

External measurement

Application range up to 30 mm



C015



D110S



K220



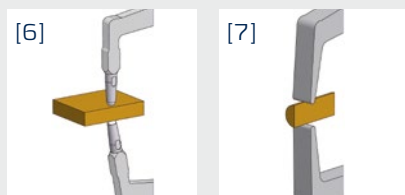
D220



K330

Type	Measuring span Mes [mm]	Measuring range Meb [mm]	Range of indication AzB [mm]	Numerical interval Zw Scale interval Skw [mm]	Permissible errors G [mm]	Repeatability limit r [mm]	Measuring force F_{min} [N]	Measuring force F_{max} [N]	Weight [g]	Protection class	Measuring contact movable Hb [mm]	Measuring contact fixed Hf [mm]	Type of measuring contact [mm]	Measuring depth L max. [mm]	Picture	Electronic E Mechanical M	Wooden box
C015	15	0-15	0-15,5	0,001	0,010	0,005	1,3	1,5	170	IP67	17	17	Ball Ø 1.5	45	[6]	E	1732-38
C015S	15	0-15	0-15,5	0,001	0,015	0,005	1,3	1,5	170	IP67	12	12	Chisel R 0.4	45	[7]	E	1732-38
K110	10	0-10	0-10,5	0,005	0,015	0,005	1,2	1,6	260	IP67	19,1	18,6	Ball Ø 1.5	35	[6]	E	1732-65
D110	10	0-10	0-10,5	0,005	0,015	0,005	1,2	1,6	170	IP65	19,1	18,6	Ball Ø 1.5	35	[6]	M	1732-45
K110S	10	0-10	0-10,5	0,005	0,015	0,005	1,2	1,6	260	IP67	18,8	18,5	Chisel R 0.4	35	[7]	E	1732-65
D110S	10	0-10	0-10,5	0,005	0,015	0,005	1,2	1,6	170	IP65	18,8	18,5	Chisel R 0.4	35	[7]	M	1732-45
K220	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	300	IP67	24,7	24,6	Ball Ø 1.5	85	[6]	E	1732-65
D220	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	210	IP65	24,7	24,6	Ball Ø 1.5	85	[6]	M	1732-45
K220S	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	300	IP67	24,7	24,6	Chisel R 0.4	85	[7]	E	1732-65
D220S	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	210	IP65	24,7	24,6	Chisel R 0.4	85	[7]	M	1732-45
K330	30	0-30	0-30,5	0,01	0,04	0,02	0,9	1,6	430	IP67	30	30	Ball Ø 3	116	[6]	E	1732-71
K330S	30	0-30	0-30,5	0,01	0,04	0,02	0,9	1,6	430	IP67	30	30	Chisel R 0.75	116	[7]	E	1732-71

