

Willrich Precision Ph 866-945-5742 / email: sales@willrich.com



Models from
.396" to 4.0" / 10
to 100 mm: DIN 863 T4
(style C2) NF E 11-099



Models from
.188" to 4.0" / 5
to 100 mm: 0.0001 in or
0.002 mm, with vernier
reading
4.0° to 6.0° / 100 to 300
mm: 0.001 in or 0.01 mm



Measuring arms
on models from
.188" to 4.0" / 5 to 100
mm: hardened steel
4.0° to 6.0° / 100 to 300
mm: tungsten carbide
tipped



Max. perm. error
for models
covering appl. ranges
from .188" to 1.595" / 5 to
40 mm : 2 µm
1.394 to 4.005 in or 40 to
100 mm: 3 µm
4 to 6 in or 100 to 300
mm : 5 µm



Repeatability
limit for models
covering the application
ranges from:
0.188 to 1.604 in or 5 to
40 mm : 3 µm
1.394 to 4.005 in or 40
to 100 mm : 4 µm
4 to 6 in or 100 to
300 mm : 5 µm



Plastic case
or suitcase



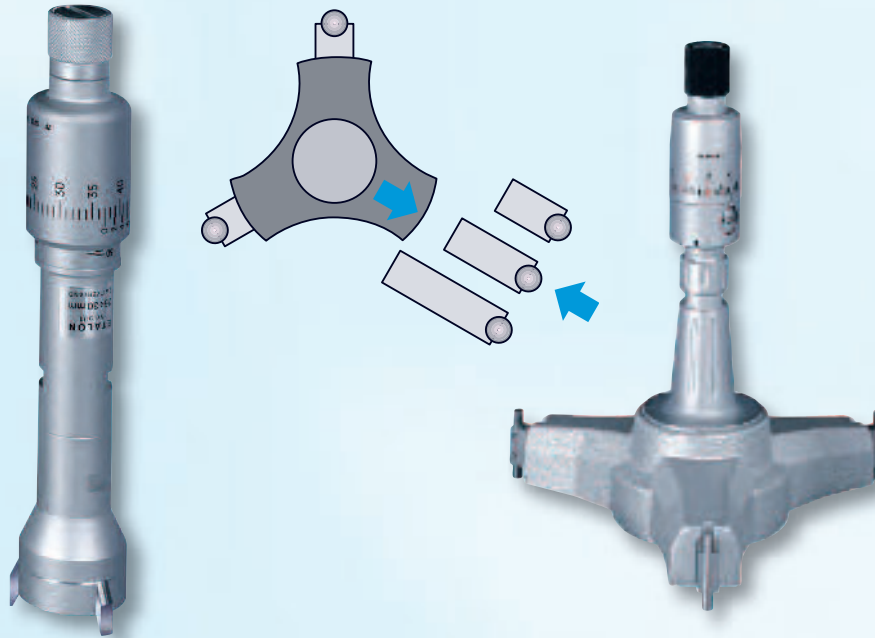
Identification
number



Inspection
report with a
declaration of conformity

ETALON®INGAGE 531

Measures through holes and blind bores, as well as short centering shoulders. All models covering the application ranges up to 4 in / 100 mm have slanted measuring bolts that extend beyond the front face of the measuring head.



			in			mm	
78.112374	41834	0.188 - 0.238	78.112356	41816	5 - 6	2 x 180°	
78.112375	41835	0.233 - 0.278	78.112357	41817	6 - 7	2 x 180°	
78.112376	41836	0.272 - 0.338	78.112358	41818	7 - 8.5	2 x 180°	
78.112377	41837	0.332 - 0.402	78.112359	41819	8.5 - 10	2 x 180°	
78.112378	41838	0.396 - 0.502	78.112360	41820	10 - 12.5	3 x 120°	
78.112379	41839	0.496 - 0.602	78.112361	41821	12.5 - 15	3 x 120°	
78.112380	41840	0.596 - 0.704	78.112362	41822	15 - 17.5	3 x 120°	
78.112381	41841	0.696 - 0.804	78.112363	41823	17.5 - 20	3 x 120°	
78.112382	86151	0.794 - 1.004	78.112364	41824	20 - 25	90° - 135° - 135°	
78.112383	41843	0.994 - 1.204	78.112365	41825	25 - 30	90° - 135° - 135°	
78.112384	41844	1.194 - 1.404	78.112366	41826	30 - 35	90° - 135° - 135°	
78.112385	41845	1.394 - 1.604	78.112367	41827	35 - 40	90° - 135° - 135°	
78.112386	41846	1.595 - 1.805	78.112368	41828	40 - 45	90° - 135° - 135°	
78.112387	41847	1.795 - 2.005	78.112369	41829	45 - 50	90° - 135° - 135°	
78.112388	41848	1.995 - 2.405	78.112370	41830	50 - 60	90° - 135° - 135°	
78.112389	41849	2.395 - 2.805	78.112371	41831	60 - 70	90° - 135° - 135°	
78.112390	41850	2.795 - 3.405	78.112372	41832	70 - 85	90° - 135° - 135°	
78.112391	41851	3.395 - 4.005	78.112373	41833	85 - 100	90° - 135° - 135°	
78.111174	41812	4 - 5	78.110733	41803	100 - 125	3 x 120°	
78.111176	41813	5 - 6	78.110735	41804	125 - 150	3 x 120°	
			78.110737	26304	150 - 175	3 x 120°	
			78.110739	26305	175 - 200	3 x 120°	
			78.110741	26306	200 - 225	3 x 120°	
			78.110743	26307	225 - 250	3 x 120°	
			78.110745	26308	250 - 275	3 x 120°	
			78.110747	26309	275 - 300	3 x 120°	

