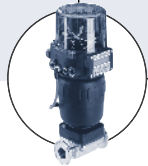




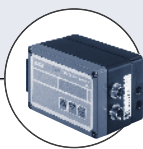
- Fully integrated in Burkert's process control systems
- Insensitive to coating fluids
- Wide range of applications: Fertiliser dosing, cooling water monitoring, concentration measurement

Type 8223 can be combined with...



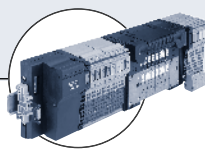
Type 2031 (8630)

Continuous
TopControl



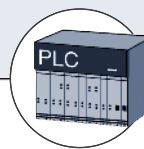
Type 1067

Continuous
SideControl



Type 8644-P AirLINE

Valve Island with
electronic I/O



PLC

The conductivity transmitter Type 8223 is available in a splash-proof plastic IP65 housing. The sensor component consists of a pair of magnetic coils in a PVDF or PEEK housing. In order to measure conductivity, an AC voltage source is connected to the primary magnetic coil. The magnetic field induced generates a current in the secondary magnetic coil.

The intensity of the induced current is a direct function of the conductivity of the solution. The integrated temperature sensor for automatic compensation is a standard feature in the sensor housing. The transducer Type 8223 functions in a 3-wire circuit and requires a power supply of 12-30 VDC.

4–20 mA standard signal is available as output signal, proportional to the conductivity or the temperature of the fluid.

A wide range of stainless steel, brass and plastic fittings are available (see datasheet Type S020).

Fitting and sensor data	
Pipe diameter	1 1/4" to 8" (DN 32 to DN 200)
Measuring ranges	
Conductivity	10 µS/cm up to 1 mS/cm 100 µS/cm up to 10 mS/cm 1 mS/cm up to 100 mS/cm
Temperature	10 mS/cm up to 1 S/cm 14°F to 176°F (-10°C to +80°C)
Fitting	S020 (see corresp. data sheet)
Materials wetted parts	
Finger	PVDF or PEEK
O-ring	FKM OR EPDM
Temperature compensation	Automatic with integrated temperature sensor with reference temperature 77°F

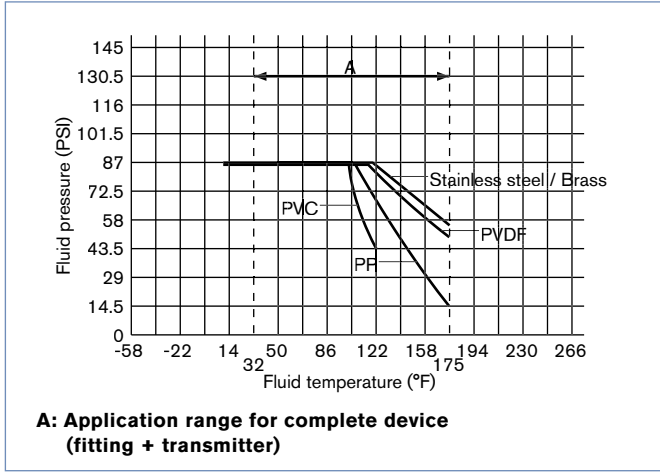
Medium data	
Medium temperature	14°F to 176°F (-10°C to +80°C) (depends on fitting)
Fluid pressure	max. 85 PSI (Depends on temperature and fitting material, see temperature–pressure diagram)

Electronic module data	
Accuracy	±2% of full scale (within 32°F up to 158°F)
Voltage supply	12 up to 30 VDC
Outputs	
Analog signal	4–20 mA programmable, proportional to the conductivity or temperature
Max. Load	1000 W at 30 V 690 W at 24 V 300 W at 15 V 150 W at 12 V
Current consumption	Max. 50 mA + 22 mA analog output
Materials	
Housing	PEHD

General data	
Ambient temperature	
Operating and storage	32°F to 140°F (0°C to +60°C)
Protection class	IP65, relative humidity max. 80%, non condensed

Pressure/temperature diaphragm

Please be aware of the fluid pressure-temperature dependance according to the respective fitting+sensor material as shown in the diagram.



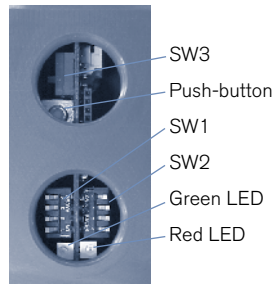
Programming

Configuration is done by DIP switches.

