



## Next Drink. Next Level.

AVS Römer fluid technology components  
for the beverage & liquid food industry



“

# AVS RÖMER, YOUR EXPERT FOR FLUID TECHNOLOGY!

Founded in 1970 by Joachim C. Römer, AVS Römer develops tailor-made and application-specific solutions for connecting, controlling, measuring and transferring. As a family-run business with over 550 employees, we are committed to achieving the highest standards of quality and customer satisfaction. We are particularly renowned for our high-quality, customised special solutions.

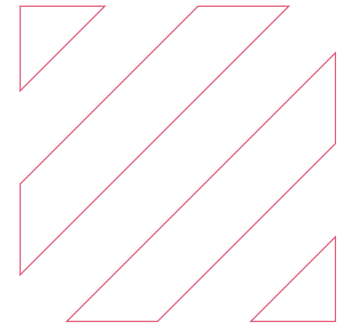


# At a glance

## Table of contents



- 4** **From water dispensers to post- & premix**  
Challenges & efficient solutions
- 6** **AVS Römer components**  
For the beverage & liquid food industry
  - 6 Push-in fittings
  - 8 Media-separated solenoid valves (MAGMA | ELV)
  - 10 Direct-acting solenoid valves (DIGMA | EAV 800)
  - 12 Combi-sensor temperature & level detection: XTL set
- 13** **Everything from a single source**  
Expertise & in-house production
- 14** **Best Practice**  
Dead space free fittings in postmix drink dispensers





# Quality you can taste

## The challenge

Water dispensers and beverage systems are all about quality, taste and hygiene. Effective fluid technology solutions of the highest quality with solution-oriented added value are required. This starts with the right choice of materials and ends with well-designed, high-performance components.

## Hygiene, safety & precision

The highest hygiene standards and the safe handling of sensitive liquids place special demands on components for the beverage and liquid food industry. AVS Römer meets these demands by providing innovative solutions that overcome the following challenges:

- **High hygiene standards**  
From the material to the seal
- **Frequent cleaning**  
With aggressive agents and high temperatures
- **Specified & limited installation space**  
The more compact, the better
- **Durability & reliability**  
For safe and economical systems



# AVS Römer components for the beverage & liquid food industry



## Our solution

Drawing on our many years of experience and technical expertise, we develop innovative components for the beverage and liquid food industry. These components are tailored to the hygiene requirements of water dispensers, pre- and postmix systems. Our personalised consultations and careful planning set the highest standards for practical application.

### ✓ Extensive expertise

AVS Römer has the in-depth knowledge to find the right solution for every requirement and system.

### ✓ Specialist in material selection

We provide support in selecting suitable body and seal materials for hygiene-sensitive applications.

### ✓ Everything from a single source

From fittings and sensors to valves and pumps – we offer a comprehensive product portfolio and stand by our customers as a reliable partner.

### ✓ Highest quality & reliability

AVS Römer represents excellent product reliability, outstanding quality and extremely durable solutions that meet the highest standards.

### ✓ Customer-oriented & customised

We focus on close collaboration and partnership to develop solutions tailored to individual customer needs.

### ✓ Compact design

We provide intelligent product designs that minimise space requirements, even in confined installation spaces.

# AVS Römer components for beverage systems

## Push-in fittings

Simple & fast connection

- **Proven push-in technology**

Easy to integrate due to quick, tool-free assembly and disassembly.

- **Lightweight & space-saving**

Compact design for maximum space savings in the application.

- **100% leak tested**

For maximum quality and safety in use.

- **High flow rates & low pressure losses**

Due to design without cross-sectional constriction.

- **Numerous configuration options**

Wide range of body and seal materials in combination with various connection types, geometries and sizes. Customised special solutions possible.

