

## Technical specifications (special equipments on request)

Classification of our extensometers in each case starts with **EX** = Extensometer.

Thereafter it follows the description of the purpose of use

**A** = axial

**H** = high temperature, last indication **A**= axial version, **D**= diametric version

**D** = diametral

**R** = crack opening

The now following figures indicates the distance between the measuring knife edges ( $l_0$ ), except diametral extensometers, here the figure sequence indicates the specimen thickness.

"-" stands for symmetrical deflection after plus and minus, however "+" indicates that measuring only is possible in direction of traction.

The measuring range also is given in mm.

Temperature range:

### **EXA, EXR(C) and EXD extensometer**

**Temperature range:** x - 80 °C up to + 120 °C

o -270 °C up to + 220 °C

u -270 °C up to + 300 °C

**EXH extensometer:** - 80 °C up to +1200 °C **optional (1800 °C short term)**

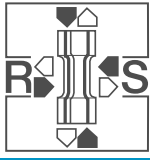
Example: EXA10-0,25u

axial extensometer

gauge length 10mm

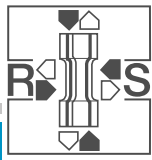
measuring displacement  $\pm 0,25$ mm

temperature range -270 °C up to +300 °C



## EXA extensometer

Model Type x/o/u version	Gauge Length [mm]	Measuring Displacement [mm]	Measuring Error of Full Scale [±%]	Natural Frequency [Hz]	Activation Force [N]	Weigth [g]	Dimensions		
							L [mm]	W [mm]	H [mm]
EXA 10-0,25	10	± 0,25	0,1	500	3	5	20	10	15
EXA 10-0,5	10	± 0,5	0,3	500	3	5	20	10	15
EXA 10-1	10	± 1	0,25	250	3	6	20	10	21
EXA 10-2	10	± 2	0,25	100	3	7	20	10	29
EXA 10-5	10	± 5	0,3	40	0,7	12	20	10	65
EXA 15-0,5	15	± 0,5	0,25	500	3	5	20	10	20
EXA 15-1	15	± 1	0,3	250	3	5	20	10	20
EXA 15-2	15	± 2	0,3	100	3	6	20	10	32
EXA 15-4	15	± 4	0,3	40	0,7	12	20	10	65
EXA 20-0,625	20	± 0,625	0,2	500	3	7	34	10	25
EXA 20-1,25	20	± 1,25	0,35	500	3	7	34	10	25
EXA 20-2,5	20	± 2,5	0,35	250	3	8	34	10	31
EXA 20-5	20	± 5	0,35	100	3	9	34	10	45
EXA 20-10	20	± 10	0,35	40	0,7	14	34	10	68
EXA 25-0,625	25	± 0,625	0,1	500	3	7	34	10	25
EXA 25-1,25	25	± 1,25	0,2	500	3	7	34	10	25
EXA 25-2,5	25	± 2,5	0,2	250	3	8	34	10	31
EXA 25-5	25	± 5	0,2	100	3	9	34	10	45
EXA 25-10	25	± 10	0,3	40	0,7	14	34	10	65
EXA 30-0,625	30	± 0,625	0,2	500	3	7	34	10	25
EXA 30-1,25	30	± 1,25	0,35	500	3	7	34	10	25
EXA 30-2,5	30	± 2,5	0,35	250	3	8	34	10	31
EXA 30-5	30	± 5	0,35	100	3	9	34	10	45
EXA 30-10	30	± 10	0,35	40	0,7	14	34	10	65
EXA 40-4	40	± 4	0,2	250	2,5	22	44	10	40
EXA 50-5	50	± 5	0,2	250	2,5	24	54	10	46
EXA 60-6	60	± 6	0,2	250	2,5	28	64	10	53
EXA 70-7	70	± 7	0,2	250	2,5	31	74	10	60
EXA 80-8	80	± 8	0,2	250	2,5	33	84	10	68
EXA 90-9	90	± 9	0,2	250	2,5	36	94	10	76
EXA 100-10	100	± 10	0,2	250	2,5	38	105	10	82

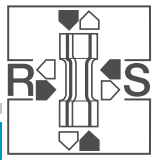


## EXH\*\* A axial high temperature extensometer

Model Type x/o/u version	Gauge Length [mm]	Measuring Displacement [mm]	Measuring Error of Full Scale [±%]	Natural Frequency [Hz]	Activation Force [N]	Weigth [g]	Temperature Range [°C]	Dimensions		
								L [mm]	W [mm]	H [mm]
EXH 15-0,75A	15	±0,75	0,3	150	2		1200/1800	110	60	210
EXH 15-1,5A	15	± 1,5	0,3	150	2		1200/1800	110	60	210
EXH 15-3A	15	± 3	0,3	150	2		1200/1800	110	60	210
EXH 15-6A	15	± 6	0,3	150	2		1200/1800	110	60	210
EXH 20-1A	20	± 1	0,25	150	2	» 100	1200/1800	110	60	210
EXH 20-2A	20	± 2	0,25	150	2		1200/1800	110	60	210
EXH 20-4A	20	± 4	0,25	150	2		1200/1800	110	60	240
EXH 25-1,25A	25	± 1,25	0,25	150	2		1200/1800	110	60	210
EXH 25-2,5A	25	± 2,5	0,25	150	2		1200/1800	110	60	210
EXH 25-5A	25	± 5	0,25	150	2		1200/1800	110	60	240
EXH 30-1,5A	30	± 1,5	0,25	150	2		1200/1800	110	60	210
EXH 30-3A	30	± 3	0,25	150	2		1200/1800	110	60	210
EXH 30-6A	30	± 6	0,25	150	2		1200/1800	110	60	240
EXH 50-10A	50	± 10	0,25	150	3		1200/1800	110	60	256