- SW1:** Selection of
- ▶ measuring range (switches 1 and 2)
 - ▶ filtering level of conductivity (switches 3 and 4)

- SW2:** Selection of
- ▶ temperature compensation or
 - ▶ transmission of temperature on 4...20 mA output

- SW3:** Selection of
- ▶ current output mode, sinking or sourcing



Push-button allows calibration of sensor "zero conductivity" point.

Ordering chart for Type 8223 for fitting S020

(To be sold separately)

Output	Sensor material	Item no.
4-20 mA	PVDF	440 440 L
	PEEK	550 335 C

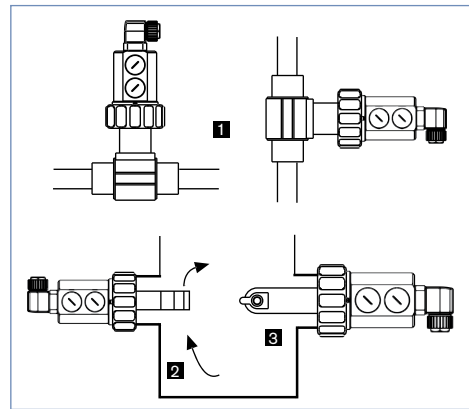
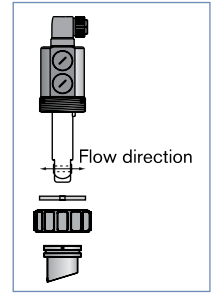
Installation

A- The inductive conductivity transmitter 8223 can be easily installed into pipes using our specially designed S020 fitting system.

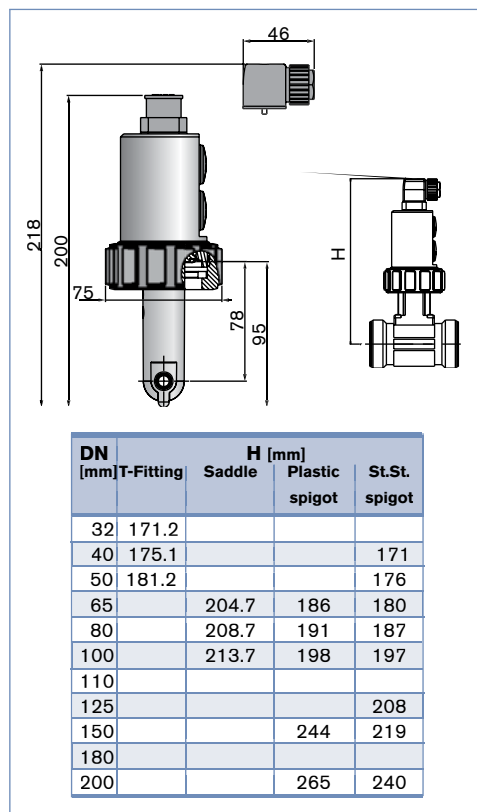
B- The device must be protected against constant heat radiation and other environmental influences, such as magnetic fields or direct exposure to sunlight.

C- The device can be mounted in following positions:

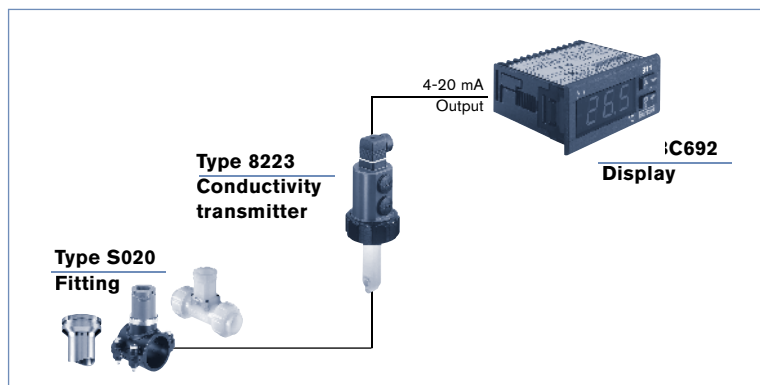
- 1 Horizontal or vertical pipes
- 2 Mounting in tank without mixer
- 3 Mounting in tank with mixer



Dimensions [mm]



Interconnection possibilities with Type 8223



Phase out

Phase Out