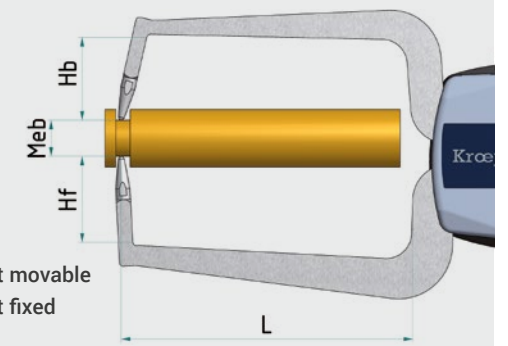
Measuring contacts



Ball Ø 1.5 mm
Ball Ø 3.0 mm

Chisel R 0.4 mm
Chisel R 0.75 mm

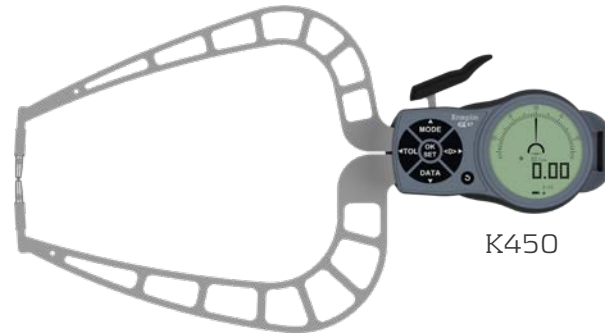
Measuring capacity



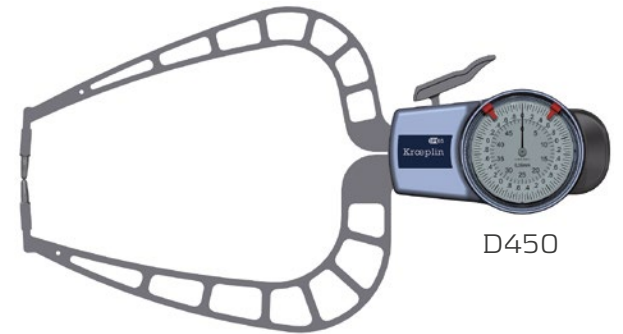
Meb Measuring range
Hb Measuring contact movable
Hf Measuring contact fixed
L Measuring depth