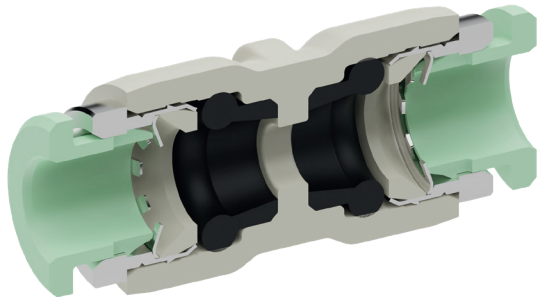


### Product overview

Body material	PPSU, PK, POM, PVDF, stainless steel, brass
Sealing material	FKM, EPDM, NBR
Medium temperature	-20 °C – 140 °C
Ambient temperature	-20 °C – 140 °C
Pressure range	-0,95 bar – 20 bar
Connection sizes metric	Push-in: 4   6   8   10   12   14   16   22
Connection sizes in inches	Push-in: 5/32   1/4   5/16   3/8   1/2
Connection sizes thread	M5   1/8   1/4   3/8   1/2   3/4

# AVS Römer components for beverage systems

## Push-in fittings



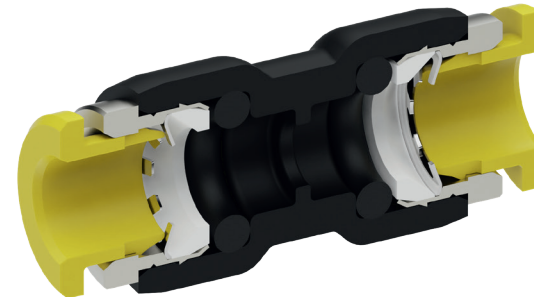
### Push-in fittings PPSU hyperfit®

- Optimal for hot water and steam applications
- Absolute hygiene due to dead space free design
- Ideal for food



#### Characteristics

<b>Materials</b>	Body material: PPSU nature, sealing material: FKM
<b>Medium temperature</b>	0 °C – 140 °C
<b>Ambient temperature</b>	0 °C – 60 °C
<b>Pressure range</b>	-0,95 bar – 6 bar
<b>Connection sizes metric</b>	Push-in: 4   6   8
<b>Connection sizes in inches</b>	M5   1/8   1/4   3/8



### Push-in fittings PK O-ring

- Perfect for cold and hot water applications
- Exceptional barrier effect against oxygen
- Ideal for drinking water



#### Characteristics

<b>Materials</b>	Body material: PK black, sealing material: EPDM
<b>Medium temperature</b>	-20 °C – 95 °C
<b>Ambient temperature</b>	-20 °C – 60 °C
<b>Pressure range</b>	-0,95 bar – 20 bar
<b>Connection sizes metric</b>	Push-in: 4   6   8   10   12
<b>Connection sizes in inches</b>	Push-in: 5/32   1/4   5/16   3/8   1/2
<b>Connection sizes thread</b>	M5   1/8   1/4   3/8   1/2

# AVS Römer components for beverage systems

## Media-separated solenoid valves (MAGMA)

Safe control  
of hygiene-sensitive media

- **Hygienic design**

Maximum hygiene due to complete spatial and thermal decoupling of the medium.

- **Durable**

Absolutely reliable due to its robust construction and high chemical resistance.

- **Easy handling**

Uncomplicated and quick system integration, requiring minimal maintenance and cleaning.

- **Flexibly adaptable**

Numerous variants possible, including different types, coils, connections, switching modes, nominal widths.



