

Алматы (7273)495-231	Иваново (4932)77-34-06	Магнитогорск (3519)55-03-13	Пермь (342)205-81-47	Тверь (4822)63-31-35
Ангарск (3955)60-70-56	Ижевск (3412)26-03-58	Москва (495)268-04-70	Ростов-на-Дону (863)308-18-15	Тольятти (8482)63-91-07
Архангельск (8182)63-90-72	Иркутск (395)279-98-46	Мурманск (8152)59-64-93	Рязань (4912)46-61-64	Томск (3822)98-41-53
Астрахань (8512)99-46-04	Казань (843)206-01-48	Набережные Челны (8552)20-53-41	Самара (846)206-03-16	Тула (4872)33-79-87
Барнаул (3852)73-04-60	Калининград (4012)72-03-81	Нижний Новгород (831)429-08-12	Саранск (8342)22-96-24	Тюмень (3452)66-21-18
Белгород (4722)40-23-64	Калуга (4842)92-23-67	Новокузнецк (3843)20-46-81	Санкт-Петербург (812)309-46-40	Ульяновск (8422)24-23-59
Благовещенск (4162)22-76-07	Кемерово (3842)65-04-62	Ноябрьск (3496)41-32-12	Саратов (845)249-38-78	Улан-Удэ (3012)59-97-51
Брянск (4832)59-03-52	Киров (8332)68-02-04	Новосибирск (383)227-86-73	Севастополь (8692)22-31-93	Уфа (347)229-48-12
Владивосток (423)249-28-31	Коломна (4966)23-41-49	Омск (3812)21-46-40	Симферополь (3652)67-13-56	Хабаровск (4212)92-98-04
Владикавказ (8672)28-90-48	Кострома (4942)77-07-48	Орел (4862)44-53-42	Смоленск (4812)29-41-54	Чебоксары (8352)28-53-07
Владимир (4922)49-43-18	Краснодар (861)203-40-90	Оренбург (3532)37-68-04	Сочи (862)225-72-31	Челябинск (351)202-03-61
Волгоград (844)278-03-48	Красноярск (391)204-63-61	Пенза (8412)22-31-16	Ставрополь (8652)20-65-13	Череповец (8202)49-02-64
Вологда (8172)26-41-59	Курск (4712)77-13-04	Петрозаводск (8142)55-98-37	Сургут (3462)77-98-35	Чита (3022)38-34-83
Воронеж (473)204-51-73	Курган (3522)50-90-47	Псков (8112)59-10-37	Сыктывкар (8212)25-95-17	Якутск (4112)23-90-97
Екатеринбург (343)384-55-89	Липецк (4742)52-20-81		Тамбов (4752)50-40-97	Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

www.delta-mobrey.nt-rt.ru | | dye@nt-rt.ru

Технические характеристики на на электронные системы мониторинга воды и пара Hydratest 2462, регуляторы уровня воды Hydraster 2468 компании **Delta Mobrey**

Hydratect 2462

Steam and Water detection

Key Features

- Highly reliable solution for water detection in steam lines
- Two channels, for use with two electrode inputs
- LED status indication, relay status output
- LED fault indication, relay fault output
- No fault can go undetected
- Contamination indication for preventative maintenance
- For use to 560 °C (1040 °F) and 300 Bar (4350 PSI)
- FM approved for boiler level control

Series Overview

The Hydratect electronic water and steam detection system is designed as an electronic alternative to conventional water level switches for steam raising plant.

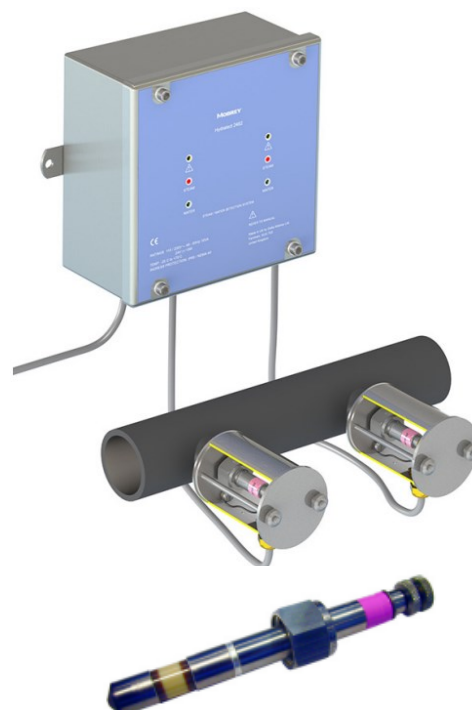
It can be used in a wide variety of situations wherever the detection of water or steam is vital for safe and efficient plant operation. The Hydratect 2462 control unit provides signal processing for two electrodes. Each channel monitors the status of its associated electrode. Four conductors are used between the control unit and each electrode so it can differentiate between steam, water, short-circuit and open-circuit.

A green LED indicates water, a red LED indicates steam, and an amber LED indicates a fault condition. Each channel has a status relay to indicate water or steam, and a fault relay which will de-energise on a fault condition. The two channels are completely independent having separate power supplies, signal processing and fault detection. The relay outputs can be externally wired for a 'one out of two' or 'two out of two' tripping scheme.

Other products

Other products we can offer :

- Hydrastep for water and steam detection
- Boiler Level Controls
- D Series Differential Pressure transmitter



Product applications

- An electronic alternative to mechanical float level switches
- Drain or condensate pots level detection
- TWIP (Turbine Water Induction Protection)
- As part of an ASME TDP1 compliant system
- Steam drum or de-aerator drum high and low level alarms or trips

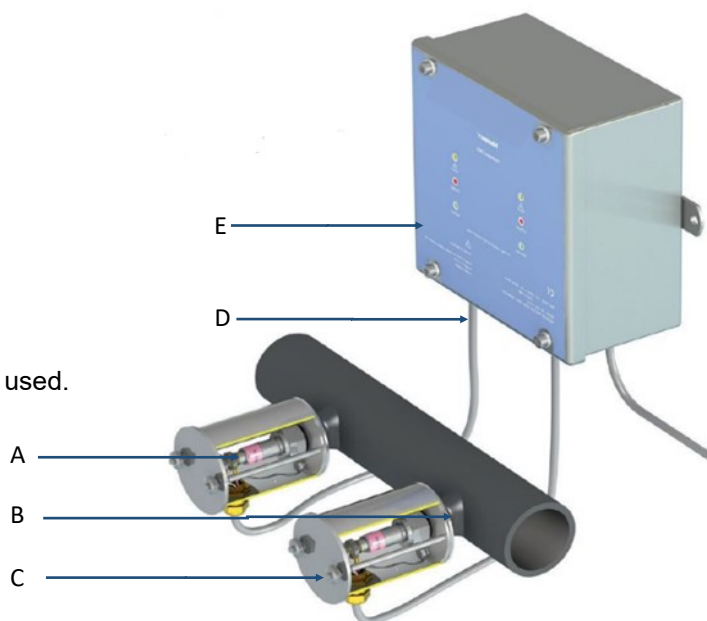
Hydratect 2462: How to order

A two channel Hydratect is a system comprised of

- A) A pair of Electrodes
- B) A pair of inserts (or an optional manifold)
- C) A pair of protective covers
- D) A pair of cables
- E) A single control unit

Alternatively, a single channel system can also be used.

Please use the tables below to configure a system to suit your needs. Contact our Sales engineers if support is needed.



A) How to order Electrodes

The electrode must be selected to match the application conditions. Refer to the tables below.

