

FS



STAINLESS STEEL  
OVERBRAID



PUSH-FIT COUPLING, 90°



G 1/2" UNION NUT AND  
FLAT SEAL



G 1/2" EXTERNAL THREAD  
AND FLAT SEAL

FS

CONNECTING HOSES FOR THE WATER-SIDE

## CONNECTION OF AIR-WATER SYSTEMS AND DECENTRALISED VENTILATION UNITS

Plastic hose with oxygen diffusion barrier, stainless steel overbraid, available with various end pieces to fit different requirements

- Can be used for water or water glycol mixtures (up to 30% glycol)
- Detachable push-fit couplings are supplied with a red O-ring seal
- Various G $\frac{1}{2}$ " or G $\frac{3}{4}$ " threads
- Connecting piece either straight or 90°
- Nominal length: 500, 750, 1000 mm
- Other lengths upon request

Optional equipment and accessories

- Push-fit coupling for Ø12 mm Cu pipe, either straight or 90°
- Connecting piece with G $\frac{1}{2}$ " external thread and flat seal, either straight or 90°
- Connecting piece with G $\frac{1}{2}$ " union nut and flat seal, either straight or 90°

## Application

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### Application

- Flexible water-side connection between the pipework (heating and/or cooling) and the heat exchangers of air-water systems
- With connecting hoses it is possible to remove or swivel out heat exchangers for cleaning and maintenance without having to empty the system
- Connecting hoses are suitable for all air-water systems, chilled ceilings, chilled beams, induction units and façade ventilation units

### Special characteristics

- With oxygen diffusion barrier
- Various push-fit and screw-on connecting pieces

### Nominal sizes

- 500, 750, 1000 mm
- DN 10 and DN 13

## Description

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### Variants

- The PE hoses with oxygen diffusion barrier and with stainless steel overbraid are available with DN 10 and DN 13

### Construction

- The various couplers can be combined as needed
- Ø10 mm push-fit couplings are available for DN 10 hoses only

### Construction features

Connection

- Push-fit coupling, straight
- Push-fit coupling, 90°
- G $\frac{1}{2}$ " external thread with flat seal
- G $\frac{1}{2}$ " union nut with flat seal
- 90° connection with G $\frac{1}{2}$ " union nut and flat seal

### Materials and surfaces

- The hoses are a crosslinked thermoplastic elastomer (TPE) with a stainless steel overbraid
- The end pieces are made of brass, rubber, stainless steel and/or plastic, depending on the type of coupling
- All materials are free of halogens, PVC or silicone

### Standards and guidelines

- With oxygen diffusion barrier to DIN 4726

### Maintenance

- Maintenance-free as construction and materials are not subject to wear

## TECHNICAL INFORMATION

Function, Technical data, Specification text, Order code



### Functional description

Connecting hoses of Type FS allow for the flexible connection of heat exchangers in air-water systems to the pipework. This facilitates installation and, even more so, maintenance. The heat exchangers of many products can be removed or swivelled out (for cleaning) if connected with flexible hoses.

<b>Lengths</b>	500, 750, 1000 mm
<b>Nominal width</b>	10, 13 mm (to fit Ø10 mm or Ø12 mm Cu pipes)
<b>Maximum operating pressure</b>	6 bar
<b>Application temperature</b>	-20 to 55 °C

Connecting hoses with oxygen diffusion barrier enable a simple, quick water-side connection between our components and the on-site pipe system.

#### **Special characteristics**

- With oxygen diffusion barrier
- Various push-fit and screw-on connecting pieces

#### **Materials and surfaces**

- The hoses are a crosslinked thermoplastic elastomer (TPE) with a stainless steel overbraid
- The end pieces are made of brass, rubber, stainless steel and/or plastic, depending on the type of coupling
- All materials are free of halogens, PVC or silicone

#### **Construction**

- The various couplers can be combined as needed
- Ø10 mm push-fit couplings are available for DN 10 hoses only

#### **Technical data**

- Length: 500, 750, 1000 mm
- Nominal length: 10 and 13 mm, to fit Ø10 mm or Ø12 mm Cu pipes
- Max. operating pressure: 6 bar
- Application temperature: -20 °C to +55 °C

This specification text describes the general properties of the product.