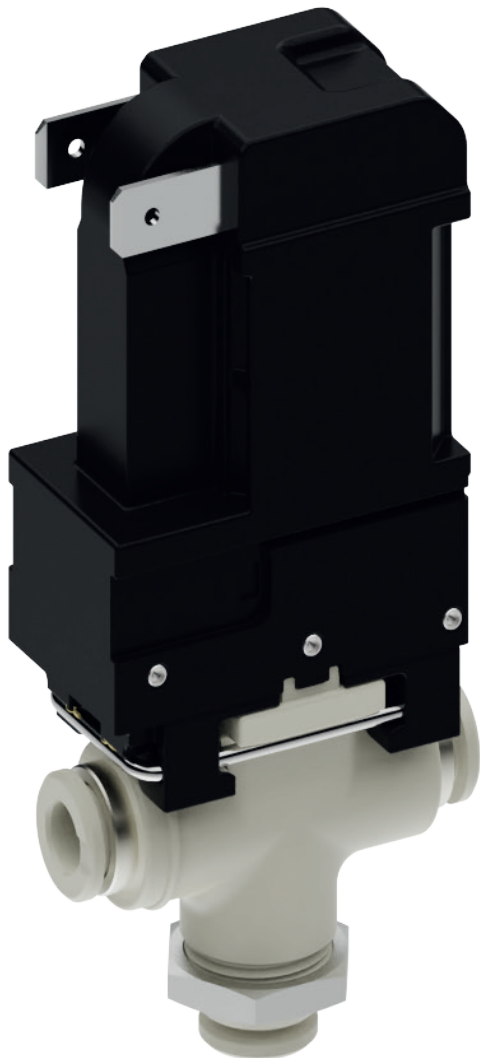
### Product overview

Types	ELV 200, ETV 100, ETV 200, ETV 400
Switching models	2/2-way NC (A), 2/2-way NO (B), 3/2-way NC (C), 3/2-way „manifold“ (F)
Body materials	PPSU nature, PPA
Sealing material	FKM
Nominal widths	DN 1 – DN 6
Nominal voltage	24 V DC
Ambient temperature	0 °C – 60 °C
Medium temperature	0 °C – 143 °C
Pressure range	0 bar – 16 bar
Connection sizes metric	Push-in: 4   6   8



# AVS Römer components for beverage systems

## Media-separated solenoid valves (MAGMA)



Media-separated solenoid valves type ELV

- High flow rates and switching pressures
- Minimal energy consumption
- Extremely compact

### Characteristics

Design	Lever-operated seat valve with separating membrane
Operation	Electric, direct-acting
Switching modes	2/2-way NC (A), 3/2-way NC (C), 3/2-way „manifold“ (F)
Nominal width	DN 1,5 – DN 4
Materials	Body material: PPSU nature, sealing material: FKM
Medium temperature	0 °C – 143 °C
Ambient temperature	0 °C – 60 °C
Pressure range	0 bar – 16 bar
Electrical power	5 W
Nominal voltage	24 V DC
Opening time	Ca. 10 – 25 ms
Closing time	Ca. 15 – 25 ms
Voltage tolerance	± 5 %
Connection sizes metric	Push-in: 4   6

# AVS Römer components for beverage systems

## Direct-acting solenoid valves (DIGMA)

Reliable & precise media control

- **Fast response time, short switching cycles**

Particularly advantageous in dynamic systems due to direct-acting functionality.

- **High chemical & thermal stability**

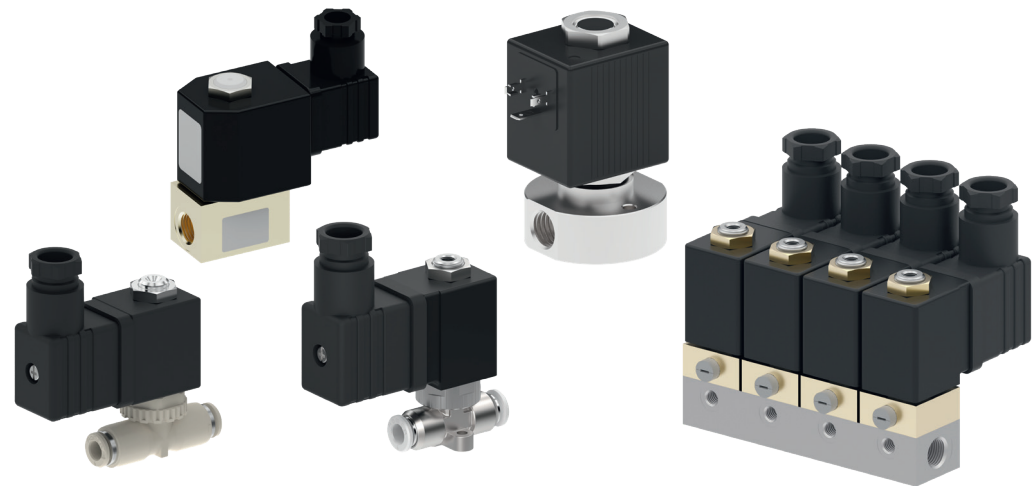
Excellent corrosion resistance – ideal for use in hot water dispensers.

- **Energy efficient**

No additional auxiliary energy, such as compressed air, is required

- **Individually customisable**

Wide range of applications due to differences in nominal diameter, operating pressure, type of current and power consumption, as well as variants or customer-specific special solutions.