2	4	6	7	8	5	*
---	---	---	---	---	---	---

Electrode part number
Table 1

Electrodes

TABLE 1

2	4	6	7	8	5	*
---	---	---	---	---	---	---

Description	Code
Super critical electrode, Swagelok style union (gasket not required) Maximum pressure 300 bar, maximum temperature 560°C, ZTA insulator, $\frac{7}{8}$ " thread, pH range 7-11	A
Super critical electrode, Swagelok style union (gasket not required) Maximum pressure 210 bar, maximum temperature 370°C, Zirconia insulator, $\frac{7}{8}$ " thread, pH range 7-11	Z

B) How to order inserts

Inserts are needed when installing electrodes into pipework. One insert is needed for each electrode. Inserts are SS316, with $\frac{7}{8}$ " thread and are suitable for 300 bar and 560°C

Electrode insert

Description	Code
Electrode insert (one needed for each electrode)	24673540B

C) How to order Electrode Covers

Covers are held in place by the electrode, and protect the electrode from damage
Covers are Stainless Steel with an M16 gland

Electrode cover

Description	Code
Electrode cover (one needed for each electrode)	24670118A


D) How to order Cables

High temperature resistant multicore cables. Once cable is needed for each electrode.
One end fitted with ring crimps for connecting to electrodes, the other end unterminated for cutting to required length.

Cable
Table 1

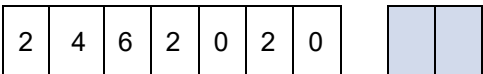
Length
Table 2

Electrode cable

TABLE 1	
---------	--

Description	Code
Hydratect 4 core cable (one cable needed for each electrode)	2462020

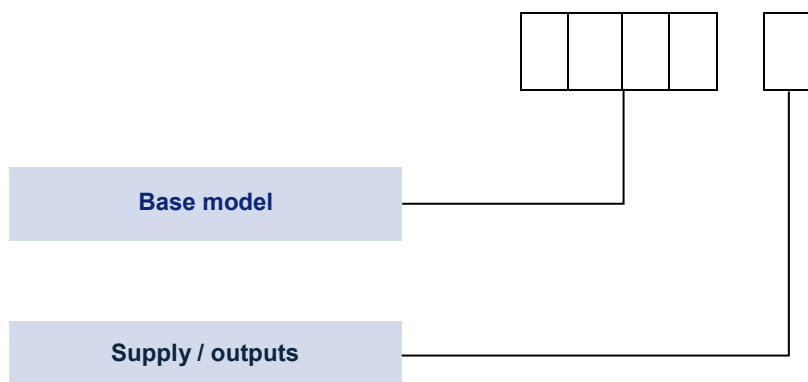
Cable length

TABLE 2	
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Description	Code
3 metre (10 ft) 4-core cable	4A
10 metre (33 ft) 4-core cable (for up to 8 electrodes)	5A
18 metre (60 ft) 4-core cable (for up to 8 electrodes)	6A
30 metre (98 ft) 4-core cable	7A

E) How to order a Control Unit

The control unit is configured by selecting codes for power supplies and relays



Base model

TABLE 1

--	--	--	--	--

Description

Code

Hydrastep Control Unit

2462

Configuration

TABLE 2

--	--	--	--	--

Description

Code

Two channel steam / water detection control unit
AC mains supply, Single Pole Single Throw relay output

A

Two channel steam / water detection control unit
24VDC mains supply, Single Pole Single Throw relay output

C

Two channel steam / water detection control unit
AC mains supply, Two Pole changeover relay outputs

E

Installation Accessory

Accessory

Code

Electrode thread anti-seize compound (recommend one per water column)

830007220

Technical Specification	
General	
Water / Steam Threshold	0.6 µS/cm (normal) or 1.6 µS/cm (alternate) according to water purity
Display	
Integral display	Red LED to indicate steam Green LED to indicate Water Amber LED to indicate fault
Electrical	
Power supply	AC: 94 to 130V or 187 to 256V, 48 to 65 Hz, 2 x 10VA maximum DC: 20 to 60V, 2 x 10W maximum
Status relay output (one for each channel)	Water normal: Energised in Water Water normal: Energised in Steam Separate normally open and normally closed relay contacts: Maximum voltage: 250VAC, 125DC Maximum current: 8A Maximum switching power (AC): 1500VA Maximum switching power (DC): 240W <30V, 65W <60V, 25W <125V
Fault relay output (one for each channel)	Energised during normal operation (fail safe) <i>Specification as status relay output above</i>
Mechanical	
Enclosure	Stainless steel, grade 304, wall mounting (refer to dimensional drawing)
	IP65 / NEMA 4X
	190mm x 190mm x 90mm (7.5 in. x 7.5 in. x 3.5 in.)
Weight	2.8 kg (6.2 lb)
Environment	
Operating temperature	-20 to + 70 °C (–4 to 158 °F)
Operating pressure	Inserts and electrodes up to 300 bar
Relative Humidity	Up to 100%
Approvals	
FM	Approved for steam-system water detection
LVD	EN 61010-1
Pressure Equipment Directive	Safety accessory
Electromagnetic Compatibility	EN 61326-1
ATEX	II 3 G Ex ec [ic] IIC (-20°C ≤ Ta ≤ +70°C)

Approvals

EUROPEAN DIRECTIVES

Electromagnetic Compatibility Directive (EMC) 2014/30/EU

Compliant to EMC directive

Low Voltage Directive (LVD) 2014/35/EU

Compliant to LVD directive

Pressure Equipment Directive (PED) 2014/68/EU:

This product is categorised as a Safety Accessory

Certificate no. IES / CAT000530347-B1-4



ATEX Directive 2014/34/EU

NON SPARKING

EN 60079-0, EN IEC 60079-7, EN 60079-11

II 3 G Ex ec [ic] IIC (-20°C ≤ Ta ≤ +70°C)

