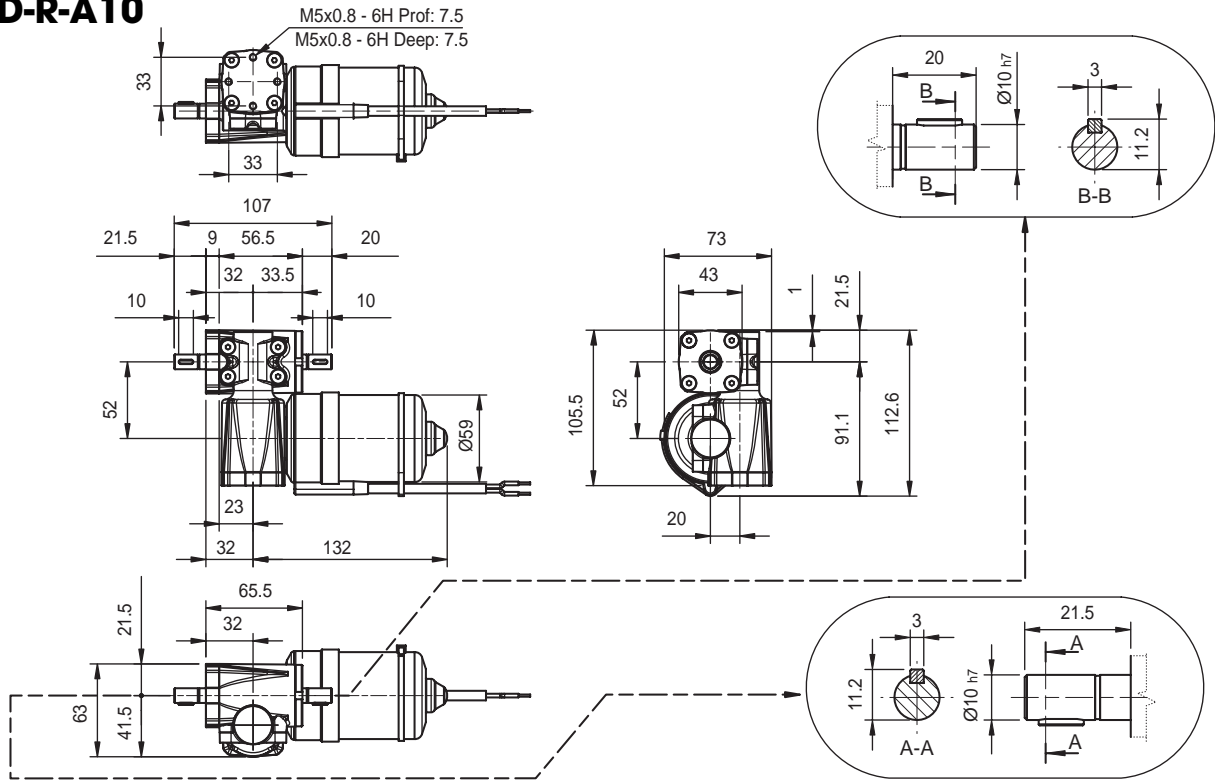


QUOTA	Corsa < a 320 mm.	Corsa > a 320 mm.
MEASURE	Stroke < to 320 mm.	Stroke > to 320 mm.
A	100 + corsa/stroke	110 + corsa/stroke
B	145 + corsa/stroke	155 + corsa/stroke
C	30.5	40.5

