

MEASURING INSTRUMENTS  
STRUMENTI DI MISURA

  
MADE IN ITALY



*IRIS*

*Strumenti digitali a bracci lineari*

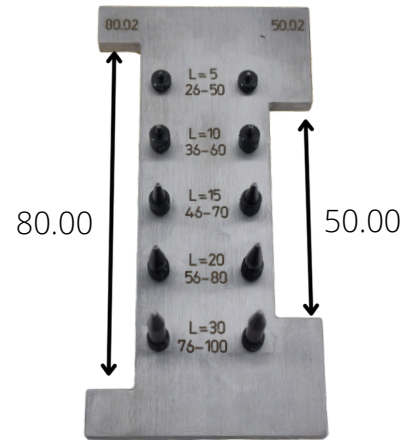
*Apollo*

*Forcelle a comparazione*

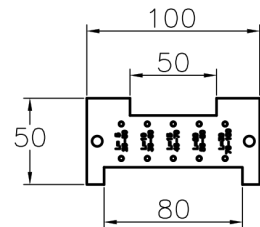


- Interchangeable tips
- Data transmission via Proximity-USB
- Arms length 60, 80, 120, depending on the need

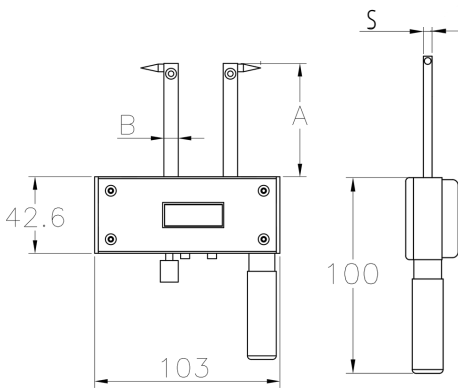
- Puntali intercambiabili
- Elettronica con uscita dati Proximity-USB
- Lunghezza bracci 60, 80, 120, a seconda della necessità



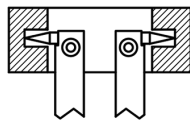
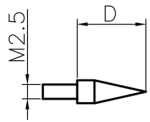
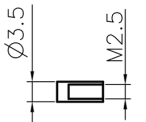
MASTER AZZERAMENTO



Article	Code
MA	00748



Article	Range	A	B	S	Accuracy	Resolution	Code	Kg
IRIS 60 H	26-100	60	8	4.5	0.01	0.01	00744	0.300
IRIS 80 H	26-100	80	10	4.5	0.01	0.01	00746	0.340
IRIS 120 H	26-100	120	12	4.5	0.01	0.01	00747	0.380



ART. CODICE
BAR60 02000

ART. CODICE
VEDI TABELLA

Article	D	Range	Code	Kg
TH05	5	26 - 50	00749	0.004
TH10	10	36 - 60	00750	0.005
TH15	15	46 - 70	00751	0.007
TH20	20	56 - 80	00752	0.009
TH30	30	76 - 100	00753	0.010



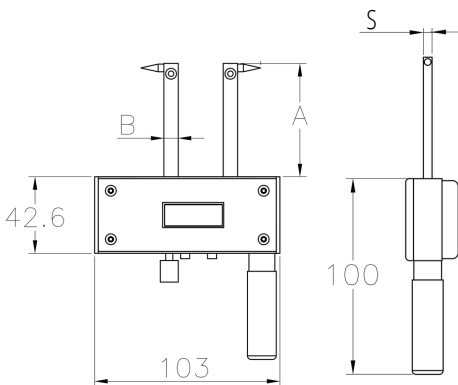


DIGITAL DIAL GAUGES    COMPARATORI A BRACCI DIGITALI



- Interchangeable tips
- Data transmission via Proximity - USB
- Arms length 60, 80, 120, depending on the need

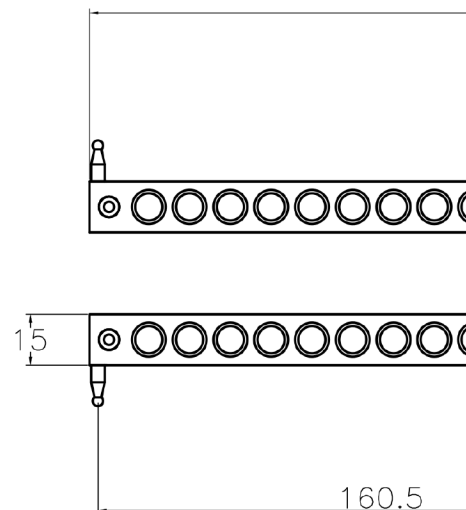
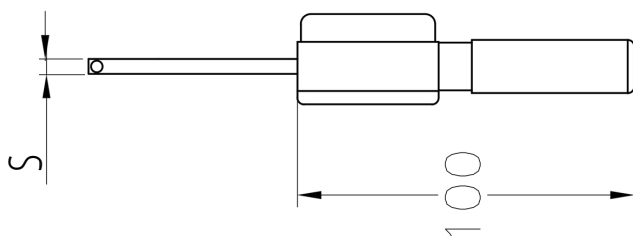
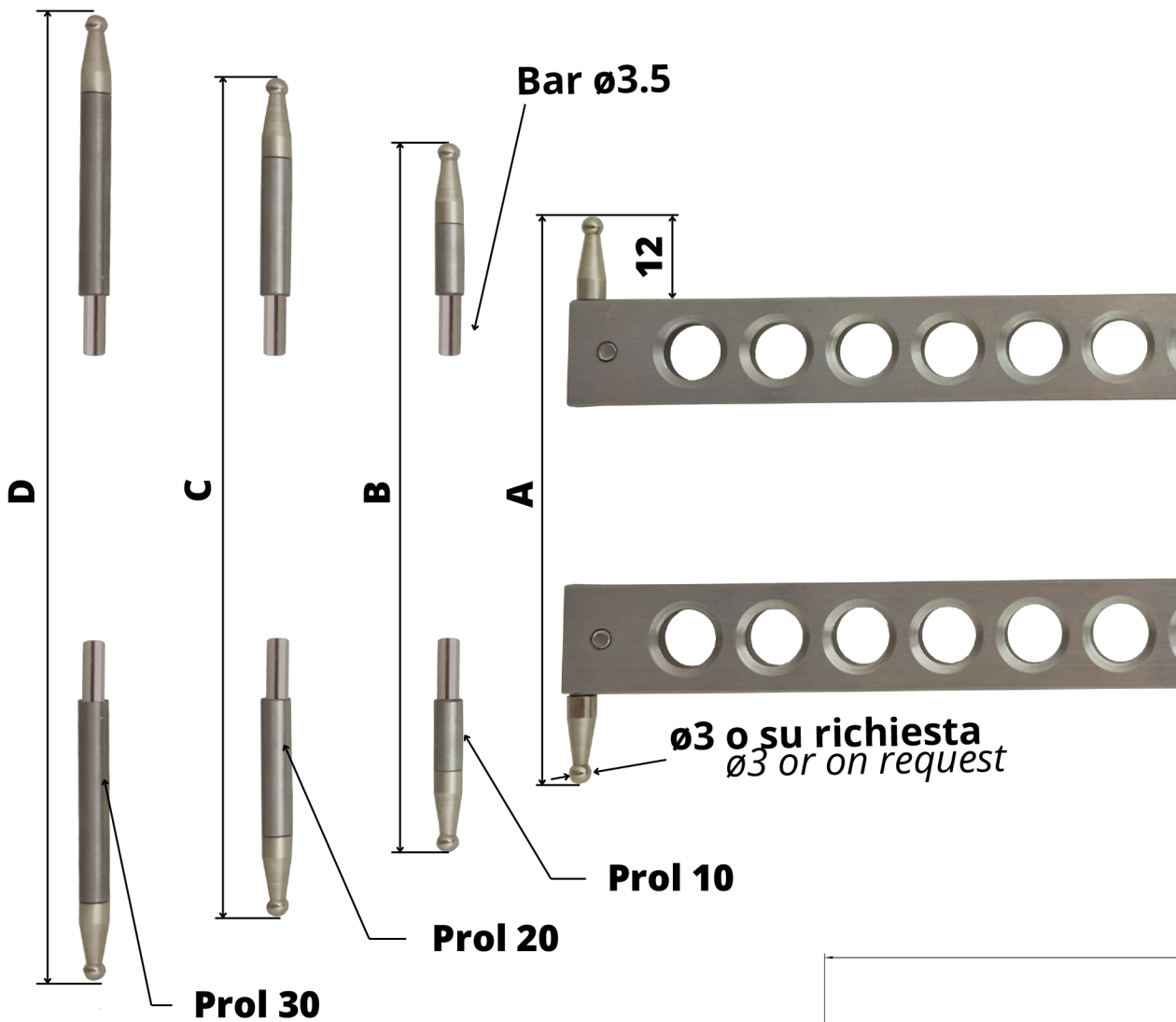
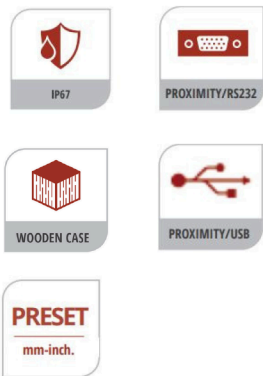
- Puntali intercambiabili
- Elettronica con uscita dati Proximity - USB
- Lunghezza bracci 60, 80, 120, a seconda della necessità



Article	Range	A	B	S	Accuracy	Resolution	Code	Kg
IRIS 60 HE	0 - 74	60	8	4.5	0.01	0.01	00844	0.300
IRIS 80 HE	0 - 74	80	10	4.5	0.01	0.01	00845	0.340
IRIS 120 HE	0 - 74	120	12	4.5	0.01	0.01	00846	0.380



## DIGITAL DIAL GAUGES

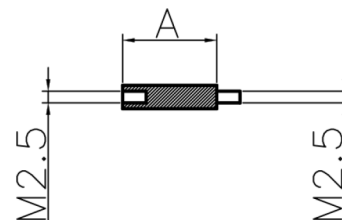
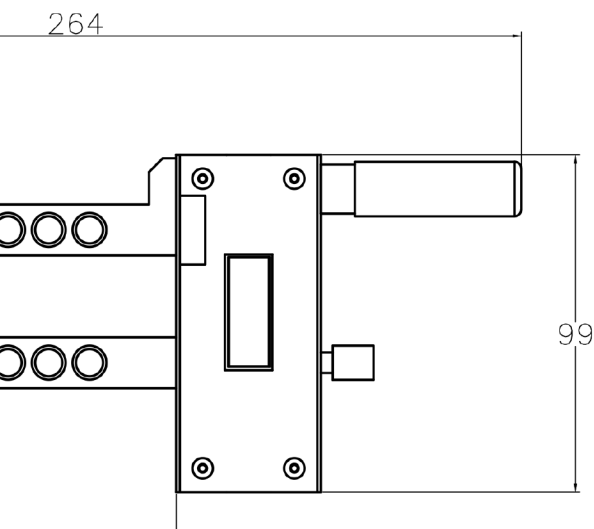


Article	Range	A	B	C	D	E	S	Accuracy	Resolution	Code	Kg
IRIS IK 80	< 44 - 128 >	44-68	64-88	84-108	104-128	10	4.5	0.01	0.01	00847	0.360
IRIS IK 120	< 48 - 132 >	48-72	68-92	88-112	108-132	12	4.5	0.01	0.01	00848	0.400
IRIS IK 160	< 54 - 138 >	54-78	74-98	94-118	114-138	15	4.5	0.01	0.01	00859	0.440

## DIGITAL DIAL GAUGES

- Interchangeable tips
- Electronic module IP67 Big Numbers
- Functions: Preset, Min-Max-Delta, Scaling Factor
- Data transmission via PROXIMITY-USB
- ARM length 80/120/160 mm and total width of the arms 20/24/30 mm
- Excursion 24mm

