

Intelligent Transmitter/Switch



Picture showing Pressure Transmitter/Switch Type 8311 with Fitting Type S001 Brass

This Transmitter/Switch is specifically designed to switch a valve, pump, heaters, etc... and to establish an ON/OFF control loop. The switching point can be programmed with the 3 keys on the display or from an external 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 connection (see order chart fitting) Type SO01 or SO05
Measuring range	0-29, 73, 145, 290, 725 PSI
Switching accuracy	± 1.5% full scale
Repeatability	max. 0.25...1% full scale
Fitting	(see order chart fitting) Type SO01 or SO05
Housing material	PC + 20% glass fiber
Front panel foil	Polyester
Sensor element	ceramic cell (Al ₂ O ₃)
Wetted parts	stainless steel
Min. service life of pressure cell	100 million cycles

Electrical Specification

Voltage Supply	12-30 VDC
Reversed polarity of DC	protected
Transistor output	NPN/PNP, open collector 5-30 VDC, 700 mA
or optional Relay output	3 A, 230 VAC or 3 A, 30 VDC programmable
Input external setpoint	4-20 mA
Output process value	4-20 mA
Optional AS-Interface	Fieldbus
Current consumption	max. 80 mA (no load)
Short circuit protection	yes
Recommended max. cable length for power supply	328 ft. shielded 26 to 22 AWG

Electrical Connections

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

Environment Specifications

Max. fluid temperature	212°F
Ambient temperature range	-4°F to +140°F
Type of protection	NEMA 4 (IP65) with connector plugged-in

Standards

Vibration	EN 68-2-6
Shock	EN 68-2-27

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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**



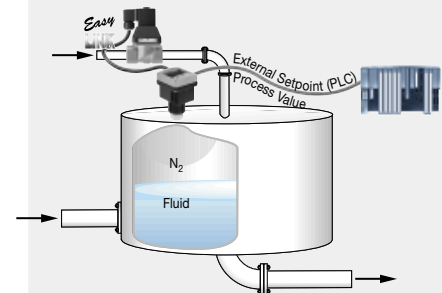
▶ **CE Approval**



Applications

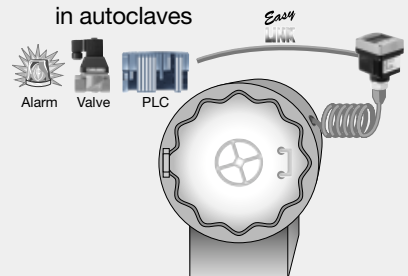
ON/OFF Control

- Stabilized pressure of N₂ in liquid tanks
- Control of pressure tanks for air
- Control of fluid pressure in tanks



Monitoring

- Monitoring of fluid flow pressure in Reverse Osmosis systems (water treatment)
- Monitoring of pressure in autoclaves



burkert
Fluid Control Systems

“All-In-One” Pressure Transmitter/Switch

For Easy ON/OFF Control

Type 8311

Specifications - Ordering Chart (Other Versions on Request) for Type 8311

Pressure Range [PSI]	Max. Pressure [PSI]	Bursting Pressure [PSI]	Power Supply	Output Signal	Input Signal (ext. setpoint)	Process Connection	Item-No.*
0 - 30	58	102	12 - 30 VDC	NPN / PNP	-	1/2" NPT	US08565
0 - 30	58	102	12 - 30 VDC	NPN	-	1/2" NPT	US08564
0 - 30	58	102	12 - 30 VDC	PNP	-	1/2" NPT	US08563
0 - 30	58	102	12 - 30 VDC	PNP	-	1.5" Tri-Clamp	US08520
0 - 30	58	102	12 - 30 VDC	PNP	-	2" Tri-Clamp	US08519
0 - 30	58	102	12 - 30 VDC	Relay	-	1/2" NPT	US08562
0 - 30	58	102	12 - 30 VDC	Relay	4 - 20 mA	1/2" NPT	US08560
0 - 30	58	102	ASi powered	ASi + Relay	-	1/2" NPT	US08561
0 - 30	58	102	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1/2" NPT	US08559
0 - 30	58	102	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1.5" Tri-Clamp	US08518
0 - 30	58	102	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	2" Tri-Clamp	US08517
0 - 73	145	174	12 - 30 VDC	NPN / PNP	-	1/2" NPT	US08558
0 - 73	145	174	12 - 30 VDC	NPN	-	1/2" NPT	US08557
0 - 73	145	174	12 - 30 VDC	PNP	-	1/2" NPT	US08556
0 - 73	145	174	12 - 30 VDC	PNP	-	1.5" Tri-Clamp	US08516
0 - 73	145	174	12 - 30 VDC	PNP	-	2" Tri-Clamp	US08515
0 - 73	145	174	12 - 30 VDC	Relay	-	1/2" NPT	US08555
0 - 73	145	174	12 - 30 VDC	Relay	4 - 20 mA	1/2" NPT	US08553
0 - 73	145	174	ASi powered	ASi + Relay	-	1/2" NPT	US08554
0 - 73	145	174	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1/2" NPT	US08552
0 - 73	145	174	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1.5" Tri-Clamp	US08514
0 - 73	145	174	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	2" Tri-Clamp	US08513
0 - 145	290	363	12 - 30 VDC	NPN / PNP	-	1/2" NPT	US08551
0 - 145	290	363	12 - 30 VDC	NPN	-	1/2" NPT	US08550
0 - 145	290	363	12 - 30 VDC	PNP	-	1/2" NPT	US08549
0 - 145	290	363	12 - 30 VDC	PNP	-	1.5" Tri-Clamp	US08424
0 - 145	290	363	12 - 30 VDC	PNP	-	2" Tri-Clamp	US08423
0 - 145	290	363	12 - 30 VDC	Relay	-	1/2" NPT	US08548
0 - 145	290	363	12 - 30 VDC	Relay	4 - 20 mA	1/2" NPT	US08546
0 - 145	290	363	ASi powered	ASi + Relay	-	1/2" NPT	US08547
0 - 145	290	363	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1/2" NPT	US08545
0 - 145	290	363	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1.5" Tri-Clamp	US08530
0 - 145	290	363	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	2" Tri-Clamp	US08529
0 - 290	580	725	12 - 30 VDC	NPN / PNP	-	1/2" NPT	US08544
0 - 290	580	725	12 - 30 VDC	NPN	-	1/2" NPT	US08543
0 - 290	580	725	12 - 30 VDC	PNP	-	1/2" NPT	US08542
0 - 290	580	725	12 - 30 VDC	PNP	-	1.5" Tri-Clamp	US08528
0 - 290	580	725	12 - 30 VDC	PNP	-	2" Tri-Clamp	US08527
0 - 290	580	725	12 - 30 VDC	Relay	-	1/2" NPT	US08541
0 - 290	580	725	12 - 30 VDC	Relay	4 - 20 mA	1/2" NPT	US08539
0 - 290	580	725	ASi powered	ASi + Relay	-	1/2" NPT	US08540
0 - 290	580	725	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1/2" NPT	US08538
0 - 290	580	725	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1.5" Tri-Clamp	US08526
0 - 290	580	725	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	2" Tri-Clamp	US08525
0 - 725	1450	1740	12 - 30 VDC	NPN / PNP	-	1/2" NPT	US08537
0 - 725	1450	1740	12 - 30 VDC	NPN	-	1/2" NPT	US08536
0 - 725	1450	1740	12 - 30 VDC	PNP	-	1/2" NPT	US08535
0 - 725	1450	1740	12 - 30 VDC	PNP	-	1.5" Tri-Clamp	US08524
0 - 725	1450	1740	12 - 30 VDC	PNP	-	2" Tri-Clamp	US08523
0 - 725	1450	1740	12 - 30 VDC	Relay	-	1/2" NPT	US08534
0 - 725	1450	1740	12 - 30 VDC	Relay	4 - 20 mA	1/2" NPT	US08532
0 - 725	1450	1740	ASi powered	ASi + Relay	-	1/2" NPT	US08533
0 - 725	1450	1740	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1/2" NPT	US08531
0 - 725	1450	1740	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	1.5" Tri-Clamp	US08522
0 - 725	1450	1740	12 - 30 VDC	4 - 20 mA + Relay	4 - 20 mA	2" Tri-Clamp	US08521