FCMC = Finecorsa magnetico chiusura
FCMA = Finecorsa magnetico apertura

FCMC = Closing magnetic switch
FCMA = Opening magnetic switch

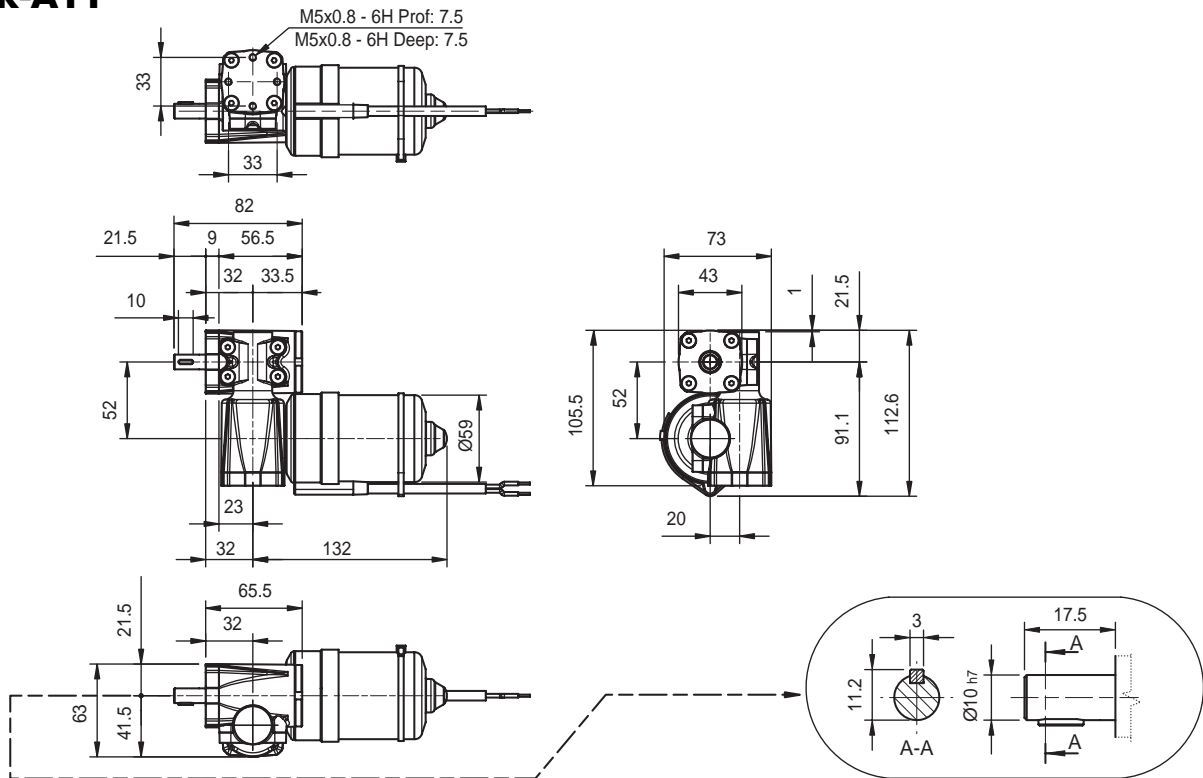
700D-R-A10



N.B.: Montaggio riduttore solo di tipo pendolare (ancoraggio a cura del cliente)

Note: Gearbox setting up overhang type only (fixing by the customer)

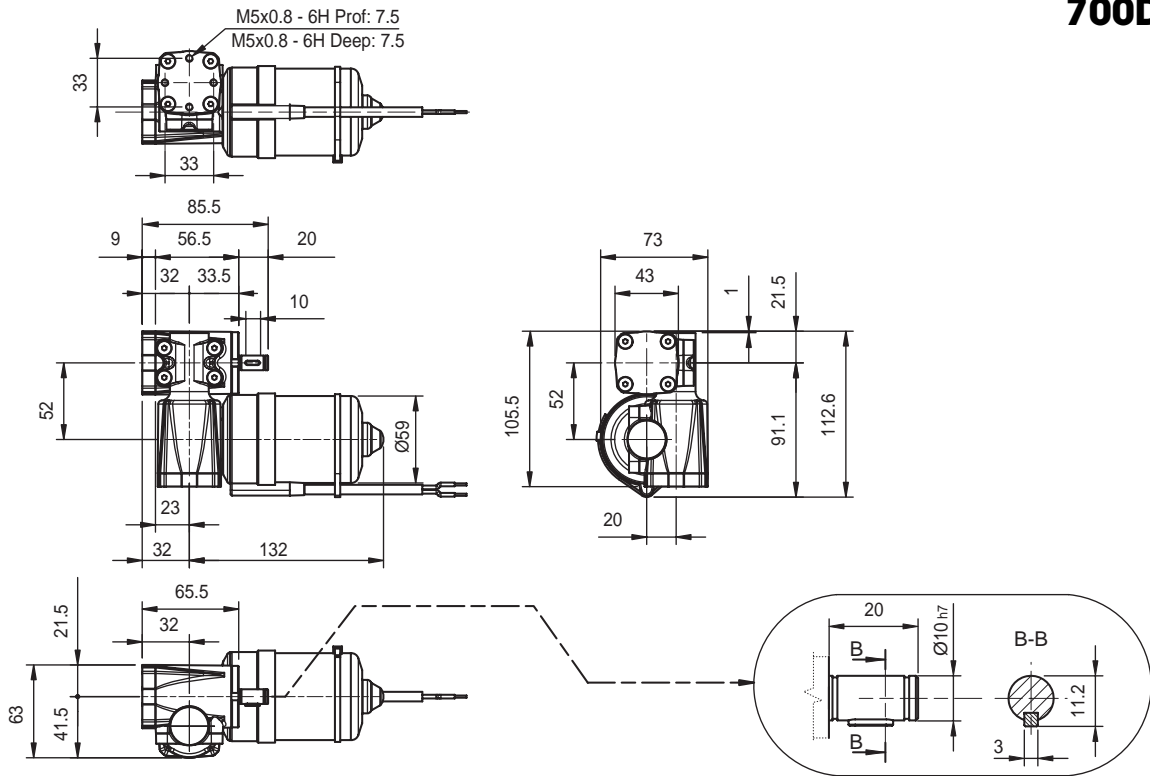
700D-R-A11



N.B.: Montaggio riduttore solo di tipo pendolare (ancoraggio a cura del cliente)

Note: Gearbox setting up overhang type only (fixing by the customer)

