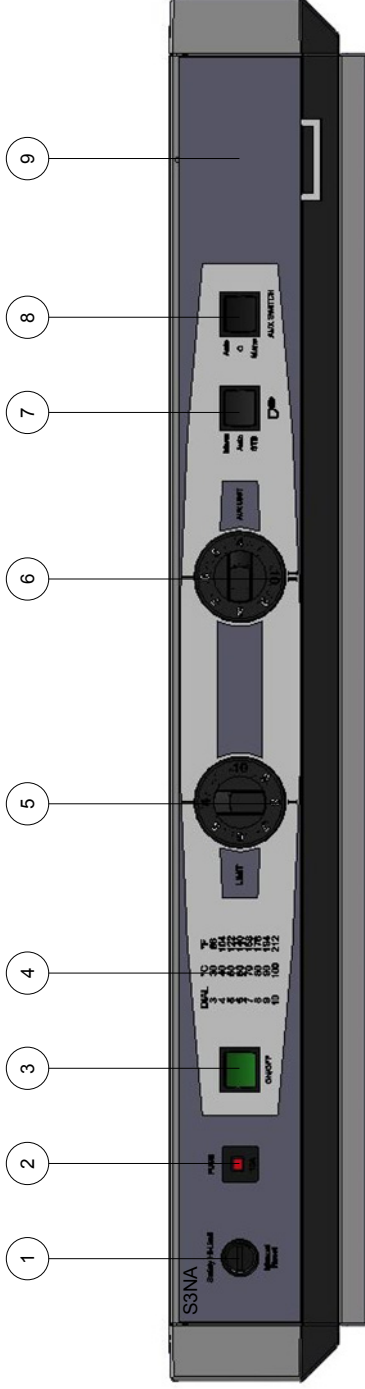


De Dietrich Cast Iron Boiler Temperature Controller Model S3NA (standard version) OVERVIEW OF COMPONENTS



- ① Safety Hi-Limit (Manual Reset) Fixed Setting 120°C [248°F]
- ② Panel fuse protection (resettable-breaker) 250v 10A rated
- ③ Main ON/OFF Switch
- ④ Operating limits dial conversion
- ⑤ Limit adjustable 40-100°C [104-212°F]
- ⑥ Aux Limit adjustable 40-100°C [104-212°F] optional usage, for 2 stage control (L-H-L) or additional operating limit, additional relay required not provided
- ⑦ Man/Auto/STB 3 position operating switch:
Man = Local panel operation
Auto = Remote control operation – separate operating control required.
STB = Testing Safety limit function
- ⑧ Aux Switch – Optional usage (not part of safety circuit) consult factory for appropriate use and applications.
- ⑨ Provisional panel knockout for optional digital control offering (consult factory for availability)



WARNING – ATTENTION:

All replacement and field wiring min 18awg. Type TEW or 1015 CSA/UL approved.

It is the sole responsibility of the installer/owner that the controls are operating correctly

