

ELEMENTI ANTICOLLISIONE DIN/ISO

Serie ULS

Serie ULD con foro passante (serie in fase di ultimazione)

KipULS.pdf
Edizione 12-00



Caratteristiche

- Prevenzione di danni in caso di collisione
- Arresto del robot in caso di sovraccarico meccanico tramite sensore di segnalazione
- Valore di soglia di sovraccarico regolabile in modo continuo con meccanismo pneumatico
- Ritorno manuale semplice e preciso alla posizione di partenza
- Elevata ripetibilità

La nuova generazione di sistemi anticollisione con foro passante presenta i seguenti vantaggi aggiuntivi:

- Progettazione specifica per robot e portali con foro passante interno per cavi
- Semplicità di posa di cavi segnale e di alimentazione
- Protezione dei cavi di trasmissione dati e di alimentazione da danni esterni

Direzioni di sovraccarico

- Laterale
- Assiale
- Torsionale

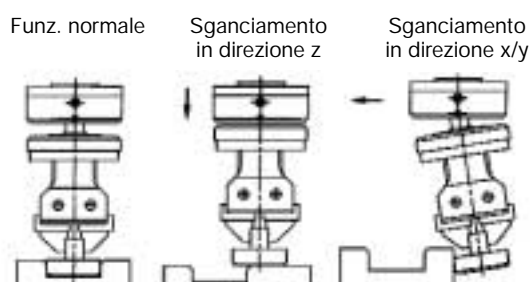
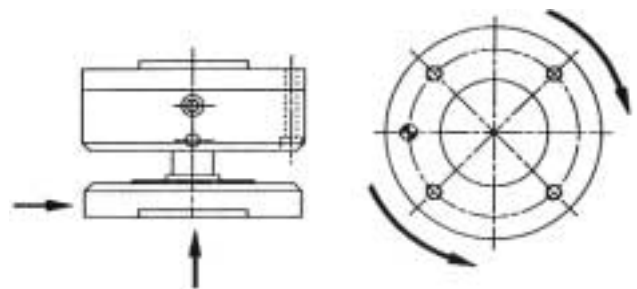
L'elemento anticollisione reagisce a forze di pressione in direzione z, a coppie attorno agli assi x e y e a momenti torcenti attorno all'asse z.

Principio di funzionamento

Questi elementi anticollisione sono costituiti da due parti mantenute in posizione da un sistema pneumatico. In normali condizioni operative costituiscono un'unità compatta e rigida. Variando la pressione pneumatica è possibile regolare le forze o le coppie di sganciamento.

In caso di un sovraccarico le due parti si disaccoppiano. Un sensore rileva lo sganciamento ed invia un segnale al comando del robot, che lo arresta.

Una volta rimossa la causa del sovraccarico e dopo che l'utensile si è riportato alla posizione originale, l'unità ULS può essere riarmata nella posizione di lavoro grazie a due dispositivi di centraggio incorporati.



SERIE ULS - ANTICOLLISIONE STANDARD

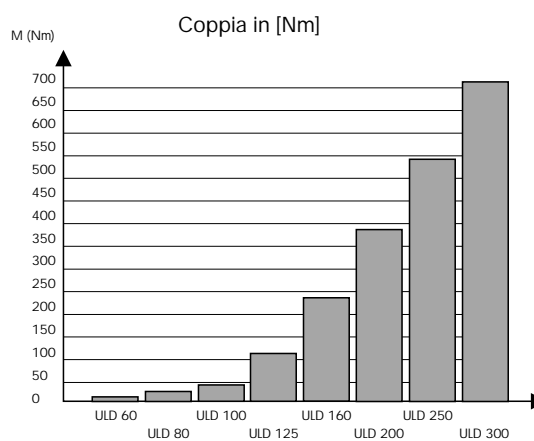
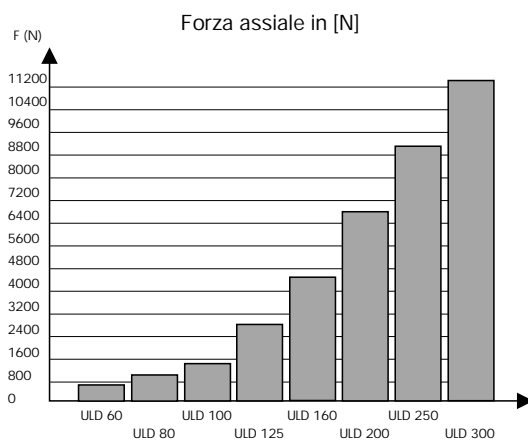
Dati tecnici

Serie ULS, tipo		60	80	100	125	160	200
Corsa max direzione Z	[mm]	11,0	11,9	13,6	11,9	14,5	9,5
Corsa max orizzontale	[°]	8	10	12	10	7	4
Corsa max torsionale con sicurezza antirotaz. (opzionale)	[°] [N]	360 -	360 90	360 90	360 40	360 90	360 90
Forza di sganciamento 1-6 bar	[N]	113-680	181-1085	246-1477	453-2720	785-4710	1327-7960
Coppia di sganciamento 1-6 bar	[Nm]	2-13	4-26	7-41	17-103	39-236	86-517
Errore ripetibilità max	[mm]	± 0,02	± 0,02	± 0,03	± 0,03	± 0,05	± 0,1
Peso proprio	[kg]	0,43	0,59	0,85	1,6	4,5	11,9
Materiale		Alluminio anodizzato / acciaio					
Temperatura d'esercizio	[°C]	da -20° a + 70°C					
Interruttore di sovraccarico		Interruttore di prossimità induttivo PNP 24 V CC/0,1 A					
Lunghezza cavo	[m]	5					
Pressione d'esercizio	[bar]	da 1 a 10 bar					

Criteri di scelta

La scelta del sistema anticollisione adatto per la propria applicazione va eseguita dopo avere preso in considerazione le coppie e le forze che si generano durante le normali

condizioni d'esercizio (con pressione d'esercizio a 6 bar), sulla base dei grafici seguenti:

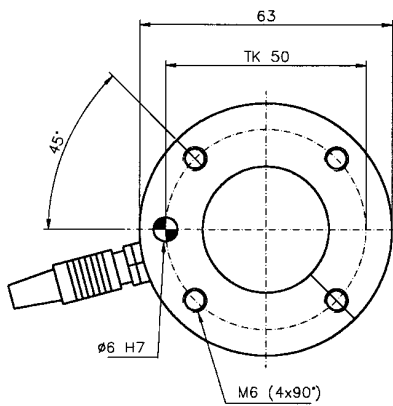


Esempio d'ordine: ULS - 80

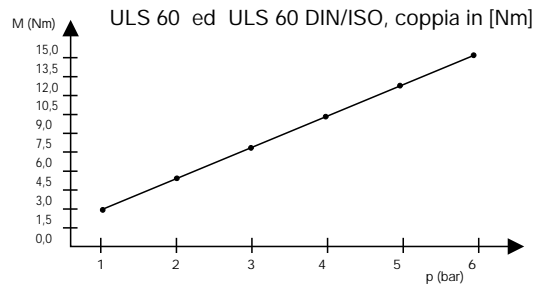
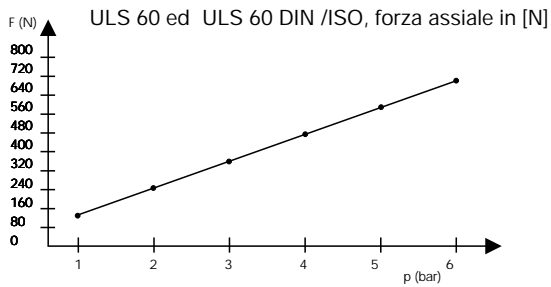
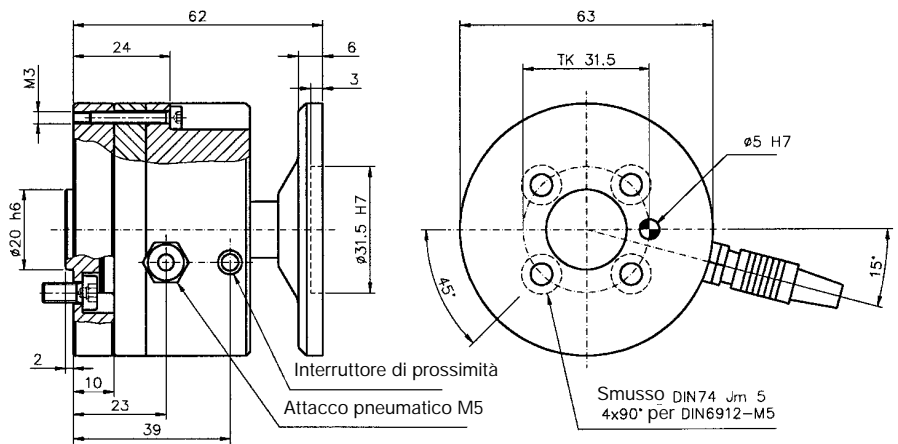
UL = Tipo
S = Esecuzione standard
80 = Diametro

