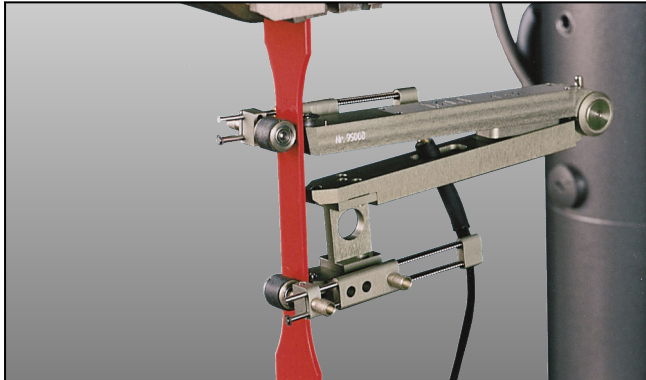


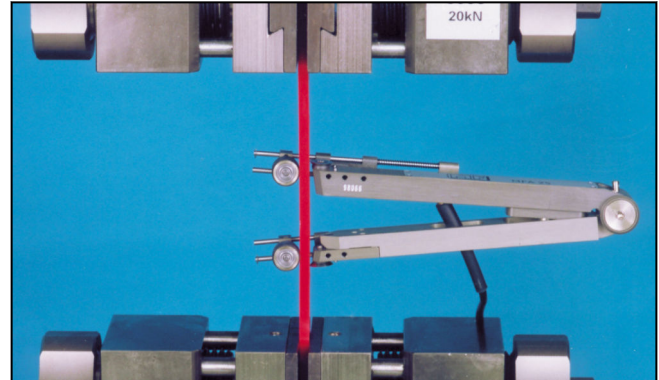
## Product Information

### DMS Strain Gauge Clip-On Extensometer

CTA: 44357 44369



DMS Length 1 clip-on extensometer with extension piece



Clip-on extensometer, type DMS Length 1

#### Applications

The DMS Length 1 extensometer is intended for fixed gauge-lengths  $L_0 = 25 \text{ mm}$  and  $L_0 = 50 \text{ mm}$  with a measuring range of 25 mm.

Extensometer types DMS Length 2, DMS Length 3 and DMS Length 4 are intended for fixed gauge-lengths  $L_0 = 20 \text{ mm}$  and  $L_0 = 10 \text{ mm}$  with a measurement travel of 2 mm in the tensile direction and 1 mm in the compression direction.

The DMS Length 5 is a double-sided clip-on extensometer with measurement systems delivering two individual signals. It is intended for fixed gauge-length  $L_0 = 10 \text{ mm}$  with measurement travel of 1.5 mm in the tensile and compression directions.

DMS Length 3, DMS Length 4 and DMS Length 5 are suitable for use in temperature chambers. DMS Length 5 is also suitable for use with HCCF.

#### Advantages and features

- Excellent linearity for reliable test results.
- High resolutions enable measurement of very small deformations during test.
- Lightweight, miniaturized construction, ideal for specimens with small parallel length.
- Initial gauge length can optionally be reset from 10 to up to 100 mm using extension pieces (does not apply to Type DMS Length 1).
- Temperature-resistant measurement systems for use from  $-50^\circ\text{C}$  to  $+200^\circ\text{C}$ .
- Extensometers for two-sided measurement of specimen deformation, enabling exact determination of Young's modulus and engineering elastic limit.
- Variable measurement options are possible on extensometers with 2 separate measurement systems; individual signals or mean-value signal can be displayed.
- While attached to the specimen the extensometer is prevented by limit stops from exceeding the measurement travel and protected in the event of specimen break (Type DMS Length 1 only).

## Product Information

### DMS Strain Gauge Clip-On Extensometer

#### Technical data

DMS strain-gauge clip-on extensometers for AllroundLine, zwickiLine or ProLine testing systems

Type Item No.	DMS Length 1 057808	DMS Length 2 057809	Strain gauge length 3 057810	
Measuring system	One-sided strain gauge system			
Initial gauge length	25	20	20	mm
Can be changed to	50	10	10	mm
Measurement travel				
tensile	25	2	2	mm
compression	-	1	1	mm
Specimen dimensions, max.				
Round specimens (Ø)	28	25	25	mm
Flat specimens (t x w)	28 x 30	25 x 25		mm
Flat specimens (d x w)			25 x 25	
Specimen dimensions, min.				
Round specimens (Ø)	1	1	1	mm
Flat specimens (t x w)	1 x 1	1 x 1	1 x 1	mm
Accuracy to EN ISO 9513	Class 0.5			
Weight	95	45	45/70	g
Overall height	gauge length + 2	24	24	mm
Number of sensors	1	1	1	
Type of output signal	single signal	single signal	Individual signal	
Ambient temperature	> 0 ... +60	> 0 ... +60	-50 ... +200	°C
Factory calibration at	21	21	21	°C

