

211A

Coaxial - Gear

177lb in

Rating - Aluminum ONE STEP GEARBOXES

▪ QUICK SELECTION / Selezione veloce

input speed (n₁) = 1750 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [HP]	Output torque M _{2M} [lb in]	Service factor f.s.	Nominal power P _{1R} [HP]	Nominal torque M _{2R} [lb in]	Available NEMA motor flanges		Output Shaft		
							-W	-			
							56C	-			Ratio code
853	2.05	0.75	54	1.6	1.22	89			1939		01
744	2.35	0.75	62	1.7	1.28	106			1740		02
625	2.80	0.75	74	1.7	1.25	124			1542		03
517	3.38	0.75	90	1.7	1.26	150			1344	standard	04
372	4.70	0.75	124	1.4	1.07	177			1047	ø0.625	05
281	6.22	0.75	165	1.2	0.93	204			956		06
211	8.29	0.5	146	1.2	0.61	177			758		07
178	9.83	0.33	115	1.2	0.41	142			659		08

The dynamic efficiency is 0.98 for all ratios

Motor Flanges Available
Flange Motore Disponibili

 B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione

 C) Motor Flange Holes Position
Posizione Fori Flangia Motore

- 4
- EN Unit 211A is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox. For complete documentation please visit our web site.
- I Il riduttore 211A viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore. Per la documentazione completa consulta il nostro sito.
- E El reductor tamaño 211A se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor. Para documentación completa, consultar nuestra Web.

▪ LUBRICATION 211A Oil Quantity 1.76 ounces

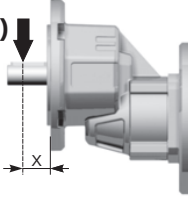
SHELL Omala S4 WE 320	ENI Telium VSF 320
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For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

▪ RADIAL AND AXIAL LOADS

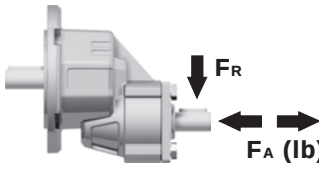
Output shaft
Albero di uscita

$$F_{eq} = F_R \cdot \frac{1.54}{X+0.77}$$


n ₂	FA	FR
700	22.7	113.3
600	27.0	134.9
400	31.0	156.5
300	33.9	170.0
200	39.3	196.9
140	43.2	215.8

FR (lb)
FA (lb)

Input shaft
albero in entrata



n ₂	FA	FR
1750	37.8	188.8
1140	43.2	215.8

*Strong axial loads in the DX direction are not allowed.
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