- Puntali intercambiabili
- Elettronica IP67 Grandi Numeri
- Funzioni: Preset, Min-Max-Delta, Fattore di scala
- Uscita dati PROXIMITY-USB
- Lunghezza Bracci 80/120/160 mm con ingombro totale becche 20/24/30 mm
- Escursione 24mm



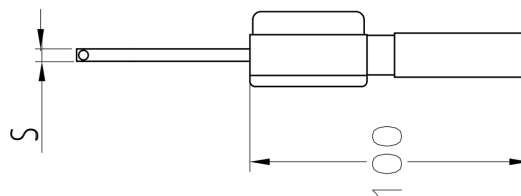
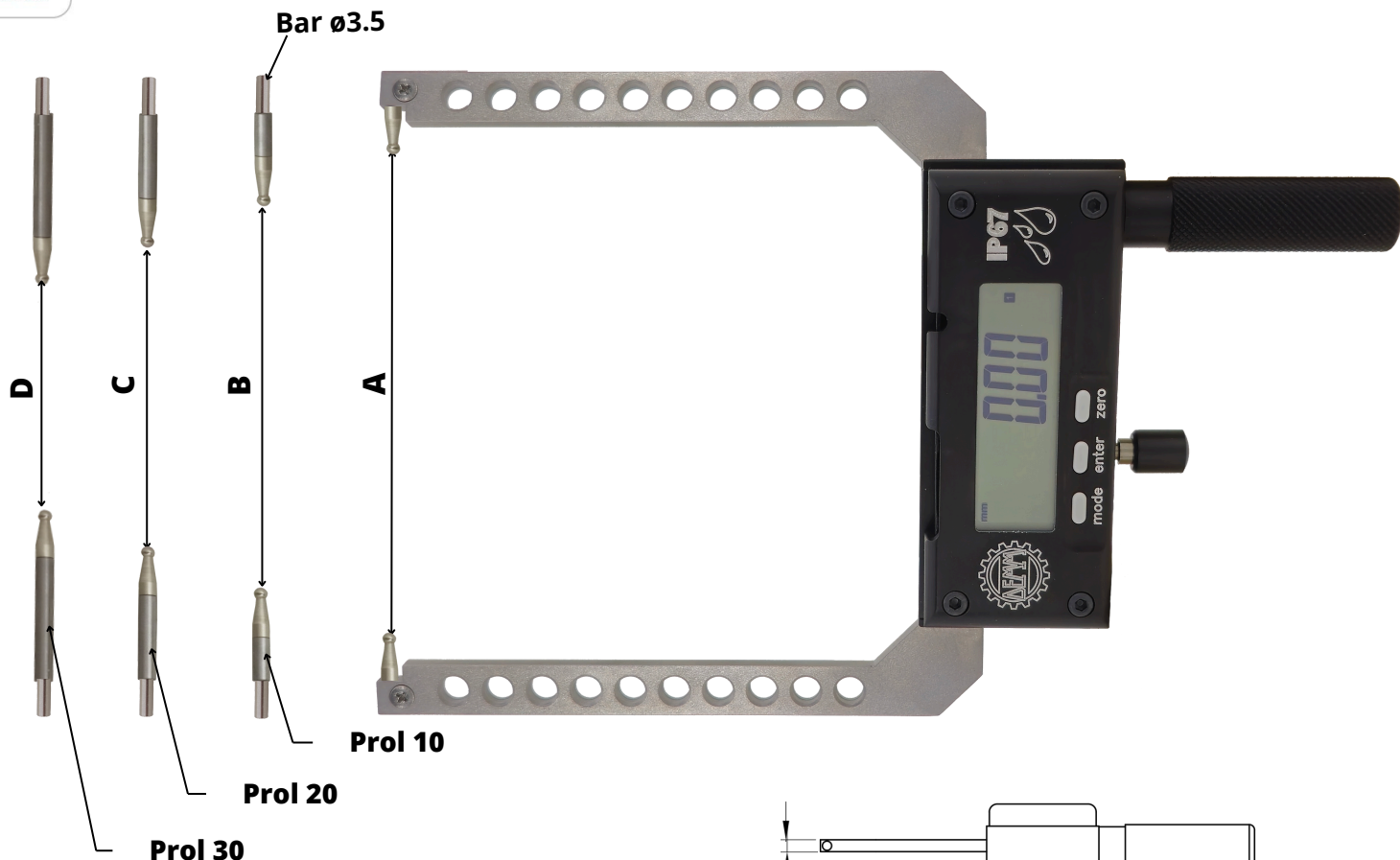
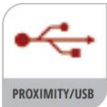
### PROLUNGHE OPZIONALI OPTIONAL EXTENSIONS

Article	A (MM.)	Code	Kg
PROL 10	10	00860	0.005
PROL 20	20	00861	0.006
PROL 30	30	00862	0.007

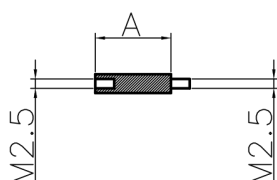


- Interchangeable tips
- Electronic module IP67 Big Numbers
- Functions: Preset, Min-Max-Delta, Scaling Factor
- Data transmission via PROXIMITY-USB
- ARM length 80/120/160 mm and total width of the arms 20/24/30 mm
- Excursion 24mm

- Puntali intercambiabili
- Elettronica IP67 Grandi Numeri
- Funzioni: Preset, Min-Max-Delta, Fattore di scala
- Uscita dati PROXIMITY-USB
- Lunghezza Bracci 80/120/160 mm con ingombro totale becche 20/24/30 mm
- Escursione 24mm



Article	Range	A	B	C	D	E	S	Accuracy	Resolution	Code	Kg
IRIS EK 80	< 0 - 84 >	60 - 84	40 - 64	20 - 44	0 - 24	10	4.5	0.01	0.01	00863	0.360
IRIS EK 120	< 0 - 84 >	60 - 84	40 - 64	20 - 44	0 - 24	12	4.5	0.01	0.01	00864	0.400
IRIS EK 160	< 0 - 84 >	60 - 84	40 - 64	20 - 44	0 - 24	15	4.5	0.01	0.01	00865	0.440
IRIS EK 160	< 0 - 115 >	91 - 115	65 - 91	39 - 65	13 - 39	15	4.5	0.01	0.01	00924	0.440



**PROLUNGHE OPZIONALI** OPTIONAL EXTENSIONS

Article	A (MM.)	Code	Kg
PROL 10	10	00860	0.005
PROL 20	20	00861	0.006
PROL 30	30	00862	0.007

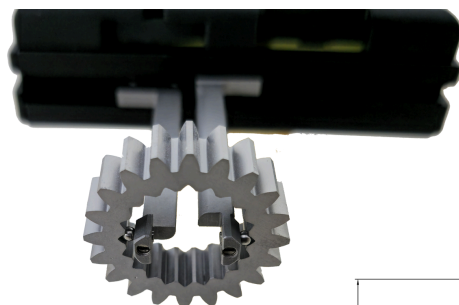


DIGITAL DIAL GAUGES    COMPARATORI A BRACCI DIGITALI

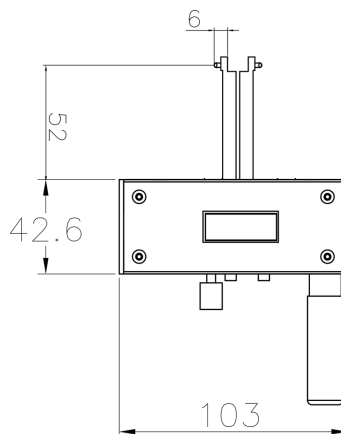
- IP67
- PROXIMITY/RS232
- WOODEN CASE
- PROXIMITY/USB
- PRESET  
mm-inch.

• Interchangeable tips

• Puntali intercambiabili



Article	Range	Code	Kg
IRIS 50 AI	11 - 36	01013	0.450
IRIS 80 AI	22 - 47	01014	0.450



# IRIS AN/I

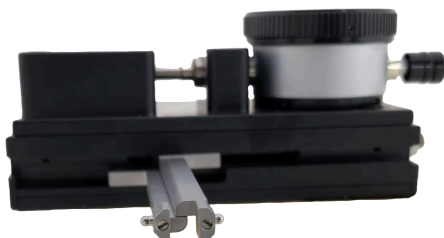
Analogic measuring gauge for internal measurement  
Strumento analogico per misurazioni interne

ANALOGIC DIAL GAUGES    COMPARATORI A BRACCI ANALOGICI

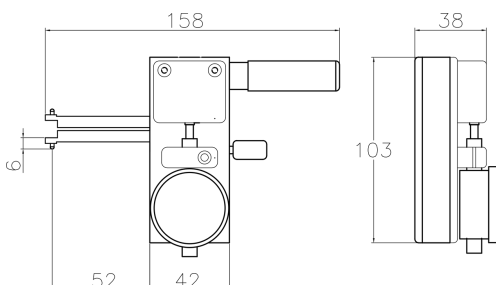
- IP67
- PROXIMITY/RS232
- WOODEN CASE
- PROXIMITY/USB
- PRESET  
mm-inch.

• Interchangeable tips

• Puntali intercambiabili



Article	Range	Code	Kg
IRIS AN/I	12 - 22	00866	0.450



# IRIS IT-T

Electronic measuring gauge for internal measurement  
Strumento digitale per misurazioni interne

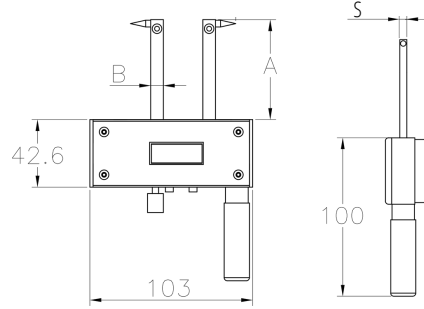


DIGITAL DIAL GAUGES    COMPARATORI A BRACCI DIGITALI

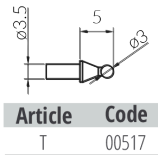


• Interchangeable tips

• Puntali intercambiabili



Article	Range	A	B	S	Resolution	Accuracy	Code	Kg
IRIS 60 IT-T 28/52	28-52	60	8	4.5	0.01	0.01	00476	0.300
IRIS 60 IT-T 49/73	49-73	60	8	4.5	0.01	0.01	00497	0.300
IRIS 80 IT-T 30/54	30-54	80	8	4.5	0.01	0.01	00477	0.340
IRIS 80 IT-T 54/78	54-78	80	8	4.5	0.01	0.01	00498	0.340
IRIS 120 IT-T 30/54	30-54	120	12	4.5	0.01	0.01	00478	0.380
IRIS 120 IT-T 54/78	54-78	120	12	4.5	0.01	0.01	00499	0.380



TERMINALI A SFERA IN METALLO DURO PER CONTROLLO INGRANAGGI  
IL RANGE È CONSIDERATO CON TERMINALE Ø3  
DISPONIBILI TERMINALI DA Ø1.5 A Ø6

RODS WITH CARBIDE SPHERE FOR GEAR CONTROL  
THE RANGE IS CONSIDERED WITH Ø3 RODS  
AVAILABLE RODS FROM Ø1.5 TO Ø6

# IRIS ET-T

Electronic measuring gauge for external measurement  
Strumento digitale per misurazioni esterne

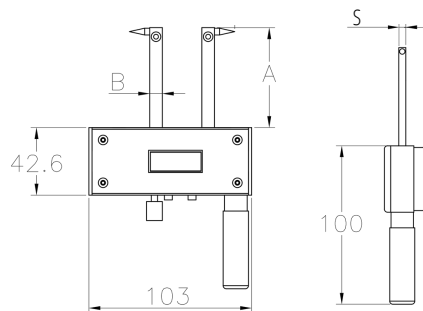


DIGITAL DIAL GAUGES    COMPARATORI A BRACCI DIGITALI

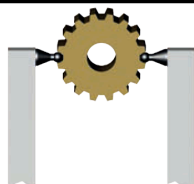
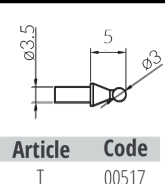