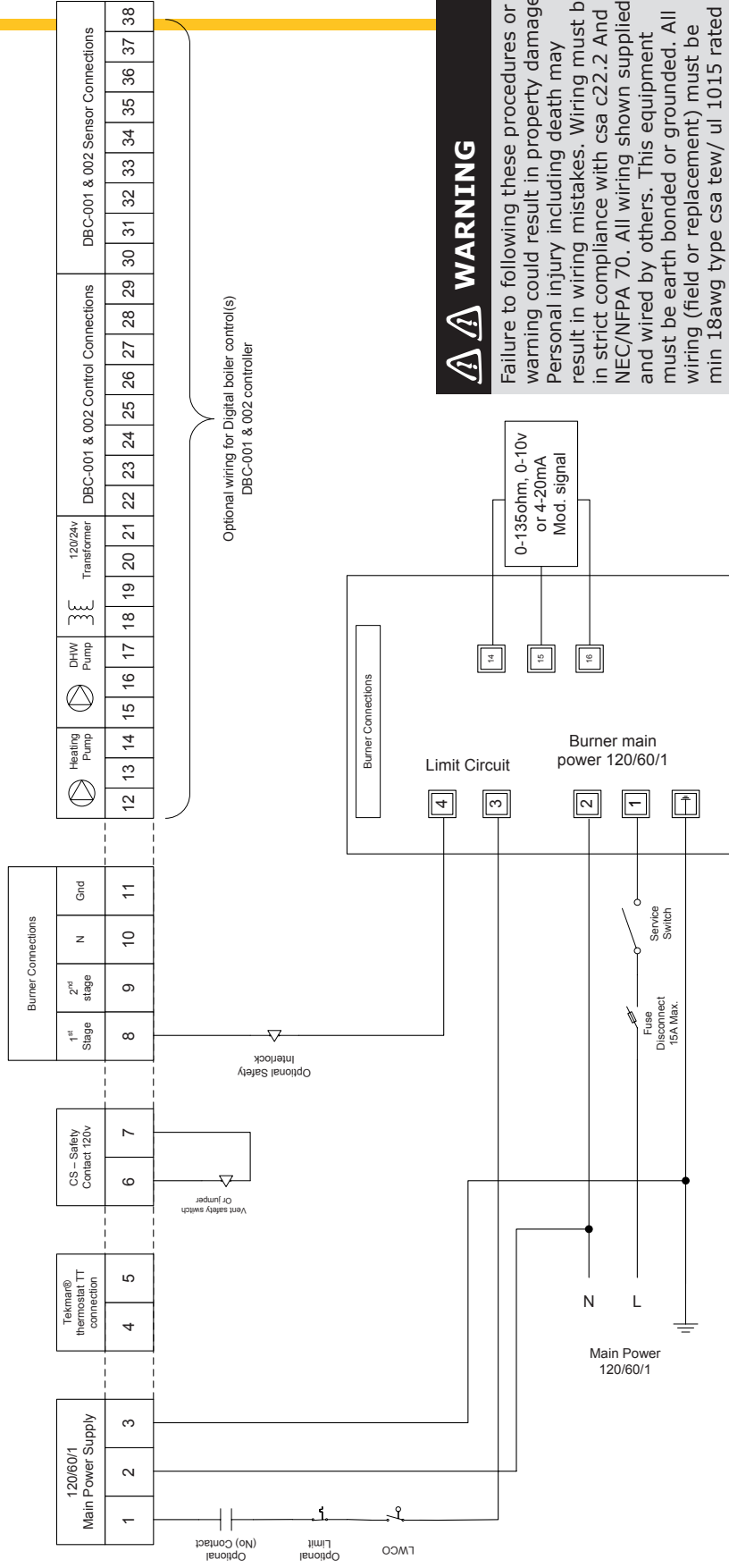
Wiring mistake can lead to personal injury (including death) or property damage. Mark all wires when prior to servicing or replacing wires or components.

All water piping shall be arranged to avoid spray or ingestion of water on control

Do not operate control if ingested or damaged by water. Do not attempt to repair, lockout and tag equipment replace control immediately.

Revisions		Description		Standard De Dietrich GT 330A-430A-530A Series cast iron boiler temperature controller S3NA Panel	
Date	Initial	Description	Initial	Material	Material
01/05/09	CJH	ADDED PANEL MODEL #	CJH	none	none
				none	none
				Scale	File Name
				Units	Date [mm/dd/yy]
				2	none
				none	4-343-S3V-001
				none	08/12/09

