

### 1/2" NPT, 1-1/2" and 2" Tri-Clamp® Sensor Connection



Type 8400

Wall mount version

### 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**

This Transmitter/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.

### Applications

#### Process Specification

Pipe diameter  
Measuring range

Switching accuracy

Repeatability  
Fitting  
Housing material  
Front panel foil  
Sensor element  
Seal

#### Electrical Specification

Voltage Supply  
Reversed polarity of DC  
Transistor output

or Relay output  
Input external Setpoint  
Output process value  
AS-Interface  
Current consumption  
Short circuit protection  
Recommended max. cable length for voltage supply

#### Electrical Connections

EaseOn  
Cable plug  
Multipin  
ASI connection

#### Environment Specifications

Fluid temperature max.  
Ambient temperature range  
Fluid pressure max.  
Type of protection

#### Standards

EMI  
Vibration  
Shock

any pipe with 1/2" FNPT (see fitting ordering chart)  
-40°F to 257°F  
(with ambient temperature 32°F to 104°F)  
104°F to 194°F  
(with ambient temperature above 104°F)  
± 1.0°F (32° to 176°F)  
± 3.0°F (outside of 32° to 176°F)  
0.4%  
Type S001 and S005  
PC+20% glass fiber  
Polyester  
Pt100, stainless steel  
FPM standard (EPDM option)

12-30 VDC  
protected  
NPN and PNP, open collector  
5-30 VDC, 700 mA  
3 A/250 VAC or 3 A/30 VDC<sup>1)</sup>; programmable  
4-20 mA  
4-20 mA  
Fieldbus  
max. 80 mA (no Load)  
yes  
328 ft. shielded, (18 AWG)  
section 0.14-0.5 mm<sup>2</sup>

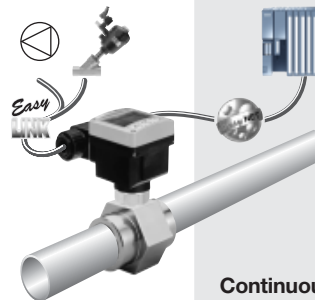
on request cable plug 2511  
DIN 43650A  
5 pin, M12 and 4 pin M12  
on request

256°F  
32° to 140°F  
230 PSI  
NEMA 4 (IP65) with connector plugged in

EN 50081-1, 50082-2, 61010-2  
EN 68-2-6  
EN 68-2-27

Chemical restrictions (see manual)

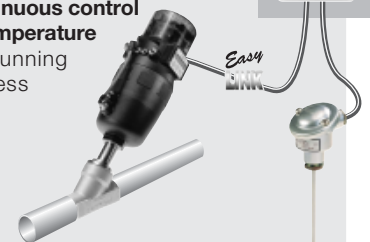
<sup>1)</sup> Valid for: Input external setpoint, output process value and AS-Interface



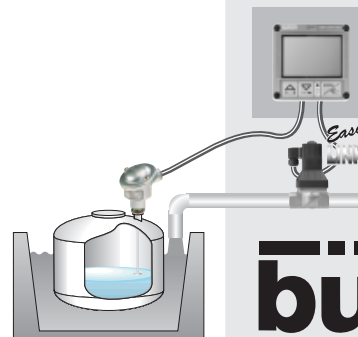
#### Monitoring min./max. values of temperature

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

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



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



# bürkert

Fluid Control Systems

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

## For Easy ON/OFF Control

# Type 8400

### 8400 Transmitter/Switch with welded RTD and 1/2" NPT Connection

### Ordering Chart

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

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

<sup>2)</sup> Process value

\*Cables and plugs included with part number

### 8400 Transmitter/Switch with welded RTD and 1/2" NPT Connection

Voltage supply	Input Signal	Output Signal	Probe Length	Item-No.*
12-30 VDC	---	Relay	1"	US08454
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	1"	US08434
12-30 VDC	---	Relay	2"	US08453
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	2"	US08433
12-30 VDC	---	Relay	2-1/2"	US08452
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	2-1/2"	US08432
12-30 VDC	---	Relay	3"	US08451
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	3"	US08431
12-30 VDC	---	Relay	4"	US08450
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	4"	US08430

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

<sup>2)</sup> Process value

\*Cables and plugs included with part number

### 8400 Transmitter/Switch with spring loaded RTD, thermowell and 1/2" NPT Connection

Voltage supply	Input Signal	Output Signal	Probe Length	Item-No.*
12-30 VDC	---	Relay	1"	US08449
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	1"	US08429
12-30 VDC	---	Relay	2"	US08448
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	2"	US08428
12-30 VDC	---	Relay	2-1/2"	US08447
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	2-1/2"	US08427
12-30 VDC	---	Relay	3"	US08446
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	3"	US08426
12-30 VDC	---	Relay	4"	US08445
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	4"	US08425

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

<sup>2)</sup> Process value

\*Cables and plugs included with part number

### 8400 Transmitter/Switch with RTD and 1-1/2" Tri-Clamp® Connection

Voltage supply	Input Signal	Output Signal	Probe Length	Item-No.*
12-30 VDC	---	Relay	1"	US08464
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	1"	US08444
12-30 VDC	---	Relay	2"	US08463
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	2"	US08443
12-30 VDC	---	Relay	2-1/2"	US08462
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	2-1/2"	US08442
12-30 VDC	---	Relay	3"	US08461
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	3"	US08441
12-30 VDC	---	Relay	4"	US08460
12-30 VDC	4-20 mA <sup>1)</sup>	4-20 mA <sup>2)</sup> + Relay	4"	US08440

