**Boiler house** 

Conductivity sensors



TI-P403-22 AB Issue 5

# **Probe Flanges** for TDS Conductivity Probes

#### **Description**

Probe flanges are used to install Spirax Sarco TDS conductivity probes directly into a boiler where a probe elbow is not used. They are tapped %" BSP and spot-faced.

### **Limiting conditions**

For maximum working pressures and temperatures please refer to the relevant flange standard.

#### **Materials**

Flanges	Carbon steel BS 1501 Pt 1-161 Gr. 360	
to	Carbon steel BS 1501 Pt 1-151 Gr. 430A	
EN 1092	Carbon steel ASTM A515 Gr. 55	
Flanges to	Carbon steel BS 1501-151 Gr. 360	
BS 10 Table F and F	Carbon steel BS 1503-161 Gr A or equivalent	

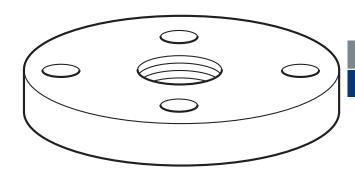
# **Available types**

Flange standard	EN 1092		BS 10	
Flange type	PN16	PN40	Table F	Table H
Flange size	Part No.	Part No.	Part No.	Part No.
DN15 (½")	4032460	4032460	4032460	4032491
DN20 (¾")	4032461	4032461	4032461	4032491
DN25 (1")	4032462	4032462	4032492	4032492
DN32 (11/4")	4032463	4032463	4032493	4032493
DN40 (1½")	4032464	4032464	4032494	4032494
DN50 (2")	4032465	4032465	4032465	4032465
DN80 (3")	4032467	4032467	4032497	4032497

Note: For EN 1092 PN25 use PN40.

#### How to order example:

1 off Spirax Sarco DN20 TDS probe flange to the following standard: EN 1092 PN40. Part No. 4032461.



# **Boiler house** Conductivity sensors

# spirax sarco

TI-P403-45

AB Issue 6

# **S20 Sensor Chamber and Sensors**

#### **Description**

The Spirax Sarco S20 sensor chamber is fitted with conductivity and temperature sensors used to determine the conductivity of liquids. The use of a temperature sensor enables an accurate measurement to be made when the temperature varies, as in the case of condensate return monitoring systems.

The hexagonal in-line sensor chamber is available screwed 11/4" BSP or 1" NPT.

Adjacent radial female screwed connections are provided for:
- CP10 conductivity sensor (%" BSP).
- TP20 temperature sensor (¼" BSP).
An additional ¼" BSP (¼" NPT) connection is provided on the other

side of the chamber for taking a sample if required.

Spirax Sarco can supply a sample cooler for cooling hot samples, or a blanking plug if the connection is not required.

#### Principal features:

- Allows continuous temperature compensated measurement
- Purpose designed sensor chamber for in-line mounting
- Simple removal of sensors for cleaning

#### Limiting conditions

The sensor chamber assembly inclusive of sensors is limited to:-Maximum pressure 11 bar <u>g</u> 150°C Maximum temperature Minimum conductivity 10 μS/cm or 10 ppm

# **Materials**

S20 sensor chamber		Stainless steel	BS 970 303 S31
CP10 conductivity sensor	Body	Stainless steel	BS 970 303 S31
	Insulator	PEEK	
	Pin	Stainless steel	BS 970 303 S31
	Seal	PTFE	
	Disc springs	Stainless steel	DIN 1.4122
	Washer	Stainless steel	A2 BS 4320
TP20 temperature sensor	Body and probe	Stainless steel 316	ASTM A269 Gr. 316
	Cable insulation	PFA	

#### Safety information

This document does not contain enough information to install the product safely. Refer to the Installation and Maintenance Instructions provided with the product.

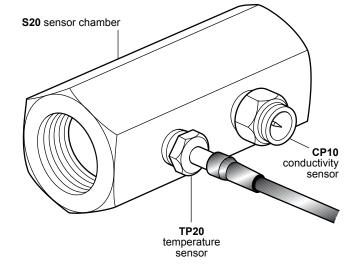
The CP10 sensor contains PTFE wich can give off toxic fumes if exposed to excessive heat.

#### Installation

Caution: Do not install the sensor outdoors without additional weather protection.

The sensor chamber may be fitted in a vertical or horizontal pipeline with suitable isolation valves to allow inspection/cleaning of the sensors. Reducers may be fitted if required. Flow can be in either direction. The sensors themselves must be horizontal. For full information see the Installation and Maintenance Instructions.

Caution: Ensure the PT2 wire is not exposed to a temperature greater than 120°C.



#### **Maintenance**

The equipment requires no specific maintenance other than periodic inspection and cleaning as described in the Installation and Maintenance Instructions.

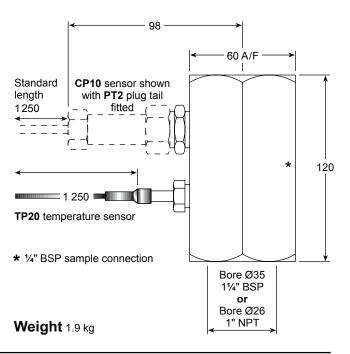
## How to specify

In-line sensor chamber with conductivity and temperature sensors.

## How to order

Example: 1 off Spirax Sarco S20 sensor chamber complete with CP10 sensor, PT2 plug tail, 1/4" BSP blanking plug, and TP20 temperature sensor.

# Dimensions (approximate) in millimetres



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