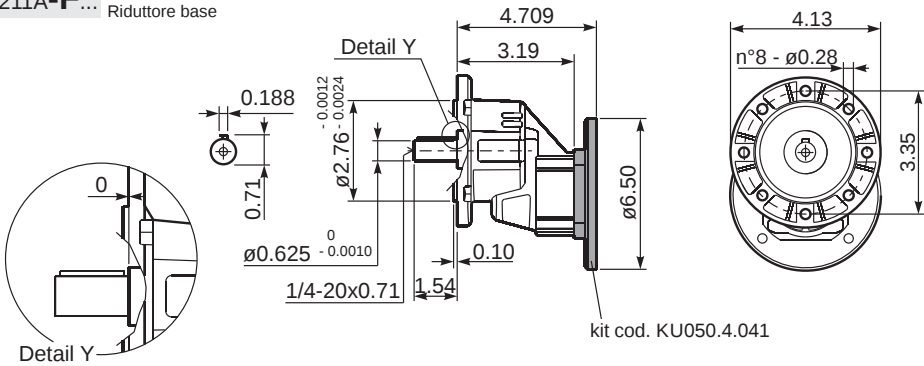
3D dimensions on the Web

Coaxial - Gear
177lb in

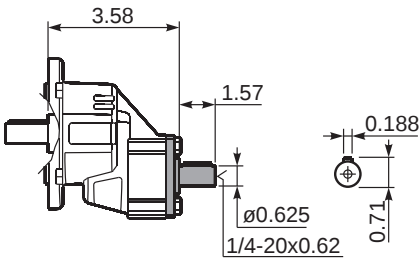
211A

P211A-F... Basic wormbox
Riduttore base

Gearbox weight
peso riduttore 3.09 lb



R211A-F... Basic wormbox
Riduttore base



4

311A

One step
266lb in

Rating - Aluminum ONE STEP GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1750 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [HP]	Output torque M _{2M} [lb in]	Service factor f.s.	Nominal power P _{1R} [HP]	Nominal torque M _{2R} [lb in]	Available NEMA motor flanges		Output Shaft		
							-W	-			
							56C	-		Ø	Ratios code
1114	1.57	1	55	2.1	2.07	115			2844		01
616	2.84	1	100	2.0	2.03	204			1954		02
531	3.29	1	116	2.0	1.98	230			1756	standard	03
453	3.87	1	136	1.8	1.82	248			1558		04
379	4.62	1	163	1.6	1.63	266			1360	On request	05
278	6.30	1	222	1.4	1.39	310			1063	Ø0.750	06
213	8.22	0.75	218	1.5	1.16	336			974	Ø0.875	07
161	10.86	0.50	192	1.3	0.65	248			776		08

The dynamic efficiency is 0.98 for all ratios

- Motor Flanges Available
Flange Motore Disponibili
- B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position
Posizione Fori Flangia Motore

Unit 311A is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

Il riduttore 311A viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

El reductor tamaño 311A se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.
Para documentación completa, consultar nuestra Web.

LUBRICATION 311A Oil Quantity 3.52 Ounces

SHELL Omala S4 WE 320	ENI Telium VSF 320
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For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$F_{eq} = F_R \cdot \frac{1.61}{X+0.83}$

Input shaft
Albero in entrata

n ₂	FA	FR	n ₂	FA	FR	n ₂	FA	FR
700	18.9	94.4	400	25.8	130.3	200	32.8	164.0
600	22.5	112.3	300	28.3	141.5	140	35.9	179.7

n ₁	FA	FR
1750	31.4	157.3
1140	35.9	179.7

tab. 2

INCH

3D dimensions on the Web

One step

266lb in

311A

P311-F...

Output flange
flange di uscita

Gearbox weight
peso riduttore

Mold base
With flange

4.41 lb
5.29 lb

*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø0.625x2.06	0.188	0.71	1/4-20x0.71
On request A richiesta	ø0.750x2.125	0.188	0.83	1/4-20x0.71
	ø0.875x2.125	0.188	0.96	1/4-20x0.71

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	k1	k2	s1	kit code	Type
6.50	4.50 ^{-0.0017} _{-0.0033}	0.39	5.87	0.13	5.19	1.84	0.41	KU311.9.012	Nema
5.51	3.74 ^{-0.0014} _{-0.0028}	0.45	4.53	0.12	5.09	1.92	0.35	KC30.9.011	Metric
6.30	4.33 ^{-0.0014} _{-0.0028}	0.45	5.12	0.14	5.09	1.92	0.35	KC30.9.012	
7.87	5.12 ^{-0.0017} _{-0.0033}	0.45	6.50	0.14	5.09	1.92	0.43	KC30.9.013	

P311-H1...

With feet
Con piedini

R311-N...

Input Shaft
Albero in entrata

P311-N...

Basic gearbox
Riduttore base

411A

One step
336lb in

Rating - Aluminum ONE STEP GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1750 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [HP]	Output torque M _{2M} [lb in]	Service factor f.s.	Nominal power P _{1R} [HP]	Nominal torque M _{2R} [lb in]	Available NEMA motor flanges			Output Shaft 	 Ratios code
							-W 56C	-X 143/5TC			
1114	1.57	2	111	1.6	3.19	177				2844	01
616	2.84	2	201	1.5	3.09	310				1954	02
531	3.29	2	233	1.4	2.89	336				1756	03
453	3.87	2	273	1.3	2.59	354				1558	04
379	4.62	2	326	1.3	2.55	416				1360	05
278	6.30	1.5	334	1.2	1.83	407				1063	06
213	8.22	0.75	218	1.5	1.16	336				974	07
161	10.86	0.5	192	1.3	0.65	248				776	08

The dynamic efficiency is 0.98 for all ratios

- Motor Flanges Available
Flange Motore Disponibili
- B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit 411A is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

I Il riduttore 411A viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

E El reductor tamaño 411A se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.
Para documentación completa, consultar nuestra Web.