### Product overview

Types	EAV 200, EAV 300, EAV 700, EAV 800, EBV 100, EDV 200, EDV 700
Switching modes	2/2-way NC (A), 2/2-way NO (B), 3/2-way NC (C), 3/2-way NO (D)
Body materials	Brass, stainless steel, PPSU nature
Sealing material	FKM, NBR
Nominal width	DN 1,2 – DN 10
Nominal voltage	24 V DC
Ambient temperature	-20 °C – 60 °C
Medium temperature	-10 °C – 130 °C
Pressure range	0,35 bar – 40 bar
Connection sizes metric	Push-in: 4   6

# AVS Römer components for beverage systems

## Direct-acting solenoid valves (DIGMA)



Direct-acting solenoid valves type EAV 800

- Valve body made of high-performance plastic
- Excellent resistance to aggressive media, temperatures and pressure
- Low heat transfer due to isolating properties of the plastic

### Characteristics

Design	Seat valve, elastic seal
Operation	Electric, direct-acting
Switching modes	2/2-way NC (A), 2/2-way NO (B), 3/2-way NC (C), 3/2-way NO (D)
Nominal widths	DN 1,2 – DN 3
Connection sizes metric	Push-in: 4   6
Materials	Body material: PPSU nature, sealing material: FKM
Medium temperature	0 °C – 130 °C
Ambient temperature	0 °C – 60 °C
Pressure range	-0,95 bar – 16 bar 20 °C > 16 bar, 100 °C > 12 bar, 130 °C > 6 bar (independent to the switching function)
Opening time	Ca. 7 – 20 ms
Closing time	Ca. 12 – 20 ms
Nominal voltage	12 V – 230 V AC/DC

# AVS Römer components for beverage systems

## Combi-sensor temperature & level: XTL set

Measure temperatures accurately & detect the fill level at the same time

- **Efficient**

Using one sensor for two functions reduces costs, time and space.

- **Precise & safe**

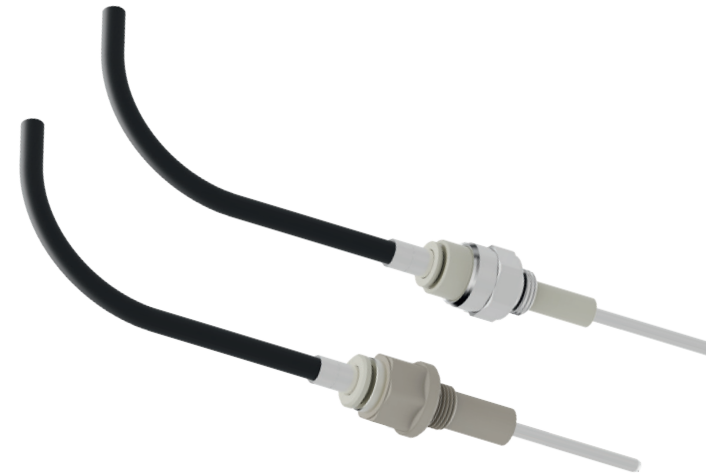
High process reliability due to precise measurement results.

- **Continuous monitoring**

Reliable monitoring of water level and temperature.

- **Flexibly adaptable**

Various versions and configurations available. Suitable for all installation positions and rotatable through 360°.



### Characteristics

Design	Stainless steel combination sensor + adapter
Connection size thread	1/8
Body Materials	PPSU / stainless steel, Peek nature
Sealing material	FKM
Medium temperature	NTC: 0 °C – 125 °C PT: 0 °C – 140 °C
Ambient temperature	0 °C – 60 °C
Thermal time constant t63	< 2 s (Still water and higher flow velocities improve response time)
Pressure range	-0,95 bar – 20 bar
Cable	Silicone cable, Ø4.85 ±0,15 mm, black, 3x AWG24/7, FEP, white/red/black
IP rating defined by EN 60529	IP67



# Part of your Success

## Quality made in Germany



The high requirements and expectations of our national and international customers are both an obligation and a challenge for us. Our experience and expertise in fluid technology, combined with the high vertical range of manufacture and in-house processes, enable us to produce standard products and customer-specific solutions at the highest level.