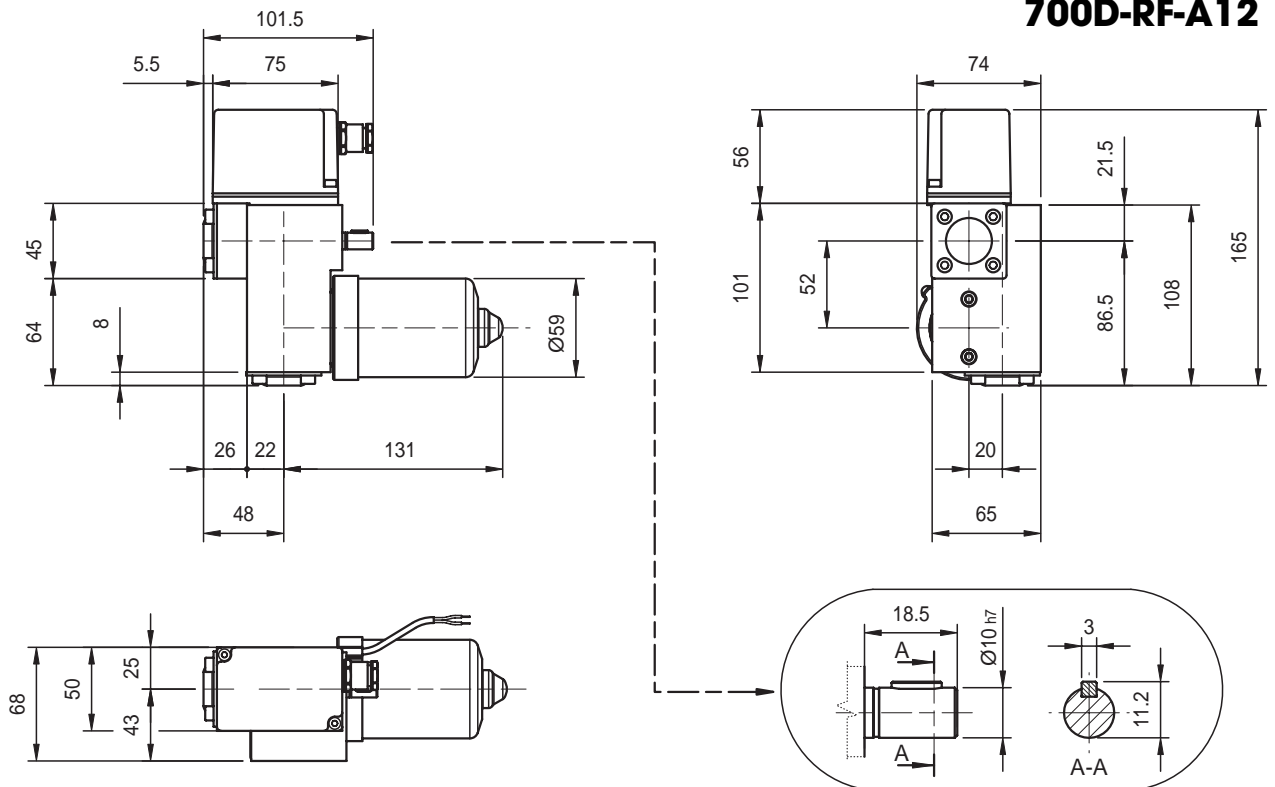
700D-R-A12



N.B.: Montaggio riduttore solo di tipo pendolare (ancoraggio a cura del cliente)

Note: Gearbox setting up overhang type only (fixing by the customer)

700D-RF-A12



N.B.: Montaggio riduttore solo di tipo pendolare (ancoraggio a cura del cliente)

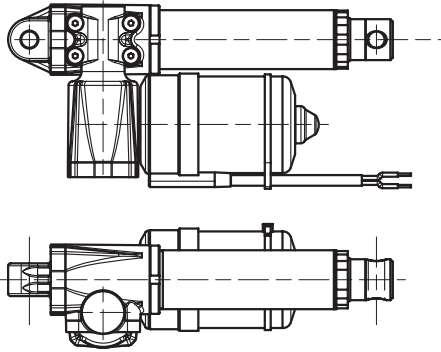
Note: Gearbox setting up overhang type only (fixing by the customer)

Dispositivo antirotazione

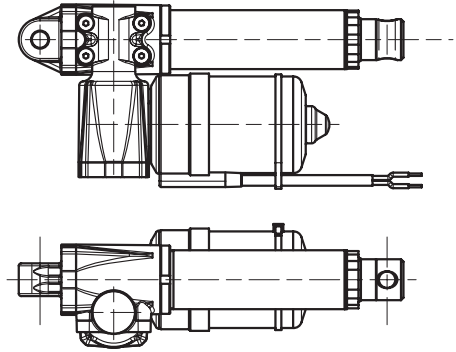
Nella famiglia 700D è possibile installare un dispositivo antirotazione che vincola le rotazioni dell'asta traslante attorno al proprio asse. Con l'attacco anteriore A1 ed A2 sono disponibili due versioni: AR0 con attacco anteriore nella posizione standard e AR1 con attacco anteriore ruotato di 90°. Nei casi di attacco A3, A4, A5, A6, A7 ed A8 è obbligatorio avere il dispositivo antirotazione. Perde di significato la distinzione in AR0 e AR1: in questo caso si riporta sempre AR0.