LUBRICATION 411A Oil Quantity 3.52 Ounces

SHELL Omala S4 WE 320	ENI Telium VSF 320
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For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$F_{eq} = F_R \cdot \frac{1.81}{X+0.83}$

n ₂	FA	FR
700	40.9	204.4
600	44.9	224.7

n ₂	FA	FR
400	51.7	258.4
300	56.2	280.8

n ₂	FA	FR
200	65.1	325.8
140	71.9	359.5

Input shaft
Albero in entrata

n ₁	FA	FR
1750	53.9	269.6
1140	62.9	314.5

tab. 2

INCH
3D dimensions on the Web

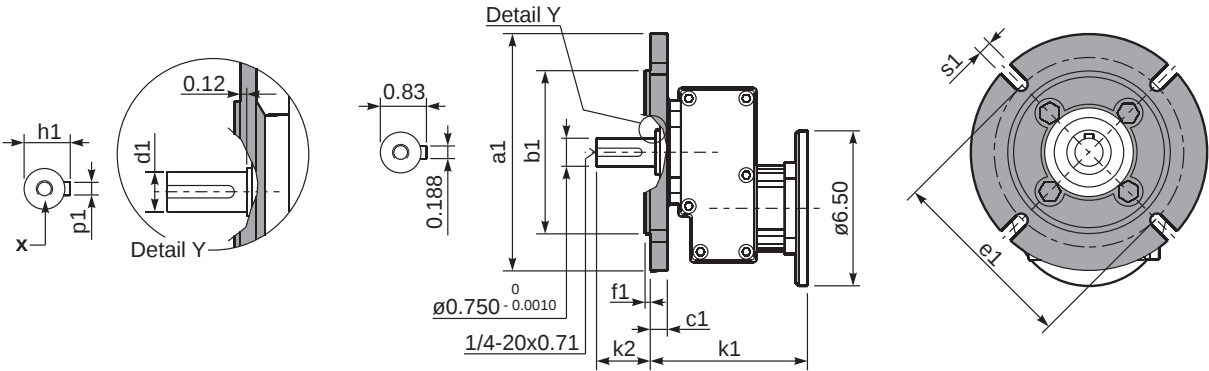
One step
336lb in 411A

P411-F... Output flange
flange di uscita

Gearbox
weight
peso riduttore

Mold base
With flange

6.39 lb
7.27 lb



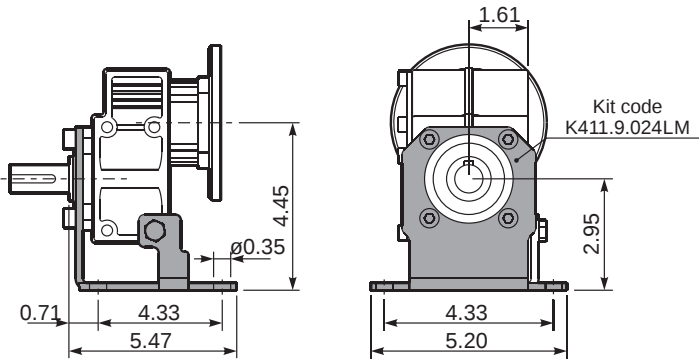
*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø0.750x2.125	0.188	0.83	1/4-20x0.71
On request A richiesta	Ø0.625x2.06	0.188	0.71	1/4-20x0.71
	Ø0.875x2.125	0.188	0.96	1/4-20x0.71

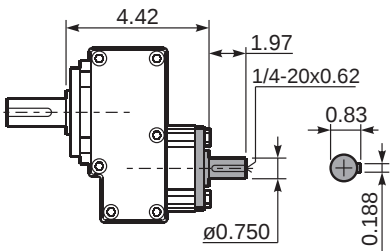
Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	k1	k2	s1	kit code	Type
6.50	4.50 ^{-0.0017} _{-0.0033}	0.39	5.87	0.13	5.51	1.91	0.41	KU311.9.012	Nema
5.51	3.74 ^{-0.0014} _{-0.0028}	0.45	4.53	0.12	5.42	1.99	0.35	KC30.9.011	Metric
6.30	4.33 ^{-0.0014} _{-0.0028}	0.45	5.12	0.14	5.42	1.99	0.35	KC30.9.012	
7.87	5.12 ^{-0.0017} _{-0.0033}	0.45	6.50	0.14	5.42	1.99	0.43	KC30.9.013	