Certificate no. DML 22ATEX4103X

FM

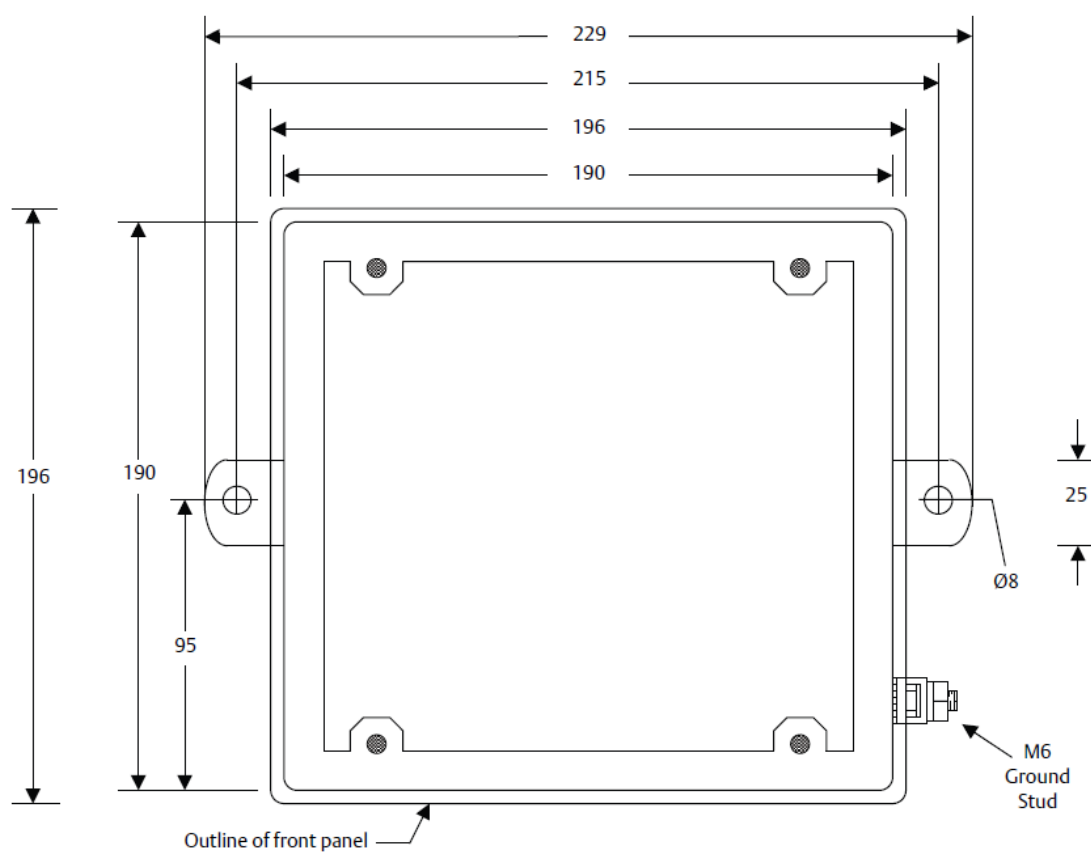
FM 7710

Approved for boiler water-level control

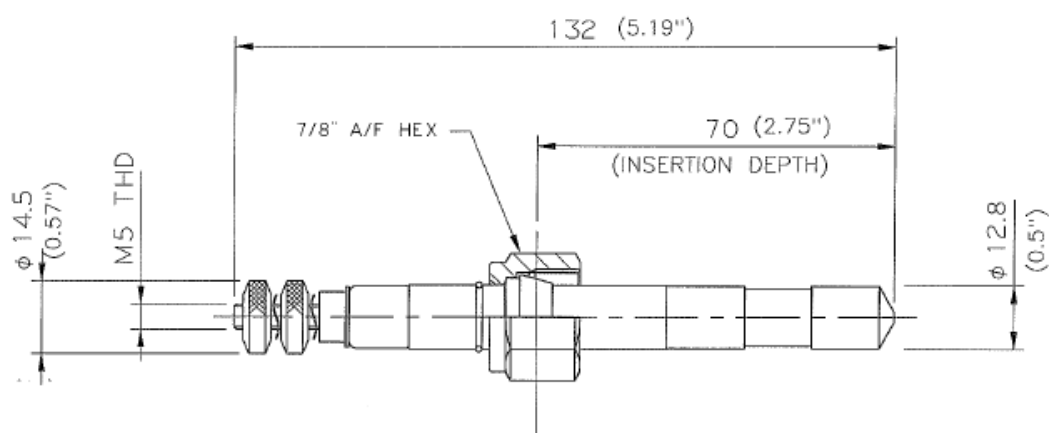
Dimension Drawing

Hydratect enclosure

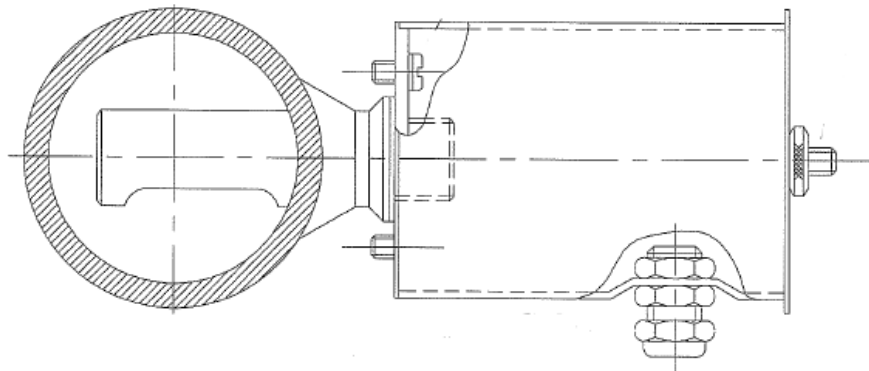
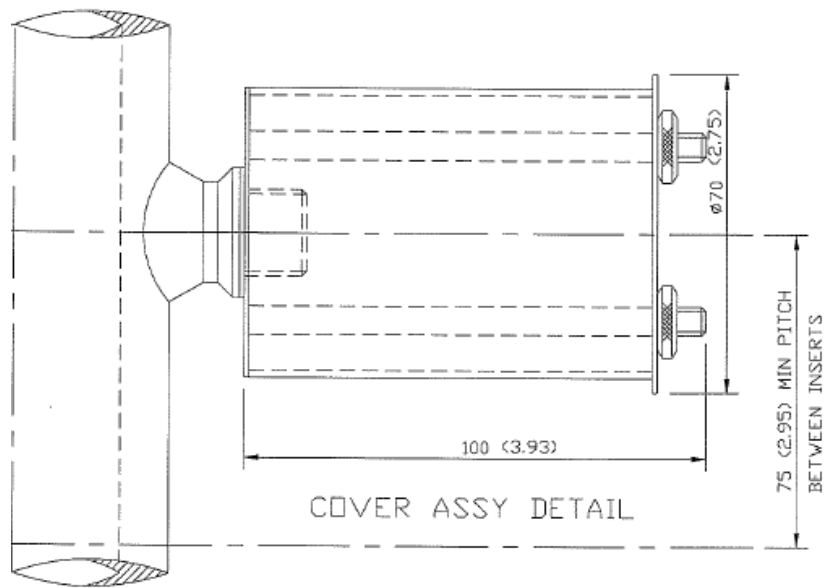
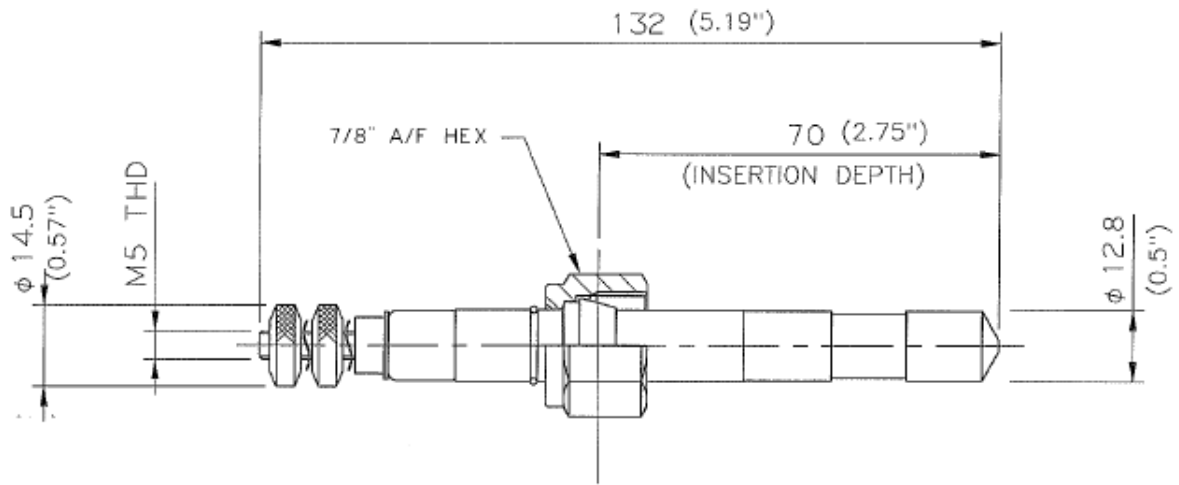
Dimensions are in mm.