Antirotation device

Model 700D can host an antirotation device, allowing push rod not to spin when travelling. Front ends A1 and A2 allow for two antirotation settings, AR0 and AR1. When using A3, A4, A5, A6, A7 and A8 front ends antirotation facility must always be mounted, but it makes no sense to specify it as AR0 or AR1: so, AR0 is in these cases then chosen.



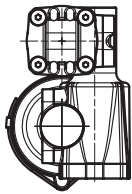
AR0 (Standard)



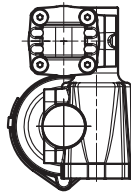
AR1

Attacco posteriore

Rear end



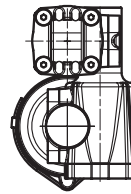
P1
(Standard)



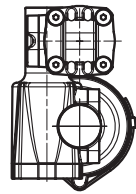
P2
Ruotato di 90° / 90° Rotated

Orientamento motore

Motor side



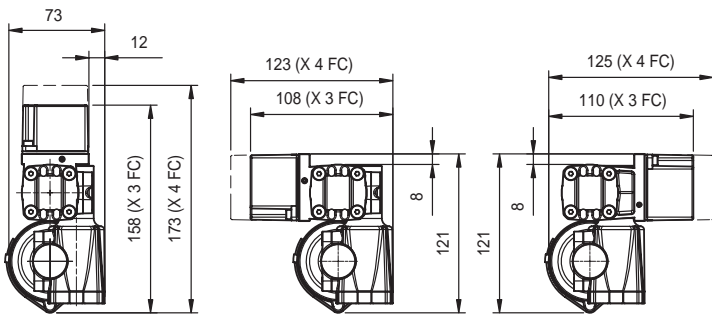
M0



M1

Orientamento fine corsa

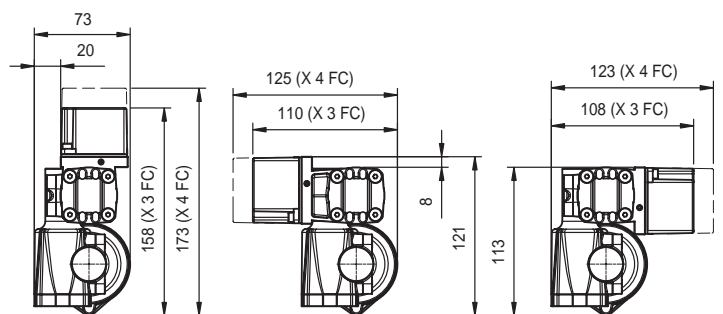