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

<sup>2)</sup> Process value

\*Cables and plugs included with part number

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

## For Easy ON/OFF Control

# Type 8400

### 8400 Transmitter/Switch with welded RTD and 2” Tri-Clamp® Connection

Voltage supply	Input Signal	Output Signal	Probe Length	Item-No.*
12-30 VDC	---	Relay	1”	US08459
12-30 VDC	4–20 mA <sup>1)</sup>	4–20 mA <sup>2)</sup> + Relay	1”	US08439
12-30 VDC	---	Relay	2”	US08458
12-30 VDC	4–20 mA <sup>1)</sup>	4–20 mA <sup>2)</sup> + Relay	2”	US08438
12-30 VDC	---	Relay	2–1/2”	US08457
12-30 VDC	4–20 mA <sup>1)</sup>	4–20 mA <sup>2)</sup> + Relay	2–1/2”	US08437
12-30 VDC	---	Relay	3”	US08456
12-30 VDC	4–20 mA <sup>1)</sup>	4–20 mA <sup>2)</sup> + Relay	3”	US08436
12-30 VDC	---	Relay	4”	US08455
12-30 VDC	4–20 mA <sup>1)</sup>	4–20 mA <sup>2)</sup> + Relay	4”	US08435

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

<sup>2)</sup> Process value

\*Cables and plugs included with part number

### Ordering Chart– 8400 Wall Mount<sup>3)</sup> Sensor

Voltage supply	Input	Output	Connector	Item-No.
12-30 VDC	3-wire Pt100	Transistor	M12 male 4 pin and M12 female 5 pin	US07553

<sup>3)</sup> Without Pt100

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

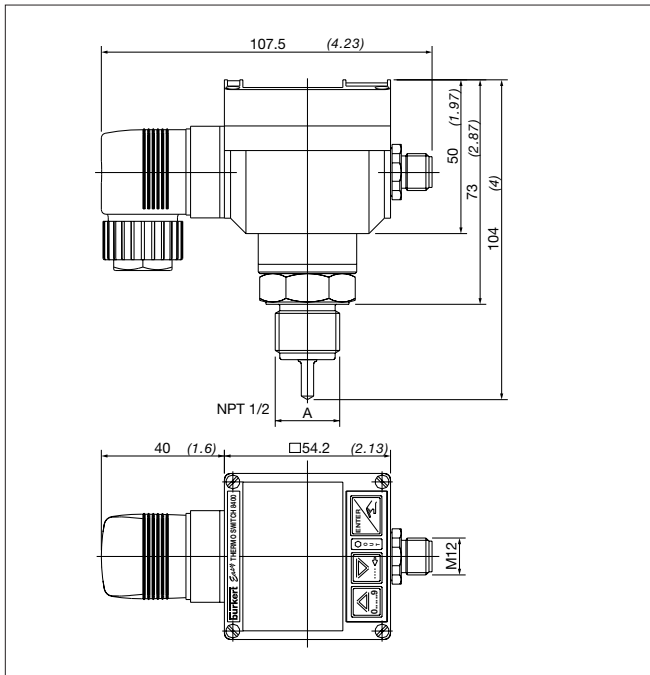
M12 female cable connector with plastic threaded locking ring	917 116 D
5 pin M12 female connector molded on cable (2 m, shielded)	438 680 F
4 pin M12 male cable connector with plastic threaded locking ring	448 856 D
4 pin M12 male connector molded on cable (2m, shielded)	448 857 E
8 pin M12 female connector 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

# "All-In-One" Temperature Transmitter/Switch

## For Easy ON/OFF Control

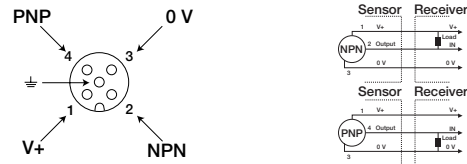
# Type 8400

### Dimensions [mm] / [inch]

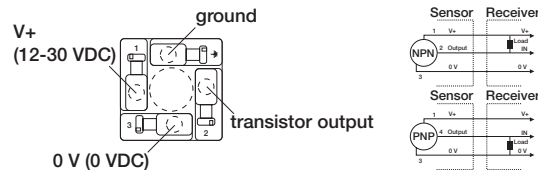


### Electrical Connections

#### Transistor version NPN/PNP

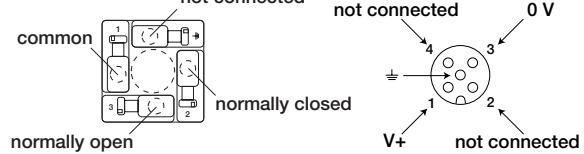


#### Transistor version NPN or PNP with cable plug 2508

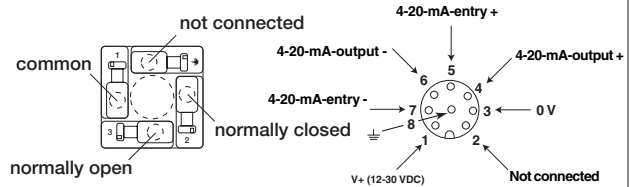


#### Relay version

##### Relay output



#### Relay version with external set point and process valve



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