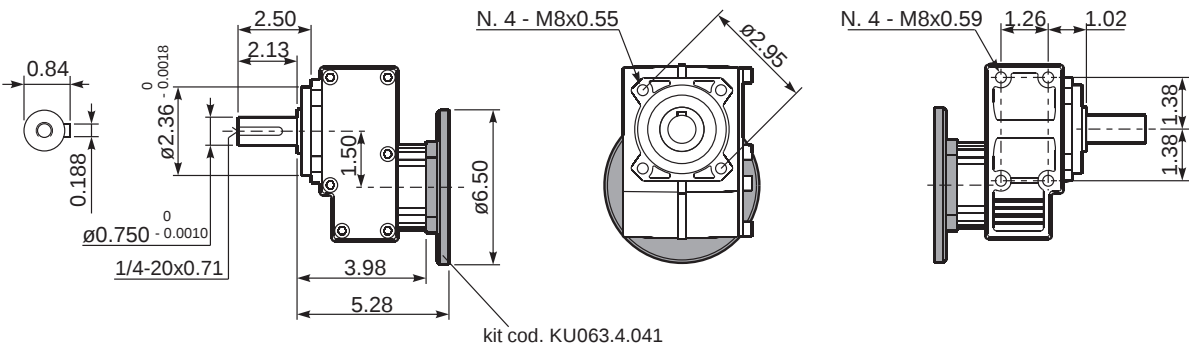
P411-H1... With feet
Con piedini



R411-N... Input Shaft
Albero in entrata



P411-N... Basic gearbox
Riduttore base



511A

One step
970lb in

Rating - Aluminum ONE STEP GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n₁) = 1750 min⁻¹

Output Speed n ₂ [min ⁻¹]	Ratio i	Motor power P _{1M} [HP]	Output torque M _{2M} [lb in]	Service factor f.s.	Nominal power P _{1R} [HP]	Nominal torque M _{2R} [lb in]	Available NEMA motor flanges			Output Shaft 	 Ratios code
							-X 143/5TC	-Y 182/4TC			
1346	1.30	5	229	1.5	7.72	354			3039	standard Ø1.125	01
714	2.45	5	432	1.4	7.16	620			2049		02
528	3.31	5	585	1.4	6.81	797			1653		03
406	4.31	3	456	2.1	6.40	974			1356		04
332	5.27	3	558	1.7	5.23	974			1158		05
230	7.63	2	538	1.8	3.62	974			861		06
167	10.50	1.5	556	1.3	1.91	708			663		07

The dynamic efficiency is 0.98 for all ratios

- Motor Flanges Available
Flange Motore Disponibili
- B) Supplied with Reduction Bushing
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position
Posizione Fori Flangia Motore

EN Unit **511A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.
For complete documentation please visit our web site.

I Il riduttore **511A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.
Vedi tab.1 per oli e quantità consigliati.
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.
Per la documentazione completa consulta il nostro sito.

E El reductor tamaño **511A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.
Ver tabla 1, para cantidades y aceites recomendados.
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.
Para documentación completa, consultar nuestra Web.

LUBRICATION 511A Oil Quantity 10.21 Ounces

SHELL Omala S4 WE 320 **ENI** Telium VSF 320

For all details on lubrication and plugs check our website
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