ULS 60 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A50

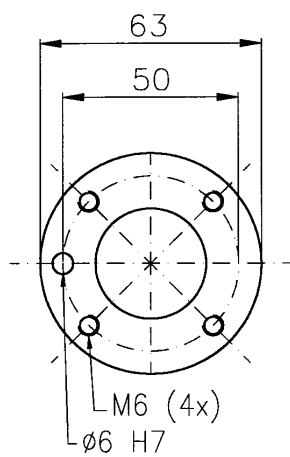


Lato robot 9409 - 1 - A31.5

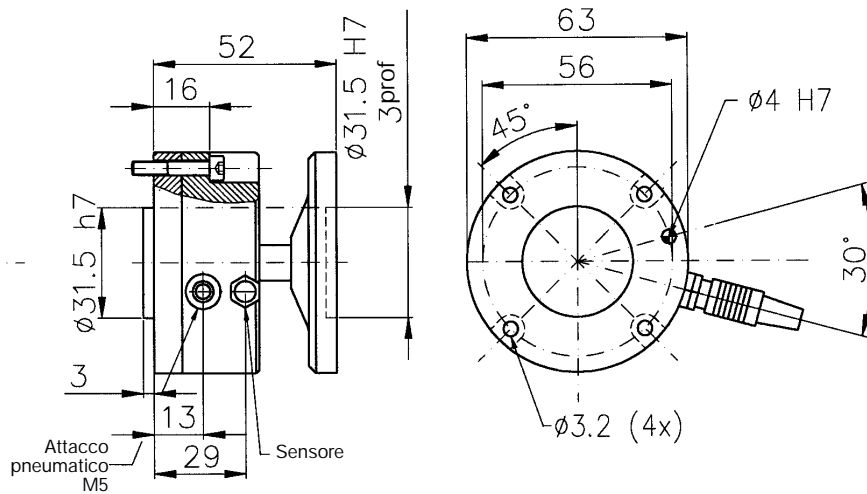


ULS 60

Lato pinza DIN/ISO 9409 - 1 - A50

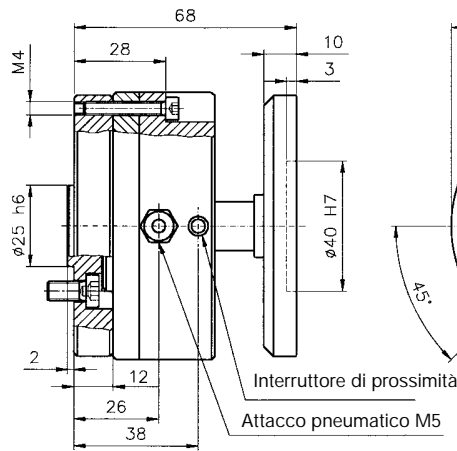
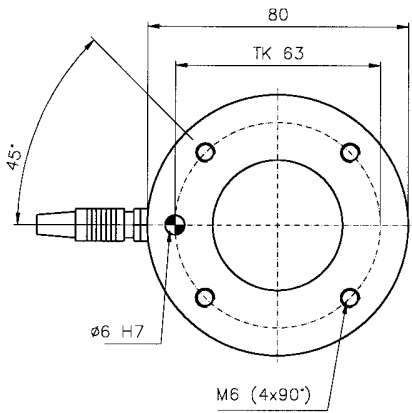


Lato robot

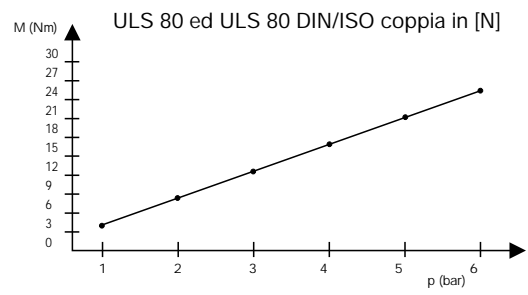
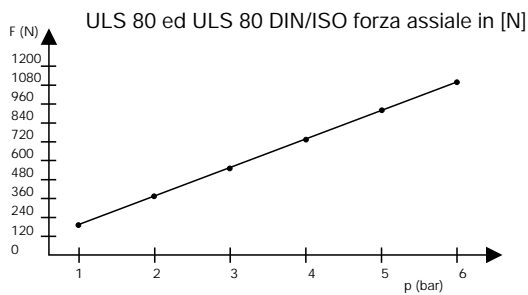
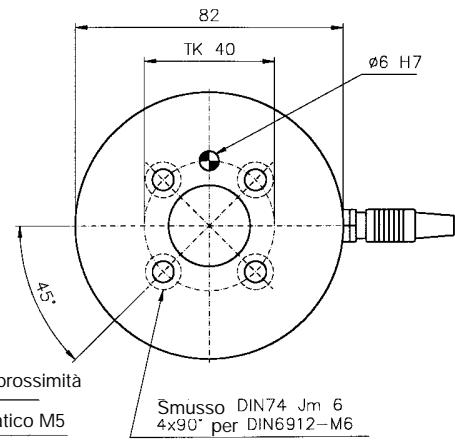


SERIE ULS 80 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A63

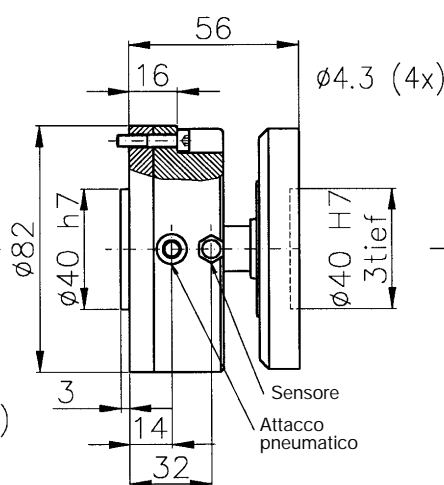
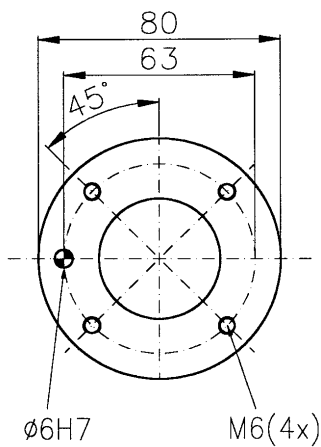