• Interchangeable tips

• Puntali intercambiabili



Article	Range	A	B	S	Resolution	Accuracy	Code	Kg
IRIS 60 ET-T 14/38	14-38	60	8	4.5	0.01	0.01	00428	0.300
IRIS 60 ET-T 37/61	37-61	60	8	4.5	0.01	0.01	00429	0.300
IRIS 60 ET-T 57/81	57-81	60	8	4.5	0.01	0.01	00430	0.300
IRIS 80 ET-T 14/38	14-38	80	10	4.5	0.01	0.01	00431	0.360
IRIS 80 ET-T 37/61	37-61	80	10	4.5	0.01	0.01	00432	0.360
IRIS 80 ET-T 57/81	57-81	80	10	4.5	0.01	0.01	00433	0.360
IRIS 120 ET-T 14/38	14-38	120	12	4.5	0.01	0.01	00434	0.380
IRIS 120 ET-T 37/61	37-61	120	12	4.5	0.01	0.01	00435	0.380
IRIS 120 ET-T 57/81	57-81	120	12	4.5	0.01	0.01	00436	0.380



TERMINALI A SFERA IN METALLO DURO PER CONTROLLO INGRANAGGI  
IL RANGE È CONSIDERATO CON TERMINALE Ø3  
DISPONIBILI TERMINALI DA Ø1.5 A Ø6

RODS WITH CARBIDE SPHERE FOR GEAR CONTROL  
THE RANGE IS CONSIDERED WITH Ø3 RODS  
AVAILABLE RODS FROM Ø1.5 TO Ø6

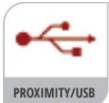
# IRIS IT-S & IT-Z

Electronic measuring gauge for internal measurement  
Strumento digitale per misurazioni interne

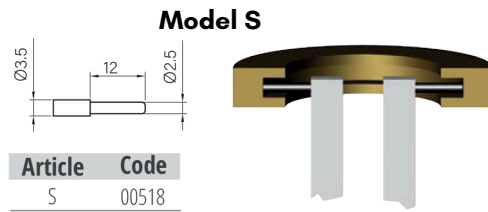


DIGITAL DIAL GAUGES

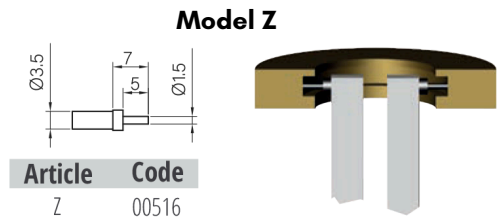
COMPARATORI A BRACCI DIGITALI



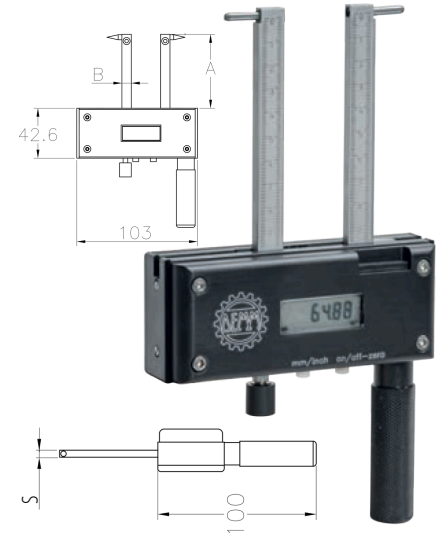
- Interchangeable tips



- Puntali intercambiabili



Article	Range	A	B	S	Resolution	Accuracy	Code	Kg
IRIS 60 IT-S 40/64	40-64	60	8	4.5	0.01	0.01	00510	0.300
IRIS 60 IT-S 61/85	61-85	60	8	4.5	0.01	0.01	00511	0.300
IRIS 60 IT-Z 30/54	30-54	60	8	4.5	0.01	0.01	00473	0.300
IRIS 60 IT-Z 51/75	51-75	60	8	4.5	0.01	0.01	00494	0.300
IRIS 80 IT-S 42/66	42-66	80	10	4.5	0.01	0.01	00512	0.340
IRIS 80 IT-S 66/90	66-90	80	10	4.5	0.01	0.01	00513	0.340
IRIS 80 IT-Z 32/56	32-56	80	10	4.5	0.01	0.01	00474	0.340
IRIS 80 IT-Z 56/80	56-80	80	10	4.5	0.01	0.01	00495	0.340
IRIS 120 IT-S 42/66	42-66	120	12	4.5	0.01	0.01	00514	0.380
IRIS 120 IT-S 66/90	66-90	120	12	4.5	0.01	0.01	00515	0.380
IRIS 120 IT-Z 32/56	32-56	120	12	4.5	0.01	0.01	00475	0.380
IRIS 120 IT-Z 56/80	56-80	120	12	4.5	0.01	0.01	00496	0.380



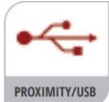
# IRIS ET-S & ET-Z

Electronic measuring gauge for external measurement  
Strumento digitale per misurazioni esterne

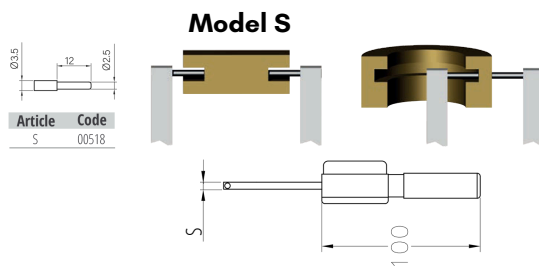


DIGITAL DIAL GAUGES

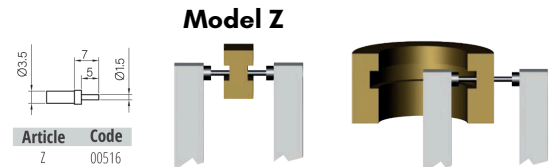
COMPARATORI A BRACCI DIGITALI



- Interchangeable tips



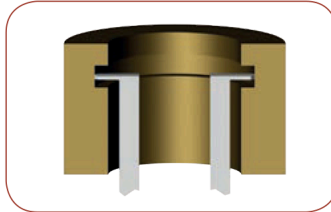
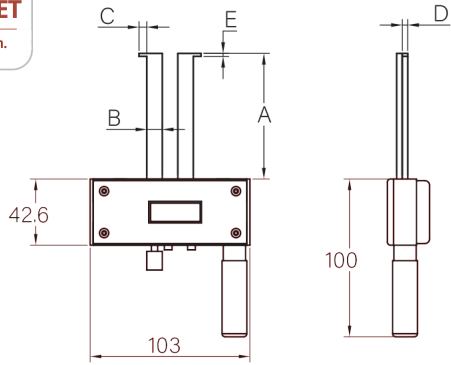
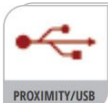
- Puntali intercambiabili



Article	Range	A	B	S	Resolution	Accuracy	Code	Kg
IRIS 60 ET-S 0/24	0-24	60	8	4.5	0.01	0.01	00501	0.300
IRIS 60 ET-S 23/47	23-47	60	8	4.5	0.01	0.01	00502	0.300
IRIS 60 ET-S 43/67	43-67	60	8	4.5	0.01	0.01	00503	0.300
IRIS 60 ET-Z 10/34	10-34	60	8	4.5	0.01	0.01	00419	0.300
IRIS 60 ET-Z 33/57	33-57	60	8	4.5	0.01	0.01	00420	0.300
IRIS 60 ET-Z 53/77	53-77	60	8	4.5	0.01	0.01	00421	0.300
IRIS 80 ET-S 0/24	0-24	80	10	4.5	0.01	0.01	00504	0.360
IRIS 80 ET-S 23/47	23-47	80	10	4.5	0.01	0.01	00505	0.360
IRIS 80 ET-S 43/67	43-67	80	10	4.5	0.01	0.01	00506	0.360
IRIS 80 ET-Z 10/34	10-34	80	10	4.5	0.01	0.01	00422	0.360
IRIS 80 ET-Z 33/57	33-57	80	10	4.5	0.01	0.01	00423	0.360
IRIS 80 ET-Z 53/77	53-77	80	10	4.5	0.01	0.01	00424	0.360
IRIS 120 ET-S 0/24	0-24	120	12	4.5	0.01	0.01	00507	0.380
IRIS 120 ET-S 23/47	23-47	120	12	4.5	0.01	0.01	00508	0.380
IRIS 120 ET-S 43/67	43-67	120	12	4.5	0.01	0.01	00509	0.380
IRIS 120 ET-Z 10/34	10-34	120	12	4.5	0.01	0.01	00425	0.380
IRIS 120 ET-Z 33/57	33-57	120	12	4.5	0.01	0.01	00426	0.380
IRIS 120 ET-Z 53/77	53-77	120	12	4.5	0.01	0.01	00427	0.380



DIGITAL DIAL GAUGES COMPARATORI A BRACCI DIGITALI



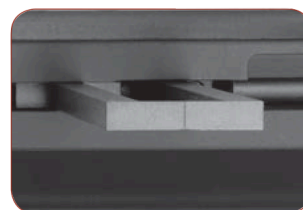
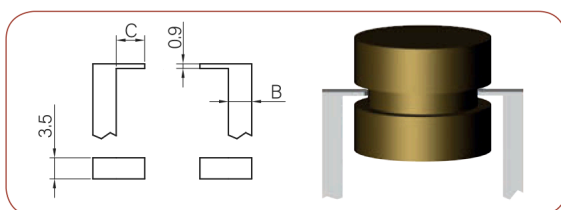
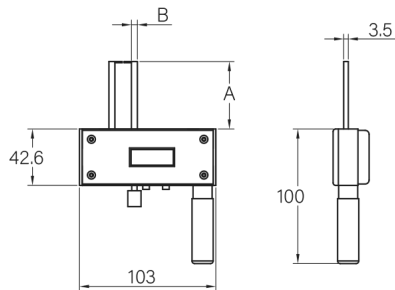
Article	Range	A	B	C	D	E	Hole Min Ø	Resolution	Accuracy	Code	Kg
IRIS 50 S 6/29	6-29	50	4	2	3	0,9	8	0,01	0,01	00356	0,300
IRIS 50 S 8/32	8-32	50	4,5	3,5	3	0,9	10	0,01	0,01	00357	0,300
IRIS 50 S 12/36	12-36	50	4,5	5,5	3,5	0,9	12	0,01	0,01	00358	0,300
IRIS 50 S 22/46	22-46	50	4,5	5,5	3,5	0,9	22	0,01	0,01	00360	0,300
IRIS 50 S 32/56	32-56	50	4,5	5,5	3,5	0,9	32	0,01	0,01	00360	0,300
IRIS 50 S 42/66	42-66	50	4,5	5,5	3,5	0,9	42	0,01	0,01	00361	0,300

Article	Range	A	B	C	D	E	Hole Min Ø	Resolution	Accuracy	Code	Kg
IRIS 80 S 12/36	12-36	80	6	4,5	3,5	0,9	12	0,01	0,01	00480	0,300
IRIS 80 S 22/46	22-46	80	6	4,5	3,5	0,9	22	0,01	0,01	00481	0,300
IRIS 80 S 32/56	32-56	80	6	4,5	3,5	0,9	32	0,01	0,01	00482	0,300
IRIS 80 S 42/66	42-66	80	6	4,5	3,5	0,9	42	0,01	0,01	00483	0,300

# IRIS SE

Electronic measuring gauge for external segger  
Strumento digitale misurazioni esterne di segger con becche in asse