External measurement

Application range up to 200 mm



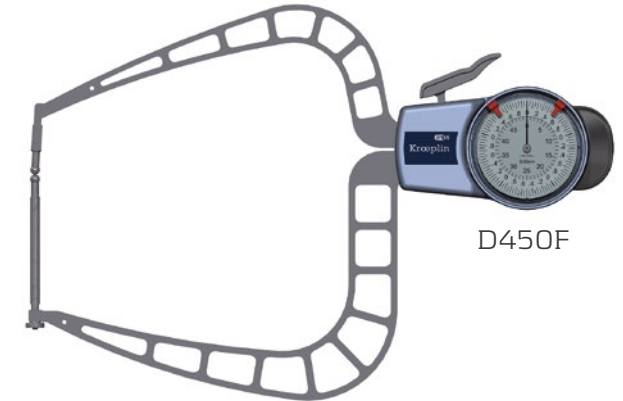
K450



D450



K8100



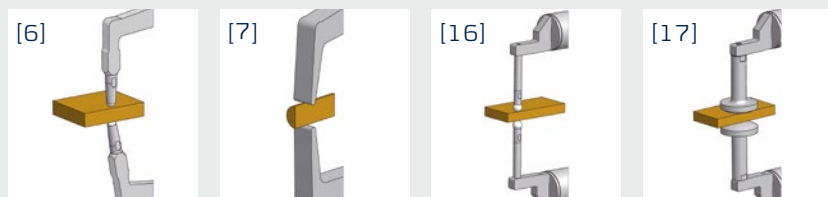
D450F



C16200

Type	Measuring span Mes [mm]	Measuring range Meb [mm]	Range of indication Azb [mm]	Numerical interval Zw Scale interval Skw [mm]	Permissible errors G [mm]	Repeatability limit r [mm]	Measuring force F_{min} [N]	Measuring force F_{max} [N]	Weight [g]	Protection class	Measuring contact movable Hb [mm]	Measuring contact fixed Hf [mm]	Type of measuring contact [mm]	Measuring depth L max. [mm]	Picture	Electronic E Mechanical M	Wooden box
K450	50	0-50	0-50,5	0,01	0,05	0,03	0,8	1,7	490	IP67	30	30	Ball Ø 3	167	[6]	E	1732-71
D450	50	0-50	0-50,5	0,05	0,05	0,025	0,8	1,7	430	IP65	30	30	Ball Ø 3	167	[6]	M	1732-51
K450S	50	0-50	0-50,5	0,01	0,05	0,03	0,8	1,7	490	IP67	30	30	Chisel R 0.75	167	[7]	E	1732-71
D450S	50	0-50	0-50,5	0,05	0,05	0,025	0,8	1,7	430	IP65	30	30	Chisel R 0.75	167	[7]	M	1732-51
K450B	50	0-50	0-50,5	0,01	0,06	0,04	0,8	1,7	510	IP67	72,6	30	Ball Ø 5	167	[6]	E	HK
D450B	50	0-50	0-50,5	0,05	0,075	0,05	0,8	1,7	450	IP65	72,6	30	Ball Ø 5	167	[6]	M	HK
K450F	50	0-50	0-50,5	0,01	0,06	0,04	0,8	1,7	510	IP67	30	72,6	Ball Ø 5	167	[6]	E	HK
D450F	50	0-50	0-50,5	0,05	0,075	0,05	0,8	1,7	450	IP65	30	72,6	Ball Ø 5	167	[6]	M	HK
K4100	50	50-100	49,5-100,5	0,01	0,06	0,04	0,8	1,7	510	IP67	30	23	Ball Ø 5	167	[6]	E	HK
D4100	50	50-100	49,5-100,5	0,05	0,075	0,05	0,8	1,7	450	IP65	30	23	Ball Ø 5	167	[6]	M	HK
K4150	50	100-150	99,5-150,5	0,01	0,06	0,04	0,8	1,7	530	IP67	30	23	Ball Ø 5	167	[6]	E	HK
D4150	50	100-150	99,5-150,5	0,05	0,075	0,05	0,8	1,7	470	IP65	30	23	Ball Ø 5	167	[6]	M	HK
K8100	100	0-100	0-101	0,05	0,15	0,1	0,8	1,8	660	IP67	33	33	Ball Ø 5	375	[16]	E	HK
D8100	100	0-100	0-101	0,1	0,15	0,1	0,8	1,8	600	IP65	33	33	Ball Ø 5	375	[16]	M	HK
C12100	100	0-100	0-101	0,1	0,3	0,2	1,2	1,8	950	-	30	30	Ball Ø 5	530	[16]	E	HK
D12100	100	0-100	0-101	0,1	0,3	0,2	1,2	1,8	1000	-	30	30	Ball Ø 5	530	[16]	M	HK
C12100BJ	100	0-100	0-101	0,1	0,3	0,2	1,2	1,8	1100	-	30	124	Ball Ø 5	530	[16]	E	HK
D12100BJ	100	0-100	0-101	0,1	0,3	0,2	1,2	1,8	1100	-	30	124	Ball Ø 5	530	[16]	M	HK
C16200	200	0-200	0-201	0,2	0,4	0,2	0,8	1,5	1300	-	98	98	Hemisphere SR 20	728	[17]	E	HK
D16200	200	0-200	0-201	0,2	0,4	0,2	0,8	1,5	1400	-	98	98	Hemisphere SR 20	728	[17]	M	HK