Lato robot 9409 - 1 - A40

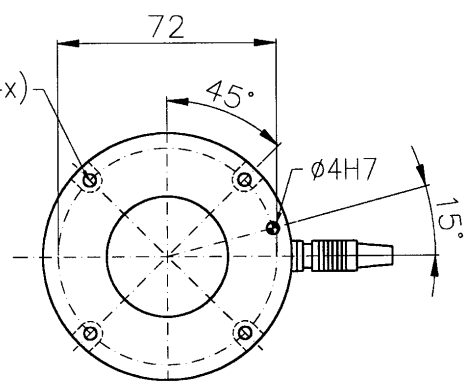


SERIE ULS 80

Lato pinza DIN/ISO 9409 - 1 - A63

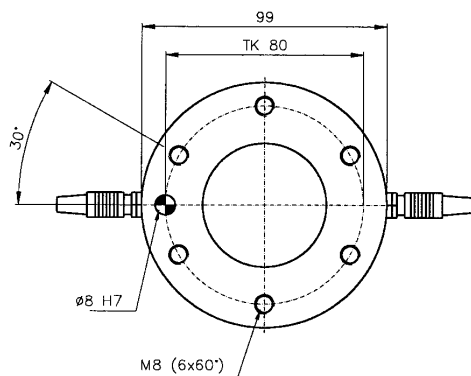


Lato robot

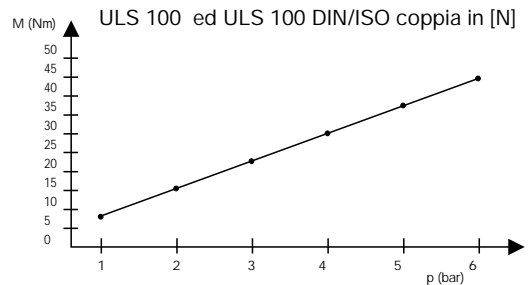
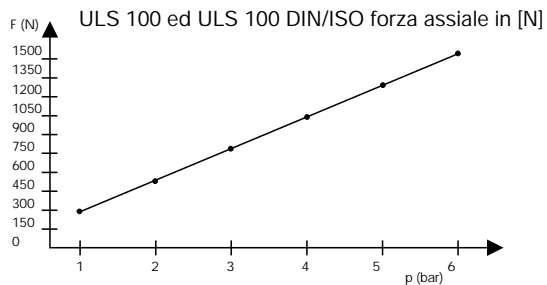
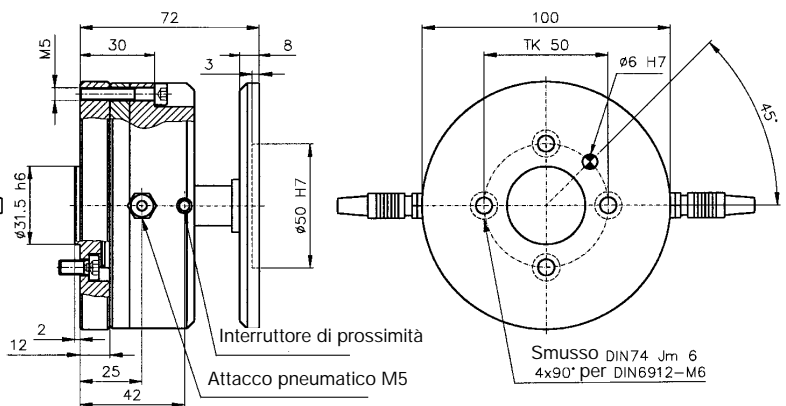


SERIE ULS 100 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A80

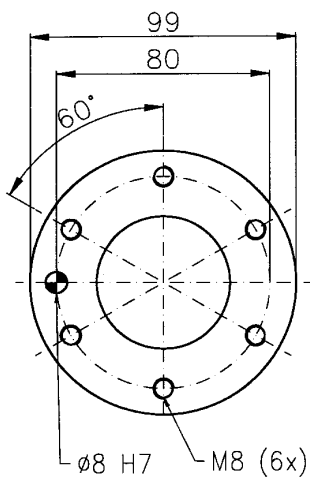


Lato robot 9409 - 1 - A50

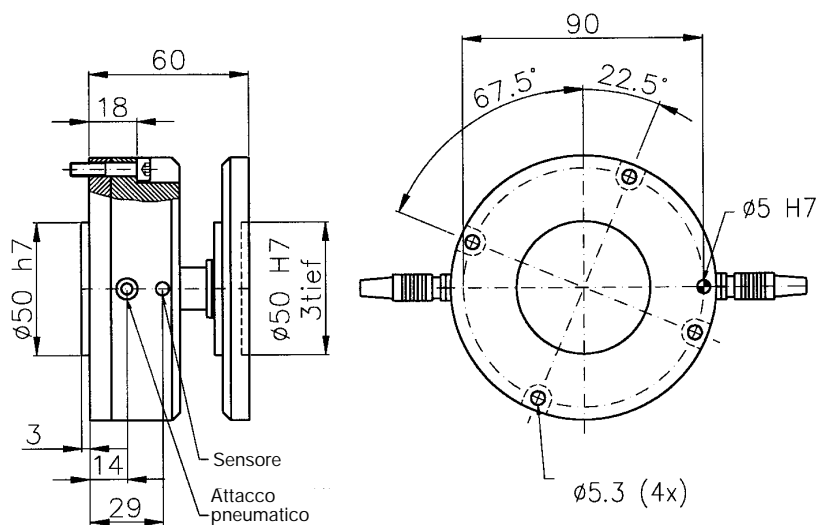


SERIE ULS 100

Lato pinza DIN/ISO 9409 - 1 - A80



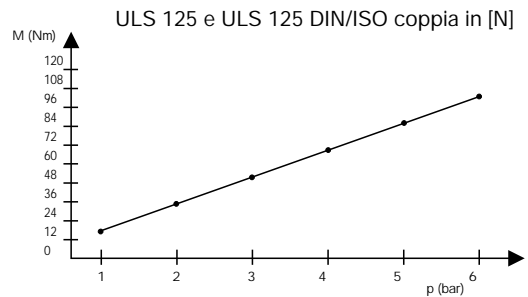
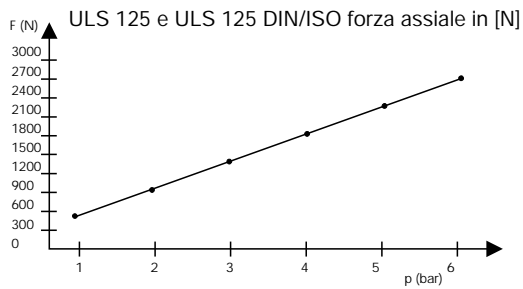
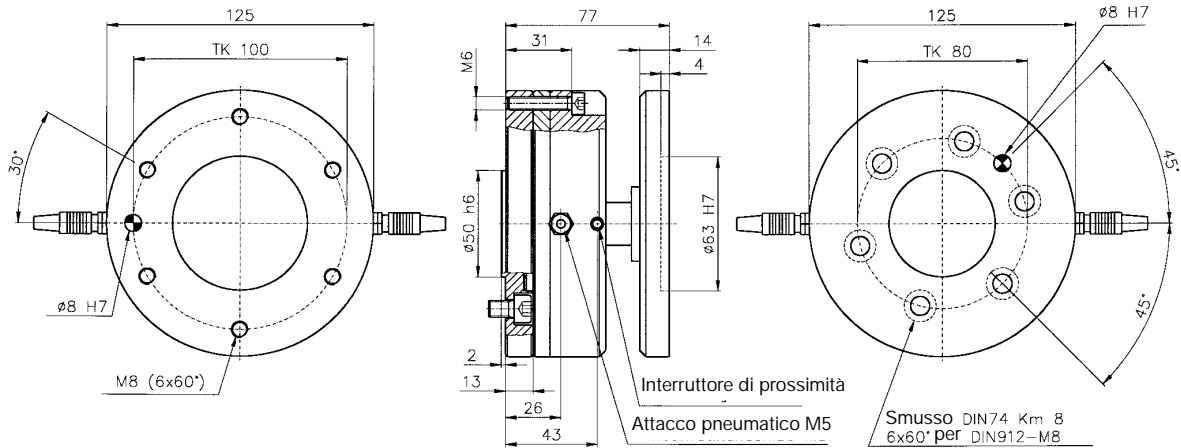
Lato robot