DIGITAL DIAL GAUGES COMPARATORI DIGITALI A BRACCI



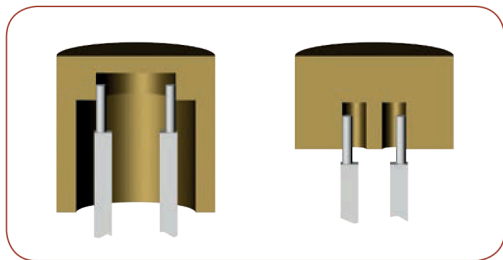
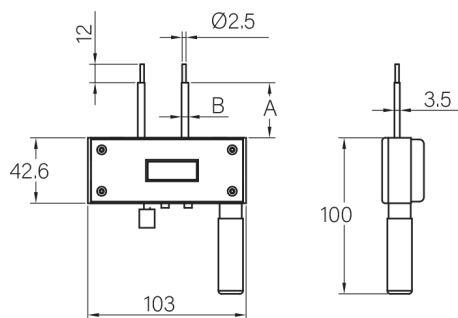
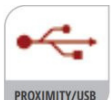
Article	Range	A	B	C	D	Resolution	Code	Kg
IRIS 50 SE 0/24	0-24	50	4,5	5,5	3,5	0,01	00367	0,300
IRIS 50 SE 20/44	20-44	50	4,5	5,5	3,5	0,01	00369	0,300



# IRIS P

Electronic measuring gauge for small holes  
Strumento digitale per misurazioni interne di fori

DIGITAL DIAL GAUGES COMPARATORI DIGITALI A BRACCI

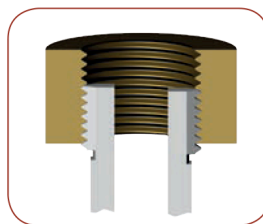
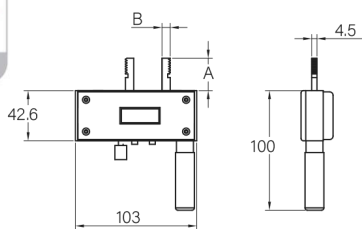
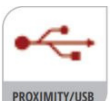


Article	Range	A	B	Resolution	Accuracy	Code	Kg
IRIS 35 P 6/30	6-30	35	4,5	0,01	0,02	00388	0,300
IRIS 35 P 28/52	28-52	35	4,5	0,01	0,02	00389	0,300

# IRIS FF

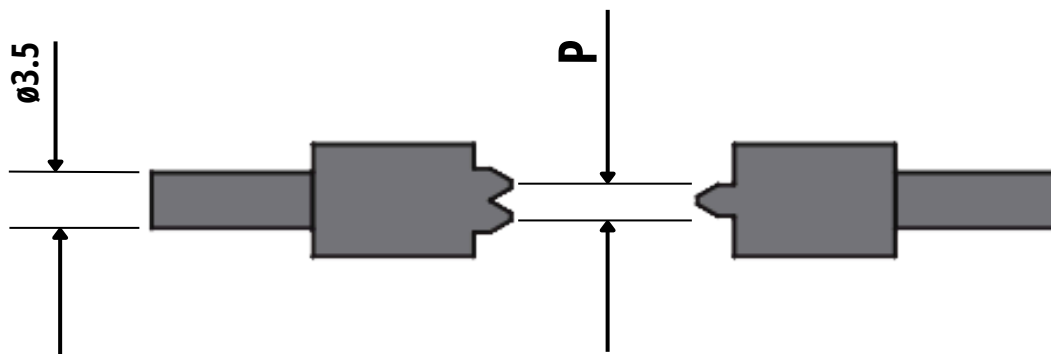
Electronic measuring gauge for internal thread  
Strumento digitale per misurazioni interne di filettature

DIGITAL DIAL GAUGES COMPARATORI DIGITALI A BRACCI

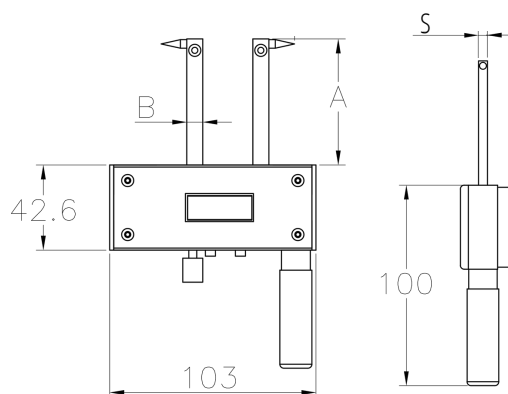


Article	Range	Passo	A	B	Resolution	Accuracy	Code	Kg
IRIS FF P1 1033	10-33	1	25	4,2	0,01	0,02	00217	0,300
IRIS FF P1 2043	20-43	1	25	4,2	0,01	0,02	00229	0,300
IRIS FF P1 3556	35-56	1	25	4,2	0,01	0,02	00236	0,300
IRIS FF P1,25 1033	10-33	1,25	25	4,2	0,01	0,02	00254	0,300
IRIS FF P1,25 2043	20-43	1,25	25	4,2	0,01	0,02	00255	0,300
IRIS FF P1,25 3556	35-56	1,25	25	4,2	0,01	0,02	00256	0,300
IRIS FF P1,5 1033	10-33	1,5	25	4,2	0,01	0,02	00237	0,300
IRIS FF P1,5 2043	20-43	1,5	25	4,2	0,01	0,02	00238	0,300
IRIS FF P1,5 3556	35-56	1,5	25	4,2	0,01	0,02	00239	0,300
IRIS FF P2 1638	16-38	2	27,5	7	0,01	0,02	00241	0,300
IRIS FF P2 2648	26-48	2	27,5	7	0,01	0,02	00249	0,300
IRIS FF P2 4668	46-68	2	27,5	7	0,01	0,02	00253	0,300

## Capruggini a Passo vedi pag. 18



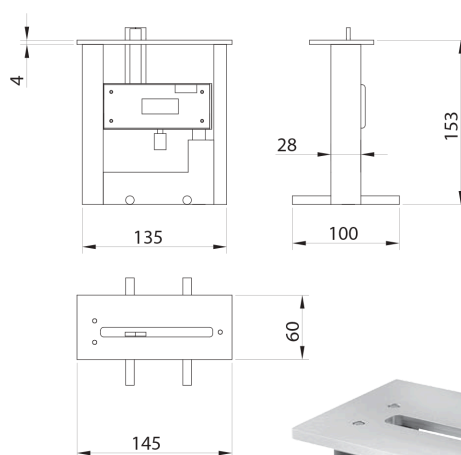
Article	Range	A	B	S	Resolution	Accuracy	Code	Kg
IRIS 60 ET-T 14/38	14-38	60	8	4.5	0.01	0.01	00428	0.300
IRIS 60 ET-T 37/61	37-61	60	8	4.5	0.01	0.01	00429	0.300
IRIS 60 ET-T 57/81	57-81	60	8	4.5	0.01	0.01	00430	0.300
IRIS 60 ET-S 0/24	0-24	60	8	4.5	0.01	0.01	00501	0.300
IRIS 60 ET-S 23/47	23-47	60	8	4.5	0.01	0.01	00502	0.300
IRIS 60 ET-S 43/67	43-67	60	8	4.5	0.01	0.01	00503	0.300
IRIS 60 ET-Z 10/34	10-34	60	8	4.5	0.01	0.01	00419	0.300
IRIS 60 ET-Z 33/57	33-57	60	8	4.5	0.01	0.01	00420	0.300
IRIS 60 ET-S 53/77	53-77	60	8	4.5	0.01	0.01	00421	0.300
IRIS 80 ET-T 14/38	14-38	80	10	4.5	0.01	0.01	00431	0.360
IRIS 80 ET-T 37/61	37-61	80	10	4.5	0.01	0.01	00432	0.360
IRIS 80 ET-T 57/81	57-81	80	10	4.5	0.01	0.01	00433	0.360
IRIS 80 ET-S 0/24	0-24	80	10	4.5	0.01	0.01	00504	0.360
IRIS 80 ET-S 23/47	23-47	80	10	4.5	0.01	0.01	00505	0.360
IRIS 80 ET-S 43/67	43-67	80	10	4.5	0.01	0.01	00506	0.360
IRIS 80 ET-Z 10/34	10-34	80	10	4.5	0.01	0.01	00422	0.360
IRIS 80 ET-Z 33/57	33-57	80	10	4.5	0.01	0.01	00423	0.360
IRIS 80 ET-S 53/77	53-77	80	10	4.5	0.01	0.01	00424	0.380
IRIS 120 ET-T 14/38	14-38	120	12	4.5	0.01	0.01	00434	0.380
IRIS 120 ET-T 37/61	37-61	120	12	4.5	0.01	0.01	00435	0.380
IRIS 120 ET-T 57/81	57-81	120	12	4.5	0.01	0.01	00436	0.380
IRIS 120 ET-S 0/24	0-24	120	12	4.5	0.01	0.01	00507	0.380
IRIS 120 ET-S 23/47	23-47	120	12	4.5	0.01	0.01	00508	0.380
IRIS 120 ET-S 43/67	43-67	120	12	4.5	0.01	0.01	00509	0.380
IRIS 120 ET-Z 10/34	10-34	120	12	4.5	0.01	0.01	00425	0.380
IRIS 120 ET-Z 33/57	33-57	120	12	4.5	0.01	0.01	00426	0.380
IRIS 120 ET-Z 53/77	53-77	120	12	4.5	0.01	0.01	00427	0.380



# BASE IRIS

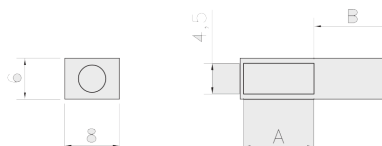
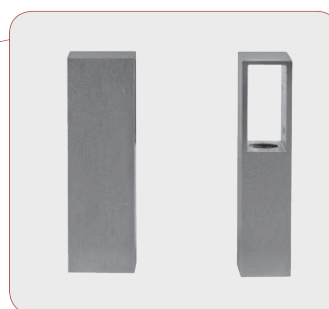
Support base for Iris instrument  
Base di appoggio per strumento Iris

DIGITAL DIAL GAUGES COMPARATORI DIGITALI A BRACCI



Article	Code	Kg
BASE IRIS	00399	1,250

SUPPORT FOR IRIS IT AND IRIS ET APPOGGIO BECCA PER IRIS IT ED IRIS ET

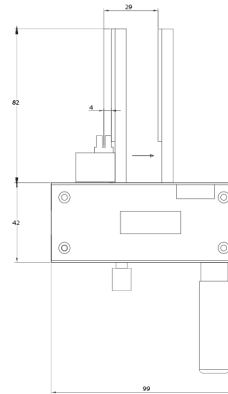


Article	Modello	A	B	Code	Kg
APP1160	60	8	11	00555	0,05
APP1560	60	8	15	00556	0,06
APP1180	80	10	11	00557	0,07
APP1580	80	10	15	00558	0,08
APP11120	120	12	11	00559	0,09
APP15120	120	12	15	00564	0,10

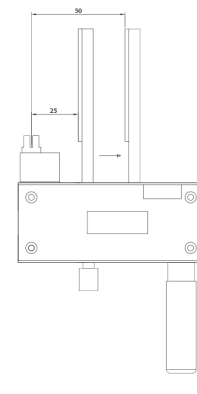
## DIGITAL DIAL GAUGES COMARATORI DIGITALI A BRACCI



- For measure the axially centricity of a key slot from  $\varnothing 8$  to  $\varnothing 100$
- Adapter with different pitch
- Key 4-20 mm (optional)
- Strumento digitale per il controllo rapido assialita' delle chiavette su alberi da  $\varnothing 8$  a  $\varnothing 100$
- Adattori con vari passi
- Serie di chiavette da 4 a 20 mm (opzionali)



DIAMETER SHAFT FROM  $\varnothing 8$  TO  $\varnothing 58$   
DIAMETRO ALBERI DA  $\varnothing 8$  A  $\varnothing 58$



DIAMETER SHAFT FROM  $\varnothing 50$  TO  $\varnothing 100$   
DIAMETRO ALBERI DA  $\varnothing 50$  A  $\varnothing 100$



## ADAPTOR AND APPLICATIONS ADATTORI E APPLICAZIONI



Article	Repeatability	Code
DIGI OLFO	0,02	79000
ADATTATORI		DIFFERENT PITCH PASSI A SCELTA