Limit switches side



M0 FC1

M0 FC2

M0 FC3

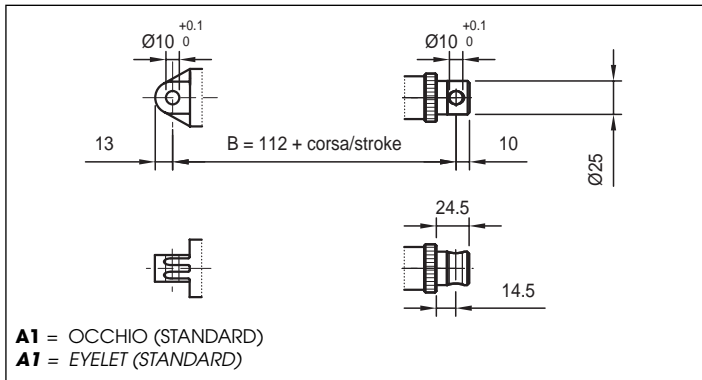


M1 FC1

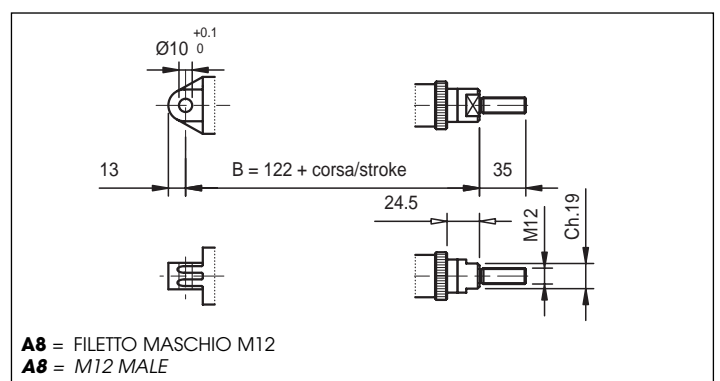
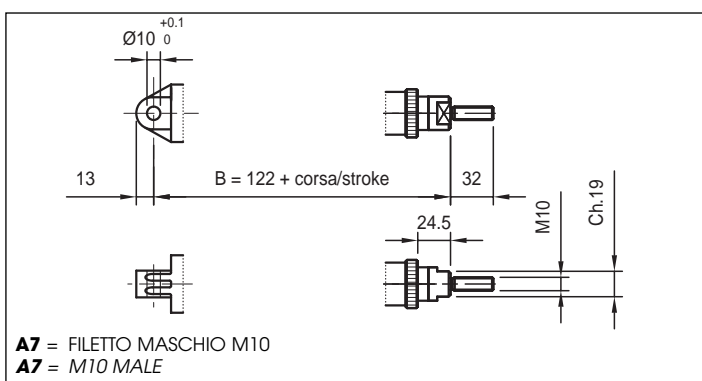
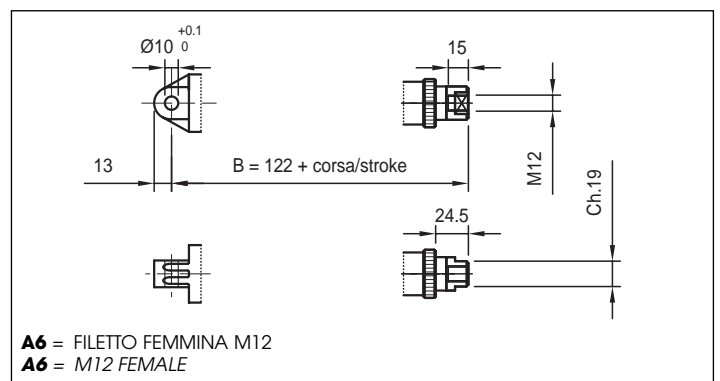
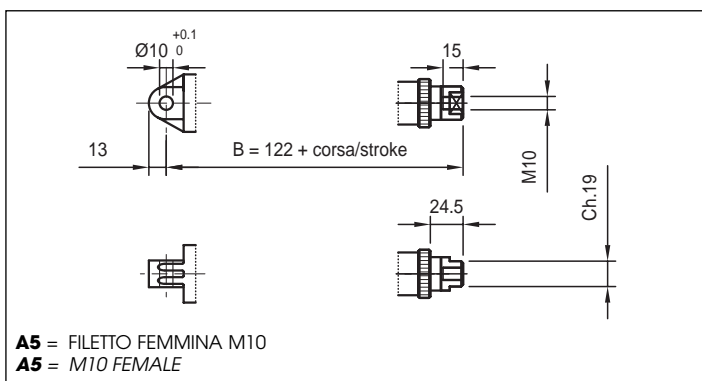
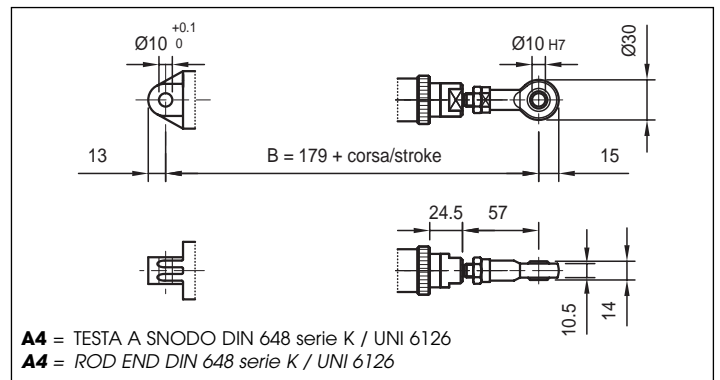
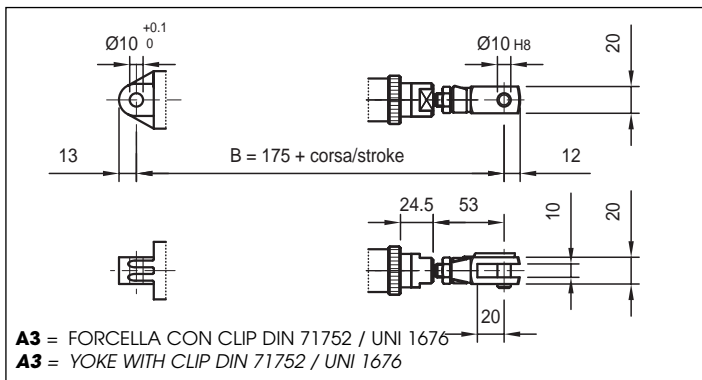
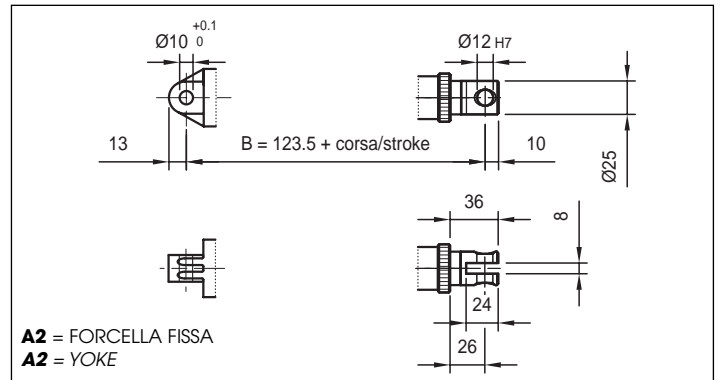
M1 FC2

M1 FC3

Attacchi anteriori



Front ends



N.B.: Variazioni quota "B" in base al modello
Note: "B" dimension variations depending on model

700D = vedi figure / see pictures
700D corsa / stroke > 320 mm = + 10 mm
700D-F = + 23 mm
700D-F corsa / stroke > 320 mm = + 33 mm
700D-FCE = + 11 mm
700D-FCE corsa / stroke > 320 mm = + 21 mm
700D-FCM = + 33 mm
700D-FCM corsa / stroke > 320 mm = + 43 mm