**Panel Application Wiring
Full Modulating Operation**

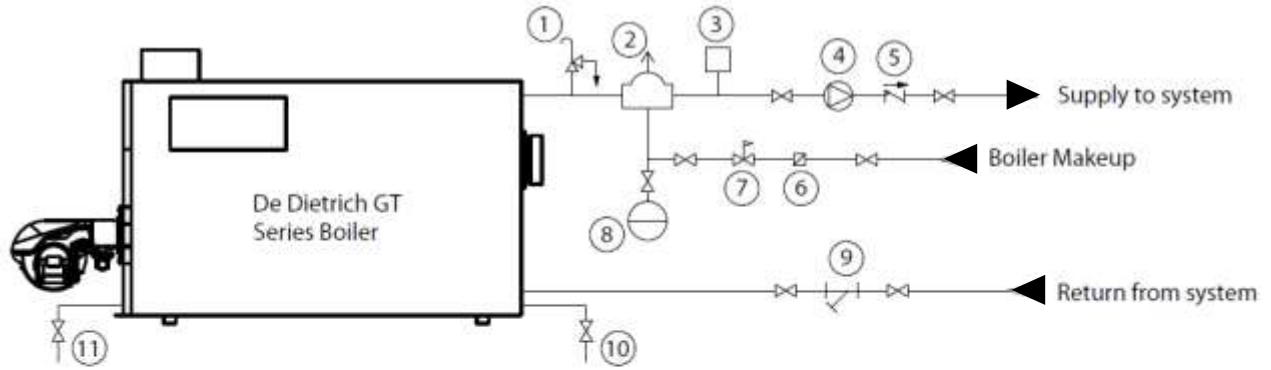


WARNING

Failure to following these procedures or warning could result in property damage. Personal injury including death may result in wiring mistakes. Wiring must be in strict compliance with csa c22.2 And NEC/NFPA 70. All wiring shown supplied and wired by others. This equipment must be earth bonded or grounded. All wiring (field or replacement) must be min 18awg type csa tew/ ul 1015 rated 105°c or an approved equivalent. All wiring and panels must be shielded from spray or ingestion of water. Any portion of the control which has been subject to spray or ingestion of water, the entire control must be replaced. It is the responsibility of the installer/owner to verify the controls are functioning correctly and are adjusted correctly. Suitable wire protection and strain reliefs are required (upstream & downstream) of the control panel.

- Line voltage wiring and low voltage sensor wiring must use separate wire conduits.
- Label all wires prior to disconnecting them for service.

—	All field wiring shown by others
1	Burner terminals
1	Boiler panel terminals



- | | |
|---|----------------------------------|
| ① ASME rated pressure relief valve | ⑦ Pressure regulating valve |
| ② Air separator with automatic air vent | ⑧ Diaphragm style expansion tank |
| ③ Low water cut off | ⑨ Strainer |
| ④ Circulating Pump | ⑩ Drain valve |
| ⑤ Flow check valve | ⑪ Sludge removal flush valve |
| ⑥ Back flow preventer | |

Low Water Cut-Offs – Electronic For Hot Water and Steam Boilers

Series 751P/752P



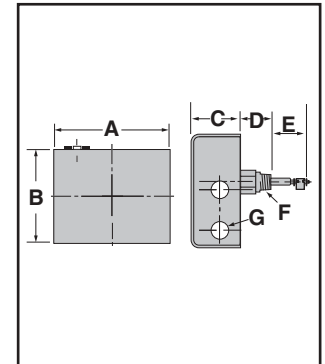
- For commercial or industrial applications
- Primary or secondary control on hot water boilers
- Secondary control (manual reset models only) on steam boilers
- Manual reset models meet the requirements of **ASME Standard CSD-1**. If the control is in a low water condition when there is an interruption of power, the control will remain in a low water condition when power is restored. The reset button will need to be pressed when the water level is restored to a level above the probe to allow the burner to fire.

Standard Features

- Green power in on indicating LED
- Red low water indicating LED
- Test button
- No lock out with loss of power if probe is in water
- 20,000 ohms sensitivity

Electrical Ratings

Model	Control Voltage	Switch Contact Rating (Pilot Duty)
752P-MT-24	24VAC	50VA@24VAC Or 125VA@120VAC
752P-MT-U-24		
752P-MT-SP-24		
751P-MT-120	120VAC	50VA@24VAC Or 125VA@120VAC
751P-MT-U-120		
751P-MT-SP-120		



Probe Specifications

- Maximum Steam Pressure:** 15 psi (1.0 kg/cm²)
- Maximum Water Pressure:** 160 psi (11.2 kg/cm²)
- Maximum Water Temperature:** 250°F (121°C)

Control Unit

Temperature Ratings:

- Storage: -40°F to 135°F (-40°C to 57°C)
- Ambient: 32°F to 135°F (0°C to 57°C)

Humidity: 85% (non-condensing)

Electrical Enclosure Rating: NEMA 1 General Purpose

Hz: 50/60

Control Power Consumption: 3 VA (max.)