Measuring contacts



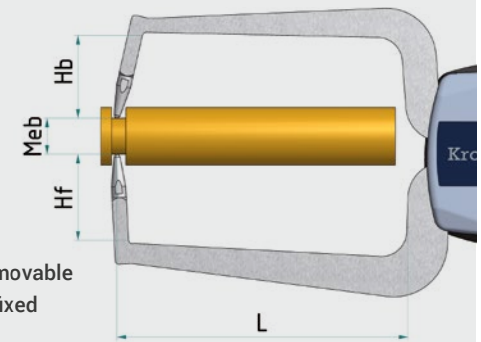
Ball Ø 3.0 mm
Ball Ø 5.0 mm

Chisel R 0.75 mm

Ball Ø 5.0 mm

Hemisphere SR 20 mm

Measuring capacity



Meb Measuring range

Hb Measuring contact movable

Hf Measuring contact fixed

L Measuring depth

Tube wall measurement

Application range up to 100 mm



COR155



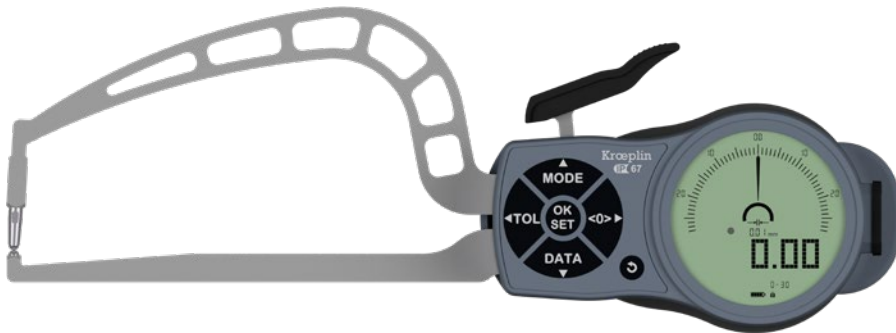
D1R10



K1R10



D2R20



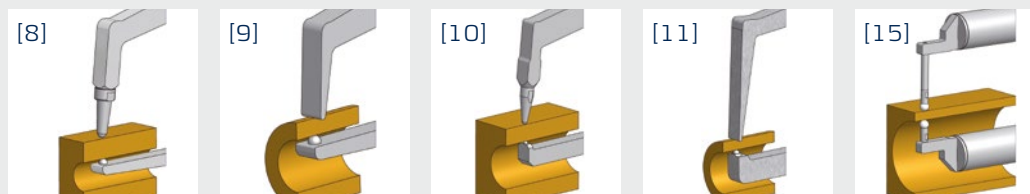
K3R30



D4R50

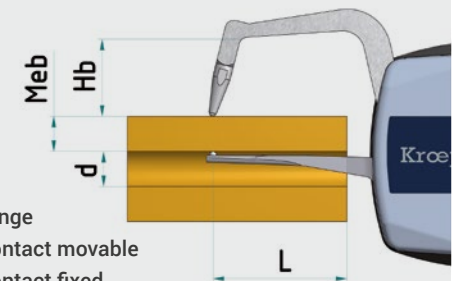
Type	Measuring span Mes [mm]	Measuring range Meb [mm]	Range of indication Azb [mm]	Numerical interval Zw Scale interval Skw [mm]	Permissible errors G [mm]	Repeatability limit r [mm]	Measuring force F _{min} [N]	Measuring force F _{max} [N]	Weight [g]	Protection class	Type of measuring contact movable [mm]	Measuring contact movable Hb [mm]	Type of measuring contact fixed [mm]	Measuring contact fixed Hf [mm]	bore diameter d min.	Measuring depth L max. [mm]	Picture	Electronic E Mechanical M	Wooden box
C0R15	15	0-15	0-15,5	0,001	0,01	0,005	1,3	1,5	165	IP67	Ball Ø 1.5	17	Ball Ø 1.5	0.9	4	46	[8]	E	1732-38
C0R15S	15	0-15	0-15,5	0,001	0,01	0,005	1,3	1,5	170	IP67	Chisel Ø 0.4	12	Ball Ø 1.5	0.9	4	46	[9]	E	1732-38
K1R10	10	0-10	0-10,5	0,005	0,015	0,005	0,8	1,2	255	IP67	Ball Ø 1.5	19.1	Ball Ø 1.5	0.9	3	35	[8]	E	1732-65
D1R10	10	0-10	0-10,5	0,005	0,015	0,005	0,8	1,2	165	IP65	Ball Ø 1.5	19.1	Ball Ø 1.5	0.9	3	35	[8]	M	1732-45
