Ring Laser:

Messbereich x_0:

außen ↑ 58 mm
50 mm
Mitte — 47 mm
42 mm
außen ↓ 34,7 mm

bei T = 45

$s_T = 0{,}2$ ms
$s_{\Delta t} = 2$ µs
$s_{x_0} = 0{,}05$ mm

wenn nicht anders angegeben

a) feste Schrittweite x_0

1. $T = 45{,}0$ ms

x_0/mm	N	Δt/µs	x_0/mm	N	Δt/µs
38,00	10	534,0	42,00	6	660,5
37,00	10	504,0	43,00	4	527,5
36,00	12	565,5	50,00	3	487,0
35,00	15	604,5	51,00	6	640,5
34,00	9	562,5	52,00	7	686,5
40,00	9	621,0	53,00	9	710,5
41,00	8	666,0	54,00	10	676,5
57,00	12	581,0	55,00	10	611,0
58,00	8	351,5	56,00	11	577,0

2. $T = 60{,}0$ ms

x_0/mm	N	Δt/µs	x_0/mm	N	Δt/µs
58,00	10	592,5	35,00	11	582,0
56,50	6	422,5	36,50	9	533,5
55,00	9	734,5	38,00	8	502,0
53,50	6	575,5	39,50	7	636,5
52,00	5	596,0	41,00	4	430,5

3. $T = 30{,}0\,ms$ ($s_{\Delta t} = 1\,\mu s$ *)

x_0/mm	N	Δt/µs
35,00	8	212,50
36,50	6	188,75
38,00	8	204,50
39,50	5	223,50
41,00	5	283,50
42,50	8	627,5

x_0/mm	N	Δt/µs
44,00	4	452,0
58,00	8	237,75
56,50	8	269,50
55,00	7	278,75
53,50	7	339,50
52,00	4	258,50
50,50	7	583,50

b) festes x_0, variables T

1: $x_0 = 57{,}00$ $s_{\Delta t} = 1\,\mu s$ für gesamte Messung

T/ms	N	Δt/µs
30,0	8	258,25
33,0	6	270,00
36,0	5	785,25
39,0	6	258,00
42,0	8	376,50
45,0	7	337,25

T/ms	N	Δt/µs
48,0	6	300,00
51,0	7	367,25
54,0	7	396,50
57,0	5	312,50
60,0	5	327,750

2. $x_0 = 53{,}00$ ($s_{\Delta t} = 1\,\mu s$ *)

T/ms	N	Δt/µs
30,0	4	227,75
33,0	7	399,75
36,0	6	392,50
39,0	6	404,25
42,0	9	643,5
45,0	9	639,0

T/ms	N	Δt/µs
48,0	9	756,0
51,0	8	758,0
54,0	7	645,0
57,0	8	748,0
60,0	6	640,0

3. $x = 36{,}00$ mm $\quad s_{\Delta t} = 1\,\mu s$

T/ms	N	Δt/µs
30,0	11	316,00
33,0	8	265,00
36,0	7	265,50
39,0	10	382,00
42,0	5	271,50
45,0	7	314,25

T/ms	N	Δt/µs
48,0	5	238,50
51,0	6	296,25
54,0	5	278,00
57,0	5	270,25
60,0	6	360,00

4. $x = 60{,}00$ mm $\quad s_{\Delta t} = 1\,\mu s$

T/ms	N	Δt/µs
30,0	6	292,25
33,0	7	267,25
36,0	7	394,75
39,0	6	362,75
42,0	6	403,75
45,0	6	425,75

T/ms	N	Δt/µs
48,0	5	373,25
51,0	4	329,50
54,0	4	345,75
57,0	4	353,25
60,0	4	363,50

W.W.