**Dispositivi Controllo Corsa
Elettrici / Elettronici**

**Electric/Electronic
Stroke Control Devices**

Fine corsa FCE/F

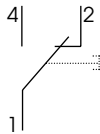
Limit switches FCE/F

Prestazioni / Performances	Tipo / Type	
	XCF	XGG
Tensione / Voltage	250 Vac	230 Vac / 30 Vdc
Carico resistivo / Resistive load	10 A	16 A
Carico motore / Motor load	2 A	6 A

Caratteristiche tecniche micro

Le caratteristiche dei microinterruttori di finecorsa montati sono le seguenti:

- Alloggiamento: PA66 rinforzato con fibra di vetro (XCF)
Resina fenolica/melaminica termo-saldada (XGG)
- Meccanismo: azione a scatto con molla in acciaio inox (XCF) - bronzo/berillio (XGG).
Un contatto in scambio NC/NO

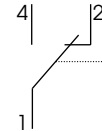


- Contatti: argento
- Terminali: dorati
- Vita meccanica: minimo 5×10^6 (XCF) - 3×10^5 (XGG) azionamenti non impulsivi.

Switches technicals features

Limit Switches Features following:

- Housing: Glass fibre reinforce PA66 (XCF)
Phenolic-melamine thermosetting (XGG)
- Mechanism: Snap-action coil spring mechanism with:
stainless steel spring (XCF) -
beryllium/bronze spring (XGG).
Changeover, normally-closed / normally-open



- Contacts: fine silver
- Terminals: gold flashed
- Mechanical life: 5×10^6 (XCF) - 3×10^5 (XGG) cycle minimum (impact free actuation).

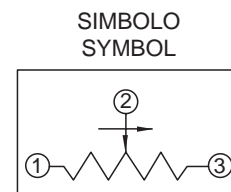
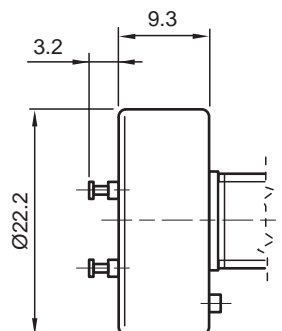
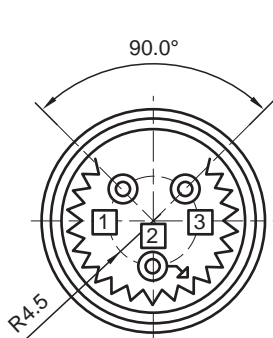
Potenziometro rotativo

Spinning potentiometer

Prestazioni / Performances	Tipo / Type (A)
Angolo max. di lavoro / Max. angle	$340^\circ \pm 3^\circ$
Resistenza Ohm / Resistance	1K / 5K / 10K (standard)
Alimentazione consigliata / Voltage	MAX 10 V
Linearità indipendente / Independent linearity	$\pm 2\%$
Tolleranza / Tolerance	$\pm 20\%$
Coefficiente deriva termica / Temperature coefficient of resistance	600 ppm / °C

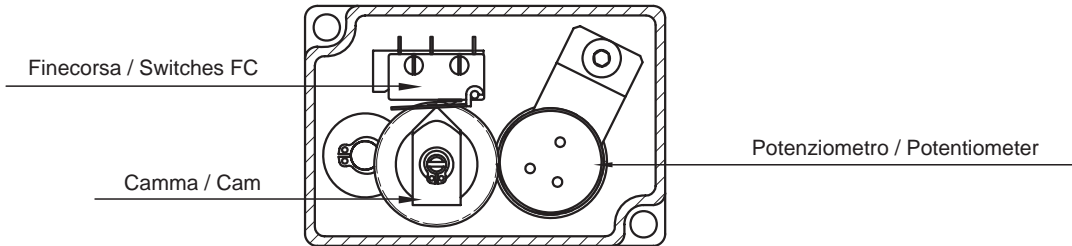
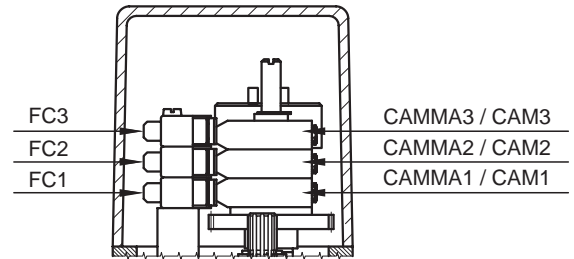
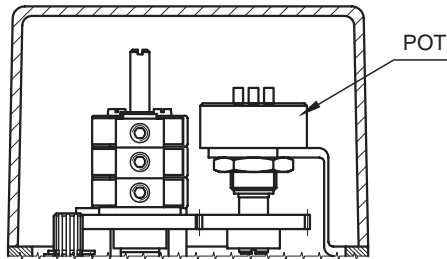
Potenziometro "A"

Potentiometer "A"



Gruppo controllo corsa

Control devices group



FC 1 - micro inferiore
FC 2 - micro centrale
FC 3 - micro superiore
CAMMA 1 - camma inferiore
CAMMA 2 - camma centrale
CAMMA 3 - camma superiore
POT - potenziometro

FC 1 - lower microswitch
FC 2 - middle microswitch
FC 3 - upper microswitch
CAM 1 - lower cam
CAM 2 - middle cam
CAM 3 - upper cam
POT - potentiometer

N.B.: la combinazione fine corsa + potenziometro dev'essere valutata con il nostro Ufficio Tecnico.