## KEY ADAPTERS ADATTATORI CHIAVETTE

TOLLERANCE P9  
TOLLERANZA P9

Article	Key	Code	Kg
CH3P9	3 P9	00340	0,016
CH4P9	4 P9	00341	0,018
CH5P9	5 P9	00342	0,022
CH6P9	6 P9	00343	0,026
CH8P9	8 P9	00344	0,028
CH10P9	10 P9	00345	0,030
CH12P9	12 P9	00346	0,032
CH14P9	14 P9	00347	0,036
CH16P9	16 P9	00348	0,008
CH18P9	18 P9	00349	0,008
CH20P9	20 P9	00350	0,046

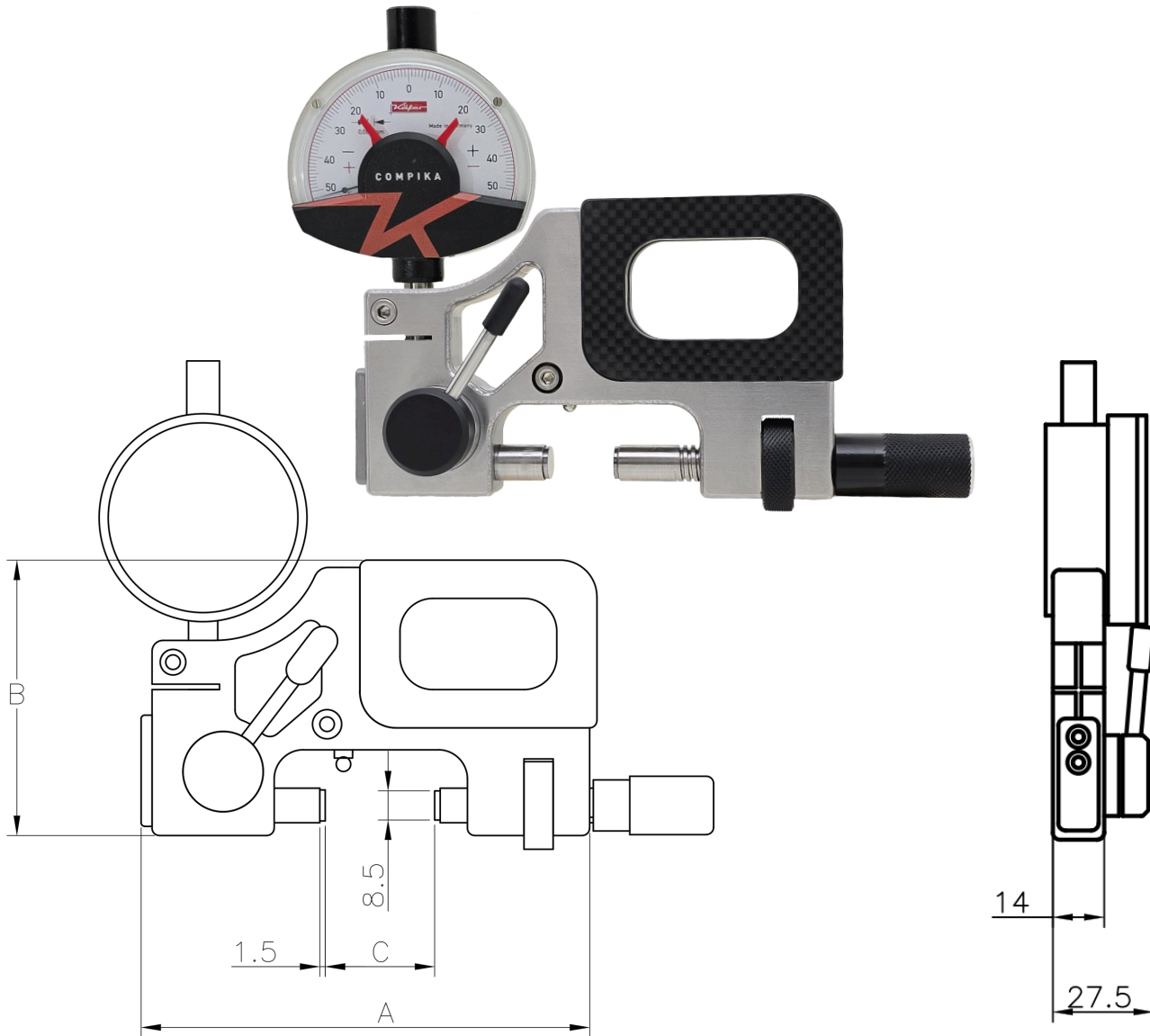
TOLLERANCE N9  
TOLLERANZA N9

Article	Key	Code	Kg
CH3N9	3 N9	00352	0,016
CH4N9	4 N9	00353	0,018
CH5N9	5 N9	00354	0,022
CH6N9	6 N9	00355	0,026
CH8N9	8 N9	00359	0,028
CH10N9	10 N9	00365	0,030
CH12N9	12 N9	00366	0,032
CH14N9	14 N9	00368	0,036
CH16N9	16 N9	00374	0,008
CH18N9	18 N9	00377	0,008
CH20N9	20 N9	00442	0,046





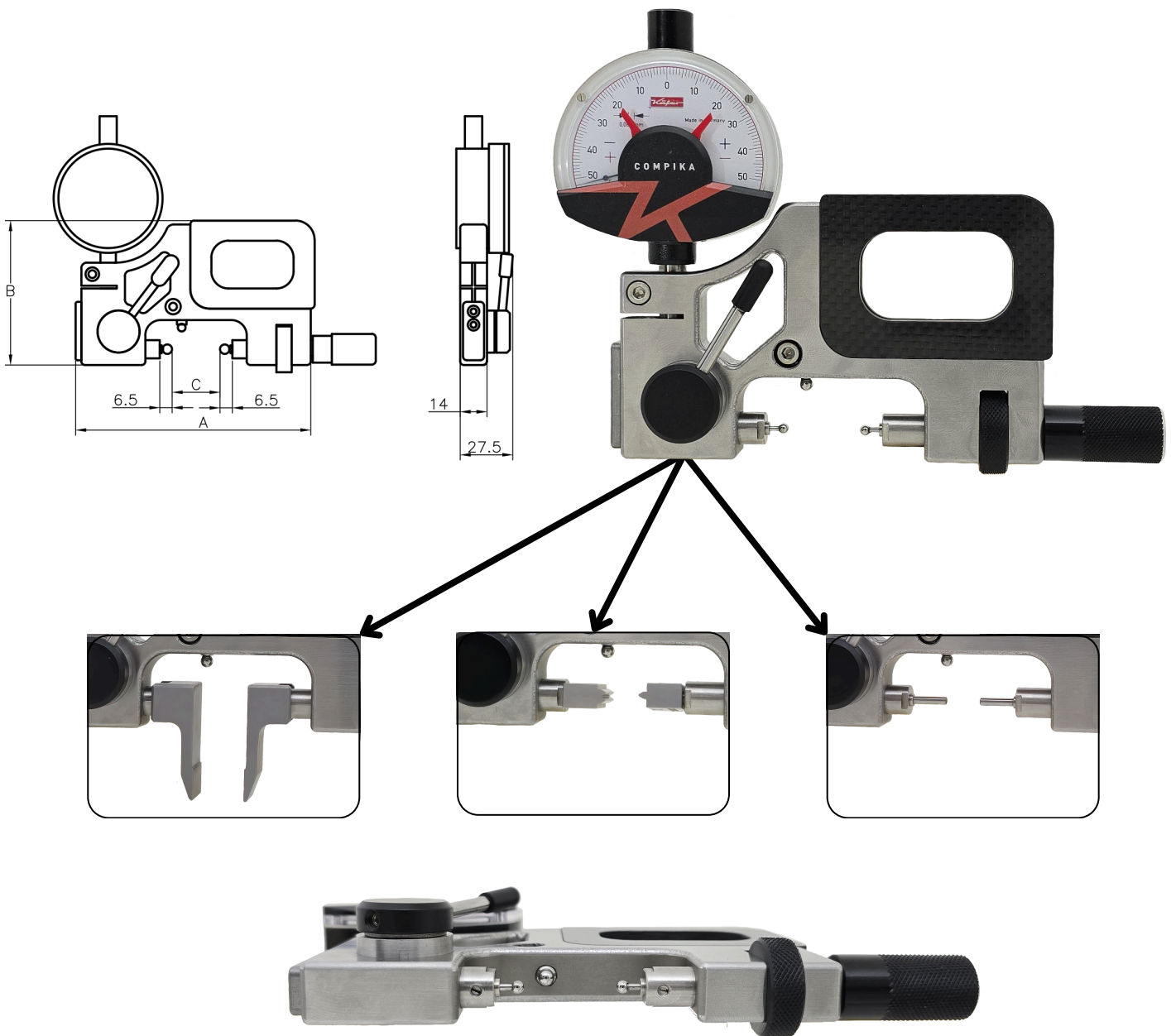
- Precision micrometer with constant spring pressure
- Stainless steel body
- Carbon fiber handle
- Movable probe stroke 2mm, retractable by lever
- 3rd adjustable support for positioning and repeatability on the piece
- Hard metal contacts  $\varnothing 8.5$
- Supplied without dial gauge
- Strumento a comparazione di precisione con pressione costante a molla
- Corpo in acciaio inossidabile
- Impugnatura in carbonio
- Corsa tastatore mobile 2mm, retrattile tramite leva
- 3° appoggio regolabile per posizionamento e ripetibilità sul pezzo
- Contatti in metallo duro  $\varnothing 8.5$
- Fornito senza comparatore



Article	Range	A	B	C	Pressure	Repeatability	Code	Kg
MINI APOLLO MD 0-30	0-30	123	76	30	4 NW	0.001	01015	0.450
MINI APOLLO MD 30-60	30-60	153	94	60	4 NW	0.001	01016	0.550
MINI APOLLO MD 60-100	60-100	193	114	100	4 NW	0.001	01017	0.650



- Precision micrometer with constant spring pressure
- Stainless steel body
- Carbon fiber handle
- Movable probe stroke 2mm, retractable by lever
- 3rd adjustable support for positioning and repeatability on the piece
- Housing interchangeable rods  $\varnothing 3.5\text{mm}$
- Standard equipment spherical rods  $\varnothing 3\text{mm}$
- Supplied without dial gauge
- Strumento a comparazione di precisione con pressione costante a molla
- Corpo in acciaio inossidabile
- Impugnatura in carbonio
- Corsa tastatore mobile 2mm, retrattile tramite leva
- 3° appoggio regolabile per posizionamento e ripetibilità sul pezzo
- Alloggiamento terminali intercambiabili  $\varnothing 3,5\text{mm}$
- Dotazione standard terminali a sfera  $\varnothing 3$
- Fornito senza comparatore

