

Field of Measurement	Parameter and Range of Measurement	Calibration Measurement Uncertainty ($\pm$)	Standard/Test Method Technique/Equipment
3. Mechanical	Force measuring instrument		
	Compression mode		
	Increasing and decreasing		
	1 kN to 0.44 MN	0.40 mN/N	ISO 376
	1 kN to 0.44 MN	0.50 mN/N	ISO 7500-1
	8 N to 2 300 N	0.084 %	ISO 7500-1 by comparison against standard mass
	Tension mode		
	Increasing and decreasing		
	1 kN to 0.44 MN	0.40 mN/N	ISO 376
	1 kN to 0.44 MN	0.50 mN/N	ISO 7500-1
	8 N to 2 300 N	0.084 %	ISO 7500-1 by comparison against standard mass
	Cable tensiometer		
	Tension		
	Increasing only		
	44 N to 1 800 N	0.16 %	ISO 7500-1 by comparison against standard mass
	1 300 N to 8 900 N	0.60 %	ISO 7500-1 by comparison against standard dynamometer
	Hand torque tools		
	Torque wrench		
	Type I (Class A, B, and C)		
	1 N·m to 5 400 N·m	5.0 mN·m/N·m	ISO 6789
	Type II (Class A, B, and C)		
	1 N·m to 5 400 N·m	10 mN·m/N·m	
	Torque screw driver		
	Type II (Class D, E, and F)		
	1 N·m to 10 N·m	10 mN·m/N·m	
	Pressure measuring devices		
	Absolute pressure (<i>Pabs</i>)		
	1.4 kPa to 175 kPa	2.7×10^{-5} <i>Pabs</i> but not smaller than 0.70 Pa	DKD R 6-1 Pressure medium: N2, air
	> 175 kPa to 700 kPa	2.8×10^{-5} <i>Pabs</i>	
	> 700 kPa to 7 000 kPa	3.0×10^{-5} <i>Pabs</i>	
	Gauge pressure (<i>Pe</i>)		
	1.4 kPa to 175 kPa	2.7×10^{-5} <i>Pe</i> but not smaller than 0.50 Pa	Pressure medium: N2, air
	> 175 kPa to 700 kPa	2.8×10^{-5} <i>Pe</i>	
	> 700 kPa to 7 000 kPa	3.0×10^{-5} <i>Pe</i>	
	> 7 MPa to 14 MPa	1.6 kPa	
	> 14 MPa to 42 MPa	4.8 kPa	
	0.5 MPa to 40 MPa	4.9×10^{-5} <i>Pe</i> but not smaller than 0.20 kPa	Pressure medium: oil
	> 40 MPa to 139 MPa	5.8×10^{-5} <i>Pe</i>	

Field of Measurement	Parameter and Range of Measurement	Calibration Measurement Uncertainty ($\pm$)	Standard/Test Method Technique/Equipment
3. Mechanical (Cont.)	Pressure balance 1.4 kPa to 175 kPa	$3.8 \times 10^{-5} Pe$ but not smaller than 0.66 Pa	EURAMET cg-3 (method A) Pressure medium: N2
	> 175 kPa to 700 kPa	$3.9 \times 10^{-5} Pe$	
	> 700 kPa to 7 MPa	$4.1 \times 10^{-5} Pe$	
	0.5 MPa to 40 MPa	$5.3 \times 10^{-5} Pe$ but not smaller than 0.21 kPa	Pressure medium: oil
	> 40 MPa to 139 MPa	$5.9 \times 10^{-5} Pe$	
	Pressure measuring devices Differential pressure (P_{diff}) 0 kPa to 250 kPa	12 Pa	DKD R 6-1 Pressure medium: N2, air
	> 250 kPa to 700 kPa	49 Pa	Line pressure: ambient pressure
	> 700 kPa to 7 000 kPa	0.32 kPa	
	Vacuum measuring devices Absolute pressure (P_{abs}) 0.14 Pa to 2 Pa	$4.4 \times 10^{-2} P_{abs}$	Pressure medium: N2
	> 2 Pa to 13 Pa	$3.0 \times 10^{-2} P_{abs}$	
	> 13 Pa to 90 Pa	$8.6 \times 10^{-3} P_{abs}$	
	> 90 Pa to 1.3 kPa	$3.8 \times 10^{-3} P_{abs}$	
	> 1.3 kPa to 13 kPa	$4.2 \times 10^{-3} P_{abs}$	
	Gauge pressure (Pe) -98 kPa to 0 kPa	10 Pa	Pressure medium: N2, air
	Force measuring instrument Compression mode Increasing and decreasing 1 kN to 0.44 MN	0.70 mN/N	ISO 376 ISO 7500-1
	Tension mode Increasing and decreasing 1 kN to 0.44 MN	0.70 mN/N	
	Pressure measuring devices Absolute pressure (P_{abs}) 1.4 kPa to 135 kPa	12 Pa	DKD R 6-1 Pressure medium: N2, air
	> 135 kPa to 280 kPa	30 Pa	
	> 280 kPa to 350 kPa	67 Pa	
	> 350 kPa to 700 kPa	73 Pa	
	> 700 kPa to 2 800 kPa	0.30 kPa	
	> 2.8 MPa to 7 MPa	0.73 kPa	
	Gauge pressure (Pe) 1.4 kPa to 280 kPa	30 Pa	Pressure medium: N2, air
	> 280 kPa to 700 kPa	73 Pa	
	> 700 kPa to 2.8 MPa	0.30 kPa	
	> 2.8 MPa to 7 MPa	0.73 kPa	
	Vacuum measuring device Gauge pressure (Pe) -98 kPa to 0 kPa	44 Pa	DKD R 6-1 Pressure medium: N2, air