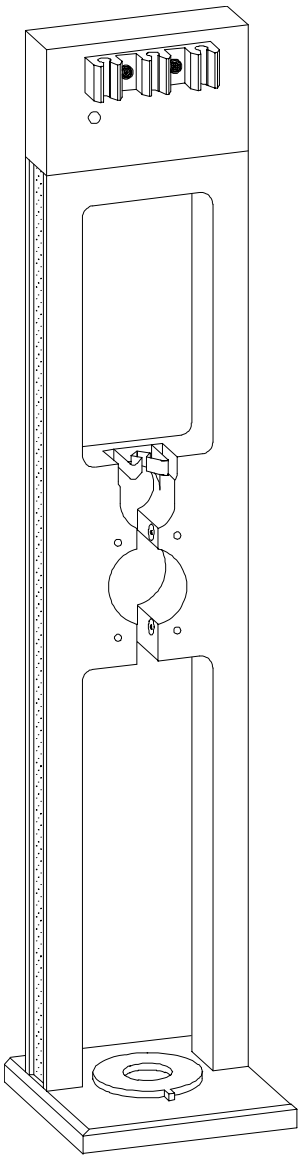
Produkt-Information zur Viskositätsmessung
Product Information for viscosity measurement
Information de produit pour la mesure de la viscosité
Información de producto para la medición de viscosidad



AVS-Meßstative,
Schlauchgarnituren
und Zubehör

AVS Measurement Tripods,
hose sets and accessories

Trépieds de mesure AVS,
ensembles de tuyaux
flexibles et accessoires

AVS-Soporte de medición,
juegos de tubos flexibles
y accesorios

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Product Information for viscosity measurement

AVS Measurement Tripods, hose sets and accessories

– The measurement tripods of the AVS/S series can be used for the automatic measurement of the flow time in viscometers.

– The measurement tripods can be connected to all SCHOTT-GERÄTE measurement devices for automatic viscosity measurement and will work with all standard viscometers used for repetitive measurements.

– Automatic measurement offers the following benefits:
The repetitive standard deviation is smaller than with manual measurement.
The measurement is free of subjective influences.
The results can be printed and/or stored automatically on a data-storing medium.
Automatic working-off of samples series is possible.

– The use of differentiated materials enables a convenient adaptation to the existing measurement temperatures and applications.

– The measurement tripods or positioning racks are interchangeable. This is ensured by the manufacturing precision.

– The distance of the planes of automatic optoelectronic scanning is 40.00 mm ± 0.03 mm. During a change of the measurement tripods this results in a standard deviation of VK = 0.05 % for Ubbelohde viscometers.

– With repetitive measurements using a viscosity measurement device and Ubbelohde viscometers with measurement tripod the standard deviation VK = 0.03 %.

– It is also possible to use manually calibrated Ubbelohde Viscometers on AVS measurement tripods. If the automatic scanning planes and the annular measurement marks are not in coincidence with each other, the higher location of the meniscus determination will lead to a higher constant. The difference is 0.1 % per millimetre of height offset.