Note: microswitches + potentiometer version pls. ask our Technical Dept.

Fine corsa magnetici FCM

Magnetic limit switches FCM

Prestazioni / Performances	Tipo / Type		
	DSM 1 H 425	DSL 1 C 225	DSL 4 N 225
Tensione in DC / DC voltage	3 / 110 V	3 / 30 V	6 / 30 V
Tensione in AC / AC voltage	3 / 110 V	3 / 30 V	/
Corrente a 25°C / 25°C Current	0,5 A	0,1 A	0,20 A
Potenza / Power	20 VA	6 VA	4 W
Tempo inserzione / ON time	0,5 ms	0,5 ms	0,8 ms
Tempo disinserzione / OFF time	0,02 ms	0,1 ms	0,3 ms
Cavo alimentazione / Supply cable	PVC 2 x 0,14 mm	PVC 2 x 0,14 mm	PVC 3 x 0,14 mm
Lunghezza cavo / Cablelength	2500 mm		
Protezione / Protection	IP67		

Circuito H (DSM)

Circuito con ampolla Reed normalmente chiusa protetta da varistore contro le sovratensioni generate all'apertura del circuito, e sistema di visualizzazione.

Circuit H (DSM)

Circuit with Reed switch normally closed protected by a varistor against overvoltages caused when switching off, with indicator.

Circuito N - PNP (DSL)

Circuito con effetto di Hall normalmente aperto con uscita PNP. Protetto contro l'inversione di polarità e contro picchi di sovratensione. LED GIALLO: presenza tensione (solo DSM). LED VERDE: carico inserito (LED giallo per DSL).

Circuit N - PNP (DSL)

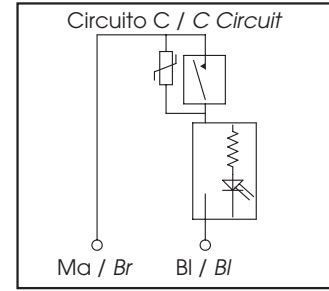
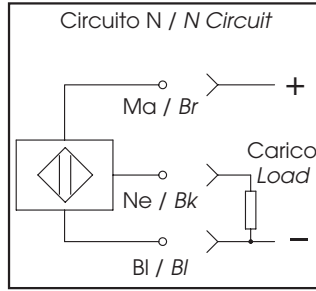
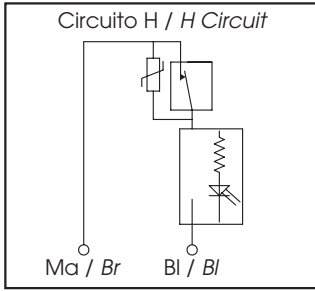
Circuit with Hall-effect switch normally open with outlet PNP, protections against overvoltages spikes and reverse of polarity. Yellow LED: Voltage in (only for DSM). Green LED: Load in (yellow LED for DSL).

Circuito C (DSL)

Circuito con ampolla Reed normalmente aperta, protetta da varistore contro le sovratensioni generate all'apertura del circuito, e sistema di visualizzazione.

Circuit C (DSL)

Circuit with Reed switch normally open protected by a varistor against overvoltages caused when switching off, with indicator.



Caratteristiche tecniche Encoder

Encoder su motore CC

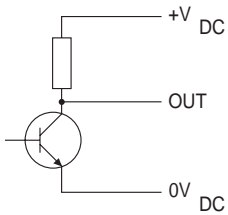
24Vdc
Alimentazione Encoder: 3,8/24 V (cavi marrone/bianco)
NPN
1 impulso giro onda quadra
Corrente max. in uscita = 100mA

Encoder technical specs

DC motor onboard Encoder

24Vdc
Encoder supply: 3,8/24 V (brown/white cables)
NPN Open
1 ppr square wave
Max. output current = 100mA

Encoder



- Alimentazione Encoder 3,8 V...24Vdc
- NPN + resistenza di polarizzazione 3,9 KΩ
- 1 impulsi/giro onda quadra
- Corrente massima d'uscita: 100 mA
- Encoder Power Supply 3,8 V...24Vdc
- NPN + pull-up resistor 3,9 KΩ
- 1 ppr square wave
- Maximum output current: 100 mA

Riferimento Sigla d'ordinazione

Fine Corsa Meccanici:

2FC1 = 2 Micro XCF
3FC1 = 3 Micro XCF
4FC1 = 4 Micro XCF
2FC2 = 2 Micro XGG
3FC2 = 3 Micro XGG } — Versioni Standard

2FCD2 = 2 Micro XGG cablati con diodi
3FCD2 = 3 Micro XGG di cui 2 cablati con diodi }
Solo per motori DC e per carichi fino a 6A di assorbimento