Type Item No.	DMS Length 4 057811	DMS Length 5 056893 <sup>1)</sup>	Clip-on extens- ometer 2002-2 1042207 <sup>1)</sup>	
Accuracy to EN ISO 9513	Class 0.5			
Factory calibration at	21	21	21	°C
Measuring system	Double-sided strain gauge system			
Initial gauge length	20	10	20	mm
Can be changed to	10	-	10	mm
Measurement travel				
tensile	2	1.5	2	mm
compression	1	1.5	1	mm
Specimen dimensions, max.				
Round specimens (Ø)	25	25	25	mm
Flat specimens (t x w)	25 x 25	25 x 25	25 x 25	mm
Specimen dimensions, min.				
Round specimens (Ø)	1	1	1	mm
Flat specimens (t x w)	1 x 1	1 x 1	1 x 1	mm

## Product Information

### DMS Strain Gauge Clip-On Extensometer

Type	DMS Length 4	DMS Length 5	Clip-on extensometer 2002-2	
Item No.	057811	056893 <sup>1)</sup>	1042207 <sup>1)</sup>	
Overall height	24	14	24	mm
Number of sensors	2	2	2	
Type of output signal	mean value	single signal	single signal	
Ambient temperature	-50 ... +200	-50 ... +200	-50 ... +200	°C
Weight	70	70	70	g
Measured-value resolution	depends on machine electronics, see machine electronics resolution			

1) 2x USC or DCSC module required

#### Accessories required

##### Required

Description	Item number
USC module	029443

Description	Item number
DCSC module	087417

#### Optional accessories

##### Add-on device for DMS Length 3, DMS Length 4 and 2002-2 clip-on extensometers

Description	Item number
Add-on device for opening the clamping device in the closed temperature chamber via an operating wire; for DMS Length 3, DMS Length 4 and 2002-2 only	317222

##### Knife edges for all DMS Length and 2002-2 clip-on extensometers

Description	Item number
Rectangular knife-edge, 6 x 9.5 mm (L x B) for tests on round specimens	006716
1 pair of round knife-edges, Ø 9 mm, blunt, for testing plastic specimens	1045229

##### Set of extension pieces for DMS Length 1 extensometer

1x required for extensometers with 1 measuring system, 2x for extensometers with 2 measuring systems

Description	Item number
Set of extension pieces for initial gauge length 30 mm	317619
Set of extension pieces for initial gauge length 80 mm	317621
Set of extension pieces for initial gauge length 100 mm	317623

##### Extension set for DMS Length 2, DMS Length 3, DMS Length 4 and 2002-2 clip-on extensometers

1x required for extensometers with 1 measuring system, 2x for extensometers with 2 measuring systems

Description	Item number
Extension set for initial gauge length 15 mm	316858

## Product Information

### DMS Strain Gauge Clip-On Extensometer

Description	Item number
Extension set for initial gauge length 25 mm	<b>316860</b>
Extension set for initial gauge length 30 mm	<b>316862</b>
Extension set for initial gauge length 50 mm	<b>316864</b>
Extension set for initial gauge length 80 mm	<b>316866</b>
Extension set for initial gauge length 100 mm	<b>316868</b>

#### **Pressure piece with 2 counter-rollers for DMS Length 2 clip-on extensometer (for room temperature)**

(alternative to basic version with 1 counter-roller)

Description	Item number
Pressure piece with 2 counter-rollers at 15mm separation	<b>316870</b>
Pressure piece with 2 counter-rollers at 20 mm separation	<b>316872</b>
Pressure piece with 2 counter-rollers at 25 mm separation	<b>316891</b>
Pressure piece with 2 counter-rollers at 30 mm separation	<b>316893</b>
Pressure piece with 2 counter-rollers at 50 mm separation	<b>316895</b>
Pressure piece with 2 counter-rollers at 80 mm separation	<b>316897</b>
Pressure piece with 2 counter-rollers at 100 mm separation	<b>316899</b>

#### **Pressure piece with spring for DMS Length 3 clip-on extensometer**

(alternative to basic version with pressure pieces with springs at 10 mm and 20 mm separation)

Description	Item number
Pressure piece with spring at 15mm separation, ambient temperature -50 to +200°C	<b>317760</b>
Pressure piece with spring at 25 mm separation, ambient temperature -50 to +200°C	<b>317762</b>
Pressure piece with spring at 50 mm separation, ambient temperature -50 to +200°C	<b>317766</b>