K1R10S	10	0-10	0-10,5	0,005	0,015	0,005	0,8	1,2	255	IP67	Chisel R = 0.4	18.8	Ball Ø 1.5	0.9	3	35	[9]	E	1732-65
D1R10S	10	0-10	0-10,5	0,005	0,015	0,005	0,8	1,2	165	IP65	Chisel R = 0.4	18.8	Ball Ø 1.5	0.9	3	35	[9]	M	1732-45
K2R20	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	290	IP67	Ball Ø 1.5	24.7	Ball Ø 1.5	2.5	9	80	[10]	E	1732-65
D2R20	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	200	IP65	Ball Ø 1.5	24.7	Ball Ø 1.5	2.5	9	80	[10]	M	1732-45
K2R20S	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	290	IP67	Chisel R = 0.4	24.7	Ball Ø 1.5	2.5	9	80	[11]	E	1732-65
D2R20S	20	0-20	0-20,5	0,01	0,03	0,01	1,1	1,6	200	IP65	Chisel R = 0.4	24.7	Ball Ø 1.5	2.5	9	80	[11]	M	1732-45
K3R30	30	0-30	0-30,5	0,01	0,04	0,02	0,9	1,6	410	IP67	Ball Ø 3	30	Ball Ø 3	4	10	116	[10]	E	1732-71
K3R30S	30	0-30	0-30,5	0,01	0,04	0,02	0,9	1,6	410	IP67	Chisel R = 0.75	30	Ball Ø 3	4	10	116	[11]	E	1732-71
K4R50	50	0-50	0-50,5	0,01	0,05	0,03	0,8	1,7	460	IP67	Ball Ø 3	30	Ball Ø 3	4.3	13	169	[10]	E	1732-71
D4R50	50	0-50	0-50,5	0,05	0,05	0,025	0,8	1,7	400	IP65	Ball Ø 3	30	Ball Ø 3	4.3	13	169	[10]	M	1732-51
K4R50S	50	0-50	0-50,5	0,01	0,05	0,03	0,8	1,7	460	IP67	Chisel R = 0.75	30	Ball Ø 3	4.3	13	169	[11]	E	1732-71
D4R50S	50	0-50	0-50,5	0,05	0,05	0,025	0,8	1,7	400	IP65	Chisel R = 0.75	30	Ball Ø 3	4.3	13	169	[11]	M	1732-51
K8R100	100	0-100	0-101	0,05	0,15	0,1	0,8	1,8	660	IP67	Ball Ø 5	35	Ball Ø 5	15	36	382	[15]	E	HK
D8R100	100	0-100	0-101	0,1	0,15	0,1	0,8	1,8	600	IP65	Ball Ø 5	35	Ball Ø 5	15	36	382	[15]	M	HK

