

EU-TYPE EXAMINATION CERTIFICATE

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: **Presafe 19 ATEX 32740X** **Issue 0**
- [4] Product: **Plug and Receptacle - Pin and Sleeve Type**
- [5] Manufacturer: **HUBBELL INCORPORATED (DELAWARE)**
Vantage Technology
- [6] Address: **4140 World Houston Pkwy #130**
Houston, TX 77032
USA
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV GL Presafe AS, notified body number 2460, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential reports listed in section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2018/AC:2020-02, EN 60079-1:2014/AC:2018-09 and EN 60079-31:2014
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:

 **II 2 G Ex db IIC Gb T5/T6**

 **II 2 D Ex tb IIIC Db T100°C IP66/67**

Date of issue:
2020-07-01



Asle Kaastad
For DNV GL Presafe AS
The Certificate has been digitally signed.
See www.dnvgl.com/digitalsignatures for info



[13] **Schedule**

[14] **EU-Type Examination Certificate No:** Presafe 19 ATEX 32740X Issue 0

[15] **Description of Product**

Type GB/SB, GDU/SDU Power and AF/SF Control Connectors and Plugs for use in Hazardous areas are manufactured in Aluminium or, Aluminium Nickel Bronze or Stainless Steel. These connectors are intended for use in standard and reverse service.

The two basic components of these devices are the Plugs and Receptacles.

Plugs are available in Attachment style only with integral cable gland.

Receptacles are available in the following formats:

- Junction Box – For Hazardous Locations installations, factory sealed; and
- Attachment style – for Zone 1 and ‘extension cord’ applications, with integral cable gland.

The AF/SF series of multi-pin connectors are available in three contact sizes; 10, 12, 16 or 18 gauge.

Type GB/SB/GDU/SDU Series is for use in Power Applications.

Type AS/SF Series is for use in Control Applications.

Type designation

GB	-	B	10	20	-	30	P	*	02	17	-	L36
1	-	2	3	4	-	5	6	7	8	9	-	10

Where

1: Type Designation

- AF = Aluminum Series of “Control” Plugs, Receptacles and J-Box Receptacles
- SF = Stainless Steel version of AF Series “Control” Plugs, Receptacles and J-Box Receptacles
- GB = Aluminum Series of “Power” Plugs, Receptacles and J-Box Receptacles
- SB = Stainless Steel version of GB Series “Power” Plugs, Receptacles and J-Box Receptacles
- GDU = GB Series with 260A, 3-Pole 4-Wire
- SDU = Stainless Steel version of GDU Series

2: Cover

- B = receptacle cover
- D = plug cover

3: Shell Style

- 10 = Plug, Attachment
- 15 = Receptacle, Attachment
- 17 = Junction-Box Receptacle

4: Shell Size

For GB/SB and GDU/SDU Series

- Attachment Receptacles GB-B15 and SB-B15 - Shell Size 16, 20, 24 or 28
- Attachment Plugs GB-D10 and SB-D10 - Shell Size 16, 20, 24 or 28
- Receptacle with Junction Box GB-B17 and SB-B17 - Shell Size 16 or 20
- Receptacle with Junction Box GB-B17 and SB-B17 - Shell Size 24 or 28

For AF/SF Series

- Attachment Receptacles AF-B15 and SF-B15 - Shell Size 16, 20, 24 or 28
- Attachment Plugs AF-D10 and SF-D10 - Shell Size 16, 20, 24 or 28

- Receptacle with Junction Box (small) AF-B17 and SF-B17 - Shell Size 16 or 20
- Receptacle with Junction Box (large) AF-B17 and SF-B17 - Shell Size 24 or 28

5: Insert (Pin or Socket Code Number)

For GB/SB/GDU/SDU (Power Applications):

- a) Attachment Receptacles GB-B15 and SB-B15;
- b) Attachment Plugs GB-D10 and SB-D10;
- c) Receptacle with Junction Box (small) - GB-B17 and SB-B17; and
- d) Receptacle with Junction Box (large) - GB-B17 and SB-B17