RADIAL AND AXIAL LOADS

Output shaft
Albero di uscita

$F_{eq} = F_R \cdot \frac{1.88}{X+0.90}$

n ₂	FA	FR
700	66.0	330.3
600	71.9	359.5

n ₂	FA	FR
400	83.1	415.6
300	89.9	449.3

n ₂	FA	FR
200	103.3	516.7
140	114.6	572.9

Input shaft
Albero in entrata

n ₁	FA	FR
1750	89.9	449.3
1140	98.8	494.3

tab. 2

INCH
3D dimensions on the Web

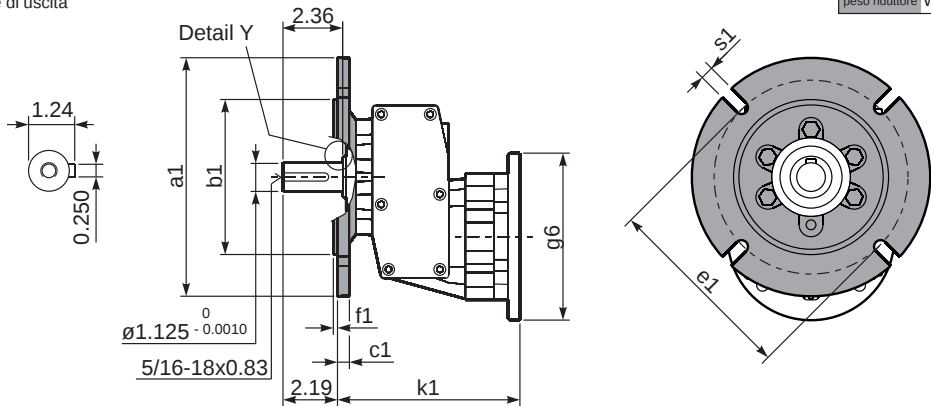
One step
970lb in 511A

P511-F... Output flanges
flange di uscita

Gearbox weight
peso riduttore

Mold base
With flange

10.8 lb
12.8 lb

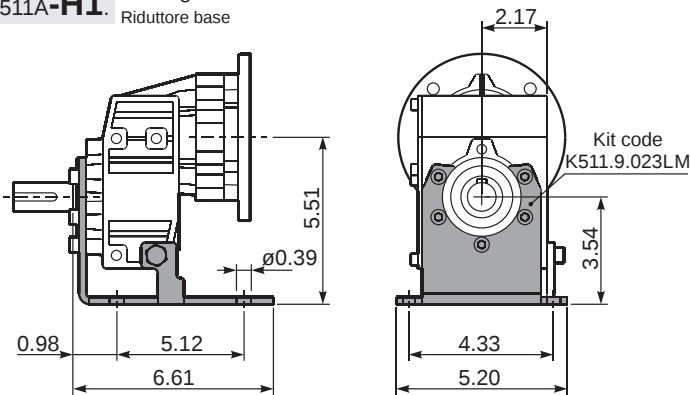


Available output flanges / flange di uscita

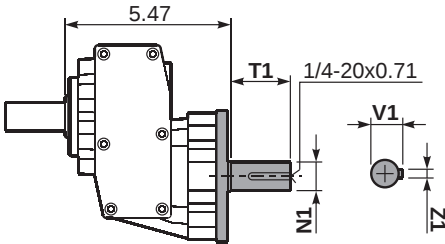
a1 Ø	b1	c1	e1	f1	s1	kit code	Type
6.50	4.50 ^{+0.0017} _{-0.0033}	0.61	5.87	0.13	0.41	KU511.9.012	Nema
5.51	3.74 ^{+0.0014} _{-0.0028}	0.39	4.53	0.12	0.35	KC40.9.011	Metric
6.30	4.33 ^{+0.0014} _{-0.0028}	0.39	5.12	0.14	0.35	KC40.9.012	
7.87	5.12 ^{+0.0014} _{-0.0028}	0.43	6.50	0.14	0.43	KC40.9.013	
9.84	7.09 ^{+0.0017} _{-0.0033}	0.45	8.46	0.14	0.55	KC40.9.014	

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P511A-H1. Basic gearbox
Riduttore base

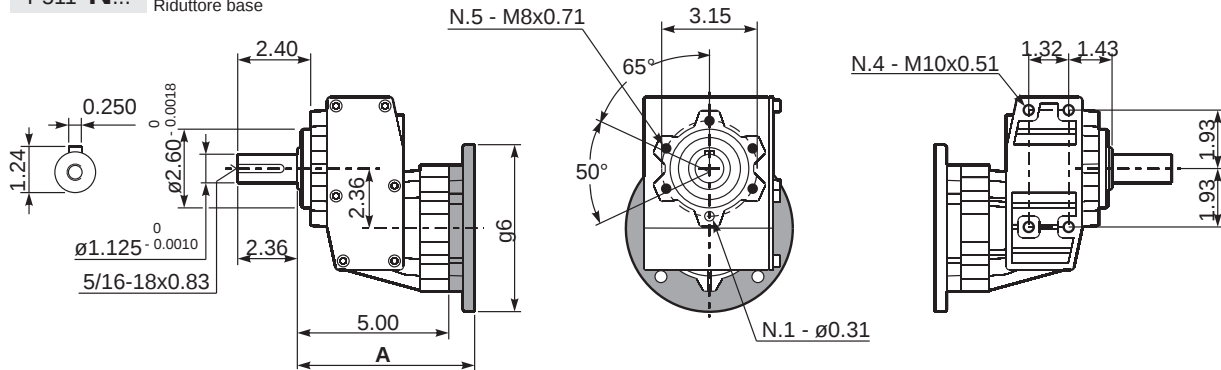


R511A-N... Input Shaft
Albero in entrata



Input shaft	N1	T1	V1	Z1	kit code
Standard	0.875	1.97	0.96	0.188	KC50.5.070U
On request	0.750	1.97	0.83	0.188	KC50.5.069U

P511-N... Basic gearbox
Riduttore base



Nema flanges	A	k1	g6	kit code
143/5TC	5.98	6.15	6.50	KU085.4.041
182/4TC	6.69	6.86	8.88	KU085.4.042