Ordering Information

Model Number	Part Number	Description	Weight lbs. (kg)
752P-MT-24	176296	LWCO - 24V w/standard probe	2.5 (1.1)
752P-MT-U-24	176298	LWCO - 24V w/ext. barrel probe ('U')	2.5 (1.1)
752P-MT-SP-24	176297	LWCO - 24V w/short probe ('SP')	2.5 (1.1)
751P-MT-120	176234	LWCO - 120V w/standard probe	2.5 (1.1)
751P-MT-U-120	176214	LWCO - 120V w/ext. barrel probe ('U')	2.5 (1.1)
751P-MT-SP-120	176295	LWCO - 120V w/short probe ('SP')	2.5 (1.1)

Dimensions, in. (mm)

A	B	C	D			E		F	G
			Std.	SP	U	All	U		
6 ³ / ₈ (162)	5 ¹ / ₈ (130)	2 ⁹ / ₁₆ (65)	1 ⁹ / ₁₆ (40)	3 ¹ / ₁₆ (78)	3 ¹ / ₁₆ (78)	3 ¹ / ₁₆ (78)	2 ¹ / ₈ (54)	³ / ₄	³ / ₄ (20)



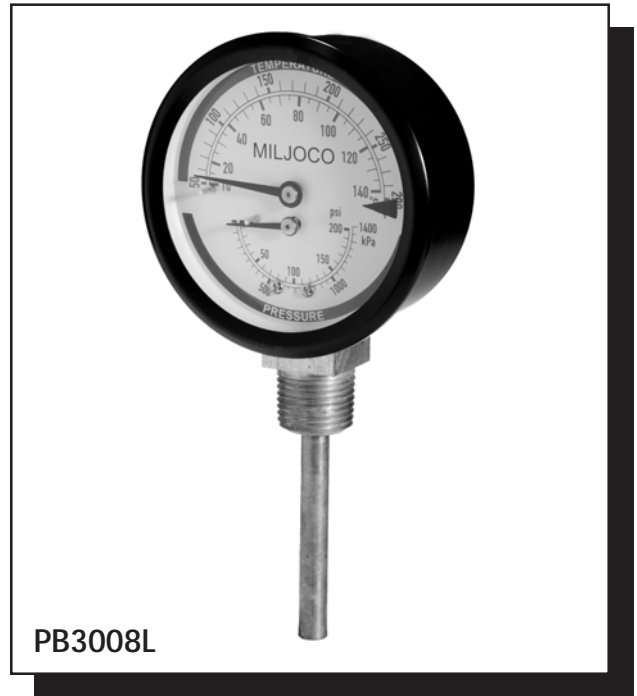
PRESSURE/TEMPERATURE GAUGE

Rear or Lower Connection

The Miljoco Models PB3008L & PB3008 dual indicating pressure/temperature gauges, or commonly referred to as "tridicators", combine the value of an individual pressure gauge and thermometer in one instrument. They are the ideal choice for boilers and other hot water applications where space limitations and installation costs are a consideration. These instruments contain both a bourdon tube assembly to indicate pressure, and a bimetal coil assembly to indicate temperature in both Fahrenheit and Celsius. **WARNING: Not suitable for steam service.**

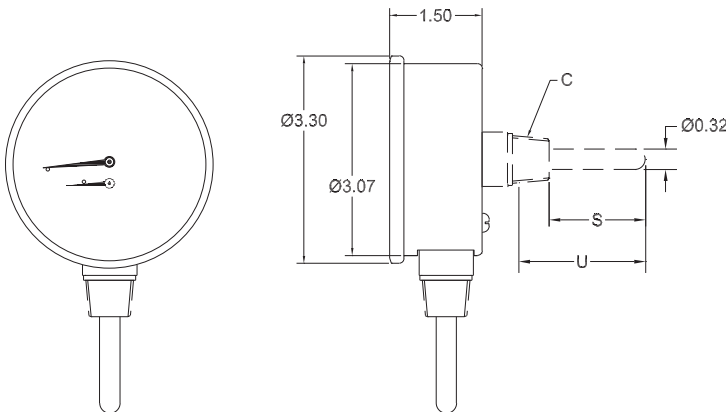
General Specifications

- CASE:** Drawn steel, black finished.
- RING:** Crimped drawn steel, black finished.
- LENS:** Glass.
- DIAL:** Aluminum, white finished with red temperature and blue pressure markings.
- POINTERS:** Aluminum, black non-adjustable.
- MOVEMENT:** Brass.
- BOURDON TUBE:** Phosphor bronze.
- CONNECTION:** See table below.
- STEM:** Brass, Ø 0.320".
- ACCURACY:** Pressure scale: ±3-2-3%,
Temperature scale: ±One scale division.
- AMBIENT TEMPERATURE:** -40 to 250°F (-40 to 120°C).



PB3008L

Dimensions (in.)



