SCHMIDT control instruments

Tensiometru pentru fire, model DN1.

Tension Meter DN1

12 Tension ranges from 20 - 120 cN to 5 - 50 daN

Rugged mechanical tension meter for versatile use in textile, fibre and wire industry
Application range in textil industry: e. g. 120 up to max. 50000 tex
Application range in wire industry: e. g. 0.13 up to 2.5 Ø mm copper wire

Hand-held unit for tension ranges up to max. 50 daN

Tension meter with large, easy to read scale



Tension meter DN1

Special Features

- The analog display shows changing and fluctuating tensions fast and enables an optimal process adjustment

- The built-in material thickness compensator compensates different material diameters for a particular range (only DN1-1000 and higher ranges).



Material thickness compensator: For better accuracy the material to be measured or a similar material with the same diameter should be inserted.

- Large, easy to read scale (54 mm Ø)
- Linearized scale provides a better reading
- Tension meter with shock-resistant movement
- Filament guide and roller shifting mechanism ensure easy acquisition of the running material

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Standard Features

- Everything in operator's view:
  - the guide rollers
  - the measured material
  - the readings
- Ball-bearing mounted, V-grooved guide rollers
- Each instrument is individually calibrated for highest accuracy
- Special calibration is available
- Rugged aluminium housing
- Certificate of Compliance with the order 2.1 according EN 10204 is included
- Optionally available: Inspection Certificate 3.1 according EN 10204 with calibration report

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Photo Gallery



Model DN1-20K-L with special lever
Code L for easy use at high ranges,

measuring head width 216 mm









Available Models

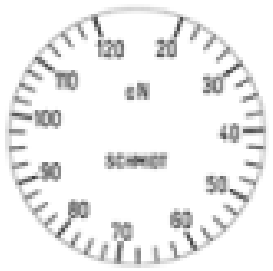
Model	Tension Ranges cN	Measuring Head Width* mm	SCHMIDT Calibration Material**	Material thickness compensator
DN1-120	20 - 120	65	PA: 0.12 mm Ø	no
DN1-200	20 - 200	65	PA: 0.12 mm Ø	no
DN1-400	20 - 400	65	PA: 0.20 mm Ø	no
DN1-1000	50 - 1000	65	PA: 0.30 mm Ø	yes
DN1-2000	200 - 2000	116	PA: 0.50 mm Ø	yes
DN1-3500	400 - 3500	116	PA: 0.80 mm Ø	yes
DN1-5000	400 - 5000	116	PA: 0.80 mm Ø	yes
DN1-8000	500 - 8000	116	PA: 1.00 mm Ø	yes
DN1-10K	2 - 10 daN	116	PA: 1.00 mm Ø	yes
DN1-20K-L	5 - 20 daN	216	PA: 1.50 mm Ø	yes

		285***		
DN1-30K-L	5 - 30 daN	265 285***	PA: 1.50 mm Ø	no
DN1-50K-L	5 - 50 daN	265 285***	Steel rope: 1.50 mm Ø (7x7x0.20)	no

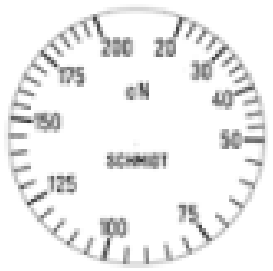
Other tension ranges and measuring head widths available on request.
Other units of measure available - g or kg.
* Depending on model, either width of filament guide or outer distance between outside guide rollers
** Suitable for 95 % of applications - PA = Polyamide Monofilament
*** deviating measuring head width with Code V1

Calibration to customized material:
If process material differs significantly from the SCHMIDT calibration material in diameter, rigidity or shape, special calibration using customer supplied samples is recommended. For this purpose a material sample of about 5 m should be supplied.

