# Version 4.3 | Status: June 2022 | Subject to modifications and errors.

# KRUSS

# TECHNICAL DATA DENSITY METERS

### TECHNICAL DATA

SCALES
MEASUREMENT RANGE
MEASUREMENT ACCURACY
MEASUREMENT PERIOD
SAMPLE VOLUME IN CASE OF MANUAL INJECTION
AMBIENT TEMPERATURE
TEMPERATURE CONTROL RANGE
TEMP. MEASUREMENT ACCURACY
METHODS
MANUFACTURER'S CALIBRATION
ADJUSTMENT
CONTROL
HOUSING
INTERFACES
OPERATING VOLTAGE
POWER CONSUMPTION (OPERATION)
POWER CONSUMPTION (MAX.)
DIMENSIONS (W X H X D)
WEIGHT

Density [g/cm³], Relative Density, Brix [%Brix], Concentration of alcohol [vol%], Concentration of sulphuric acid [wt%] User-defined
0–3 g/cm <sup>3</sup>
DS7700: ±0.001 g/cm³; DS7800: ±0.0001 g/cm³
Typically 1-3 minutes including temperature control
0.9 ml
10–40 °C
10–40 °C
±0.02 °C
A practically unlimited number of methods can be set
With air and water at 9 temperatures each
Automatic (menu-driven), with dried air and distilled water
7.0" capacitive touchscreen, 800 x 480 pixels
Aluminium cast, powder-coated
1x USB, 1x RS-232, 1x Ethernet
100–240 V, 47–63 Hz
25 W
120 W
220 mm x 220 mm x 430 mm
5.3 kg





# **OVERVIEW OF DENSITY METER SETS AND CONSUMABLES**

ORDER NUMBER	SETS AND SET COMPONENTS
DS7700-1/DS7800-1	SET 1 FOR MANUAL SAMPLE SUPPLY, CONSISTING OF:
DS7700 or DS7800	Density meter with glass U-tube oscillator, measurement accuracy ±0.001 g/cm³ or ±0.0001 g/cm³
DS7050	Drying unit with 2/2-way valve
DS7001	Tygon tube set for use with Luer syringe, consisting of: air tube (320 mm); waste tube (320 mm); tube connection Luer, 2 pieces
DS7005	Luer nozzle, 2 pieces
DS7009	Luer syringe, 2 ml, 10 pieces
DS7010	Luer syringe, 10 ml, 10 pieces
DS7019	PE waste container with lid, 600 ml
DS7700-2/DS7800-2	SET 2 FOR MANUAL SAMPLE SUPPLY, CONSISTING OF:
DS7700 or DS7800	Density meter with glass U-tube oscillator, measurement accuracy $\pm 0.001\mathrm{g/cm^3}$ or $\pm 0.0001\mathrm{g/cm^3}$
DS7050	Drying unit with 2/2-way valve
DS7001	Tygon tube set for use with Luer syringe, consisting of: air tube (320 mm); waste tube (320 mm); tube connection Luer, 2 pieces
DS7003	PTFE tube set for use with Luer syringe, consisting of: drain tube (400 mm); waste tube (280 mm); PEEK hollow screw, flanged and mounted, 3 pieces
DS7020	PTFE splash guard
DS7021	Adaptor olive/UNFa for sample discharge through Tygon tube via UNF nozzle
DS7007	Luer, UNF nozzle, 1 piece each
DS7009	Luer syringe, 2 ml, 10 pieces
DS7010	Luer syringe, 10 ml, 10 pieces
DS7019	PE waste container with lid, 600 ml
DS7700-3/DS7800-3	SET 3 FOR SEMI-AUTOMATIC SAMPLE SUPPLY, CONSISTING OF:
DS7700 or DS7800	Density meter with glass U-tube oscillator, measurement accuracy ±0.001 g/cm³ or ±0.0001 g/cm³
DS7060	Drying unit with 3/2-way valve
D\$7070	Peristaltic pump
	Tygon tube set for use with drying unit DS7060, consisting of:
DS7002	suction tube (320 mm); drain tube (320 mm); air tube (320 mm); waste tube (320 mm); tube connection Luer, 3 pieces
DS7072	Tube set for peristaltic pump DS7070, consisting of: TPE pump tube (105 mm), 5 pieces; PTFE tube connection (olive), 2 pieces
DS7005	Luer nozzle, 2 pieces
DS7009	Luer syringe, 2 ml, 10 pieces
DS7010	Luer syringe, 10 ml, 10 pieces
DS7019	PE waste container with lid, 600 ml
DS7700-4/DS7800-4	SET 4 FOR FULLY AUTOMATIC SAMPLE SUPPLY, CONSISTING OF:
DS7700 or DS7800	Density meter with glass U-tube oscillator, measurement accuracy $\pm 0.001$ g/cm <sup>3</sup> or $\pm 0.0001$ g/cm <sup>3</sup>
DS7060	Drying unit with 3/2-way valve
DS7070	Peristaltic pump
AS80 or AS90	Autosampler for 18 or 36 samples, including: sample plate 18x 50 ml (42 mm x 43 mm) or 36x 30 ml (28 mm x 65 mm) set polypropylene vials (50 ml) or glass vials (30 ml); other vials on request PTFE connecting tube or Autosampler for 53 or 89 samples, including: sample plate 53x 16 ml (22 mm x 55 mm) or 89x 6 ml (16 mm x 55 mm) set polypropylene vials (16 or 6 ml); other vials on request
DS7002	PTFE connecting tube  Tygon tube set for use with drying unit DS7060, consisting of: suction tube (320 mm); drain tube (320 mm); air tube (320 mm);
DS7072	waste tube (320 mm); tube connection Luer, 3 pieces  Tube set for peristaltic pump DS7070, consisting of: TPE pump tube (105 mm), 5 pieces; PTFE tube connection (olive), 2 pieces
DS7021 (2x)	Adaptor olive/UNFa for connecting the Tygon tubes to the drying unit DS7060
DS7022 (optional)	Adaptor UNFi/Luer for the sample supply with autosampler AS80 or AS90 via Luer nozzle
DS7005	Luer nozzle, 2 pieces
DS7009	Luer syringe, 2 ml, 10 pieces
DS7010	Luer syringe, 10 ml, 10 pieces
DS7019	PE waste container with lid, 600 ml