Overall depth = 100 mm (case and panel) + 3 mm (bracket) + 4.5 mm (bolt heads and washers)

Electrode 246785*

Installation Drawing

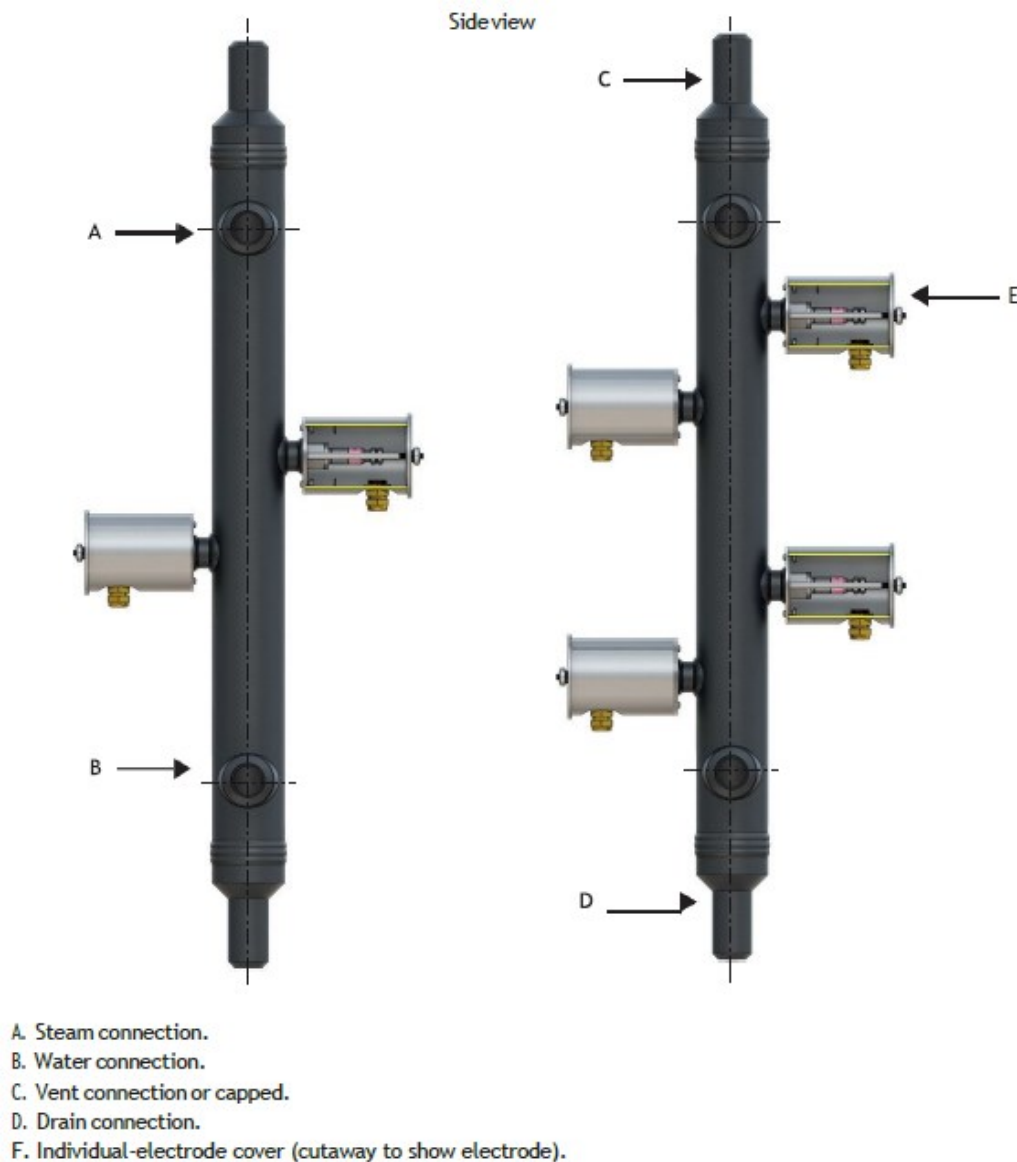


Manifolds

An alternative method of installation is to use a manifold with inserts welded in place to mount the electrodes. These are manufactured to customer requirements. Any number of electrode ports can be used, but typical quantities are 1, 2 or 4.

Designs can be in line, or with side connections. Process connections can be weld prepared or flanged.

Examples with weld prepared side connections are shown below.



Please consult your Sales Office for a design sheet to complete to your requirements.



ISO9001

FM00720

Page 9 of 9

Hydrastep 2468 (SIL 2 capable)

Steam drum level indication

Key Features

- For use with 8 to 32 electrode inputs
- SIL 2 capable for use in a Safety Instrumented Function
- High clarity local and remote displays
- 32 segment green/red display of the water/steam interface level
- 4–20 mA output proportional to water/steam interface level
- Relay output option for high or low level alarms or trips
- Dual redundancy option for ultimate reliability
- Detect and indicate any fault conditions
- Contamination indication for preventative maintenance
- For use to 560 °C (1040 °F) and 300 Bar (4350 PSI)
- PED compliant as a Safety Accessory
- FM approved for boiler control
- Hazardous area approved

Series Overview

The Hydrastep 2468 is the modern day equivalent of the site glass to monitor, display and output the level of the water/steam interface. For use on water tube boiler steam drums and de-aerators, the Hydrastep name has become synonymous with steam drum level measurement and through its evolution has ensured plant safety globally for more than five decades.

Assessed by an external body and found to be SIL 2 capable according to the requirements of IEC 61508. Recognised by boiler inspectors and plant insurers, the ASME approved design ensures Hydrastep can be used as a Remote Level Indicator in compliance with ASME Boiler Code PG60.1.1. Approved by Factory Mutual for boiler level control and recommended within the UK's Combustion Engineering Association's water tube boiler guide BG11.

Other products

Other products we can offer :

- Hydratect for water and steam detection
- Boiler Level Controls
- D Series Differential Pressure transmitter



Product applications

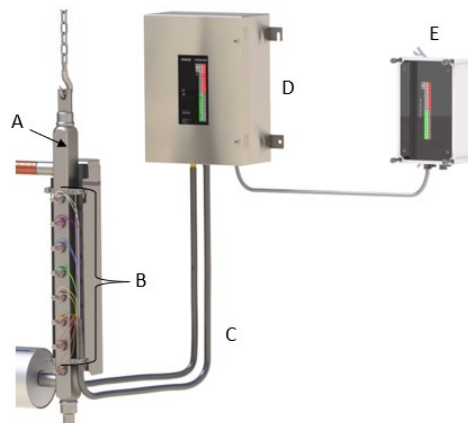
- Electronic gauging system for Water Tube Boilers
- Steam drum or de-aerator drum level monitoring
- Control room level indication
- Level alarms and trips
- 4-20mA output proportional to water/steam interface level
- SIL 2 capable according to IEC 61508
- For use in a Safety Instrumented Function (SIF)
- Part of an ASME PG60.1.1 compliant system
- Recommended within the UK's Combustion Engineering Association's BG11

Hydrastep 2468: How to order

Hydrastep is a system comprised of

- A) a Water Column
- B) a set of Electrodes
- C) one or more Cables
- D) a Control Unit,
- E) an optional Remote Display.

Please use the tables below to configure a system to suit your needs.
Contact our Sales engineers if support is needed need.



A) How to order a Water Column

The water column can be configured by selecting codes representing features from the tables that follow.

For assistance in configuring a water column that best suits your needs, please contact your local sales office

Model
Table 1

Design
Table 2

Column Tap Distance
Table 3

Sight Range
Table 4

Number of Electrodes
Table 5

Models

TABLE 1	<div><div></div><div></div><div></div></div>	<div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>
Description		Code				
Low pressure column, 120 bar max, 343°C max Uses electrode 459600602		120				
High pressure column, 210 bar max, 370°C max Uses electrode 246781ZA		210				
Super critical column, 300 bar max, 560°C max Uses electrode 246785A		300				

Design

TABLE 2	<div><div></div><div></div><div></div></div>	<div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>
Description					Code
Side-arm design (side-side process connections)					No code used
In-line design (top and bottom process connections)					L

Tap Distance

TABLE 3	<div><div></div><div></div><div></div></div>	<div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>
Description					Code
Distance between the centres of the side-side process connections, (or top and bottom connections for 'in-line') in mm or inches					TTTT

Sight Range

TABLE 4	<div><div></div><div></div><div></div></div>	<div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>
Description					Code
Distance between the highest and lowest electrodes (sight range) in mm or inches					SSSS

Number of Ports

TABLE 5	<div><div></div><div></div><div></div></div>	<div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div></div>
Description					Code
Number of electrode ports (must be an even number from 8 to 32)					XX

Prior to placing an order, a Water Column Design Sheet must be completed to capture all the design requirements (consult your sales office).

B) How to order Electrodes

The electrode must be selected to match the water column connection from the table above. Electrodes are selected by part numbers having from 7 to 9 digits. Refer to the tables below.