Insert Table

Amperes	Contacts	Connector Prefix	Shell Size	Insert Code Number		Key Positions
				Pin	Socket	
32	2 Pole, 3 Wire	GB or SB	16	51PL	51SL	N + 5
32	3 Pole, 4 Wire	GB or SB	16	23PL	23SL	N + 5
32	4 Pole, 5 Wire	GB or SB	20	36PL	36SL	N + 2
63	2 Pole, 3 Wire	GB or SB	20	61PL	61SL	N + 7
63	3 Pole, 4 Wire	GB or SB	20	40PL	40SL	N + 4
63	4 Pole, 5 Wire	GB or SB	24	29PL	29SL	N + 3
125	2 Pole, 3 Wire	GB or SB	24	60PL	60SL	N + 7
125	3 Pole, 4 Wire	GB or SB	24	39PL	39SL	N + 5
125	4 Pole, 5 Wire	GB or SB	28	23PL	23SL	N + 3
260	2 Pole, 3 Wire	GB or SB	28	30PL	30SL	N + 9
260	3 Pole, 4 Wire	GDU or SDU	28	31PL	31SL	N + 10

For AS-SF (Control Applications):

- a) Attachment Receptacles AF-B15 and SF-B15;
- b) Attachment Plug AF-D10 and SF-D10;
- c) Receptacle with Junction Box (small) - AF-B17 and SF-B17; and
- d) Receptacle with Junction Box (large) - AF-B17 and SF-B17

Insert Table

Amperes	Contacts AWG (mm ²)	Connector Prefix	Shell Size	Insert Code Number		Key Positions
				Pin	Socket	
10	12 (4.0)	AS or SF	16	681PL	681SL	N + 4
10	12 / G (4.0)	AS or SF	16	676PL	676SL	N + 1
19	12 / G (4.0)	AS or SF	16	612PL	612SL	N + 4
19	12 (4.0)	AS or SF	16	677PL	677SL	N + 1
19	12 (4.0)	AS or SF	20	676PL	676SL	N + 5
19	12 / G (4.0)	AS or SF	20	688PL	688SL	N
19	16 (1.5)	AS or SF	16	655PL	655SL	N + 9
20	12 (4.0)	AS or SF	20	632PL	632SL	N + 3
20	12 / G (4.0)	AS or SF	20	687PL	687SL	N + 1
37	12 (4.0)	AS or SF	20	686PL	686SL	N
37	12 / G (4.0)	AS or SF	20	650PL	650SL	N + 3
37	16 (1.5)	AS or SF	16	621PL	621SL	N + 9
55	18 (0.75)	AS or SF	16	640PL	640SL	N + 10
61	18 (0.75)	AS or SF	16	633PL	633SL	N + 4
68	16 (1.5)	AS or SF	20	613PL	613SL	N + 4
100	16 (1.5)	AS or SF	24	613PL	613SL	N + 4

6: Gender

- S = Female (Socket) Insert
- P = Male (Pin) Insert

7: Contact Plating

For GB/SB and GDU/SDU Series

L = Pressure (Standard) for Attachment Plugs and Receptacles

L = Scrimp (Standard) for J-Box Receptacles

For AF/SF Series

L = Silver is standard

K = Gold over Silver

D = Gold over Nickel

8: Insert Keying/ Key Position

Blank = Normal

Alternate = 01 to 10

9: Receptacle Lead Length or Hub Configuration:

FH = 1-1/2 inch NPT (top and bottom) Hub - Shell Size 16 and 20 J-Box Receptacle)

BK = 2-1/2 inch NPT (bottom only) Hub - Shell Size 24 J-Box Receptacle)

BL = 3 inch NPT (bottom only) Hub - Shell Size 28 J-Box Receptacle)

10: Junction Box Receptacle Wire Lead Length (inches):

L12 (12in., 0.31m), L24 (24in., 0.61m), L36 (36in., 0.91m), etc.