Measurement Tripods for the measurement of the automatic viscosity

Tripods	AVS/S	AVS/S-HT	AVS/S-K	AVS/S-CF	AVS/SK-V
Useable viscometer	Ubbelohde according to DIN, ASTM, ISO 3105 Micro-Ubbelohde, Micro-Ostwald			Cannon-Fenske Routine	Ubbelohde dilution viscometer
Tempera-ture range	– 80 ... + 100 °C	– 80 ... + 200 °C	0 ... 60 °C	– 80 ... + 100 °C	0 ... 60 °C other tempera-ture ranges upon inquiry
Suitable for	Measurement devices: AVS 300, AVS 310, AVS 350, AVS 360, AVS 361, AVS 400, AVS 410, AVS 440, AVS 450, AVS 500, AVSPro				
Suitable for	Thermostat baths: CT 1450/2, CT 1450/3, CT 1450/4, CT 1450/2 HT, CT 1450/4 HT, CT 1450/2 TT, CT 1450/4 TT, CT 1450/2 M, CT 050/2, CT 52, CT 53, CT 53 HT, CT 53 TT				
Useable positioning racks	Type no.: 05392 Type no.: 05397			no positioning rack required	
Electrical connection	VZ 6225 cable for all measurement tripods to all devices (is included in VZ 5505, VZ 5622 and VZ 5857 hose sets), control lamp as functional indicator				
Measure-ment plane distance	40.00 mm ± 0.03 mm at 25 °C				
Signal transfer	Optical transfer using optical fibres from the measurement plane to the tripod head, converted to analogous signal from the tripod to the measurement device				
Material	Aluminium, TiO_2 anodised		PVDF, stainless steel	Aluminium TiO_2 anodised	PVDF, stainless steel
Dimensions (w x h x d) [mm]	90 x 447 x 90	90 x 496 x 90	90 x 447 x 90	90 x 447 x 90	90 x 447 x 90
Weight approx. (kg)	1.0	1.25	0.8	1.0	0.8
Included accessories	Type no. 05392 positioning rack for Ubbelohde Viscometer, VZ 5505 hose/cable combination			VZ 5505 hose/cable combination	VZ 5857 hose/cable combination, magnetic stirrer rod, positioning spring for vis-cometer

Note: When using TC Viscometers, only a type no. 05393 positioning rack is required.
A measurement tripod is not necessary.

Required hose/cable combinations

Viscometer types	517 .. 520 .. 530 .. 532 .. 537 ..	540 .. 541 .. 545 .. 546 ..	542 .. 543 .. 544 ..	547 .. 548 .. 549 .. 552 .. 553 .. 554 ..	531 ..(3)
Device	**Hose / cable combinations**				
AVS 300 and AVS 310	VZ 5505(1) or VZ 5501(2)	VZ 5621(1) and VZ 5505(1)	—	—	VZ 5857(1)
AVS 350	VZ 5505(1) or VZ 5501(2)	VZ 5623(2)	VZ 5606(1)	VZ 5505(1) and VZ 6226	VZ 5857(1)
AVS 360 and AVS 361	VZ 5104(1) or VZ 5622(2)	VZ 5623(2)	VZ 5623(2)	VZ 5104(1) or VZ 5622(2)	VZ 5104(1) or VZ 5622(2)
AVS 400 and AVS 410	VZ 5505(1) or VZ 5501(2)	VZ 5621(1) and VZ 5505(1)	—	—	VZ 5857(1)
AVS 440 and AVS 450	VZ 5505(1) or VZ 5501(2)	VZ 5621(1) and VZ 5505(1)	VZ 5606(1)	VZ 5505(1) and VZ 6226	VZ 5857(1)
AVS 500	VZ 6270 - 72	—	—	VZ 6270 - 72 and VZ 6226	VZ 6270 - 72
AVSPro	VZ 7010 or VZ 1011	—	—	VZ 7010 or VZ 7011	—

(1) Silicone connection hose
(2) PTFE connection hose (aggressive media)
(3) The required TZ 1607 dosing hose length = 1.5 m is included in the scope of delivery of the ViscoDoser AVS 20 Piston Burette.

Description of the hose/cable combinations

VZ 5104 VZ 5505 silicone hose/cable combination with VZ 5621 expansion set

VZ 5105 PTFE hose/cable combination for Micro Viscometers on sucking AVS measurement devices

VZ 5501 PTFE hose/cable combination for pressing AVS measurement devices AVS 300, AVS 310, AVS 350, AVS 400, AVS 410, AVS 440 and AVS 450

VZ 5505 Silicone hose/cable combination for pressing AVS measurement devices AVS 300, AVS 310, AVS 350, AVS 400, AVS 410, AVS 440 and AVS 450

VZ 5606 Silicone hose/cable combination for TC Viscometers with thread in combination with pressing AVS measurement devices

VZ 5621 Expansion set for hose/cable combination for sucking AVS measurement devices AVS 360, AVS 361 and viscometers with thread with optical scanning

VZ 5622 PTFE hose/cable combination for AVS 360, AVS 361 **for viscometers without thread** (cable for AVS/S or AVS/SK tripod and TC Viscometers)