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Electrode part number
Table 1

Electrodes

TABLE 1

--	--	--	--	--	--	--	--	--	--

Description	Code
Low pressure threaded electrode, M18 thread (includes gasket) Maximum pressure 120 bar, maximum temperature 370°C Zirconia insulator, pH range 7-11	459600602
High pressure electrode, Swagelok style union (gasket not required) Maximum pressure 210 bar, maximum temperature 370°C Zirconia insulator, pH range 7-11	246781ZA
Super critical electrode, Swagelok style union (gasket not required) Maximum pressure 300 bar, maximum temperature 560°C, ZTA insulator, pH range 7-11	246785A

C) How to order Cables

High temperature resistant multicore cables. Refer to the table below. For 8 to 16 electrodes, 2 cables are required. For 18 to 32 electrodes, 4 cables are required

--	--	--	--	--	--	--	--	--	--

Cable
Table 1

Length
Table 2

Electrode cable

TABLE 1

--	--	--	--	--	--	--	--	--	--

Description	Code
Hydrastep multicore electrode cable	2468020

Cable length

TABLE 2

--	--	--	--	--	--	--	--	--	--

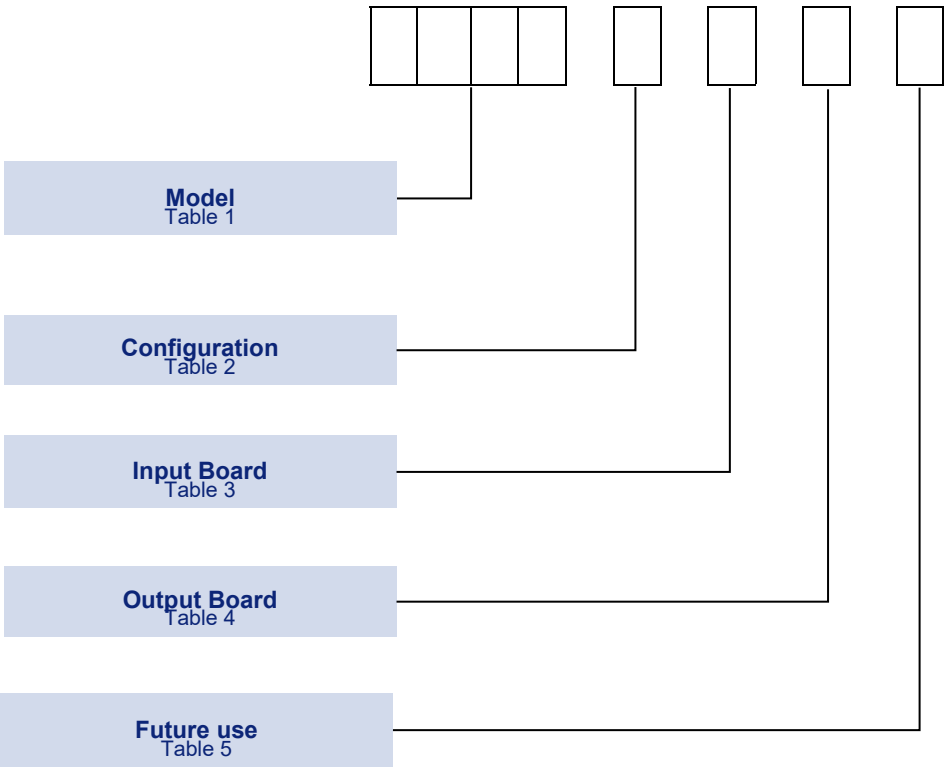
Description	Code
3 metre (10 ft) multicore cable (for up to 8 electrodes)	4A
10 metre (33 ft) multicore cable (for up to 8 electrodes)	5A
18 metre (60 ft) multicore cable (for up to 8 electrodes)	6A
30 metre (98 ft) multicore cable (for up to 8 electrodes)	7A

D) How to order a Control Unit

The control unit can be configured by selecting codes representing the desired features from the tables that follow.

The chart below, describes how the model code is built up. For assistance in configuring a control unit that best suits your needs, please contact your local sales office.

Note: all model options are SIL 2 capable.



Base model

TABLE 1	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>
---------	---	---

Description	Code
Hydrastep Control Unit	2468

Configuration

TABLE 2	<div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div></div>
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Description	Code
Standard Product	C

Input Board(s)

TABLE 3

--	--	--	--	--	--	--	--

Description	Code
Single input board, 8 to 16 electrodes Single a.c. mains power supply	A
Dual input board, 8 to 32 electrodes Dual a.c. mains power supplies	B
Single input board, 8 to 16 electrodes Single 24V d.c. mains power supply	C
Dual input board, 8 to 32 electrodes Dual 24V d.c. mains power supplies	D
Dual input board, 8 to 32 electrodes Single a.c mains & single 24V d.c. mains power supplies	E

Output Board(s)

TABLE 4

--	--	--	--	--	--	--	--

Description	Code
No output board	A
1 relay output board with 4 relays (only for single input board)	B
2 relay output boards with 8 relays, (for single or dual input boards)	C
4 relay output boards with 16 relays (only for dual input boards)	D
1 relay output board with 4 time delay relays (only for single input board)	E
2 relay output boards with 8 time delay relays (for single or dual input boards)	F
4 relay output boards with 16 time delay relays (only for dual input boards)	G

For future use

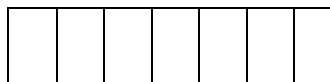
TABLE 5

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Description	Code
Special option	D

E) How to order remote Displays

Up to six remote displays can be used with one controller. One remote display can be powered from the controller, but any further displays must be powered by a local supply (nominal 24Vdc)



Remote display part number
Table 1

Remote displays

TABLE 1



Description

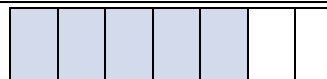
Code

Remote display for use with Hydrastep 2468 systems

24683

Installation

TABLE 1



Description

Code

32 LED remote display, small panel mount
(DIN 43700 / IEC 61554)

BB

32 LED remote display, large panel mount
(DIN 43700 / IEC 61554)

C

32 LED remote display,
IP65 wall mount

D

Installation Accessory	
Accessory	Code
Electrode thread anti-seize compound (recommend one per water column)	830007220

Spares and Replacement Parts	
Controller parts	Code
Accessory Kit (ac supply input boards) A complete set of connectors, links and fuses as supplied with the controller	24680233AVV
Accessory Kit (dc supply input boards) A complete set of connectors, links and fuses as supplied with the controller	24680234AVV
Spare or expansion 220/110 Vac input board (for 16 electrode inputs)	24680501CVV
Spare or expansion 24Vdc input board (for 16 electrode inputs)	24680516BVV
Spare display board	24680515BVV
Spare or expansion relay board	24680504CVV
Spare or expansion time delay relay board	24680509BVV
Fuse: 200mA for 220Vac operation	K9634
Fuse: 400mA for 110Vac operation	K9635
Fuse: 1.25A for 24Vdc operation	360190320
Water column	Code
Low pressure electrode spare gasket (for electrode 459600602)	470112950
Low pressure blanking plug	24569A
High pressure blanking plug	450600880
Recommended Spares Start-Up and Commissioning: for each Hydrastep system it is recommended to have: <ul style="list-style-type: none"> • quantity of 25% spare electrodes per water column • a complete set of spare gaskets for low pressure electrodes • two spare fuses according to the input board supply voltage For two years operation it is recommended to have: <ul style="list-style-type: none"> • quantity of 100% spare electrodes per water column • a complete set of spare gaskets for all low pressure electrodes • two spare fuses according to the input board supply voltage • one spare input board per three systems (two for dual input controllers) • one spare display board per three systems • one spare relay board per three systems • spare electrode cable, same length as ordered Note: contact your local Delta Mobrey sales office for local service support in your area	