# **OVERVIEW OF DENSITY METER SETS AND CONSUMABLES**

DS7700-5/DS7800-5	SET 5 FOR FULLY AUTOMATIC SAMPLE SUPPLY, CONSISTING OF:
DS7700 or DS7800	Density meter with glass U-tube oscillator, measurement accuracy $\pm 0.001\mathrm{g/cm^3}$ or $\pm 0.0001\mathrm{g/cm^3}$
DS7060	Drying unit with 3/2-way valve
DS7070	Peristaltic pump
AS80 or AS90	Autosampler for 18 or 36 samples, including: sample plate 18x 50 ml (42 mm x 43 mm) or 36x 30 ml (28 mm x 65 mm) set polypropylene vials (50 ml) or glass vials (30 ml); other vials on request PTFE connecting tube or Autosampler for 53 or 89 samples, including: sample plate 53x 16 ml (22 mm x 55 mm) or 89x 6 ml (16 mm x 55 mm) set polypropylene vials (16 or 6 ml); other vials on request PTFE connecting tube
D\$7004	PTFE tube set for use with drying unit DS7060, consisting of: suction tube (280 mm); drain tube (400 mm); connecting tube (340 mm); waste tube (280 mm); PEEK hollow screw, flanged and mounted, 6 pieces
DS7071	Tube set for peristaltic pump DS7070, consisting of: TPE pump tube (105 mm), 5 pieces; PTFE tube connection UNF, 2 pieces
D\$7023	Adaptor Luer/UNFa for the sample supply with syringe via UNF nozzle
DS7006	UNF nozzle, 2 pieces
DS7009	Luer syringe, 2 ml, 10 pieces
DS7010	Luer syringe, 10 ml, 10 pieces
DS7019	PE waste container with lid, 600 ml

ORDER NUMBER	CALIBRATION LIQUIDS
DS7011	DAkkS-certified density standard high-purity water, 0.9982 g/cm³ at 20 °C, 10 ml
DS7012	DAkkS-certified density standard isooctane, 0.6900 g/cm³ at 20 °C, 10 ml
DS7013	DAkkS-certified density standard n-nonane, 0.7200 g/cm³ at 20 °C, 10 ml
DS7014	DAkkS-certified density standard dichlorotoluene, 1.2500 g/cm³ at 20 °C, 10 ml