Measuring contacts



- [8] Ball Ø 1.5 mm
- [9] Chisel R 0.4 mm
Ball Ø 1.5 mm
- [10] Ball Ø 1.5 mm
Ball Ø 2.0 mm
Ball Ø 3.0 mm
- [11] Chisel R 0.4 mm
Chisel R 0.75 mm
Ball Ø 1.5 mm
Ball Ø 2.0 mm
Ball Ø 3.0 mm
- [15] Ball Ø 5.0 mm

Measuring capacity



- Meb Measuring range
- Hb Measuring contact movable
- Hf Measuring contact fixed
- L Measuring depth
- d Diameter

Measurement of foamed material and foils

Application range up to 100 mm



K110T



D110T



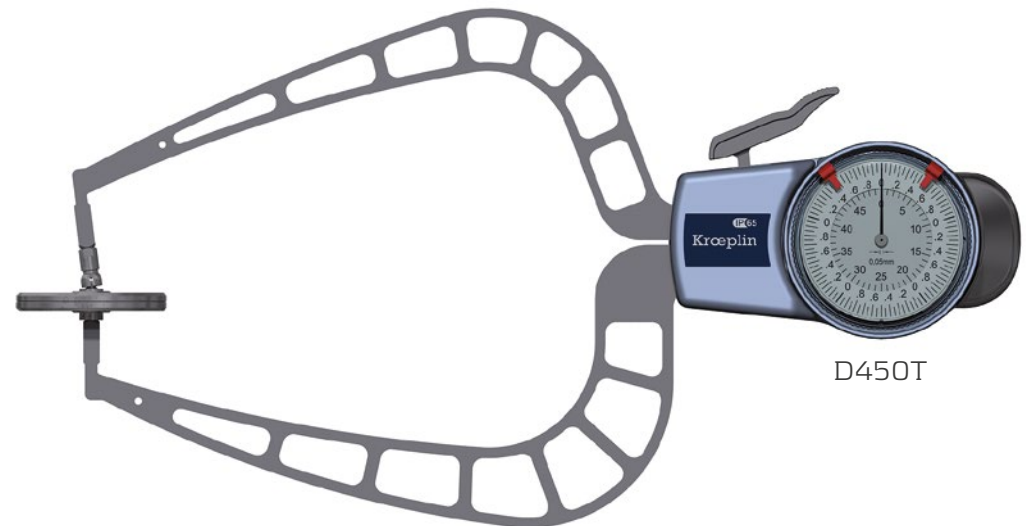
K220T



D220T



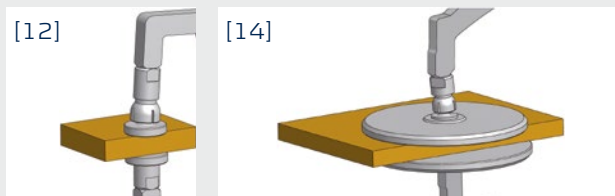
K330T



D450T

Type	Measuring span Mes [mm]	Measuring range Meb [mm]	Range of indication AzB [mm]	Numerical interval Zw Scale interval Skw [mm]	Permissible errors G [mm]	Repeatability limit r [mm]	Measuring force F_{min} [N]	Measuring force F_{max} [N]	Weight [g]	Protection class	Measuring contact movable Hb [mm]	Measuring contact fixed Hf [mm]	Type of measuring contact [mm]	Measuring depth L max. [mm]	Picture	Electronic E Mechanical M	Wooden box
K110T	10	0-10	0-10,5	0,005	0,02	0,005	0,8	1,2	265	IP67	21,7	14,8	Flat Ø 6	35	[12]	E	1732-65
D110T	10	0-10	0-10,5	0,005	0,02	0,005	0,8	1,2	175	IP65	21,7	14,8	Flat Ø 6	35	[12]	M	1732-45
K220T	20	0-20	0-20,5	0,01	0,04	0,01	1,1	1,6	310	IP67	28,2	20,7	Flat Ø 10	85	[12]	E	1732-65
D220T	20	0-20	0-20,5	0,01	0,04	0,01	1,1	1,6	220	IP65	28,2	20,7	Flat Ø 10	85	[12]	M	1732-45
K330T	30	0-30	0-30,5	0,01	0,06	0,04	0,9	1,6	430	IP67	36	24	Flat Ø 50	116	[14]	E	1732-71
K450T	50	0-50	0-50,5	0,01	0,06	0,04	0,8	1,7	500	IP67	36	24	Flat Ø 50	167	[14]	E	1732-71
D450T	50	0-50	0-50,5	0,05	0,1	0,05	0,8	1,7	440	IP65	36	24	Flat Ø 50	167	[14]	M	1732-51
K4100T	50	50-100	49,5-100,5	0,01	0,06	0,04	0,8	1,7	520	IP67	36	17	Flat Ø 50	167	[14]	E	HK
D4100T	50	50-100	49,5-100,5	0,05	0,075	0,05	0,8	1,7	450	IP65	36	17	Flat Ø 50	167	[14]	M	HK
K8100T	100	0-100	0-101	0,05	0,15	0,1	0,8	1,8	670	IP67	39	7	Flat Ø 50	375	[14]	E	HK
D8100T	100	0-100	0-101	0,1	0,15	0,1	0,8	1,8	610	IP65	39	7	Flat Ø 50	375	[14]	M	HK
C12100T	100	0-100	0-101	0,1	0,3	0,2	1,6	2,2	1000	-	34	14	Flat Ø 50	550	[14]	E	HK
D12100T	100	0-100	0-101	0,1	0,3	0,2	1,6	2,2	1100	-	34	14	Flat Ø 50	550	[14]	M	HK

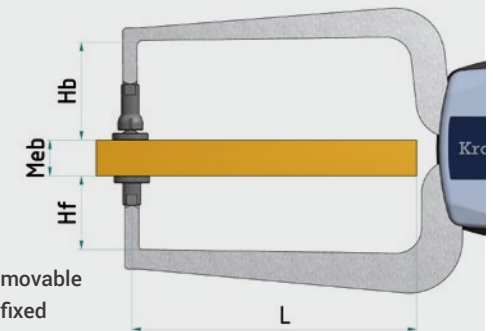
Measuring contacts



Flat Ø 6 mm
Flat Ø 10 mm

Flat Ø 50 mm

Measuring capacity



Meb Measuring range
Hb Measuring contact movable
Hf Measuring contact fixed
L Measuring depth