* Plugs included with part number

Accessories and Fittings for Type 8311

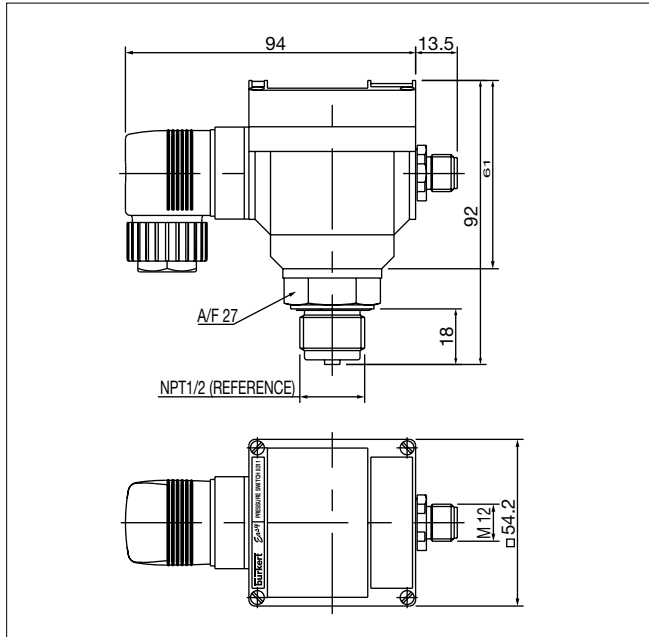
M12 female cable connector with plastic threaded locking ring	917 116 D
5 pin M12 female connector molded on cable (2 m., shielded)	438 680 F
8 pin M12 female connector molded on cable (2 m.)	444 800 E
2 pin M12 female coupler module for ribbon cable (AS-Interface version only)	440 653 M
S005 INLINE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

"All-In-One" Pressure Transmitter/Switch

For Easy ON/OFF Control

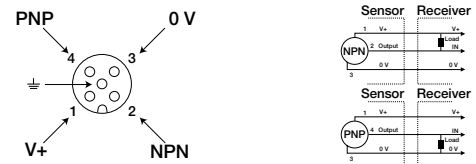
Type 8311

Dimensions [mm]

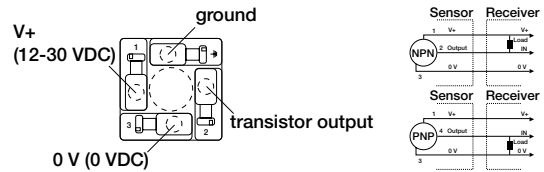


Electrical Connections

Transistor version NPN/PNP

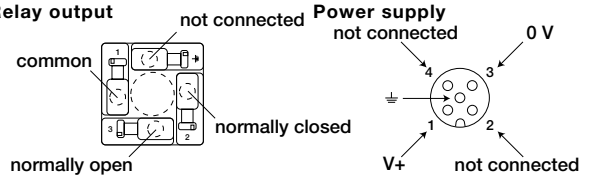


Transistor version NPN or PNP with cable plug 2508



Relay version

Relay output



Relay version with external set point and process valve