## EXD diametral strain transducer

Model Type x/o/u version	Specimen Thickness Adjustment Range [mm]	Measuring Displacement [mm]	Measuring Error of Full Scale [± %]	Natural Frequency [Hz]	Weigth [g]	Dimensions		
						L [mm]	W [mm]	H [mm]
EXD 8-0,25	1 - 8	±0,25	± 0,35	90	14	40	32	28
EXD 8-0,5	1 - 8	±0,5	± 0,35	90	14	40	32	28
EXD 8-1	1 - 8	±1	± 0,35	80	16	40	32	32
EXD 15-0,5	5 - 15	±0,5	± 0,35	90	20	51	39	36
EXD 15-1	5 - 15	±1	± 0,35	90	20	51	39	36
EXD 15-1,5	5 - 15	±1,5	± 0,35	80	22	51	39	39
EXD 30-1,25	15 - 30	±1,25	± 0,35	90	26	73	47	45
EXD 30-2,5	15 - 30	±2,5	± 0,35	90	26	73	47	45
EXD 30-4	15 - 30	±4	± 0,35	80	29	73	47	49
EXD 45-2	30 - 45	±2	± 0,35	70	41	95	53	65
EXD 45-4	30 - 45	±4	± 0,35	70	41	95	53	65



## EXH\*\*D high temperature diametral strain transducer

Model Type	Specimen Thickness Adjustment Range [mm]	Measuring Displacement [mm]	Measuring Error of Full Scale [± %]	Preload Max [N]	Weigth [g]	Temperature-Range [°C]	Dimensions		
							L [mm]	W [mm]	H [mm]
EXH 8-0,625D	1 - 8	± 0,625	0,1	20	280	1200	110	60	250
EXH 8-1,25D	1 - 8	± 1,25	0,35	20	280	1200	110	60	250
EXH 8-2,5D	1 - 8	± 2,5	0,2	20	280	1200	110	60	250
EXH 15-0,625D	5 - 15	± 0,625	0,1	20	280	1200	110	60	250
EXH 15-1,25D	5 - 15	± 1,25	0,35	20	280	1200	110	60	250
EXH 15-2,5D	5 - 15	± 2,5	0,2	20	280	1200	110	60	250
EXH 30-0,625D	15 - 30	± 0,625	0,1	20	280	1200	110	60	250
EXH 30-1,25D	15 - 30	± 1,25	0,35	20	280	1200	110	60	250
EXH 30-2,5D	15 - 30	± 2,5	0,2	20	280	1200	110	60	250

## EXR(C) crack opening transducer

Model Type x/o/u version	Gauge length [mm]	Measuring Displacement [mm]	Measuring Error of Full Scale [± %]	Natural Frequency [Hz]	Weigth [g]	Dimensions		
						L [mm]	B [mm]	H [mm]
EXR 10-0,25	10	± 0,25	0,15	500	3 - 8	20	10	17
EXR 10-0,5	10	± 0,5	0,25	500	3 - 8	20	10	17
EXR 10-1	10	± 1	0,25	250	3 - 8	20	10	23
EXR 10-2	10	± 2	0,25	100	3 - 8	20	10	31
EXR 10-5	10	± 5	0,35	40	3 - 8	20	10	67
EXR 20-0,625	20	± 0,625	0,25	500	3 - 8	34	10	25
EXR 20-1,25	20	± 1,25	0,25	500	3 - 8	34	10	25
EXR 20-2,5	20	± 2,5	0,25	250	3 - 8	34	10	31
EXR 20-5	20	± 5	0,25	100	3 - 8	34	10	45
EXR 20-10	20	± 10	0,35	40	3 - 8	34	10	65
EXR 25-0,625	25	± 0,625	0,15	500	3 - 8	34	10	25
EXR 25-1,25	25	± 1,25	0,25	500	3 - 8	34	10	25
EXR 25-2,5	25	± 2,5	0,25	250	3 - 8	34	10	31
EXR 25-5	25	± 5	0,25	100	3 - 8	34	10	45
EXR 25-10	25	± 10	0,35	40	3 - 8	34	10	65
EXR 30-0,625	30	± 0,625	0,3	500	3 - 8	34	10	25
EXR 30-1,25	30	± 1,25	0,3	500	3 - 8	34	10	25
EXR 30-2,5	30	± 2,5	0,3	250	3 - 8	34	10	31
EXR 30-5	30	± 5	0,3	100	3 - 8	34	10	45
EXR 30-10	30	± 10	0,35	40	3 - 8	34	10	65
<b>Clip-on</b>		<b>alternatively</b>						
EXRC 2	2	+ 3, +4, +5, +6	0,1	80	8	20	10	67
EXRC 3	3	+ 3, +4, +5, +6	0,1	80	8	20	10	67
EXRC 4	4	- 3, ±3, +4, +5, +6	0,1	80	8	20	10	67
EXRC 5	5	- 3,5, ±3, +4, +5, +6	0,1	80	8	20	10	67

All measuring errors contain hysteresis and linearity errors related to the final value. During alternative loading the measuring errors can become larger. Subject to change.