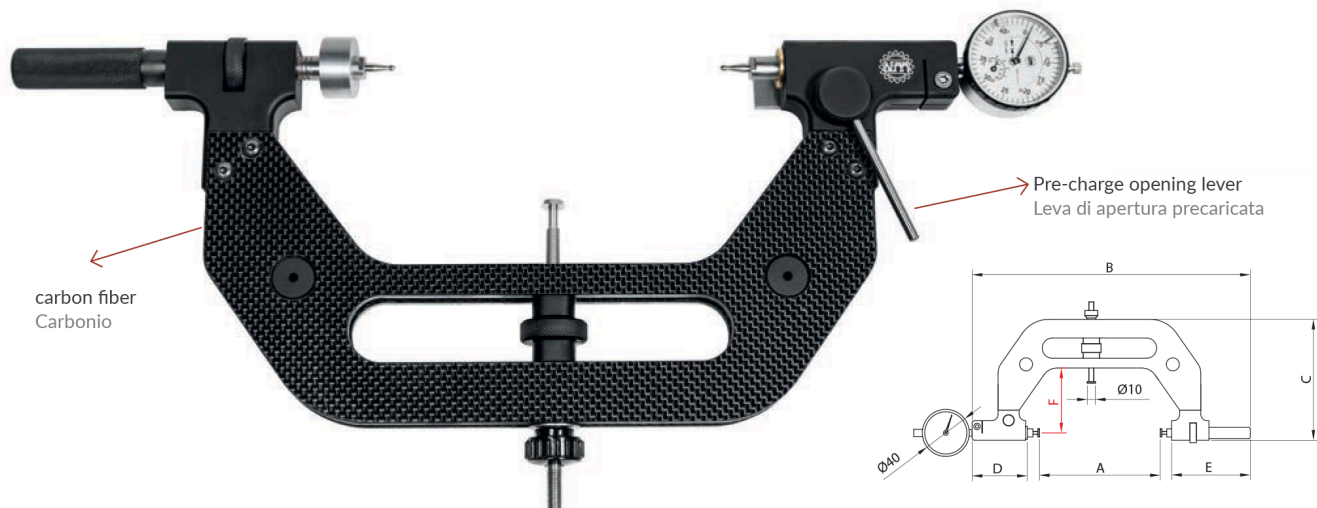


Article	Range	A	B	C	Pressure	Repeatability	Code	Kg
MINI APOLLO PI 0-25	0-25	123	76	25	4 NW	0.001	01018	0.450
MINI APOLLO PI 25-50	25-50	153	94	55	4 NW	0.001	01019	0.550
MINI APOLLO PI 50-90	50-90	193	114	95	4 NW	0.001	01020	0.650

### COMPARISON GAUGES CALIBRI A COMPARAZIONE



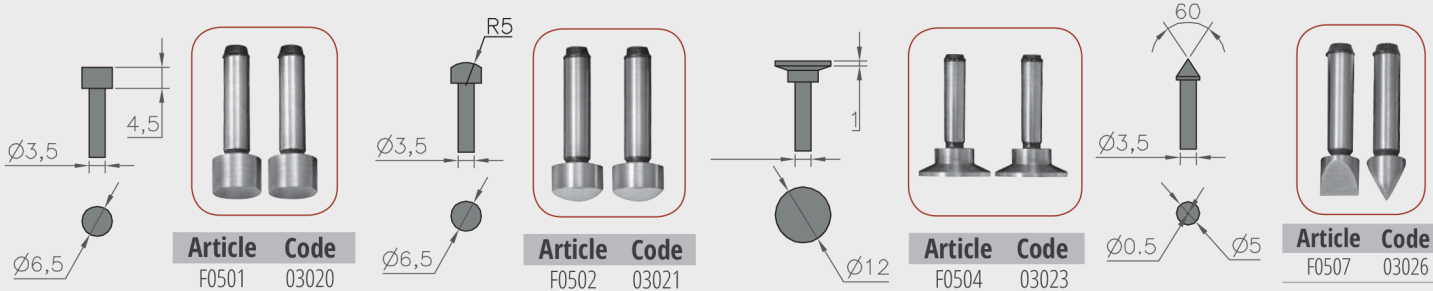
- Caliper in carbon fiber
- Accessories in light alloy
- Interchangeable rods  $\varnothing 3,5$
- Supplied with dial gauge 0,01 and rods  $\varnothing 3$ , item TS3
- Range: 5 mm
- Calibro in fibra di carbonio
- Particolari in lega leggera
- Puntali intercambiabili  $\varnothing 3,5$
- Di serie comparatore 0,01 e terminali  $\varnothing 3$ , art. TS3
- Corsa utile 5 mm



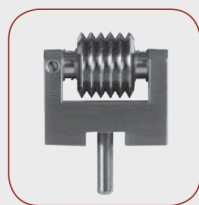
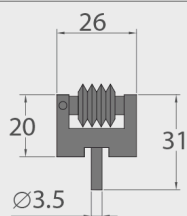
Article	A (Range)	B	C	D	E	F	Repeatability	Forza molla	Code	Kg
APOLLO 0-50	0-50	247	95	66	97	30	0,001	10 N	00800	0,420
APOLLO 50-100	50-100	297	124	66	97	55	0,001	20 N	00801	0,500
APOLLO 100-150	100-150	347	150	66	97	80	0,001	20 N	00802	0,620
APOLLO 150-200	150-200	397	174	66	97	105	0,001	20 N	00803	0,720
APOLLO 200-250	200-250	447	210	66	97	130	0,001	20 N	00804	0,920
APOLLO 250-300	250-300	497	234	66	97	155	0,002	20 N	00805	1,020
APOLLO 300-350	300-350	547	260	66	97	180	0,002	20 N	00806	1,500
APOLLO 350-400	350-400	597	284	66	97	205	0,003	20 N	00807	2,000
APOLLO 400-450	400-450	647	310	66	97	230	0,003	20 N	00812	2,300
APOLLO 450-500	450-500	707	374	66	97	255	0,003	20 N	00808	2,600
APOLLO 500-600	500-600	960	437	95	230	305	0,005	30 N	00809	4,000
APOLLO 600-700	600-700	1010	487	95	230	355	0,005	30 N	00810	4,800
APOLLO 700-800	700-800	1060	537	95	230	405	0,005	30 N	00811	5,500

### OPTIONAL INTERCHANGEABLE ENDS OPTIONAL TERMINALI INTERCAMBIABILI

RODS  
PUNтали



TASTATORI  
TASTATORI

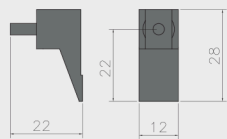


Article	D	P.	Code	Kg
ATZ08	14	0,8	00312ATZ	0,080
ATZ1	14	1	00313ATZ	0,080
ATZ125	14	1,25	00314ATZ	0,080
ATZ15	14	1,5	00315ATZ	0,080
ATZ2	14	2	00316ATZ	0,080
ATZ25	14	2,5	00317ATZ	0,080
ATZ3	14	3	00318	0,080
ATZ4	20	4	00319	0,080
ATZ5	20	5	00320	0,080
ATZ6	20	6	00321	0,080

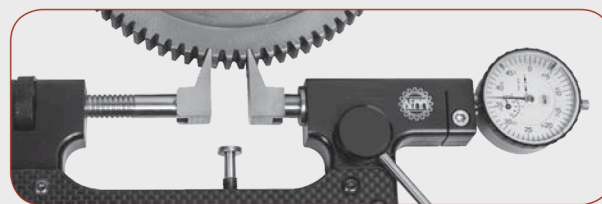
FOR INTERCHANGEABLE ENDS SEE PAG. 134  
PER I TERMINALI INTERCAMBIABILI VEDERE A PAG. 134

### COMPARISON GAUGES CALIBRI A COMPARAZIONE

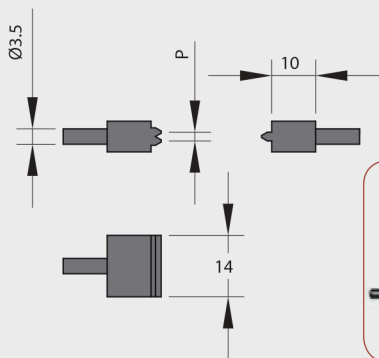
TASTATORI  
TASTATORI



Article	Code	Kg
F0806	00578	0,018



### OPTIONAL INTERCHANGEABLE ENDS OPTIMALI TERMINALI INTERCAMBIABILI



METRIC PITCH TIP  
TASTATORI PASSO METRICO

Article	Passo	Code	Kg
PM08	0,8	00322	0,008
PM1	1	00323	0,008
PM1,25	1,25	00324	0,008
PM1,5	1,5	00325	0,008
PM1,75	1,75	00326	0,008
PM2	2	00327	0,008
PM2,5	2,5	00328	0,008
PM3	3	00329	0,008

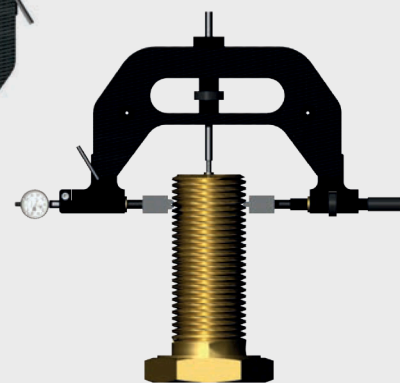


WITWORTH PITCH TIP  
TASTATORI PASSO WITWORTH

Article	Passo	Code	Kg
PW6	6	00333	0,008
PW8	8	00334	0,008
PW10	10	00335	0,008
PW12	12	00336	0,008



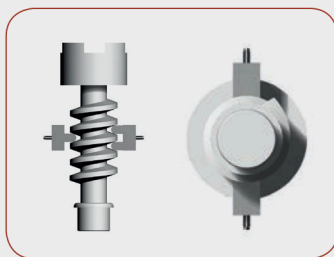
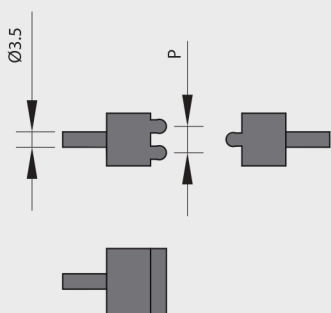
Micrometer Apollo 0-100  
Forcella Apollo 0-100



GAS PITCH TIP  
TASTATORI PASSO GAS

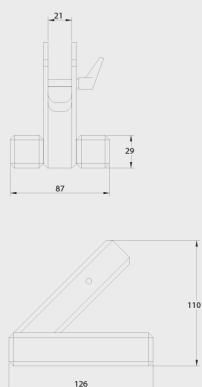
Article	Passo	Code	Kg
PG11	11	00337	0,008
PG14	14	00338	0,008
PG19	19	00339	0,008

### TERMINALS FOR TRAPEZOIDAL THREAD CONTROL MODULE: TERMINALI PER CONTROLLO MODULO FILETTATURE TRAPEZIO:



Article	Passo	Code	Kg
PT2	2	00597	0,008
PT3	3	00598	0,008
PT4	4	00599	0,008
PT5	5	00601	0,008
PT6	6	00602	0,008
PT7	7	00603	0,008
PT8	8	00604	0,008
PT9	9	00605	0,008
PT10	10	00606	0,008
PT12	12	00607	0,008

### STEEL SUPPORT BASE SUPPORTO IN ACCIAIO PER APOLLO



Article	Code	Kg
SUPPORTO APOLLO	00820	3,000



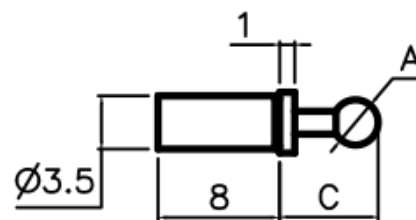
# TERMINALI INTERCAMBIABILI



## ACCESSORIES ACCESSORI

INTERCHANGEABLE RODS FOR DIGI BASCOM - APOLLO - DIGI ULISSE - IRIS

TERMINALI INTERCAMBIABILI PER DIGI BASCOM - APOLLO - DIGI ULISSE - IRIS



STEEL RODS 70HRC WITH CALIBRATED SPHERE  
TERMINALI IN ACCIAIO 70HRC CON SFERE CALIBRATE

Article	A	*C	Detail	Code	Kg
TSNC 1	Ø1	5		00791	0.005
TSN 1	Ø1	12		00931	0.005
TSNC 1.25	Ø1.25	5		00795	0.005
TSN 1.25	Ø1.25	12		00932	0.005
TSNC 1.5	Ø1.5	5		00796	0.005
TSN 1.5	Ø1.5	12		00933	0.005
TSNC 1.75	Ø1.75	5		00797	0.005
TSN 1.75	Ø1.75	12		00934	0.005
TSNC 2	Ø2	5		00798	0.005
TSN 2	Ø2	12		00935	0.005
TSNC 2.25	Ø2.25	5		00799	0.005
TSN 2.25	Ø2.25	12		00936	0.005
TSNC 2.5	Ø2.5	5		00814	0.005
TSN 2.5	Ø2.5	12		00937	0.005
TSNC 2.75	Ø2.75	5		00816	0.005
TSN 2.75	Ø2.75	12		00938	0.005
TSNC 3	Ø3	5	●	00817	0.005
TSN 3	Ø3	12	●	00939	0.005
TSNC 3.5	Ø3.5	5	●	00818	0.005
TSN 3.5	Ø3.5	12	●	00940	0.005
TSNC 4	Ø4	5	●	00819	0.005
TSN 4	Ø4	12	●	00941	0.005
TSNC 4.5	Ø4.5	5	●	00821	0.005
TSN 4.5	Ø4.5	12	●	00942	0.005
TSNC 5	Ø5	5	●	00822	0.005
TSN 5	Ø5	12	●	00943	0.005
TSNC 5.5	Ø5.5	5	●	00823	0.005
TSN 5.5	Ø5.5	12	●	00944	0.005
TSNC 6	Ø6	5	●	00824	0.005
TSN 6	Ø6	12	●	00945	0.005
TSNC 6.35	Ø6.35	5	●	00825	0.005
TSN 6.35	Ø6.35	12	●	00946	0.005
TSNC 6.5	Ø6.5	5	●	00826	0.005
TSN 6.5	Ø6.5	12	●	00947	0.005