Technical Specification

Water columns – all models

Process connections	Flanged or weld prepared (refer to design sheet for options)
Electrode ports	From 8 to 32
Design code	ASME B31.1 power piping
Manufacture and test	In accordance with ASME Boiler and Pressure Vessel Code, Section 1
Material certification	In accordance with BS EN10204 3.1
Test pressure	1.5 x design pressure
Maximum length	3500mm (138 inches)
Protective covers	18 SWG (17 AWG) stainless steel

Low Pressure Systems: Maximum 120 bar and 343 deg C

Low Pressure Water columns 120-TTTT-SSSS-XX		Low Pressure Electrodes 459600602	
Design Pressure	120 bar (1740 psi)	Design Pressure	120 bar (1740 psi)
Temperature	343°C (650°F)	Temperature	370°C (698°F)
Materials	Carbon Steel ASTM A105 / A106 GR B	Insulator	Zirconia
Electrode ports	M18 inch female thread	Thread	M18 inch male thread
Weight ¹	12 kg (26.5 lb)		

High Pressure Systems: Maximum 210 bar and 370 deg C

High Pressure Water columns 210-TTTT-SSSS-XX		High Pressure Electrodes 246781ZA	
Pressure	210 bar	Pressure	210 bar
Temperature	370°C (698°F)	Temperature	370°C (698°F)
Materials	Carbon Steel ASTM A105 / A106 GR B body SA 479—316N electrode mounts	Insulator	Zirconia
Electrode ports	Swagelok style ¾" male thread	Thread	Swagelok style ¾" female thread
Weight ¹	17kg (37.5 lb)		

Super Critical Systems: Maximum 300 bar and 560 deg C

Super Critical Water columns 300-TTTT-SSSS-XX		Super Critical Electrodes 246785A	
Pressure	300 bar (4350 psi)	Pressure	300 bar (4350 psi)
Temperature	560°C (1040°F)	Temperature	560°C (1040°F)
Materials	Stainless steel ASTM A312 / A182 F316 With SA479-316N electrode inserts	Insulator	Zirconia toughened Alumina (ZTA)
Electrode ports	Swagelok style ⅞" male thread	Thread	Swagelok style ⅞" female thread
Weight ¹	17kg (37.5 lb)		

1. Typical for 610mm (24 inch) steam/water range and 12 ports, including electrodes and covers

Hydrastep Control Unit 2468C***		Relay Output boards (for alarms or trips)	
Inputs	8 to 16 electrodes (single input board) 8 to 32 electrodes (dual input board)	Each relay output board	Four SPCO relays
Water/Steam threshold	Default 0.6 $\mu\text{S}/\text{cm}$, configurable to 1.6 $\mu\text{S}/\text{cm}$	Relay contact rating (ac)	Maximum voltage 250 Vac Maximum current 8A Maximum switching power 1500 VA
Water conductivity	Default up to 104 $\mu\text{S}/\text{cm}$. Configurable to 300 $\mu\text{S}/\text{cm}$ and 1600 $\mu\text{S}/\text{cm}$	Relay contact rating (dc)	Maximum voltage 125 Vac Maximum switching power 240W <30V, 8A (resistive), 25W < 125V Minimum switching capacity 10mA @ 5 Vdc Type N safety: maximum current 100mA
Control unit operating temperature	-20 to 65 °C (-4 to 149 °F)	Time delay relay board	0 to 25s +/- 1s
Relative humidity	100%	Remote displays 24683**	
Enclosure	S.S.304, IP65, (12 kg) (Refer dimensional drawing)	Power supply	20 to 54Vdc
Power supply (ac)	94V to 130V or 187 to 256V, 48Hz to 65Hz 60VA max	Cable distance	1000 meters maximum Fibre optics possible
Power supply (dc)	20V to 40V negative ground isolated, 60W max	Number of remote displays	Up to six, one powered from the control unit
Analogue output	4-20mA or 0-20mA, forward or reverse.		
Analogue output drive	600 ohms at nominal supply, 500 ohms at minimum supply		
Analogue output accuracy	+/- 0.2mA		
Resolution	Dependent on distance between electrodes		
Display output	Up to 6 remote displays One powered from the controller, remaining displays powered locally. Maximum 1000m cable length (cable not supplied)		

EUROPEAN DIRECTIVES

Electromagnetic Compatibility Directive (EMC) 2014/30/EU

Compliant to EMC directive

Low Voltage Directive (LVD) 2014/35/EU

Compliant to LVD directive

Pressure Equipment Directive (PED) 2014/68/EU:

This product is categorised as a Safety Accessory

Certificate no.

120 bar:- IES/CAT000530347-B1-2

210 bar - IES/CAT000530347-B1-1

300 bar - IES/CAT000530347-B1-3

ATEX Directive 2014/34/EU

NON SPARKING

EN 60079-0, EN 60079-15



II 3G Ex nA IIC T4 Gc X (-20°C ≤ Ta ≤ +65°C)

GLOBAL CERTIFICATION

CSA (Canada and USA)

C22.2 No.0, C22.2 No.142, CSA E60079-15, C22.2 No.213

UL 916, UL60079-15, UL 1604, ISA 12.12.01

Ex nA [nL] nL IIC

Class 1 Zone 2, AEx nA IIC with relay output connected only to energy limited circuits

SAFETY INTEGRITY LEVEL

IEC 61508 parts 1 and 2

SIL 2 capable on 4-20mA output(s)

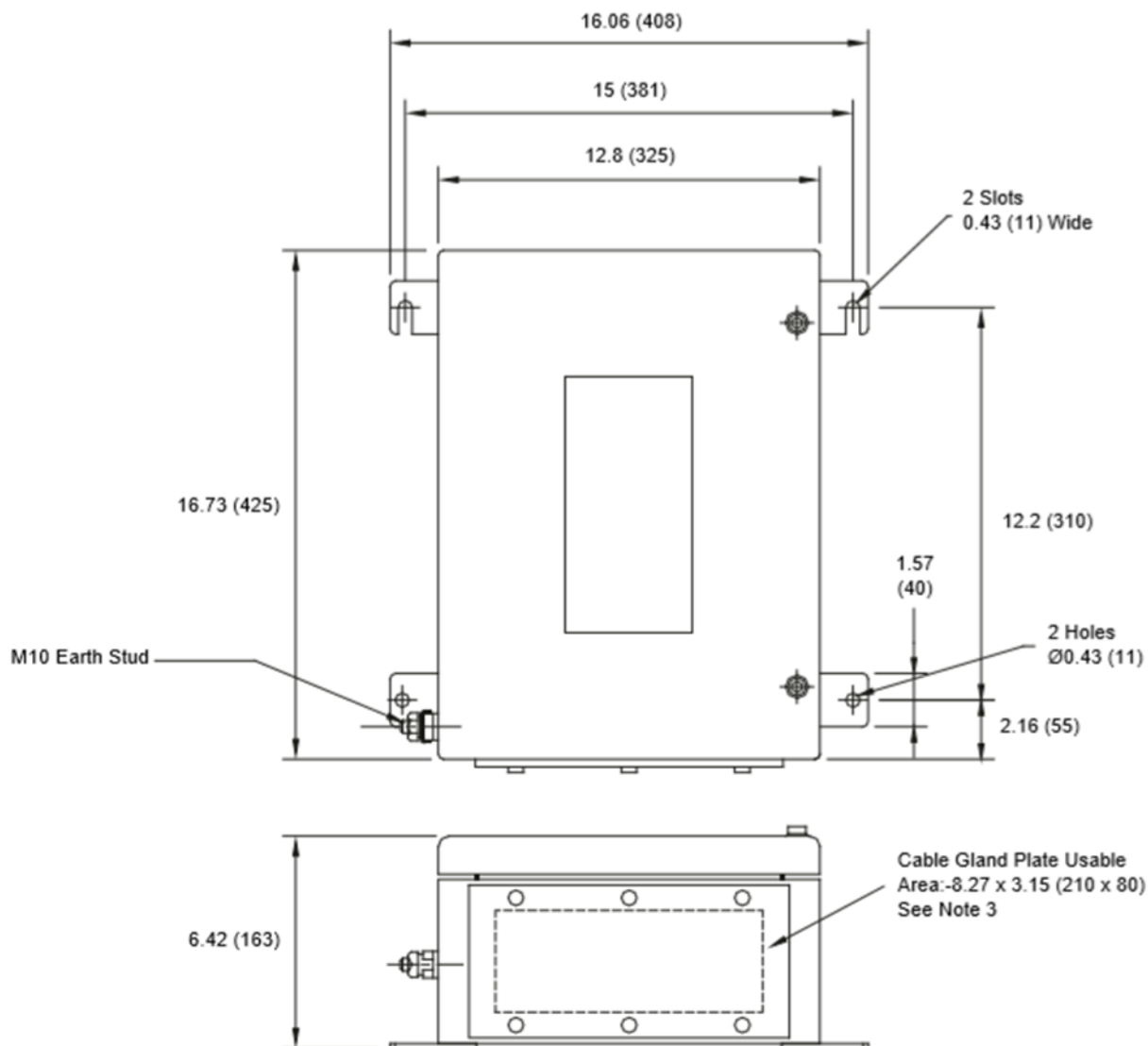
Certificate number K066_CT001 issued by Engineering Safety Consultants