ETALON® INTALOMETER 531 – Inch Sets



Plastic case
or suitcase



Inspection
report with a
declaration of conformity

		 in		 in		 in		 in
Full sets including:			Single instruments		Extensions		Setting rings	
78.110600	41799	0.188 - 0.402	78.112374	0.188 - 0.238	78.103613	4	08.50100	0.200
			78.112375	0.233 - 0.278			08.50114	0.250
			78.112376	0.272 - 0.388			08.50115	0.300
			78.112377	0.332 - 0.402			08.50101	0.350
78.110602	41800	0.396 - 0.804	78.112378	0.396 - 0.502	78.103621	6	08.50103	0.500
			78.112379	0.496 - 0.602			08.50105	0.700
			78.112380	0.596 - 0.704				
			78.112381	0.696 - 0.804				
78.110604	41801	0.794 - 1.604	78.112382	0.794 - 1.004	78.103624	6	08.50106	1.000
			78.112383	0.994 - 1.204			08.50107	1.400
			78.112384	1.194 - 1.404				
			78.112385	1.394 - 1.604				
78.110606	41802	1.595 - 4.005	78.112386	1.595 - 1.805	78.104940	6	08.50116	1.800
			78.112387	1.795 - 2.005			08.50118	2.400
			78.112388	1.995 - 2.405			08.50117	3.400
			78.112389	2.395 - 2.805				
			78.112390	2.795 - 3.405				
			78.112391	3.395 - 4.005				
		 in			 in		 in	
Partial set including:			Single instrument	Measuring bolts	Extension			
78.111179	41814	4 - 6	78.111174	78.111011*	4 - 5	78.104940	6	
				78.111012	5 - 6			
* One set of measuring arms is provided with the single instrument No. 78.111174								

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ETALON® INGAGE 531 – Metric Sets



Full sets including:			Single instruments		Extensions		Setting rings	
78.110592	41795	5 - 10	78.112356	5 - 6	78.103613	100	08.40114	6
			78.112357	6 - 7			08.40115	8.5
			78.112358	7 - 8.5				
			78.112359	8.5 - 10				
78.110594	41796	10 - 20	78.112360	10 - 12.5	78.103621	150	08.40116	12.5
			78.112361	12.5 - 15			08.40117	17.5
			78.112362	15 - 17.5				
			78.112363	17.5 - 20				
78.110596	41797	20 - 40	78.112364	20 - 25	78.103624	150	08.40106	25
			78.112365	25 - 30			08.40107	35
			78.112366	30 - 35				
			78.112367	35 - 40				
78.110598	41798	40 - 100	78.112368	40 - 45	78.104940	150	08.43230	45
			78.112369	45 - 50			08.43239	60
			78.112370	50 - 60			08.40118	85
			78.112371	60 - 70				
			78.112372	70 - 85				
			78.112373	85 - 100				

Full sets including:			Single instruments		Measuring bolts		
78.110749	41805	100 - 150	78.110733	78.111003*	100 - 125	78.104940	150
				78.111004	125 - 150		
78.110751	26310	150 - 300	78.110737	78.111005*	150 - 175	78.104940	150
				78.111006	175 - 200		
				78.111007	200 - 225		
				78.111008	225 - 250		
				78.111009	250 - 275		
				78.111010	275 - 300		

* One set of measuring bolts is provided with the single instrument No. 78.110733 or 78.110737