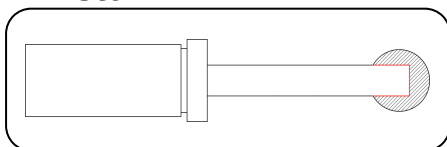
RODS WITH CALIBRATED SPHERE IN CARBIDE  
TERMINALI CON SFERE CALIBRATE IN METALLO DURO

Article	A	*C	Detail	Code	Kg
TSNCW 1	Ø1	5		00827	0.005
TSNW 1	Ø1	12		00887	0.005
TSNCW 1.25	Ø1.25	5		00828	0.005
TSNW 1.25	Ø1.25	12		00888	0.005
TSNCW 1.5	Ø1.5	5		00829	0.005
TSNW 1.5	Ø1.5	12		00889	0.005
TSNCW 1.75	Ø1.75	5		00830	0.005
TSNW 1.75	Ø1.75	12		00890	0.005
TSNCW 2	Ø2	5		00831	0.005
TSNW 2	Ø2	12		00891	0.005
TSNCW 2.25	Ø2.25	5		00832	0.005
TSNW 2.25	Ø2.25	12		00892	0.005
TSNCW 2.5	Ø2.5	5		00833	0.005
TSNW 2.5	Ø2.5	12		00893	0.005
TSNCW 2.75	Ø2.75	5		00834	0.005
TSNW 2.75	Ø2.75	12		00894	0.005
TSNCW 3	Ø3	5	●	00835	0.005
TSNW 3	Ø3	12	●	00895	0.005
TSNCW 3.5	Ø3.5	5	●	00836	0.005
TSNW 3.5	Ø3.5	12	●	00896	0.005
TSNCW 4	Ø4	5	●	00837	0.005
TSNW 4	Ø4	12	●	00897	0.005
TSNCW 4.5	Ø4.5	5	●	00838	0.005
TSNW 4.5	Ø4.5	12	●	00898	0.005
TSNCW 5	Ø5	5	●	00839	0.005
TSNW 5	Ø5	12	●	00899	0.005
TSNCW 5.5	Ø5.5	5	●	00840	0.005
TSNW 5.5	Ø5.5	12	●	00948	0.005
TSNCW 6	Ø6	5	●	00841	0.005
TSNW 6	Ø6	12	●	00921	0.005
TSNCW 6.35	Ø6.35	5	●	00842	0.005
TSNW 6.35	Ø6.35	12	●	00922	0.005
TSNCW 6.5	Ø6.5	5	●	00843	0.005
TSNW 6.5	Ø6.5	12	●	00949	0.005

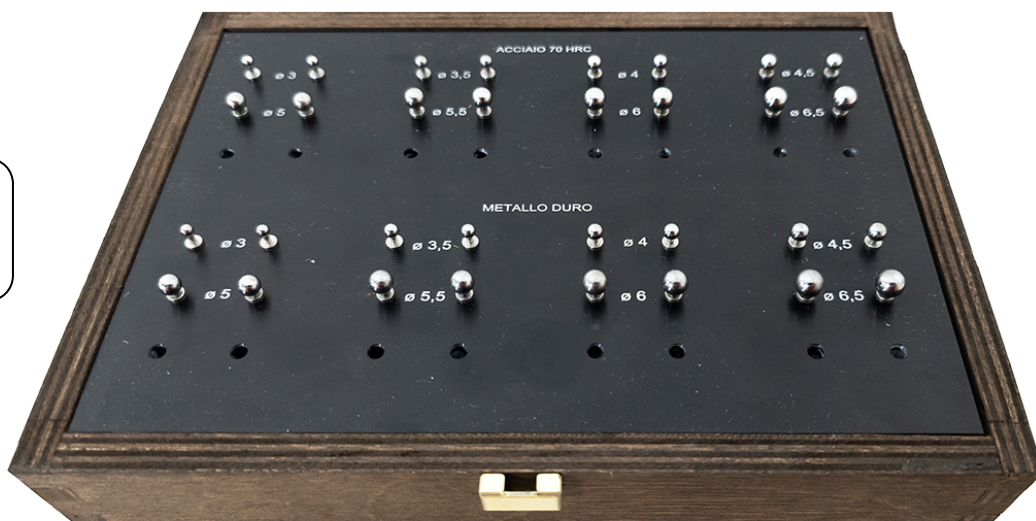
\*Length also on request

\*Lunghezza anche su richiesta

### Detail



Stem glued inside the perforated sphere  
Gambo incollato dentro la sfera forata



# TERMINALI INTERCAMBIABILI



## ACCESSORIES ACCESSORI

INTERCHANGEABLE RODS FOR DIGI BASCOM - APOLLO - DIGI ULISSE - IRIS

TERMINALI INTERCAMBIABILI PER DIGI BASCOM - APOLLO - DIGI ULISSE - IRIS

RODS FOR THREAD INTERNAL MEASUREMENT  
TERMINALI PER FILETTATURE INTERNE

Article	Screw pitch	Code	Kg
F0301	0,4-0,5	03010	0,010
F0302	0,6-0,9	03011	0,010
F0303	1-1,75	03012	0,010
F0304	2-3	03013	0,010
F0305	3,5-5	03014	0,010
F0306	5,5-7	03015	0,010

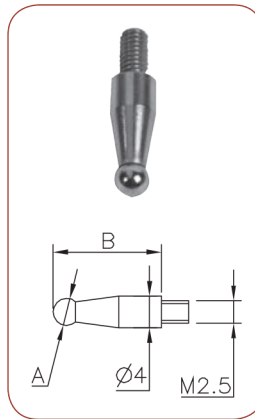


RODS FOR THREAD EXTERNAL MEASUREMENT  
TERMINALI PER FILETTATURE ESTERNE

Article	Screw pitch	Code	Kg
F0101	0,4-0,5	03050	0,010
F0102	0,6-0,9	03051	0,010
F0103	1-1,75	03052	0,010
F0104	2-3	03053	0,010
F0105	3,5-5	03054	0,010
F0106	5,5-7	03055	0,010

INTERCHANGEABLE RODS WITH SPHERE  
TERMINALI INTERCAMBIABILI CON SFERE CALIBRATE

Article	A	B	Code	Kg
TS 1,5	Ø 1,5	12	02015	0,005
TS 2	Ø 2	12	02020	0,005
TS 2,5	Ø 2,5	12	02025	0,005
TS 3	Ø 3	12	02030	0,005
TS 3,5	Ø 3,5	12	02035	0,005
TS 4	Ø 4	12	02040	0,005
TS 4,5	Ø 4,5	12	02045	0,005
TS 5	Ø 5	12	02050	0,005
TS 5,5	Ø 5,5	12	02055	0,005
TS 6	Ø 6	12	02060	0,005
TS 6,5	Ø 6,5	12	02065	0,005
TS 7	Ø 7	18	02070	0,005
TS 8	Ø 8	18	02080	0,005
TS 10	Ø 10	18	02100	0,005



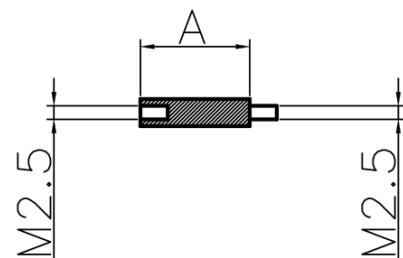
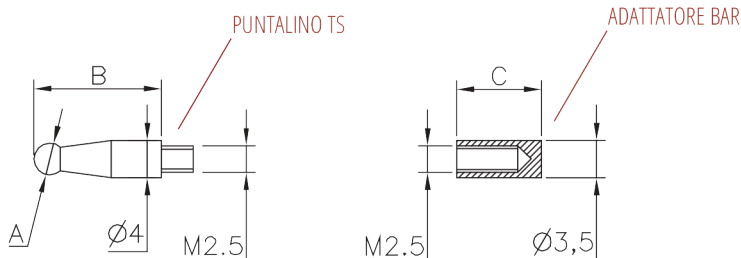
INTERCHANGEABLE RODS WITH CARBIDE SPHERE  
TERMINALI INTERCAMBIABILI CON SFERE CALIBRATE IN METALLO DURO

Article	A	B	Code	Kg
TSW 1,5	Ø 1,5	12	02016	0,008
TSW 2	Ø 2	12	02021	0,008
TSW 2,5	Ø 2,5	12	02026	0,008
TSW 3	Ø 3	12	02031	0,008
TSW 3,5	Ø 3,5	12	02036	0,008
TSW 4	Ø 4	12	02041	0,008
TSW 4,5	Ø 4,5	12	02046	0,008
TSW 5	Ø 5	12	02051	0,008
TSW 5,5	Ø 5,5	12	02056	0,008
TSW 6	Ø 6	12	02061	0,008
TSW 6,5	Ø 6,5	12	02066	0,008
TSW 7	Ø 7	18	02071	0,008
TSW 8	Ø 8	18	02081	0,008
TSW 10	Ø 10	18	02101	0,008

## ADAPTOR FOR RODS ADATTATORE PER TERMINALI

### ACCESSORIES ACCESSORI

ADAPTOR FOR RODS TS - TSW  
ADATTATORI PER TERMINALI TS - TSW



Article	C	Code	Kg
BAR 60	10	00860	0.005
BAR 80	20	00861	0.006
BAR 81	30	00862	0.007
BAR 82	20	00861	0.006
BAR 83	30	00862	0.007

PROLUNGHE OPZIONALI OPTIONAL EXTENSIONS

Article	A (MM.)	Code	Kg
PROL 10	10	00860	0.005
PROL 20	20	00861	0.006
PROL 30	30	00862	0.007

# TERMINALI INTERCAMBIABILI

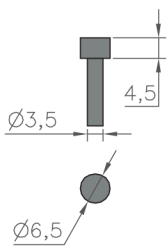


## ACCESSORIES ACCESSORI

INTERCHANGEABLE RODS FOR DIGI BASCOM - APOLLO - DIGI ULISSE - IRIS

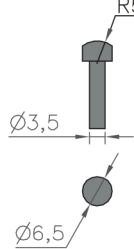
TERMINALI INTERCAMBIABILI PER DIGI BASCOM - APOLLO - DIGI ULISSE - IRIS

CILINDRICAL PIN  
PUNTALE CILINDRICO



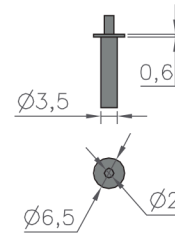
Article Code  
F0501 03020

SEMISPHERIC PIN  
PUNTALE SEMISFERICO



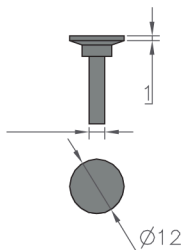
Article Code  
F0502 03021

PIN DOUBLE DIAMETER  
PUNTALE DOPPIO DIAM.