SERIE ULS 125 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A100

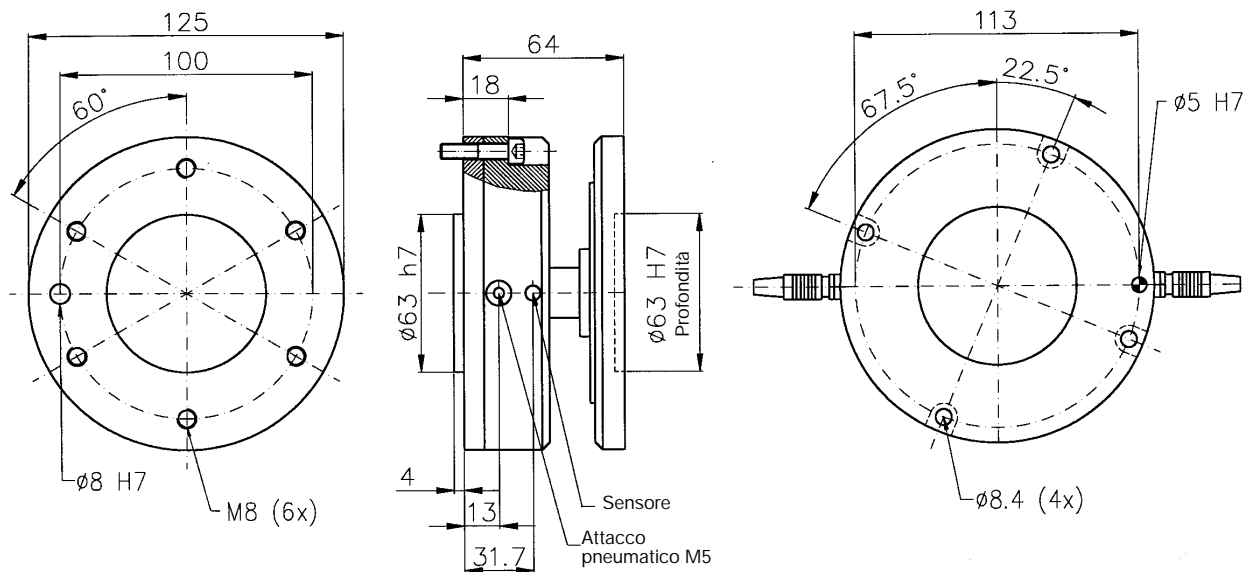
Lato robot 9409 - 1 - A80



SERIE ULS 125

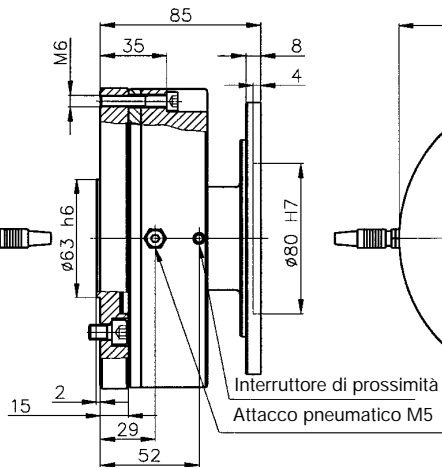
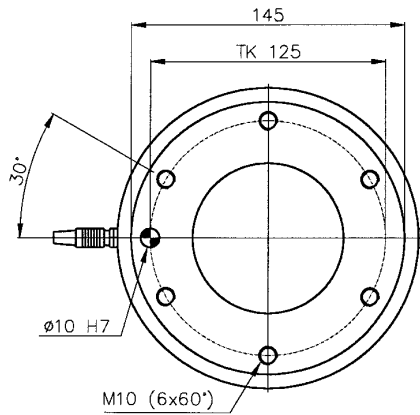
Lato pinza DIN/ISO 9409 - 1 - A100

Lato robot

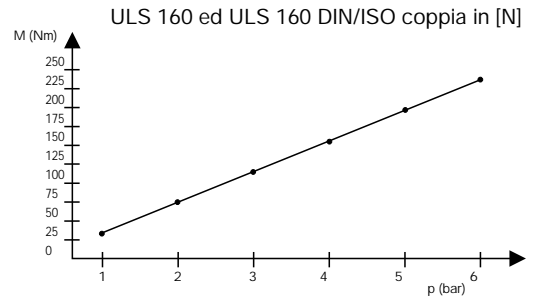
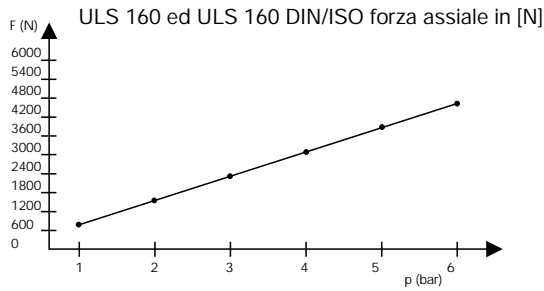
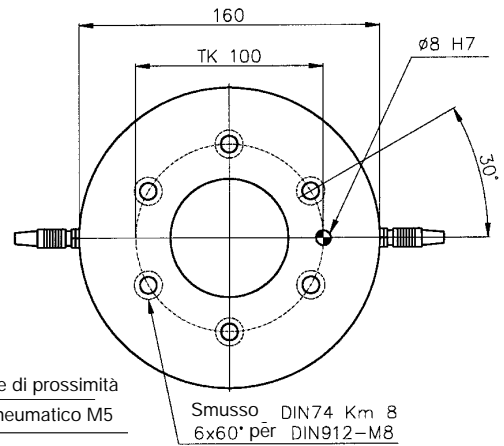


SERIE ULS 160 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A125

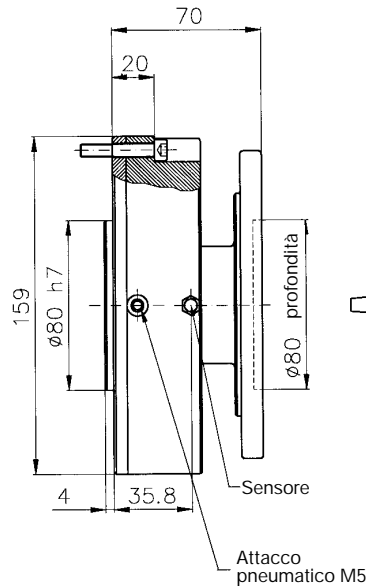
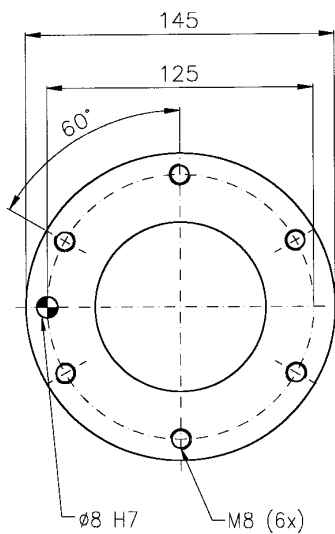


Lato robot 9409 - 1 - A100

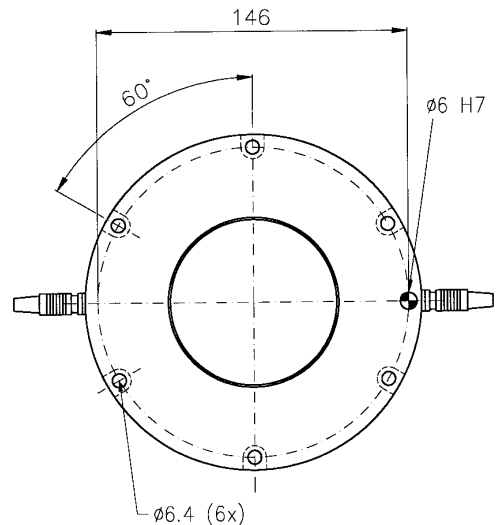


SERIE ULS 160

Lato pinza DIN/ISO 9409 - 1 - A125



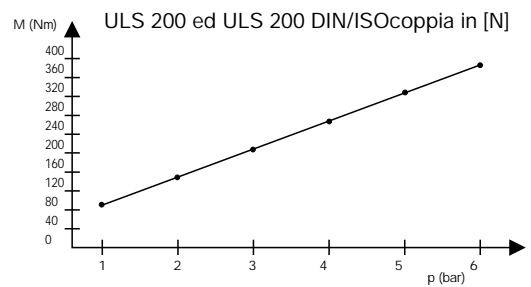
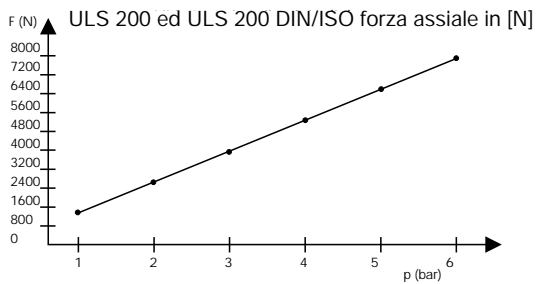
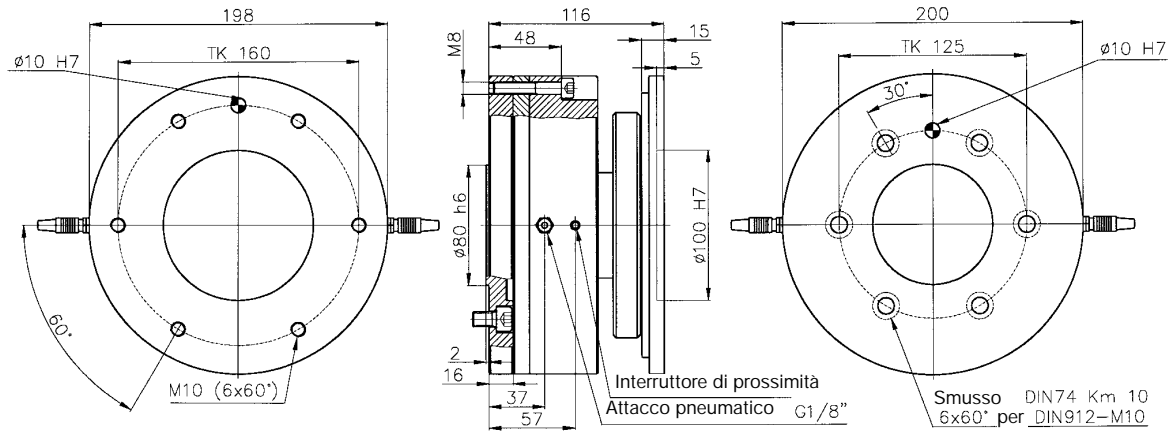
Lato robot