### **Service & customer orientation**

Personal technical consulting and training. Project planning of individual requirements, including certifications and approvals.

### **Research & development**

Development support through software tools and simulations. In-house laboratory with high-precision measuring equipment.

### **Manufacturing**

High in-house production depth throughout the entire process. Specialisation in machining of metals and plastics. Experience and know-how in processing elastomers.

### **Sample making & prototypes**

Production of samples and prototypes according to individual requirements. Fast and reliable sample delivery.

### **Toolmaking & equipment manufacturing**

Flexibility through in-house production of tools. High-precision manufacturing of assembly and testing equipment.

### **Assembly & logistics**

In-house assembly in EPA and clean rooms. State-of-the-art inspection facilities for the highest quality standards. Automatic warehouse for fast and flexible deliveries.

# Best Practice

## Postmix drink dispenser

### The application

A postmix beverage dispensing system that mixes syrup concentrate with water. A well-known manufacturer of beverage dispensers for fitness and wellness facilities was looking for the perfect connection solution for its latest generation of mineral drink dispensers.

### The customer's requirement

Automatic cleaning on site with a cleaning time of only five minutes per month and quick installation in the production process. Previously, the syrup tubes had to be cleaned weekly, which was a time-consuming process. The aim was to minimise both this high level of effort and the manual handling of aggressive cleaning fluids.

The AVS Römer hyperfit®, as a dead-space-free push-in fitting made of PPSU, provides the solution.



# Best Practice

## Postmix drink dispenser

Our solution: AVS Römer hyperfit®  
The dead space free fitting made from PPSU

### Absolute hygiene & performance

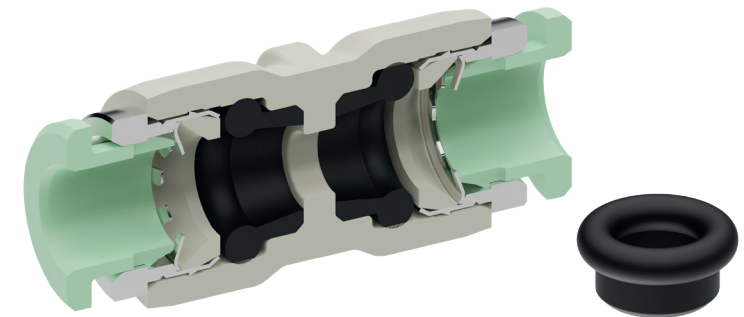
The AVS Römer hyperfit® push-in fitting, made from PPSU, offers maximum hygiene. Its dead space free design enables the safe conveyance of hygiene-critical media at a pressure of 5 or 6 bar, depending on the installation conditions.

### Cleanly resolved

The AVS Römer hyperfit® push-in fitting made of PPSU ensures quick, easy and complete media replacement. The tube guide is integrated directly into the moulded seal.

The dead space free design prevents microbiological growth and accumulation of the medium. Due to the proven push-in technology, the connection can be assembled quickly, easily and securely, without the need for tools.

The **AVS Römer hyperfit® fitting made of PPSU** is an integral part of the postmix beverage dispensing system, providing an invisible guarantee of hygiene in everyday use. Manufacturers can save time and reduce maintenance costs while offering their customers added process reliability, quality and taste. Additional added value is provided by sensors, check valves and customised special solutions. Everything from a single source.



### AVS Römer hyperfit®

- ✓ **Dead space free**  
Prevents accumulation of medium
- ✓ **Highest hygiene**  
Suitable for CIP cleaning
- ✓ **Safe & efficient**  
Full flow without cross-sectional restriction
- ✓ **Easy assembly**  
Due to push-in technology

AVS Römer GmbH & Co. KG  
Reismühle 3  
94481 Grafenau  
Germany

+49 8552 4076 300  
info@avs-roemer.de

DE GB US

AVS G. Roemer Schweiz AG  
Heidelbergstrasse 9  
8355 Aadorf  
Switzerland

+41 32 377 22 11  
info@avs-roemer.ch

CH ES BE FR IT



More information:  
[www.avs-roemer.com](http://www.avs-roemer.com)