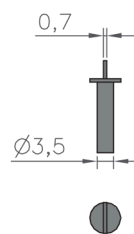
Article Code  
F0503 03022

PIN DISC  
PUNTALE A DISCO



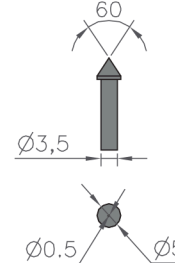
Article Code  
F0504 03023

PIN PLANE  
PUNTALE PIATTO



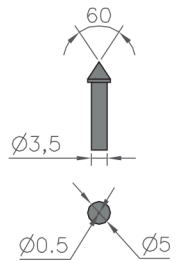
Article Code  
F0505 03024

PIN CONIC 60°  
PUNTALE CONICO A 60°

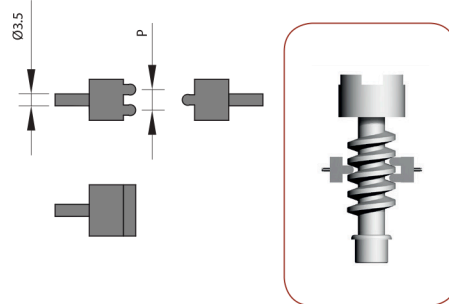


Article Code  
F0506 03025

PIN WEDGE 60°  
PUNTALE A CUNEO 60°

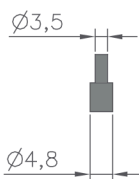


Article Code  
F0507 03026



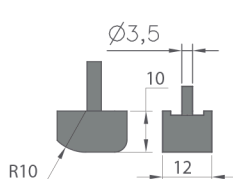
Article	Passo	Code	Kg
PT2	2	00597	0,008
PT3	3	00598	0,008
PT4	4	00599	0,008
PT5	5	00601	0,008
PT6	6	00602	0,008
PT7	7	00603	0,008
PT8	8	00604	0,008
PT9	9	00605	0,008
PT10	10	00606	0,008
PT12	12	00607	0,008

CILINDRICAL PIN  
PUNTALE CILINDRICO



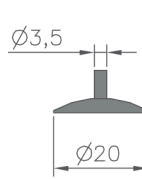
Article Code Kg  
F0801 03030 0,008

PIN PLANE  
PUNTALE PIATTO

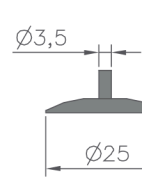


Article Code Kg  
F0802 03031 0,018

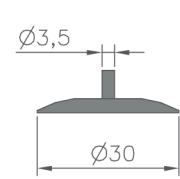
PIN DISC  
PUNTALE A DISCO



Article Code Kg  
F0803 03032 0,020



Article Code Kg  
F0804 03033 0,024

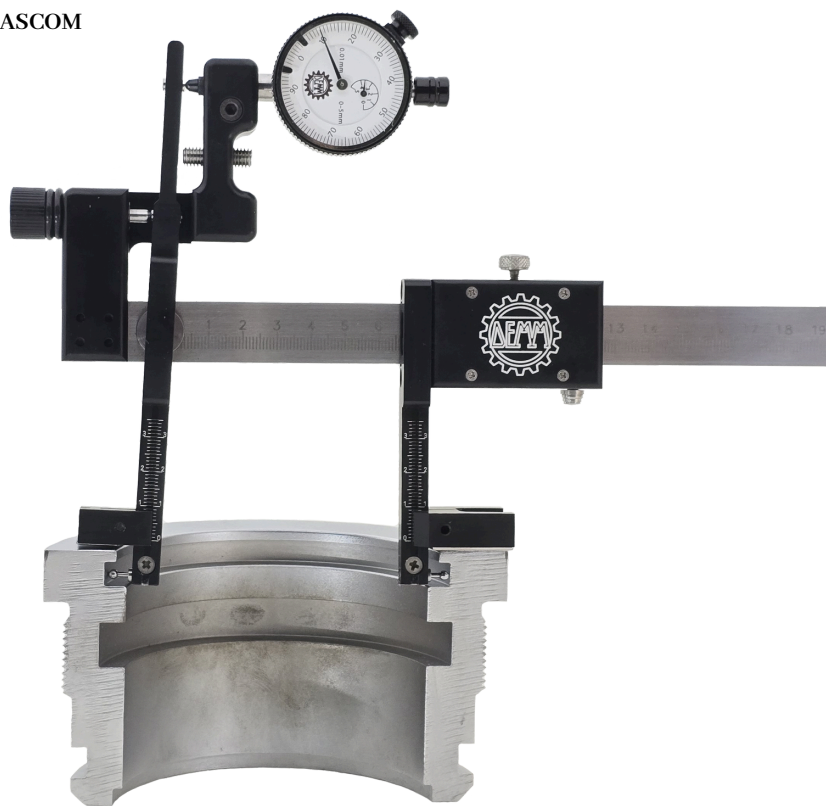


Article Code Kg  
F0805 03034 0,030

## COMPATIBLE INSTRUMENTS

Compatible with all instruments with a  $\varnothing 3.5\text{mm}$  seat  
Compatibile con tutti gli strumenti che presentano una sede di  $\varnothing 3,5\text{mm}$

BASCOM



IRIS



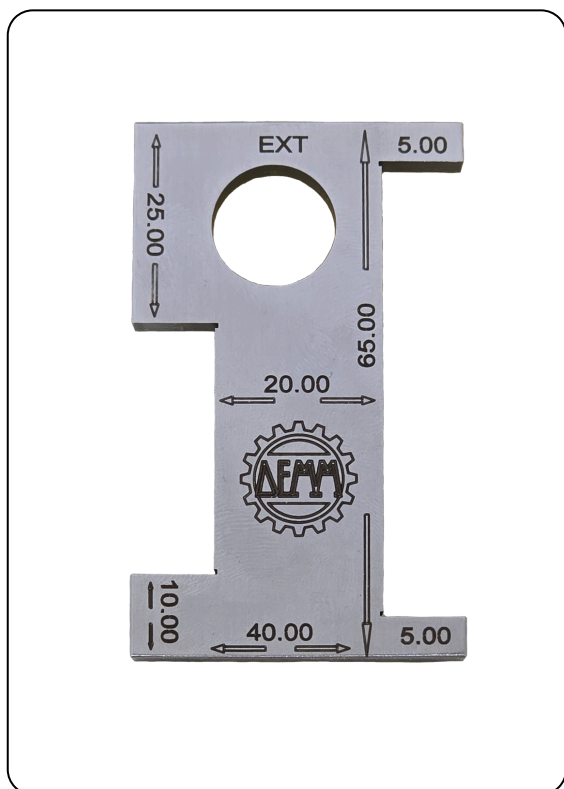
ULISSE



APOLLO







Article	Code	Kg
MA	01000	0.050





# Your Everyday Partner

## Kinds and Symbols of Geometrical Tolerances

Kind of tolerance	Symbol	Definition of tolerance zone	Examples of diagrammatical indication and its interpretation
Form tolerance	Straightness tolerance	Where symbol $\phi$ is attached before the numerical value indicating a tolerance zone, this tolerance zone is a zone in a cylinder of diameter $t$ .	Where a tolerance frame is connected to the dimension showing the diameter of a cylinder, the axis of the cylinder shall be contained a cylinder of 0.08mm diameter.
	Flatness tolerance	The tolerance zone is a zone held between two parallel planes a distance $t$ apart.	This surface shall be contained between two parallel planes 0.08mm apart.
	Circularity tolerance	The tolerance zone in the considered plane is a zone between two concentric circles a distance $t$ apart.	The circumference in any section normal to the axis shall be contained between two concentric circles 0.1mm apart on the same plane.
	Cylindricity tolerance	The tolerance zone is a zone contained between two coaxial cylinder surfaces a distance $t$ apart.	The considered surface shall be contained between two coaxial cylinder surfaces 0.1mm apart.
	Profile tolerance of line	The tolerance zone is a zone held between two lines enveloping circles of diameter $t$ , the centers of which are situated on a theoretically exact profile line.	In any cross-section parallel to the projection plane the considered profile shall be contained between two lines enveloping circles of 0.04mm in diameter, the centers of which are situated on a line having the theoretically exact profile.
	Profile tolerance of surface	The tolerance zone is a zone held between the two surfaces enveloping the spheres of diameter $t$ , the centers of which are situated on a theoretically exact profile surface.	The considered surface shall be contained between two surfaces enveloping the spheres of diameter 0.02mm, the centers of which are situated on a surface having the theoretically exact profile.
Orientation tolerance	Parallelism tolerance	The tolerance zone is a zone held between two parallel planes parallel to the datum plane and a distance $t$ apart from each other.	The surface shown by the arrow of the leader line shall be contained between two planes parallel to the datum plane A and 0.01mm apart from each other in the direction of the arrow of the leader line.
	Perpendicularity tolerance	Where symbol $\phi$ is attached before the numerical value indicating the tolerance, the tolerance zone is a zone within a cylinder of diameter $t$ perpendicular to the datum plane.	The axis of the cylinder shown by the arrow of the leader line shall be contained within a cylinder of diameter 0.01mm perpendicular to the datum plane A.
	Angularity tolerance	The tolerance zone is a zone held between two parallel planes inclined at the specified angle to the datum plane and a distance $t$ apart from each other.	The surface shown by the arrow of the leader line shall be contained between two parallel planes which are inclined at 40° with theoretical exactness to the datum plane A and which are 0.08mm apart from each other in the direction of the arrow of the leader line.
Location tolerance	Positional tolerance	The tolerance zone is a zone within a circle or sphere of diameter $t$ having its center at the theoretically exact location, hereinafter referred to as the "true location".	The point shown by the arrow of the leader line shall be contained within a circle of 0.03mm diameter having its center at the true location 60mm and 100mm apart, respectively from the datum straight line A and from the datum straight line B.
	Coaxiality tolerance or concentricity tolerance	Where symbol $\phi$ is attached before the numerical value indicating the tolerance, the tolerance zone is a zone within a cylinder of diameter $t$ whose axis agrees with the datum axial straight line.	The axis shown by the arrow of the leader line shall be contained within a cylinder of 0.01mm diameter whose axis agrees with the datum axial straight line A.
	Symmetry tolerance	The tolerance zone is a zone held between two parallel planes a distance $t$ apart from each other and arranged symmetrically about the datum median plane.	The median surface shown by the arrow of the leader line shall be contained between two parallel planes 0.08mm apart from each other and arranged symmetrically about the datum median plane A.
Run-out tolerance	Circular run-out tolerance	The tolerance is a zone between two concentric circles whose centers agree with the datum axial straight line on any measuring plane normal to the datum axial straight line and which are a distance $t$ apart from each other in the radial direction.	The run-out in the radial direction of the cylinder surface shown by the arrow of the leader line shall not exceed 0.1mm on any measuring plane normal to the datum axial straight line when the cylinder is rotated by one rotation about the datum axial straight line A-B.
	Total run-out tolerance	The tolerance zone is a zone between two coaxial cylinders having axes agreeing with the datum axial straight line and a distance $t$ apart from each other in the radial direction.	The total radial run-out of the cylinder surface shown by the arrow of the leader line shall not exceed 0.1mm at any point on the cylinder surface when the cylinder part is rotated about the datum axial straight line A-B with a relative movement in the axial direction.

Lines used in the drawings in the column of "definition of tolerance zone" indicate the following meanings :

Thick solid line or broken line: Feature  
 Thin alternate long and short dash line: Center line  
 Thick alternate long and short dash line: Datum  
 Thin alternate long and two short dashes line: Supplementary projection plane or sectional plane  
 Thin solid line or broken line: Tolerance zone  
 Thick alternate long and two short dashes line: Projection of a feature to supplementary Projection plane or sectional plane

**DEMM ITALIANA CALIBRI**

**NOLAN S.r.l.**

**Tel e Fax +39 0546 665049**

**E-mail: info@calbridemm.it**

**www.calbridemm.it**