SERIE ULS 200 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A160

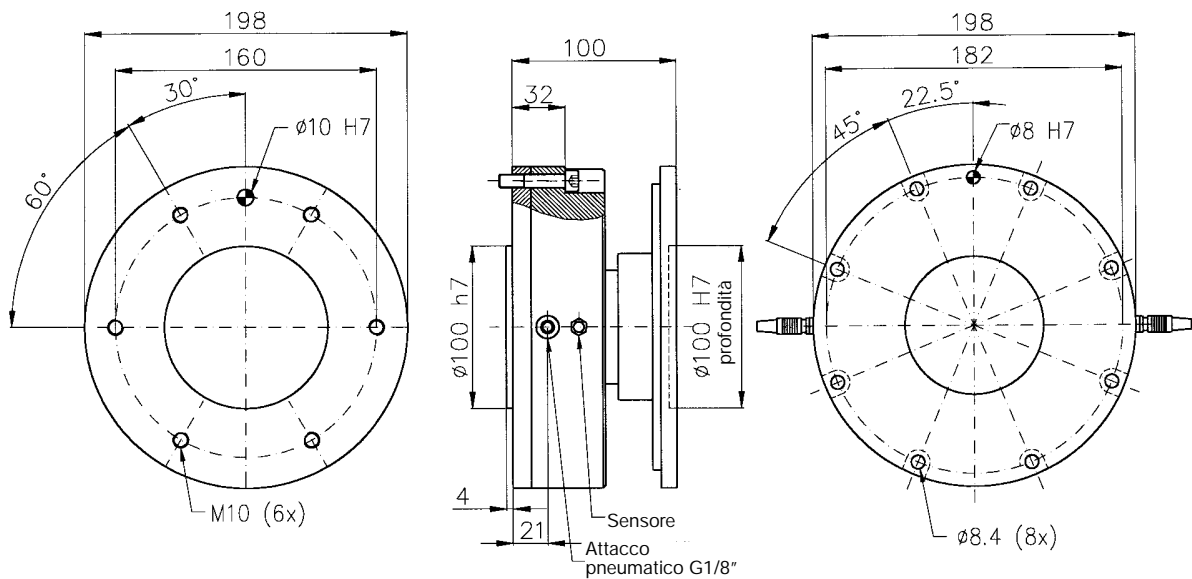
Lato robot DIN/ISO 9409 - 1 - A125



SERIE ULS 200

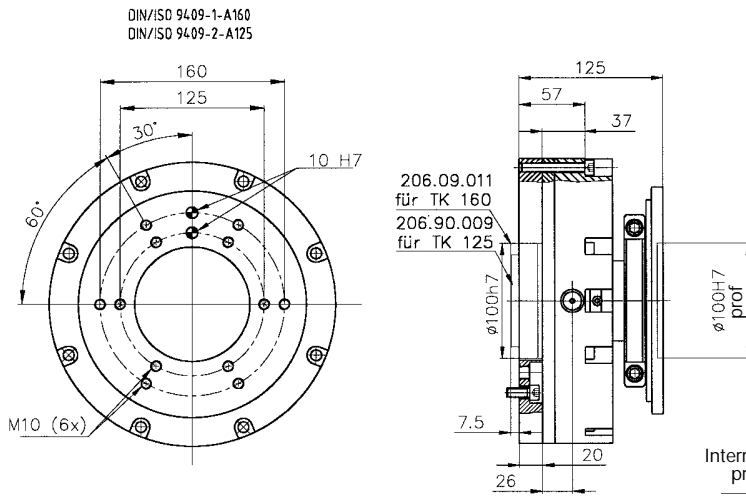
Lato pinza DIN/ISO 9409 - 1 - A160

Lato robot

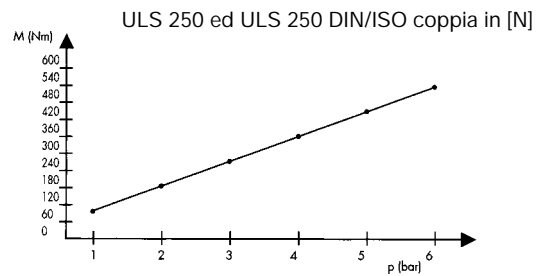
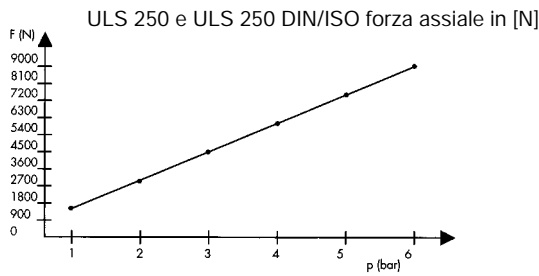
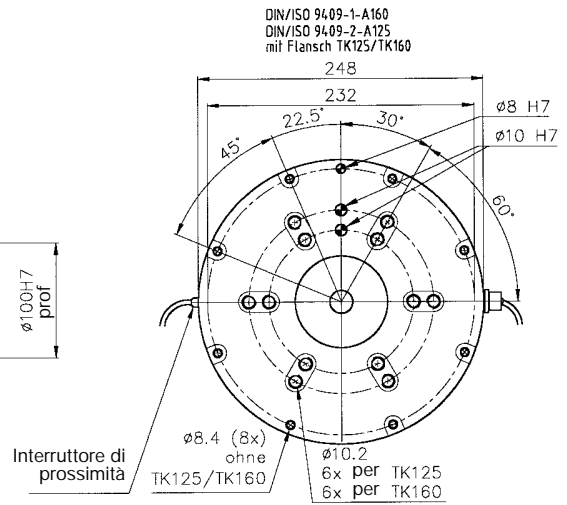


SERIE ULS 250 DIN/ISO

Lato pinza DIN/ISO 9409 - 1 - A125/160

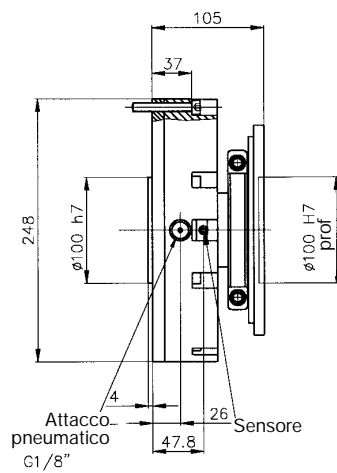
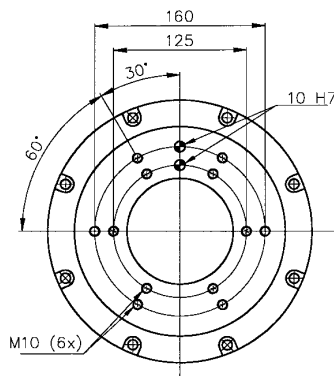


