### **HIRSCHMANN**<sup>®</sup>



## ceramus®

**HiClass in dispensing** 



### ceramus®

# Uncompromising reliability

Years of experience gained by Hirschmann in liquid handling are reflected in the perfection embodied in ceramus® and absolute attention to detail. The graduation gauge and digital volume configuration engagement guarantee consistent precision and volume dispensing and ensure reproducible results – absolutely independent of the user.

The dispensing piston made of high-purity aluminium oxide ceramic and the DURAN® glass\* cylinder guarantee a maximum level of chemical and thermal resistance.

This ensures continuously reliable dimensional stability of the parts which determine the volume and superior user comfort. The piston fits with absolute precision, can be operated easily with a minimum of effort and retains its functional reliability throughout the entire period of use.

The high-quality materials in all parts conveying medium enable the use of ceramus® within a temperature range from 4°C to 50°C, and the unit can be steam sterilised at 121°C.

#### Overview of details

- Piston made of high-purity aluminium oxide ceramic
- Fixed and variable volumes from 0.2 ml to 60 ml
- Complete unit can be sterilised at 121°C
- Free rotation
- Media recirculating system for simple and rapid venting without reagent loss
- User-independent, reproducible volume dispensing
- Digital volume configuration engagement, calibrated for a lifetime
- Robust ejection unit
- Threaded suction hose fitting
- Optimum chemical and thermal resistance of parts conveying medium
- Quality certificate with certificate of conformity



#### Precise and consistent

ceramus® is distinguished by a unique combination of a ceramic piston, graduation gauge and digital volume configuration engagement.

The chemical and thermal resistance of all parts conveying medium enables use of ceramus® for dispensing of practically all media within an extremely broad temperature range from 4°C to 50°C. Functional reliability and precision remain absolutely guaranteed. The complete unit can be steam sterilised at 121°C.

#### environmentally friendly

No reagent loss, thanks to user-friendly media recirculation system

#### ergonomic

A firm hold for control and simple, rapid, consistently exact volume configuration

#### user-friendly

Valves can be unscrewed in seconds

#### professional

User-independent consistent volume dispensing

#### comprehensive

From 0.2 ml to 60 ml, fixed and variable

#### high precision

Consistent volume dispensing and absolute reproducibility through graduation gauge and digital volume configuration engagement, calibrated for a lifetime

#### consistent

Ceramic piston dimensional stability and functional reliability throughout the entire period of use

#### **Superior quality**

Optimum chemical and thermal resistance of parts conveying media

#### reliable

Quality certificate with certificate of conformity









Performance data	
Volume selection	With micro-engagement adjusting ring, precise and reproducible, thanks to mechanical digital principle (with fixed preadjustment in defined graduations); individual graduations with 0.05 to 1 ml resolution (depending on model)
Volume accuracy	Precise and reproducible with absolute accuracy (R) of 0.6% and standard deviation (CV) of 0.2%
Piston	Mainly inert and wear-free ceramic consisting of 99.7% pure Al <sub>2</sub> 0 <sub>3</sub>
Cylinder	Mainly inert and wear-free design made of calibrated DURAN® glass
Valves	Mainly inert and wear-free design, ball and seat made of borosilicate glass, ejection valve spring made of Hastelloy. The valves can be easily removed and replaced using the fitting wrench (included in scope of delivery)
Plastic parts	All parts which come into contact with the medium are made of highly resistant fluoroplastics: Valve housing made of ECTFE, suction and ejection hose made of FEP
Sterilisability	Can be steam sterilised at 121°C, complete including ejection unit
Breakage resistance	Completely enclosed protective plastic jacket with clear inspection window
Test protocol	Each instrument is individually tested, certified and bears a unique instrument number

#### Scope of delivery

- ceramus®, suitable for A 45 thread
- Threaded adapters A 32, A 38 and S 40
- Suction hose with union nut, recirculation hose, fi tting wrench, quality certifi cate, brown light protection window

Order number	Article designation
9.287 800	ceramus® 0,2 - 1,0 ml
9.287 801	ceramus® 0,4 - 2,0 ml
9.287 802	ceramus® 1,0 - 5,0 ml
9.287 803	ceramus® 2,0 - 10,0 ml
9.287 804	ceramus® 5,0 - 30,0 ml
9.287 805	ceramus® 10,0 - 60,0 ml
9.287 806	ceramus® 1 ml fix
9.287 807	ceramus® 2 ml fix
9.287 808	ceramus® 5 ml fix
9.287 809	ceramus® 10 ml fix
9.287 815	ceramus® 25 ml fix
9.287 816	ceramus® 50 ml fix

Accessory available on request.



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