

Sensor Connection



This Sensor/Switch is specially designed to switch a valve, pump, heaters, etc... and establish an ON/OFF control loop. The switching point can be programmed with the 3 key pads on the display or externally from a programmable logic controller via a 4-20 mA loop. Additionally, the process value can be transmitted to the PLC (4-20 mA). The connection to the process in the piping is done with standard fittings.

Process Specification

Pipe diameter any pipe with 1/2" FNPT (see fitting ordering chart)  
 Measuring range -40°F to 257°F  
 (with ambient temperature 32°F to 104°F)  
 104°F to 194°F  
 (with ambient temperature above 104°F)  
 Switching accuracy ±1.0°F (32° to 176°F)  
 ±3.0°F (outside of 32° to 176°F)  
 Repeatability 0.4%  
 Fitting See ordering chart fitting  
 Housing material PC+20% glass fiber  
 Front panel foil Polyester  
 Sensor element Pt100  
 Wetted parts stainless steel

Electrical Specification

Voltage Supply 12-30 VDC  
 Reversed polarity of DC protected  
 Transistor output NPN and PNP, open collector  
 5-30 VDC, 700 mA  
 3 A/250 VAC or 3 A/30 VDC;  
 or Relay output programmable  
 4-20 mA  
 Input external Setpoint 4-20 mA  
 Output process value 4-20 mA  
 AS-Interface Fieldbus  
 Current consumption max. 80 mA (no Load)  
 Short circuit protection yes  
 Recommended max. cable length for voltage supply 328 ft. shielded, (18 AWG)  
 section 0.14-0.5 mm<sup>2</sup>

Electrical Connections

EaseOn on request cable plug 2511  
 Cable plug DIN 43650A  
 Multipin 5 pin, M12  
 ASI connection on request

Environment Specifications

Fluid temperature max. 256°F  
 Ambient temperature range 32° to 140°F  
 Fluid pressure max. 230 PSI  
 Type of protection NEMA 4 (IP65) with connector plugged in

Standards

EMI EN 50081-1, 50082-2, 61010-2  
 Vibration EN 68-2-6  
 Shock EN 68-2-27

Chemical restrictions (see manual)

Advantages/Benefits

▶ **ALL IN ONE:**  
Indication, Controller,  
Transmitter, ON/OFF Relay  
and AS-i Control in One Device

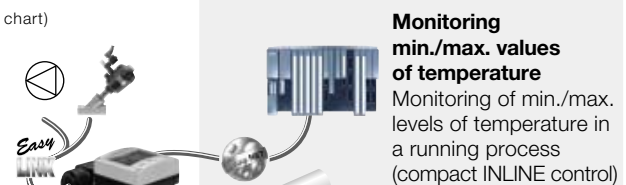
▶ **Programmable Monitoring and ON/OFF Control System for Easy Fluid Control Systems**

▶ **Complete Communication due to External Setpoint, Easy LINK or AS-Interface**



▶ **CE Approval**

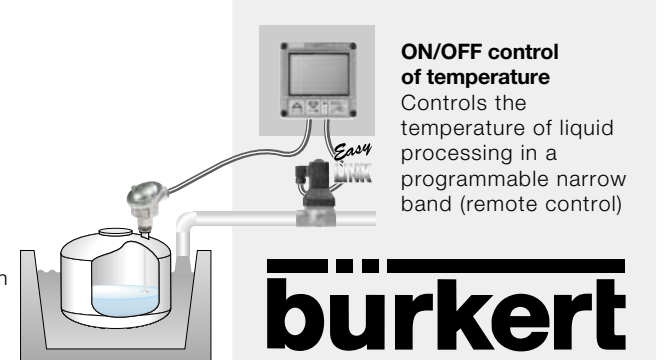
Applications



**Monitoring min./max. values of temperature**  
Monitoring of min./max. levels of temperature in a running process (compact INLINE control)



**Continuous control of temperature in a running process**



**ON/OFF control of temperature**  
Controls the temperature of liquid processing in a programmable narrow band (remote control)