Lato robot DIN/ISO 9409 - 1 - A125/160

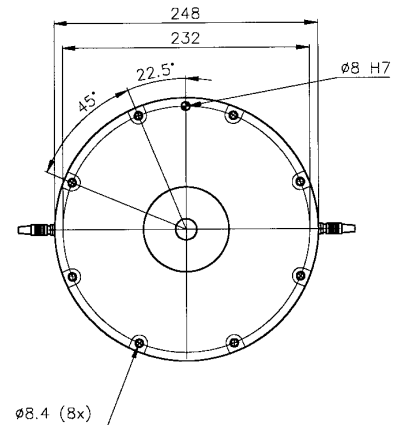


SERIE ULS 250

Lato pinza DIN/ISO 9409 - 1 - A125/160

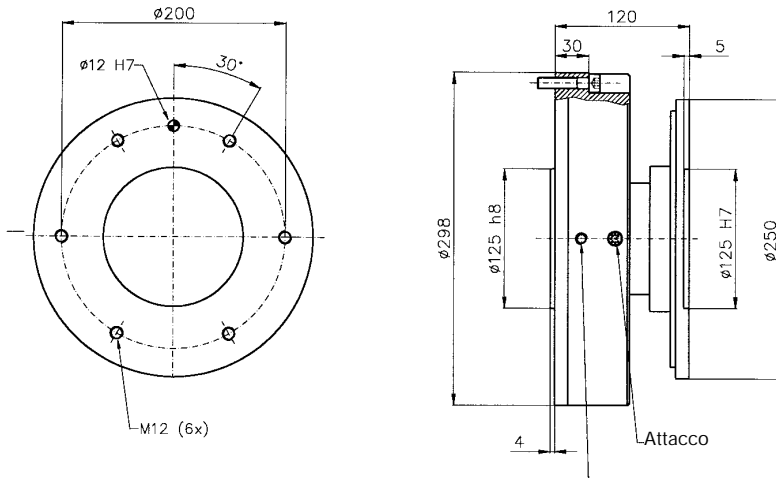


Lato robot

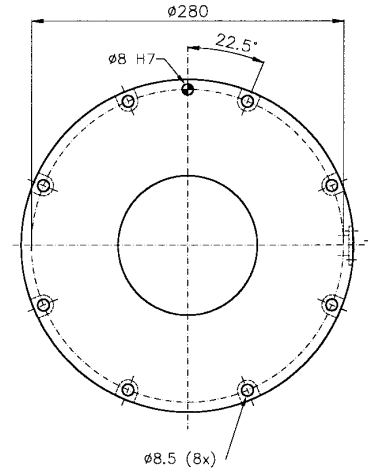


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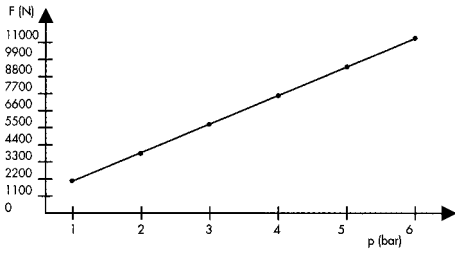
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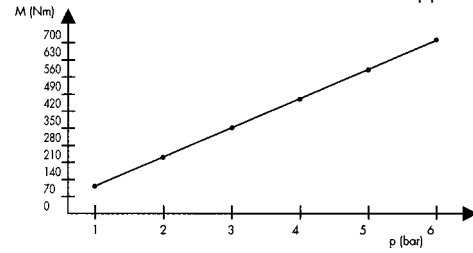
Lato robot DIN/ISO 9409 - 1 - A125/160



ULS 300 e d ULS 300 DIN/ISO forza assiale in [N]

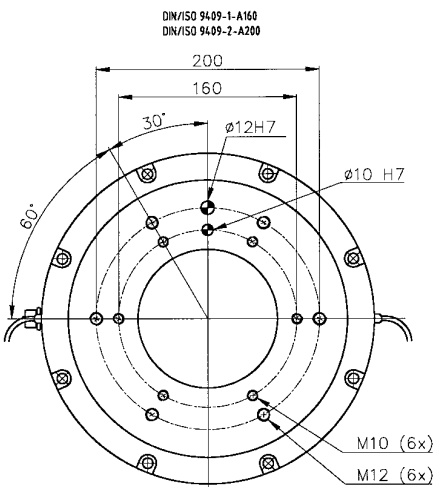


ULS 300 e d ULS 300 DIN/ISO coppia in [Nm]

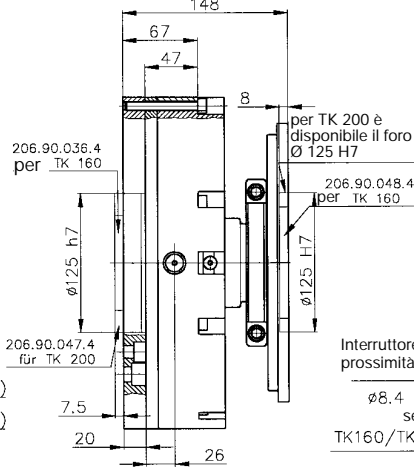


SERIE ULS 300

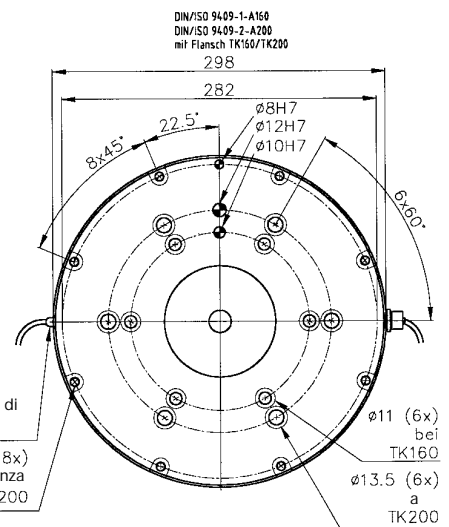
Lato pinza DIN/ISO 9409 - 1 - A200



Attacco pneumatico



Lato robot



SERIE ULD - ANTICOLLISIONE CON FORO PASSANTE

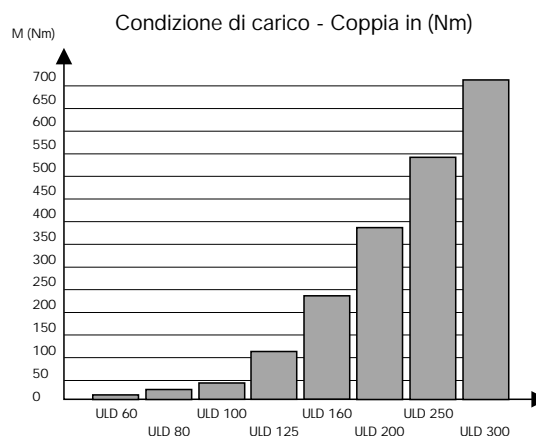
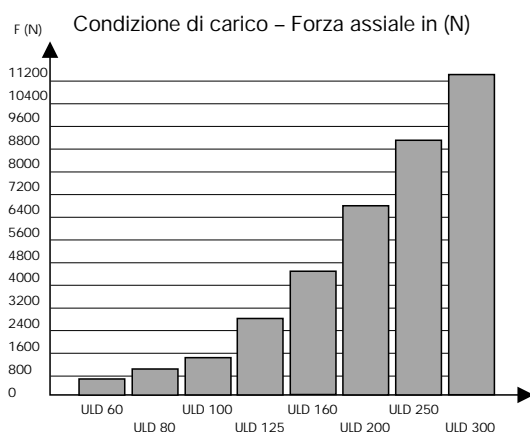
Dati tecnici

Serie ULD, tipo		60	80	100	125	160	200	250	300
Corsa max direzione Z	[mm]	11,1	12,1	12,0	12,1	15,0	10,4	15,0	23,0
Corsa max orizzontale	[°]	9	11	9	11	5	4	5	5
Corsa max torsionale	[°]	40	40	40	40	40	40	40	40
Forza di sganciam 1-6 bar	[N]	135-700	210-110	300-1500	510-2755	830-4720	1380-6710	1509-9024	1834-11389
Coppia di sganciam. 1-6 bar	[Nm]	3-15	5-28	8-45	18-106	43-241	91-382	108-544	119-714
Errore max di ripetibilità	[mm]	± 0,02	±0,02	± 0,03	± 0,03	± 0,05	± 0,1	± 0,1	± 1
Peso proprio	[kg]	0,39	0,46	0,83	1,65	3,58	5,78	12,4	17,5
Materiale		Alluminio anodizzato / acciaio							
Temperatura d'esercizio	[°C]	da -20° a + 70°C							
Interruttore di sovraccarico		Interruttore di prossimità induttivo PNP 24 V CC/0,1 A							
Lunghezza cavo	[m]	5							
Pressione d'esercizio	[bar]	da 1 a 10 bar							

Ambito di forza e coppia

La scelta del sistema anticollisione adatto per la propria applicazione va eseguita dopo avere preso in considerazione le coppie e le forze che si generano durante le normali

condizioni d'esercizio (con pressione d'esercizio a 6 bar), sulla base dei grafici seguenti:

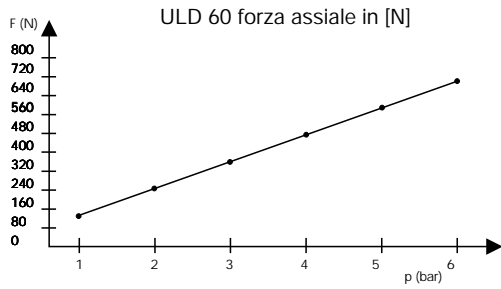


Esempio d'ordine: ULD - 80

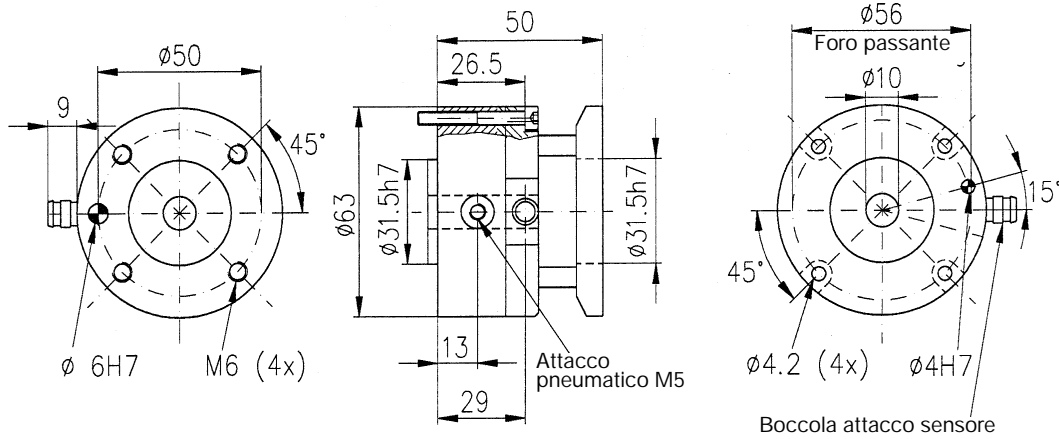
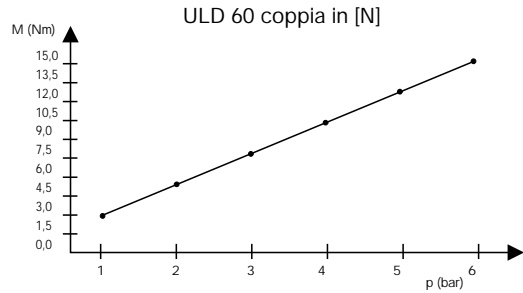
UL = Tipo
D = Esecuzione con foro passante
80 = Diametro