**FS-10-SG12-SG12/750**

Nominal width	10 mm
Connection type 1	Push-fit coupling, straight, Ø12 mm
Connection type 2	Push-fit coupling, straight, Ø12 mm
Nominal length	750 mm

**FS-13-SG12-SW12/1000**

Nominal width	13 mm
Connection type 1	Push-fit coupling, straight, Ø12 mm
Connection type 2	Push-fit coupling, 90°, Ø12 mm
Nominal length	1000 mm

**FS – 13 – SG12 – SG12 / 500****1 Accessories**

**FS** Connecting hoses

**2 Nominal size [mm]**

10  
13

**3 Connection type 1**

**SG10** Push-fit coupling, straight, Ø10 mm (NW 10 only)  
**SG12** Push-fit coupling, straight, Ø12 mm  
**SW10** Push-fit coupling, 90°, Ø10 mm (NW 10 only)  
**SW12** Push-fit coupling, 90°, Ø12 mm  
**A1/2** G½" external thread with flat seal  
**U1/2** G½" union nut with flat seal  
**UW1/2** 90°, G½" union nut with flat seal

**4 Connection type 2**

**SG10** Push-fit coupling, straight, Ø10 mm (NW 10 only)  
**SG12** Push-fit coupling, straight, Ø12 mm  
**SW10** Push-fit coupling, 90°, Ø10 mm (NW 10 only)  
**SW12** Push-fit coupling, 90°, Ø12 mm  
**A1/2** G½" external thread with flat seal  
**U1/2** G½" union nut with flat seal  
**UW1/2** 90°, G½" union nut with flat seal

**SG10** Push-fit coupling, straight, Ø10 mm (NW 10 only)  
**SG12** Push-fit coupling, straight, Ø12 mm  
**SW10** Push-fit coupling, 90°, Ø10 mm (NW 10 only)  
**SW12** Push-fit coupling, 90°, Ø12 mm  
**A1/2** G½" external thread with flat seal  
**U1/2** G½" union nut with flat seal  
**UW1/2** 90°, G½" union nut with flat seal

**5 Nominal length [mm]**

500  
750  
1000  
1500  
2000

Push-fit coupling, 90°



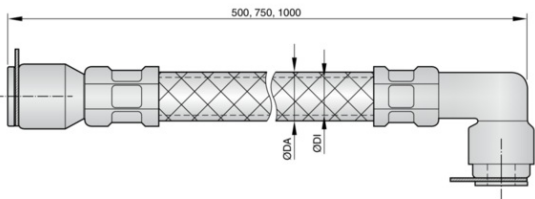
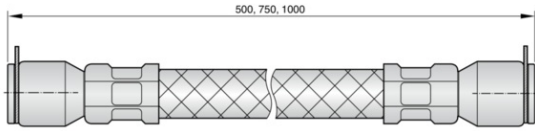
**Dimensions [mm]**

Hose	Connection	
DN	ØDA	ØDI
10	14	9.5
13	17	12.5

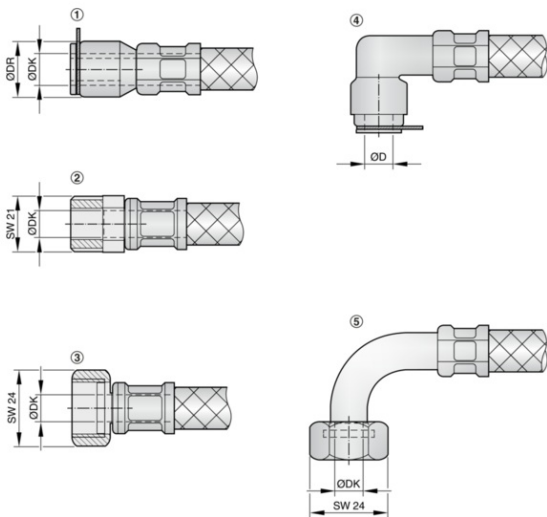
**Dimensions [mm]**

Hose	Connection		
DN	ØD	ØDK	ØDR
10	10	6.8	17.5
13	12	10	19.7

FS, flexible connecting hose



### FS, connection types



- ① SG10/SG12, push-fit coupling, straight
- ② A $\frac{1}{2}$ , G $\frac{1}{2}$ " external thread and flat seal
- ③ U $\frac{1}{2}$ , G $\frac{1}{2}$ " internal thread, union nut and flat seal
- ④ SW10 / SW12, push-fit coupling, 90°
- ⑤ UW $\frac{1}{2}$ , G $\frac{1}{2}$ " internal thread, union nut 90°, flat seal

### Installation details



**Installation and commissioning**

- Connecting hoses are to be installed by others
- Connecting hoses are suitable for water (hot or chilled) and for water glycol mixtures (up to 30 % glycol)
- Connecting hoses must be installed without tension