Fine Corsa Magnetici:

2FCM0 = 2 Sensori DSM.1H — Versione Standard
2FCM1 = 2 Sensori DSL.1C
2FCM2 = 2 Sensori DSL.4N
3FCM0 = 3 Sensori DSM.1H — Versione Standard
3FCM1 = 3 Sensori DSL.1C
3FCM2 = 3 Sensori DSL.4N

Potenzimetri:

POT01A = 1 k Ohm
POT05A = 5 k Ohm
POT10A = 10 k Ohm

Encoder:

E01 = Encoder 2 canali 1 ppr NPN
E13 = Encoder non contemplato (indicare caratteristiche nel disegno d'assieme)

Ordering Key references

Mechanical limit switches:

2FC1 = 2 Microswitches XCF
3FC1 = 3 Microswitches XCF
4FC1 = 4 Microswitches XCF
2FC2 = 2 Microswitches XGG
3FC2 = 3 Microswitches XGG } — Standard Versions

2FCD2 = 2 XGG Microswitches diode-wired
3FCD2 = 3 XGG Microswitches, 2 of them diode-wired }
For DC motors only and for loads up to 6A

Magnetic limit switches:

2FCM0 = 2 Sensors DSM.1H — Standard Version
2FCM1 = 2 Sensors DSL.1C
2FCM2 = 2 Sensors DSL.4N
3FCM0 = 3 Sensors DSM.1H — Standard Version
3FCM1 = 3 Sensors DSL.1C
3FCM2 = 3 Sensors DSL.4N

Potentiometers:

POT01A = 1 k Ohm
POT05A = 5 k Ohm
POT10A = 10 k Ohm

Encoder:

E01 = Encoder 2 channel 1 ppr NPN
E13 = Special encoder (advise features in drawing)

SIGLA DI ORDINAZIONE - ORDERING KEY

700D / 0250 / M01 / 59-24 / 2FC0 / POT01A / E01 / FC1 / IP65 / P1 / A1 / A+B / N.DIS

MODELLO / MODEL: _____

700D
700D-F
700D-FCE
700D-FCM
700D-R
700D-RF

CORSA / STROKE: mm _____

es. 250 mm = 0250

Riduttore / Gearbox = 0

VELOCITÀ / SPEED: mm/s Pag. 131 _____

M01 / M02 / M03 / M04 / M05 / M06 / M07 / M08 / M09

M00 = Velocità non contemplate / Speed to be provided

Riduttore / Gearbox: Rpm

R01 / R02 / R03 / R04 / R05 / R06

R00 = Velocità non contemplate / Speed to be provided

MOTORE / MOTOR: _____

Grandezza / Size: D59

Tensione / Voltage: V12 / 24 / 36 / 48

FINE CORSA / LIMIT SWITCHES: Pag. 140 _____

Senza / None: Omettere / Leave blank

POTENZIOMETRO / POTENTIOMETER: Pag. 140 _____

Senza / None: Omettere / Leave blank

ENCODER / ENCODER: Pag. 140 _____

Senza / None: Omettere / Leave blank

ORIENTAMENTO GRUPPO FINE CORSA / LIMIT SWITCHES BOX SIDE: Pag. 136 _____

Senza / None: Omettere / Leave blank

FC1 / FC2 / FC3

GRADO PROTEZIONE / PROTECTION CLASS: _____

IP50 (Standard): Omettere / Leave blank

IP65

Altro / Other: Specificare / Advise

ATTACCO POSTERIORE / REAR END: Pag. 136 _____

P0 = Senza / None

P1 = Occhio / Eyelet (Standard)

P2 = Occhio / Eyelet (90° turned)

P3 = Attacco Speciale / Special end (drawing to be provided)

ATTACCO ANTERIORE / FRONT END: Pag. 137 _____

A0 = Senza / None

A1 = Occhio / Eyelet (Standard)

A2 = Forcella Fissa / Yoke

A3 = Forcella + Clip / Yoke + clip

A4 = Testa Snodo / Rod end

A5 = Filetto Femmina M10 / M10 Female

A6 = Filetto Femmina M12 / M12 Female

A7 = Filetto Maschio M10 / M10 Male

A8 = Filetto Maschio M12 / M12 Male

A9 = Attacco a Disegno / Special end (drawing to be provided)

Versione Riduttore / Gearbox Version: Pag. 134/135

A10 = Albero bisporgente con chiavetta / Double keyed shaft

A11 = Albero opposto motore con chiavetta / Keyed shaft opposite to motor

A12 = Albero lato motore con chiavetta / Keyed shaft motorside

OPZIONI / OPTIONS: _____

Senza / None: Omettere / Leave blank

A = Versione Inox (canotto, asta, attacco anteriore) / Stainless steel version (protection tube, rod, front end)

C = Vite Scoperta / Naked screw

D = Ruota Elicoidale in Bronzo / Bronze worm wheel

F = Verniciatura / Painting

VARIANTE / VERSIONS: _____

N° di Disegno / Drawing number: per condizioni non contemplate / drawing to be provided

Senza / None: Omettere / Leave blank