**bürkert**  
Fluid Control Systems

# “All-In-One” Temperature Sensor/Switch

## For Easy ON/OFF Control

# Type 8400

### 8400 Sensor/Switch for sensor connection NPT1/2

### Ordering Chart

Voltage supply	Input	Output	Item-No.*
12-30 VDC	---	NPN	US08579
12-30 VDC	---	PNP	US08578
12-30 VDC	---	NPN and PNP	US08577
12-30 VDC	---	Relay	US08576
12-30 VDC	4-20 mA <sup>1)</sup>	Relay	US08575
AS-i Bus	AS-i	AS-i + Relay	US08574
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	US08573

<sup>1)</sup> Ext. set point

<sup>2)</sup> Process value

\*Cables and plugs included with part number

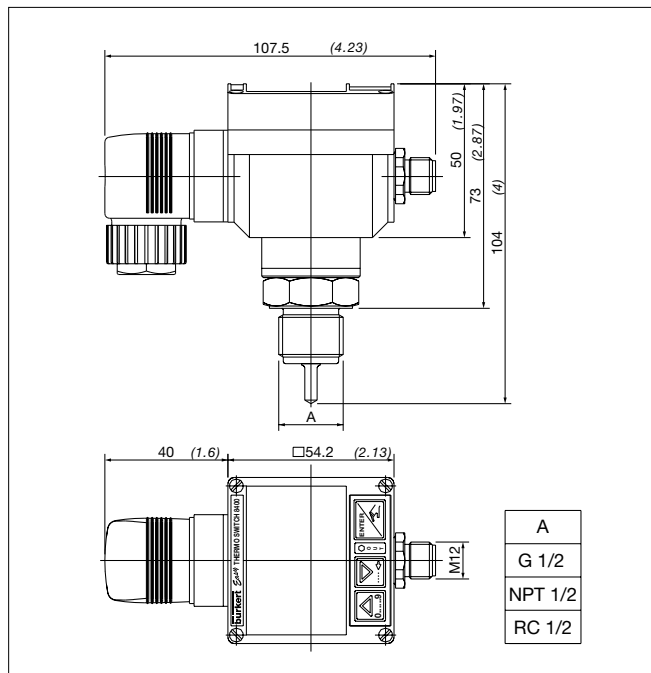
### Accessory for ON/OFF Temperature Control System 8400

### Ordering Chart

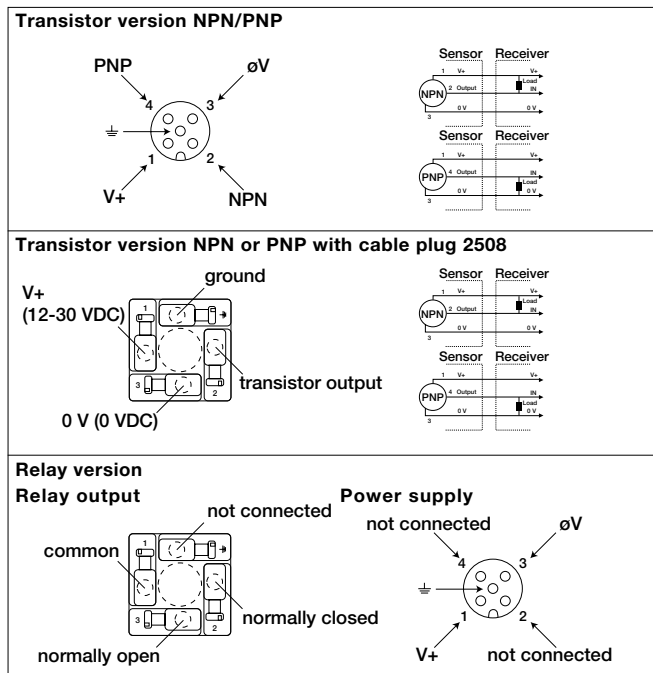
M12 female cable connector with plastic threaded locking ring	917 116 D
5 pin M12 female connector molded on cable (2 m, shielded)	438 680 F
8 pin M12 female cable connector with plastic threaded locking ring	444 799 G
8 pin M12 female connector molded on cable (2 m)	444 800 E
2 pin M12 female coupler module for ribbon cable (AS-Interface version only)	440 653 M
S005 INLINE fittings with adapter plate for 8400	see datasheet Type S005
S001 fitting brass, stainless steel for 8400	see datasheet Type S001

Has to be ordered separately

### Dimensions [mm] / [inch]



### Electrical Connections



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In case of special requirements please consult for advice.

We reserve the right to make technical changes without notice.

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