Model	Outlet	Stem/Connection Size*		U	S
		Code	Size (C)		
PB3008	Back	1-25	¼" NPT	1.32	1.00
		2-25	¼" NPT	3.23	2.98
		2-50	½" NPT	3.00	2.60
		2-25E	¼" NPT w/Ext.	1.32	1.00
PB3008L	Bottom	2-50	½" NPT	2.80	2.36

*Other stem length and connections available - consult factory.

Ranges

Code	Pressure Range	Temperature Range	psi Scale		kPa Scale		°F Scale		°C Scale	
			Fig.	Div.	Fig.	Div.	Fig.	Div.	Fig.	Div.
04	0-60 psi/ 0-400 kPa	50 to 290°F/ 10 to 140°C	10	2	100	20	40	5	20	2
21	0-75 psi/ 0-500 kPa	50 to 290°F/ 10 to 140°C	15	2.5	100	20	40	5	20	2
05	0-100 psi/ 0-700 kPa	50 to 290°F/ 10 to 140°C	25	5	250	25	40	5	20	2
07	0-200 psi/ 0-1400 kPa	50 to 290°F/ 10 to 140°C	50	10	500	50	40	5	20	2

To Order

PB3008

Model Number

07

Range
Code

2-50

Stem/Connection
Size





10-600 SERIES

ASME HOT WATER SAFETY RELIEF VALVE

Job Name:	Contractor:
Job Location:	P.O. Number:
Engineer:	Representative:
Tag:	Wholesale Distributor:

DESCRIPTION

ASME Section IV capacity certified bronze safety relief valve for protection of hot water heating boilers, systems and similar equipment.

FEATURES

- ASME Section IV Certified Capacity
- 15-160 psig Set Pressures @ 250F max
- Corrosion Resistant Construction
- Diaphragm Isolated Spring Chamber
- High Capacity Option
- Directive 97/23/EC (PED) Compliance
- MADE IN THE USA

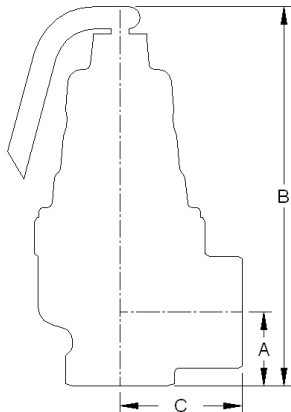
MATERIALS

Body: ASTM B584 Bronze
 Spring: Alloy Steel, plated
 Seat: Silicone

CAPACITIES, BTU/Hr

Standard Discharge Port					
PSIG	3/4"	1"	1-1/4"	1-1/2"	2"
	10604	10605	10606	10607	10608
30	827000	1339000	2316000	3151000	5193000
150	3116000	5044000	8725000	11871000	19565000

Oversized Discharge Port (High Capacity)					
PSIG	3/4"	1"	1-1/4"	1-1/2"	2"
	10614	10615	10616	10617	10618
30	970000	1570000	2716000	3696000	6091000
150	3655000	5916000	10234000	139230000	229470000



ORDER NUMBER

MODEL – SUFFIX

EX: 1061407 (3/4" X 1" 40 PSIG SET PRESSURE)

PSIG	Suffix	PSIG	Suffix	PSIG	Suffix
15	01	65	13	115	23
20	02	70	14	120	24
25	04	75	15	125	25
30	05	80	16	130	30
35	06	85	17	135	31
40	07	90	18	140	32
45	09	95	19	145	33
50	10	100	20	150	34
55	11	105	21	155	35
60	12	110	22	160	36

DIMENSIONS

MODEL #	SIZE, FNPT x FNPT	A	B	C
10604	3/4 x 3/4	1.03	5.25	1.70
10614	3/4 x 1	(26)	(134)	(43)
10605	1 x 1	1.25	6.69	2.00
10615	1 x 1-1/4	(32)	(170)	(51)
10606	1-1/4 x 1-1/4	1.25	8.38	2.44
10616	1-1/4 x 1-1/2	(32)	(213)	(62)
10607	1-1/2 x 1-1/2	2.00	10.75	2.75
10617	1-1/2 x 2	(51)	(273)	(70)
10608	2 x 2	2.19	14.00	3.69
10618	2 x 2-1/2	(56)	(356)	(94)

All dims in inches (mm)

APPROVALS



Canadian Registration Number 0G8547.5C

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