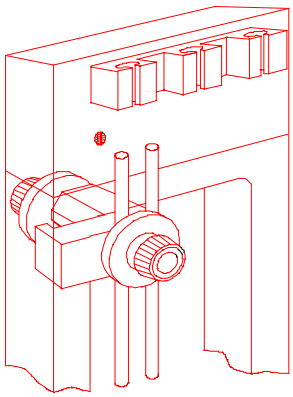
VZ 5623 PTFE hose/cable combination for AVS 360, AVS 361 **for viscometers with thread** (cable for AVS/S or AVS/SK tripod and TC Viscometers)

VZ 5857 PTFE hose/cable combination for dilution series with pressing AVS measurement devices

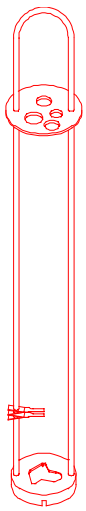
VZ 6226 Connection cable for connection of TC Viscometers to AVS Measuring devices

Accessories

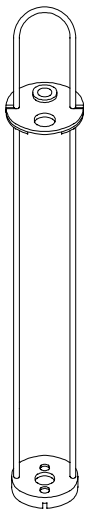
Hose holder
for AVS/S tripod head
Type no. VZ 5127



Positioning rack
for Ubbelohde Viscometer
Type no. 05392



Positioning rack
for Micro-Ostwald Viscometer
Type no. 05397



Type no.

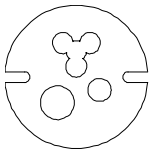
06599	(without illustration)	PTFE holder matching for Cannon-Fenske-Routine Viscometers for automatic measurement, for Measuring Stands AVS/S for conversion to AVS/S-CF measurement tripod
VZ 6225	Connection cable for AVS/S to Viscosity Measuring devices	

Positioning racks for reference measurement standards

DIN Ubbelohde Viscometers to be used as test standard should be stored in test/calibration stations in a viscometer rack with a suitable special equipment (053 92).

The expansion set for the test standard VZ 5840 guarantees the perpendicular slope with a max. deviation of < 1° and the centred positioning of the capillaries.

VZ 5840



Control thermometers

Type no.	Meas. range°C	Scaling °C
VZ 2801	– 5 to + 38	1/10
VZ 2802	+ 33 to + 67	1/10
VZ 2803	+ 66 to + 102	1/10
VZ 2804	+ 95 to + 152	1/10

Type no.	Meas. range °C	Scaling°C
VZ 2901	+ 20 to + 25	1/100
VZ 2907	+ 22 to + 27	1/100
VZ 2904	+ 35 to + 40	1/100
VZ 2908	+ 37 to + 42	1/100
VZ 2905	+ 45 to + 50	1/100
VZ 2906	+ 97 to + 101	1/100
VZ 2909	+ 132 to + 137	1/100

Spare parts

Type no.

VZ 5123	Optical-fibre set for measurement tripods, consisting of 4 pces.
VZ 5119	Optoelectronics for measurement tripods, complete with optical-fibre set and installation material
39400	Printed board for measurement tripods

Bescheinigung des Herstellers

Wir bestätigen, daß das oben genannte Gerät gemäß DIN EN ISO 9001, Absatz 4.10.4 ”Endprüfung” geprüft wurde und daß die festgelegte Qualitätsanforderung an das Produkt erfüllt wird.

Supplier’s Certificate

We certify that the equipment EN ISO 9001, part 4.10.4 ”Final inspection and testing” and that the specified requirements for the product are met.

Certificat du fournisseur

Nous certifions que le produit a été vérifié selon EN ISO 9001, partie 4.10.4 ”Contrôles et essais finals” et que les exigences spécifiées pour le produit sont respectées.

Certificado del fabricante

Nosotros certificamos que el equipo verifica la producción conforme a EN ISO 9001, parte 4.10.4 ”Inspección y control final” y que las especificaciones requeridas para el equipo son respetadas y cumplidas.

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SCHOTT-GERÄTE GmbH
Postfach 24 80
55014 Mainz
Hattenbergstraße 10
55122 Mainz
Germany

Tel: +49 (0) 6131 / 66 - 5111
Fax +49 (0) 6131 / 66 - 5001
E-Mail: avs@schott.com
www.schott.com/labinstruments

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