SERIE ULD 60

Lato pinza DIN/ISO 9409 - 1 - A50

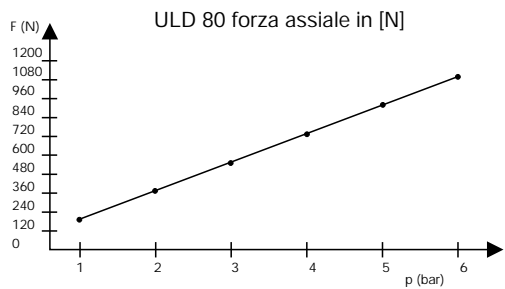


Lato robot

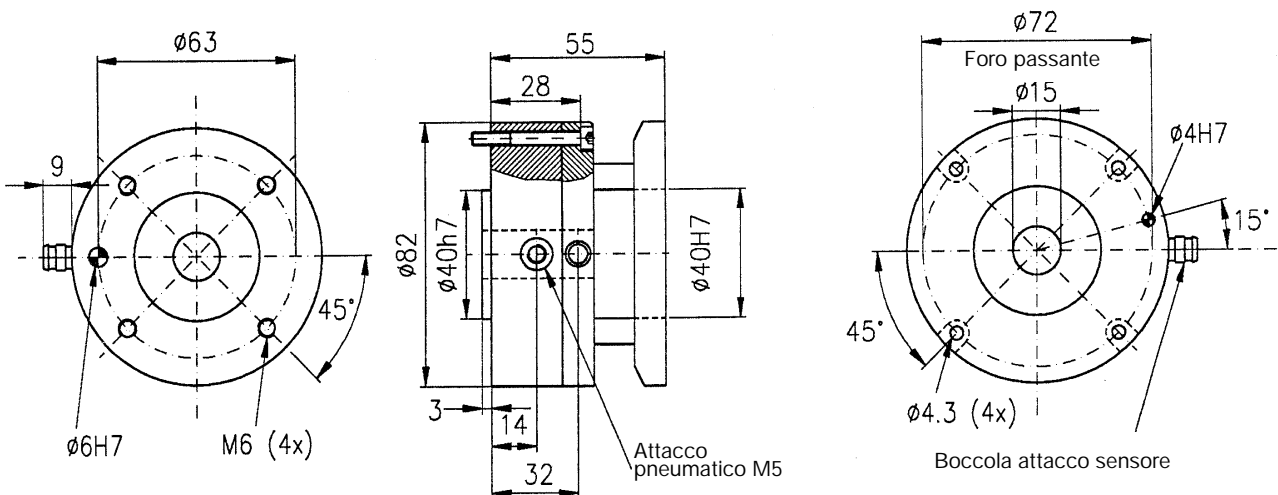
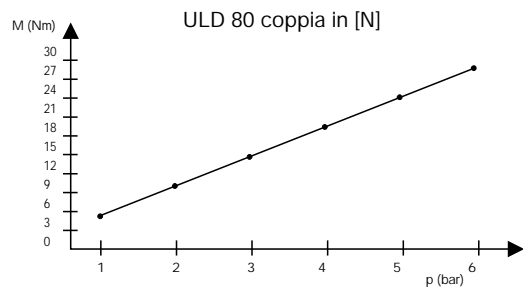


SERIE ULD 80

Lato pinza DIN/ISO 9409 - 1 - A63

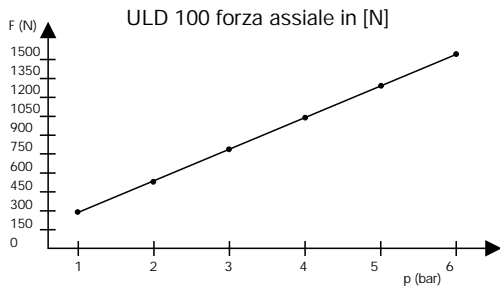


Lato robot

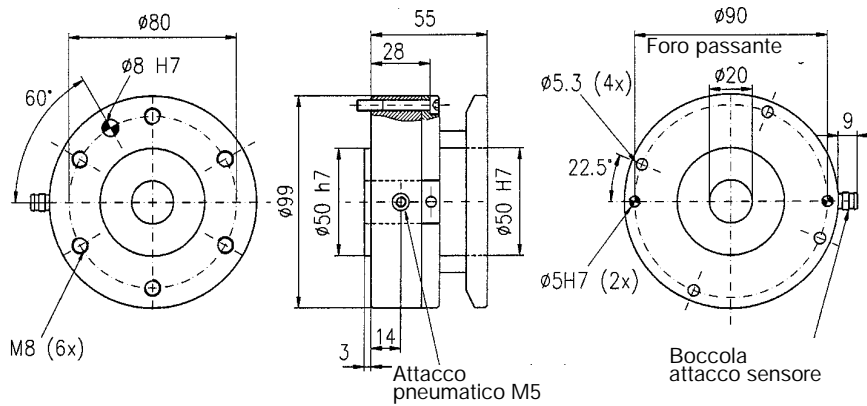
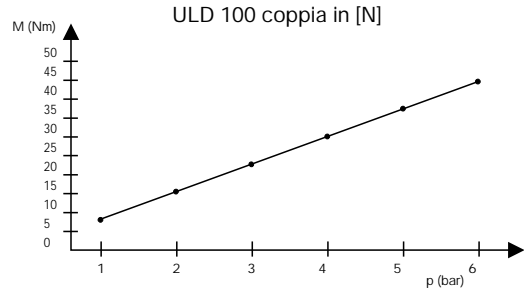


SERIE ULD 100

Lato pinza DIN/ISO 9409 - 1 - A80

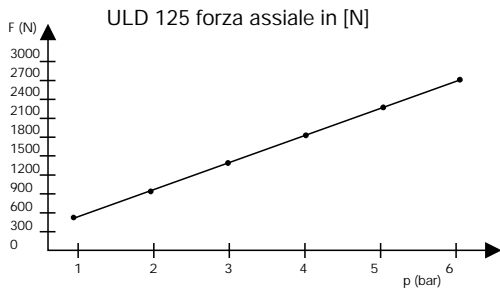


Lato robot

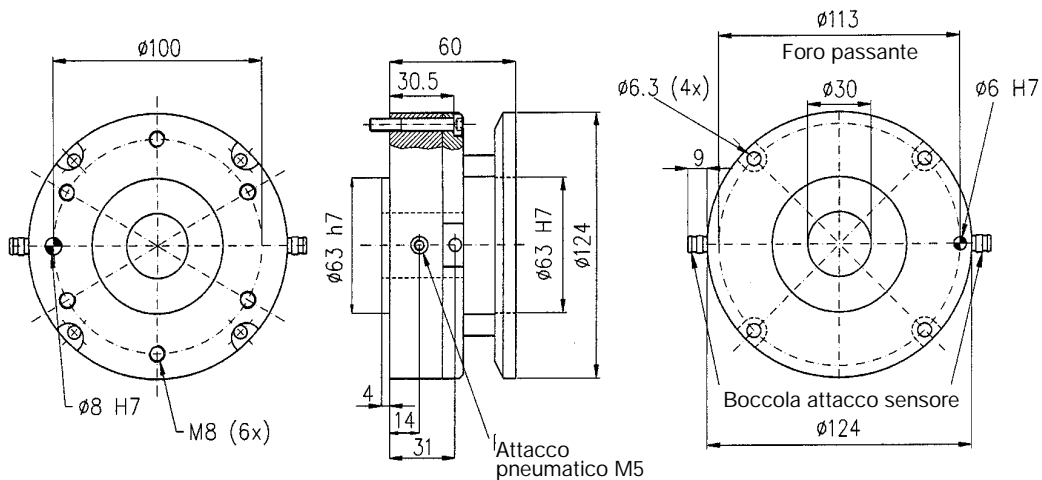
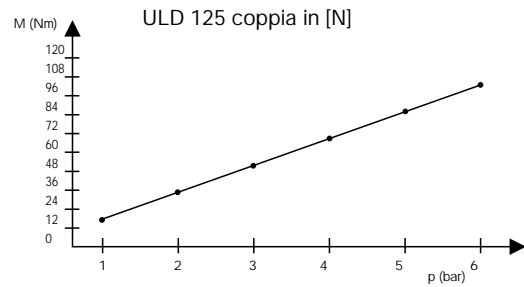