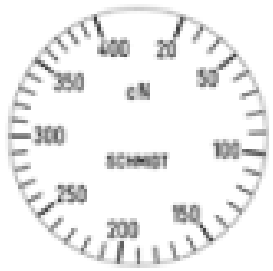
Scales



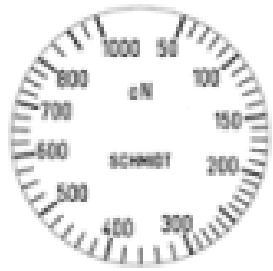
Typ DN1 - 120



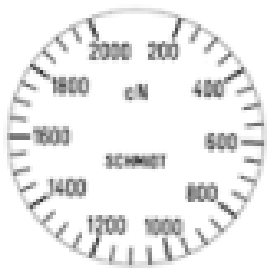
Typ DN1 - 200



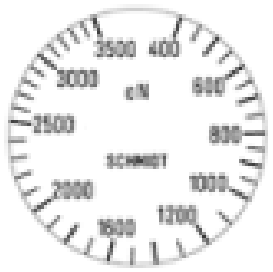
Typ DN1 - 400



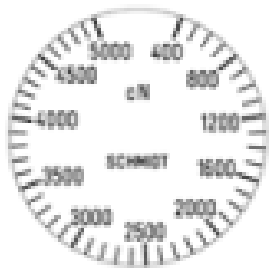
Typ DN1 - 1000



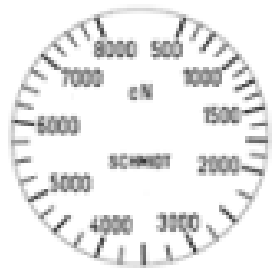
Typ DN1 - 2000



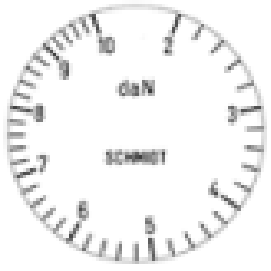
Typ DN1 - 3500



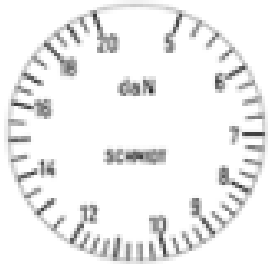
Typ DN1 - 5000



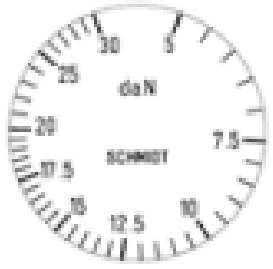
Typ DN1 - 8000



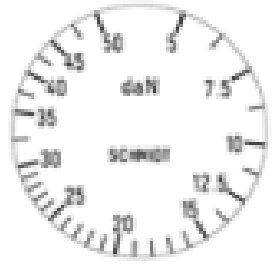
Typ DN1 - 10K



Typ DN1 - 20K-L



Typ DN1 - 30K-L



Typ DN1 - 50K-L

SCHMIDT scales are manufactured according to the most stringent quality requirements. Printed scales are not used. Instead, each scale is individually marked for the instrument involved. This ensures highest quality. Our special procedure makes it possible to provide tension meters

- calibrated to custom supplied material
- fine tuned to a specific tension range
- other units of measure such as g or kg

Guide Rollers

Order-Code	Line Speed v_{max} ...m/min	Roller Material
Standard	2000	Hard-coated aluminium
Standard	1000	Hard-coated aluminium (only for DN1-30K-L and DN1-50K-L)
Code K	3500	Hard-coated aluminium
Code H	5000	Hard-coated aluminium (not available for DN1-30K-L and DN1-50K-L)
Code T	1000	Plastic (POM) schwarz
Code W	1000	Nickel-plated steel
Code ST	1000	Hardened steel
Code B	1000	Tempered steel
Code CE2	1000	Aluminium ceramic-coated
Code ASY	1000	Hardcoated aluminium, asymmetrical groove Gauge without filament guide
Code ASYB	1000	Tempered steel, asymmetrical groove Gauge without filament guide
Code V1	1000	Hardcoated aluminium (only for DN1-20K-L up to DN1-50K-L)
Code U	2000	hardcoated aluminium

Click the order-code, to get picture and drawing of the guide rollers

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Spare Rollers

Attachments

Code A



Air damping
(for tension range 20 - 120 cN up to max. 400 - 5000 cN)
for steady reading when tension fluctuates

Click picture for more information

Code L



Special Lever
(Standard from tension range 5 - 20 daN)

Click picture for more information

Calibration Report (optional)

Inspection Certificate 3.1 according DIN EN 10204
including a calibration report is optional available

Click picture for more information

Ordering Example

To place an order	**Model with tension range**		**Code for guide rollers** (if not standard)		**Code attach-ment**		**Complete Order No.**
Please indicate the com-plete order number.:	DN1-400	+	ST	+	A	=	DN1-400-ST-A

Delivery Includes



Tension meter with carrying case, operating instruction in german or english (as requested), Certificate of Compliance with the order 2.1 according EN 10204 free of charge

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Dimensions

For PDF-file please
click picture

Specifications

Calibration:	According to SCHMIDT factory procedure
Accuracy:	±1 % full scale or ±1 graduation on scale
Scale diameter:	54 mm
Temperature range:	10 - 45 °C
Air humidity:	85 % RH, max.
Housing material:	Die-cast aluminium
Dimensions:	See dimensions above
Weight, net (gross)	Up to model DN1-10K approx. 700 g (1200 g) DN1-20K-L and higher ranges approx. 900 g (2200 g)

Specifications subject to change without notice!

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