FM

FM 7710

Approved for boiler water-level control

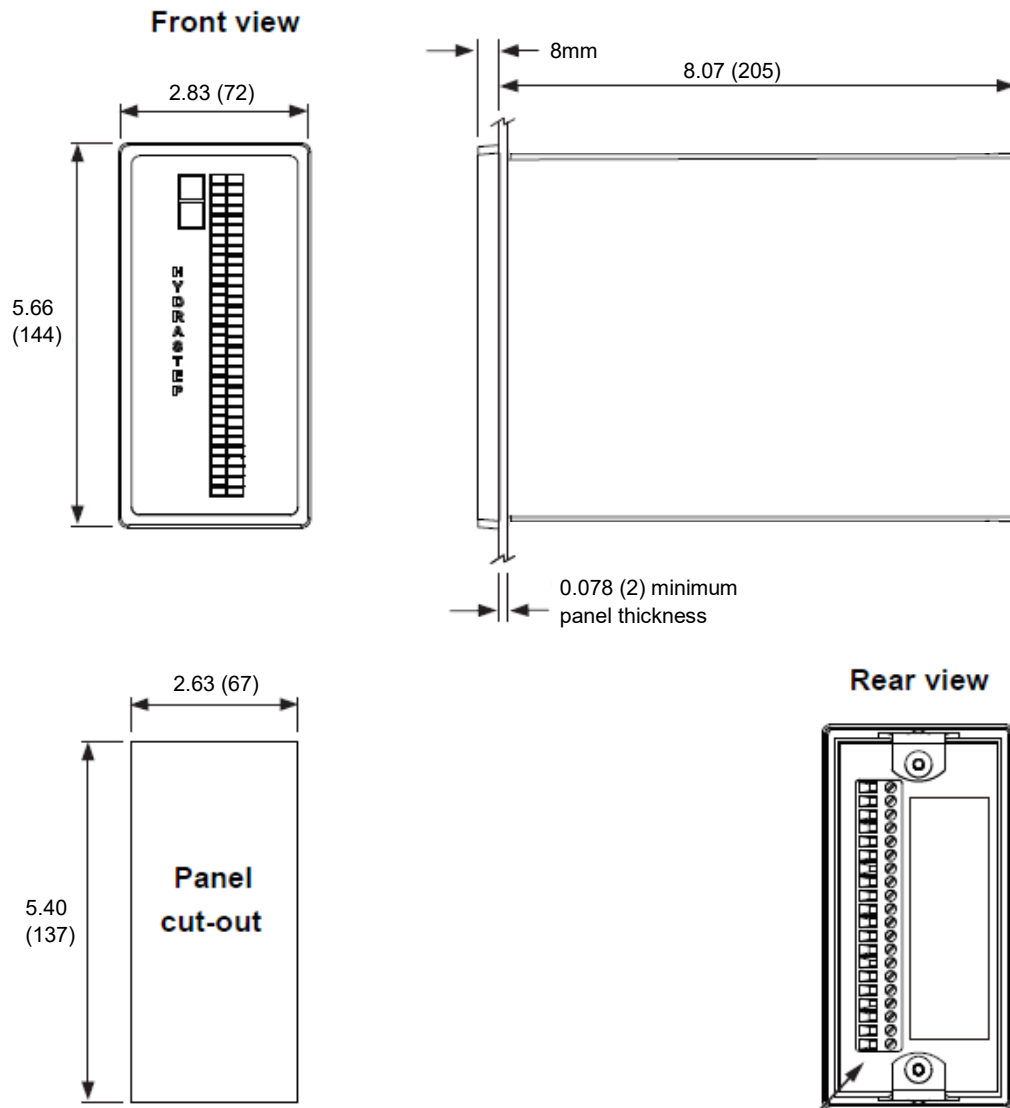
Dimension Drawing



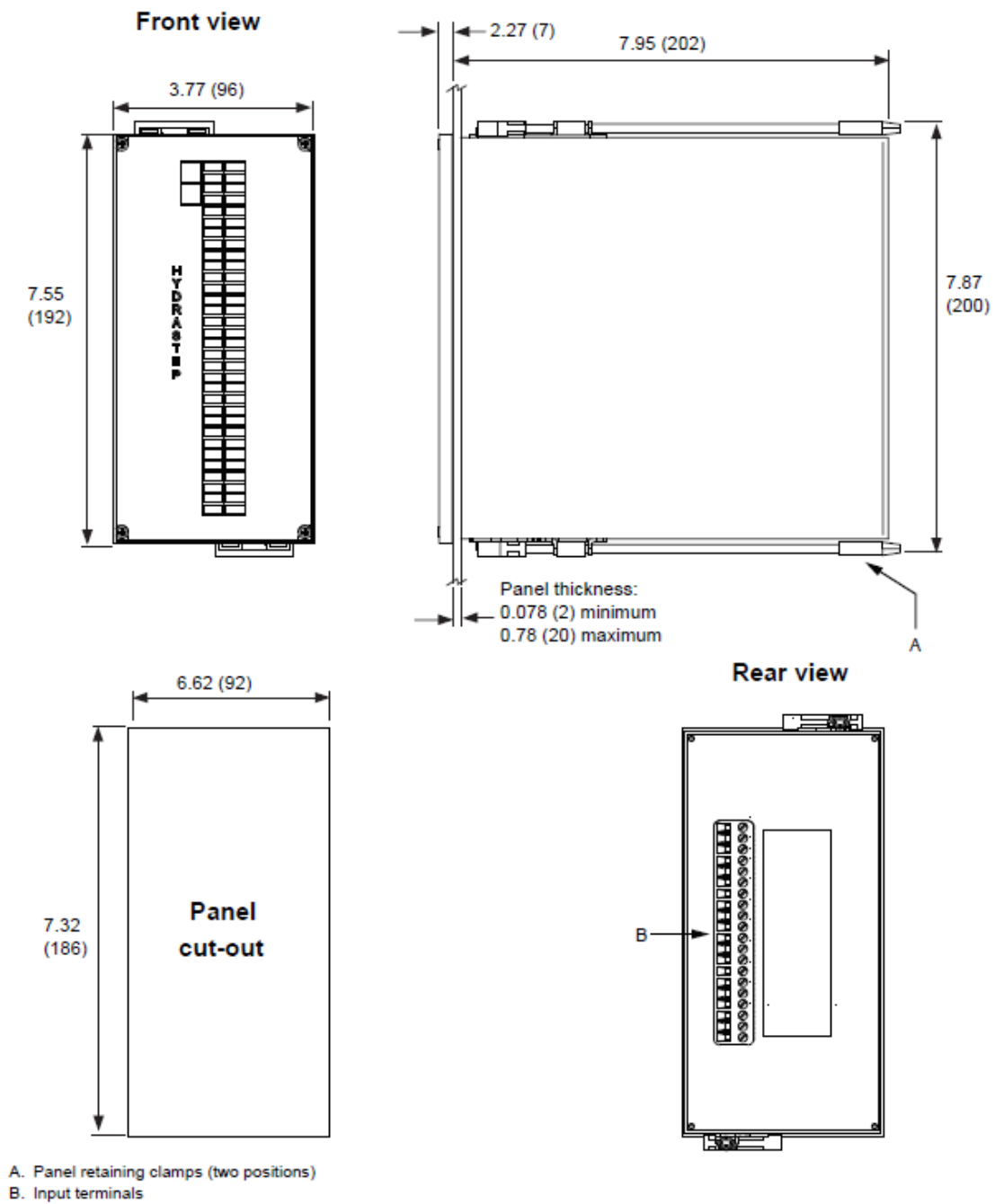
Hydrastep 2468C*** enclosure

NOTES:

1. Weight: 12kg
2. IP Rating: IP65
3. Material thickness between cable glands must be 9mm minimum
4. Enclosure: Stainless steel

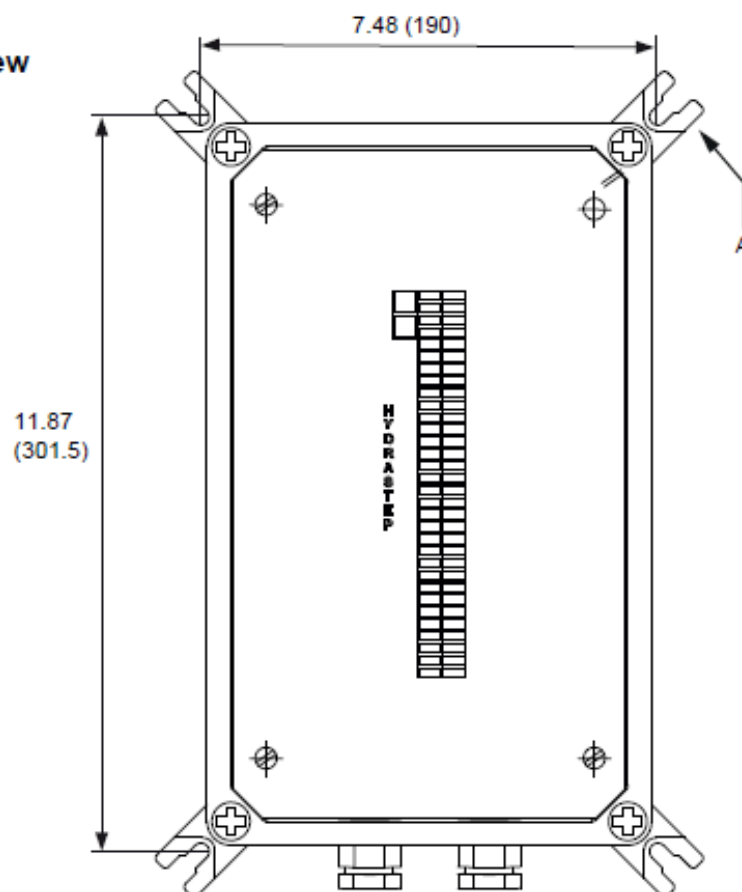


Small panel mount 24683BB

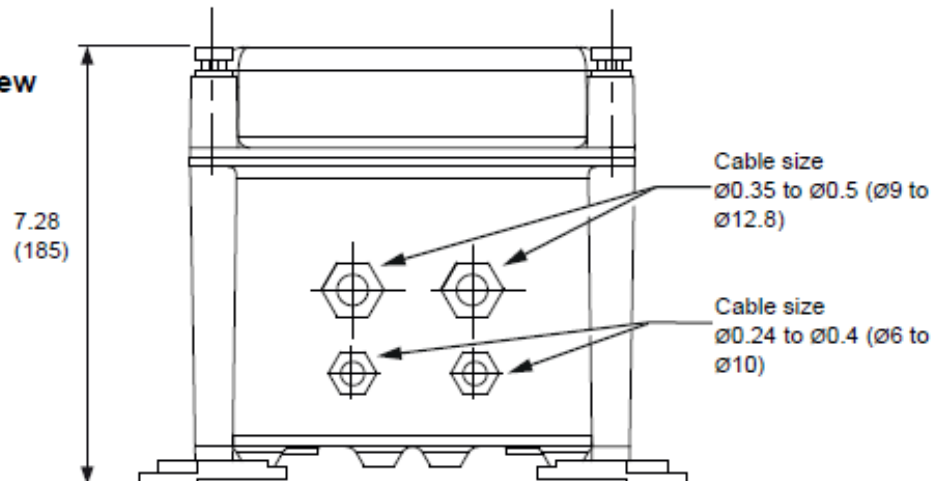


Large panel mount 24683C

Front view



Bottom view



A. Wall mounting points (four positions)

Dimensions are in inches (mm).

Wall mount 24683D

ISO9001



FM00720

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Hydrastep: Steam Drum Level Indication

Model: 2468

Алматы (7273)495-231	Иваново (4932)77-34-06	Магнитогорск (3519)55-03-13	Пермь (342)205-81-47	Тверь (4822)63-31-35
Ангарск (3955)60-70-56	Ижевск (3412)26-03-58	Москва (495)268-04-70	Ростов-на-Дону (863)308-18-15	Тольятти (8482)63-91-07
Архангельск (8182)63-90-72	Иркутск (395)279-98-46	Мурманск (8152)59-64-93	Рязань (4912)46-61-64	Томск (3822)98-41-53
Астрахань (8512)99-46-04	Казань (843)206-01-48	Набережные Челны (8552)20-53-41	Самара (846)206-03-16	Тула (4872)33-79-87
Барнаул (3852)73-04-60	Калининград (4012)72-03-81	Нижний Новгород (831)429-08-12	Саранск (8342)22-96-24	Тюмень (3452)66-21-18
Белгород (4722)40-23-64	Калуга (4842)92-23-67	Новокузнецк (3843)20-46-81	Санкт-Петербург (812)309-46-40	Ульяновск (8422)24-23-59
Благовещенск (4162)22-76-07	Кемерово (3842)65-04-62	Ноябрьск (3496)41-32-12	Саратов (845)249-38-78	Улан-Удэ (3012)59-97-51
Брянск (4832)59-03-52	Киров (8332)68-02-04	Новосибирск (383)227-86-73	Севастополь (8692)22-31-93	Уфа (347)229-48-12
Владивосток (423)249-28-31	Коломна (4966)23-41-49	Омск (3812)21-46-40	Симферополь (3652)67-13-56	Хабаровск (4212)92-98-04
Владикавказ (8672)28-90-48	Кострома (4942)77-07-48	Орел (4862)44-53-42	Смоленск (4812)29-41-54	Чебоксары (8352)28-53-07
Владимир (4922)49-43-18	Краснодар (861)203-40-90	Оренбург (3532)37-68-04	Сочи (862)225-72-31	Челябинск (351)202-03-61
Волгоград (844)278-03-48	Красноярск (391)204-63-61	Пенза (8412)22-31-16	Ставрополь (8652)20-65-13	Череповец (8202)49-02-64
Вологда (8172)26-41-59	Курск (4712)77-13-04	Петрозаводск (8142)55-98-37	Сургут (3462)77-98-35	Чита (3022)38-34-83
Воронеж (473)204-51-73	Курган (3522)50-90-47	Псков (8112)59-10-37	Сыктывкар (8212)25-95-17	Якутск (4112)23-90-97
Екатеринбург (343)384-55-89	Липецк (4742)52-20-81		Тамбов (4752)50-40-97	Ярославль (4852)69-52-93

Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

www.delta-mobrey.nt-rt.ru | | dye@nt-rt.ru