SERIE ULD 125

Lato pinza DIN/ISO 9409 - 1 - A100

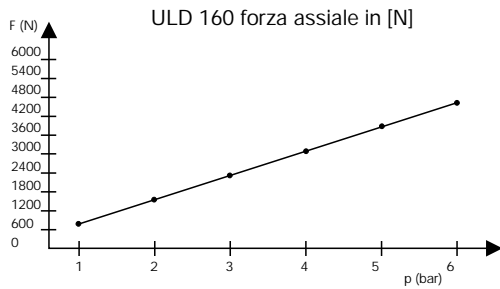


Lato robot

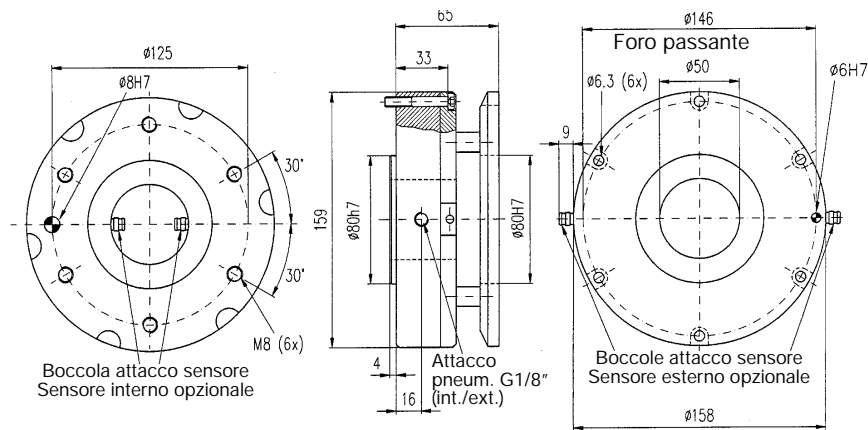
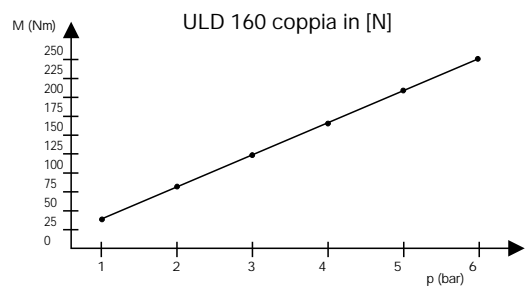


SERIE ULD 160

Lato pinza DIN/ISO 9409 - 1 - A125

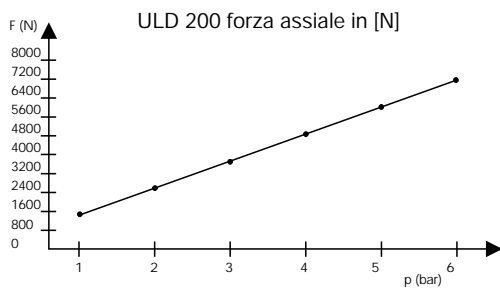


Lato robot

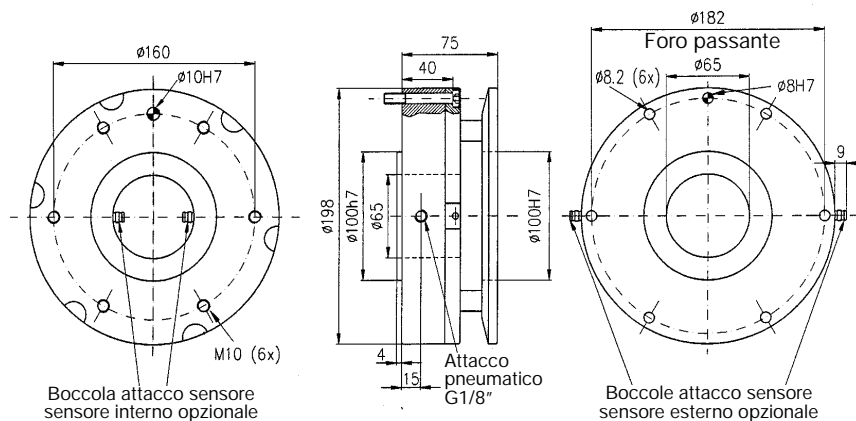
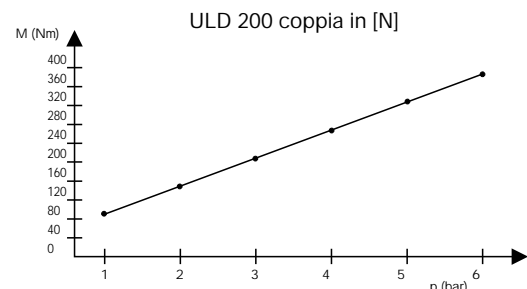


SERIE ULD 200

Lato pinza DIN/ISO 9409 - 1 - A160

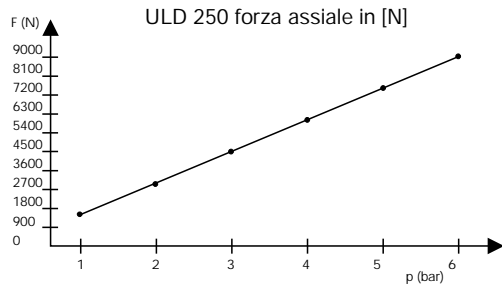


Lato robot

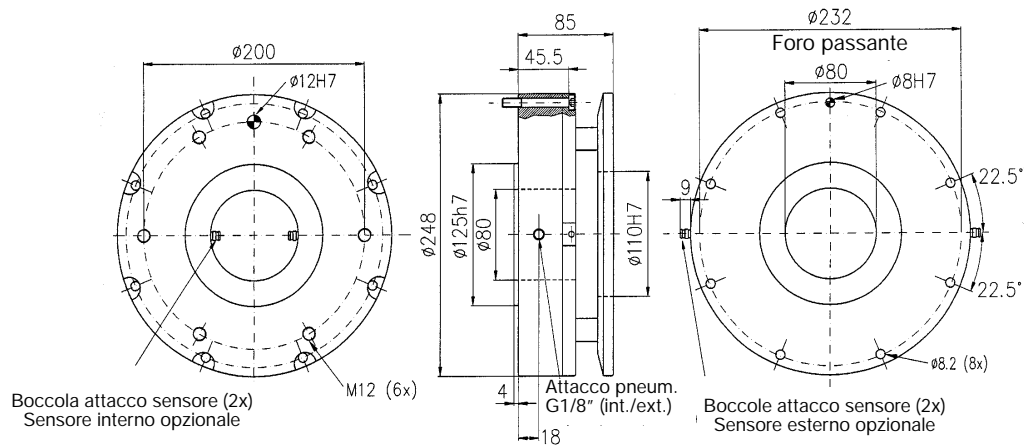
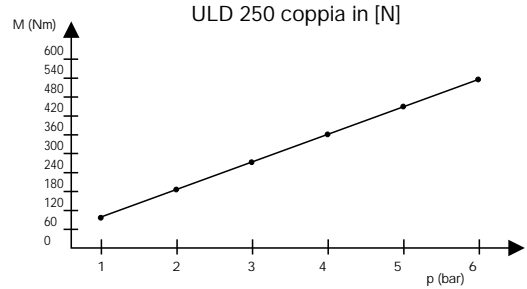


SERIE ULD 250

Lato pinza DIN/ISO 9409 - 1 - A200

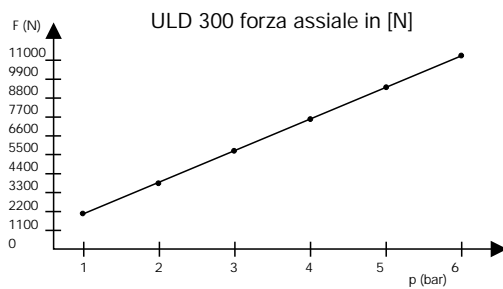


Lato robot



SERIE ULD 300

Lato pinza DIN/ISO 9409 - 1 - A250



Lato robot