Attachment Plug Wiring Information - Refer to the following Installation Instructions:

- AF & SF Series Attachment Plugs & Cord Connectors 10-20 A: No. MC-283-EC R12/19
- AF & SF Series Power & Control Attachment Receptacles 10-20 A: No. M603-EC R12/19
- GB/SB & GDU/SDU Attachment Plugs 32-260 A: No. M-175-EC R12/19
- GB/GDU & SB/SDU Series Attachment Receptacles 32-260 A: No. M602-EC R12/19
- AF/SF, GB/SB & GDU/SDU Series Junction Box Receptacles: No. M606-EC R12/19

Electrical Data

GB/SB/GDU/SDU Series

1000Vac or 500Vdc max./ 32A, 63A, 125A, 260A / 50-60-400 Hz

AF/SF Series

250Vac or 125Vdc max. / 10A, 15A, 20A, 30A / 50-60-400 Hz

Degrees of protection (IP Code)

IP66/67

Ambient temperature:

-50°C to +60°C (all series)

-50°C to +45°C/+60°C (260A version, T6/T5)

Routine tests

N/A

[16] **Report No.:** 2019-9669

Project No.: PRJN-177627-2019-PA-USA / X35644-1

[17] Specific Conditions of Use

- The non-metallic materials were tested for a minimum ambient (-50°C) and the maximum temperature (91°C) achieved in service. It shall not attain an external temperature of more than 91°C when used in service.
- Field-installed wires/cables shall be rated 90°C/80°C minimum.
- Contact the original manufacturer for information on the dimensions of the flameproof joints.
- Assembly, termination and usage shall be in accordance to manufacturer’s instructions.
- Ex db flameproof ratings at pins and sleeves are only valid when fully mated.
- When Plug is provided with internal NPT thread, the end user must install suitable IECEx Certified Cable Gland with appropriate Ex markings, IP and temperature ratings for the application.

[18] Essential Health and Safety Requirements

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

[19] Drawings and documents

Number	Title	Rev.	Date
VT-VNP-002-R	GB/SB, GDU/SDU Receptacle Nameplate	F	2017-09-13
VT-VNP-008-P	GB/GDU Plug Nameplate	F	2017-09-13
VT-VNP-032-P	AF/SF Plug Nameplate	E	2017-11-28
VT-VNP-033-R	AF/SF Receptacle Nameplate	F	2017-11-28
VT-VNP-034-P	SB/SDU Plug Nameplate	C	2017-09-13
VT-VNP-035-R	SB/SDU Receptacle Nameplate	C	2017-10-02
VT-VNP-036-R	AF/SF Receptacle Cover Nameplate	C	2017-11-28
VT-VNP-037-R	GB/SB, GDU/SDU Receptacle Cover Nameplate	C	2017-11-28
VT-VNP-042-R	AF/SF In-Line Receptacle Nameplate	B	2017-11-29
VT-VNP-044-R	SB/SDU In-Line Receptacle Nameplate	B	2017-10-02
EC-SCH-AF-SF	AF/SF Schedule Drawing	D	2017-11-30
EC-SCH-GB-SB	GB/SB and GDU/SDU Schedule Drawing	D	2017-11-30
EC-SCH-CTL-INSERT	Critical Dimensions Control Inserts	B	2017-11-30
EC-SCH-PWR-INSERT	Critical Dimensions Power Inserts	B	2017-11-30
EC-SCH-DIM-ENCL	Junction Box Details Enclosures	E	2017-11-30
EC-SCH-DIM-SHELL	Critical Dimensions, Plug and Receptacle Shell Hardware	B	2017-11-30
EC-SCH-DIM-INSERT	Dimensions and Materials Inserts	B	2017-11-30
EC-SCH-FLM-AF-SF	AF/SF Flamepath Lengths & Potting Depths	A	2019-04-17
EC-SCH-FLM-GB/SB	GB/GDU & SB/SDU Flamepath Lengths	A	2019-04-17

M-175-EC	GB-SB and GDU-SDU Attachment Plugs, Manufacturer's instructions	R12/19	N/A
M-602-EC	GB-SB and GDU-SDU Attachment Receptacles, Manufacturer's instructions	R12/19	N/A
M-603-EC	AF/SF Power and Control Attachment Receptacles, Manufacturer's Instructions	R12/19	N/A
M-606-EC	AF/SF and GB/GDU Junction Box Receptacles, Manufacturer's instructions	R12/19	N/A
MC-283-EC	AF-SF Attachment Plugs - Manufacturer's Instructions	R12/19	N/A

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue - Plugs and Receptacles - GB/SB/GDU/SDU and AF/SF Series	2020-07-01	2019-9669

END OF CERTIFICATE