SBDO Series Signaling and Lighting Bulkheads
Flameproof. Compact Fluorescent, Incandescent

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Applications
- For lighting and signaling.

Features
- For 7, 11, 15 Watt compact fluorescent or up to 100 Watt (maximum) incandescent (lamps not supplied).
- E27 lampholder.
- Operating in any position.
- Fixing by 2 integrated brackets.
- Connection to lampholder via two terminals 1 x 2.5 mm².
- Internal earth two terminals 2.5 mm², external earth 1 x 4 mm².
- Two M20 entries through feed.
- Supplied with 1 blanking plug M20.

Standard Materials
- Body and bezel: gray painted aluminum
- Sealed toughened lamp glass
- Guard: zinc plated steel

**Compact Fluorescent
Painted Glass Version**

Certifications and Compliances

♦**ATEX/IECEx Certification**
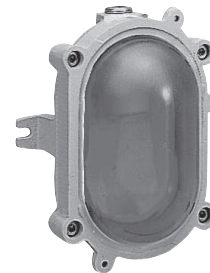- **Certification Type: HBOd**
    — Zone 1 - 2
        – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 G
        – Type of Protection: Ex d IIB
        – Temperature Class:
            Incandescent: T4,
            Compact Fluorescent: T6
    — Zone 21 - 22
        – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 D
        – Type of Protection: Ex tD A21
        – Surface Temperature:
            Incandescent: T119 °C,
            Compact Fluorescent: T76 °C
    — Ambient Temperature: -20 °C to +40 °C
    — CE Declaration of Conformity: 50234
    — ATEX Certificate: LCIE 02 ATEX 6162
    — IECEx Certificate: IECEx LCI Ex 12.0006
    — Index of Protection according EN/IEC 60529: IP66
    — Impact Resistance (shock): IK08
    — Internal Volume: ≤ 2 dm³ – 2 liters

♦**EURASEC Certification**
    — EURASEC N° TC RU C-FR.Гб05.B.00912

♦**Others Certification**
    — INMETRO Certificate: BVC11.0597 ①

① *Inmetro certification available on special request only. Contact your local sales for more information*

SBDO Series Signaling and Lighting Bulkheads
## Flameproof. Compact Fluorescent, Incandescent

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Color (Painted Glass)	Weight kg	Volume dm³	Catalog Number
7 W to 15 W Compact Fluorescent or up to 60 W Incandescent			
Red	3	9	**SBDOSR**
Green	3	9	**SBDOSG**

Accessories and Replacement Parts

Description	Catalog Number
Zinc Plated Steel Protective Guard	**HBDOPGZ**
Terminal block for through wiring 2 x 2.5 mm² with high temperature sleeve	**094784**

Dimensions in Millimeters (Inches)
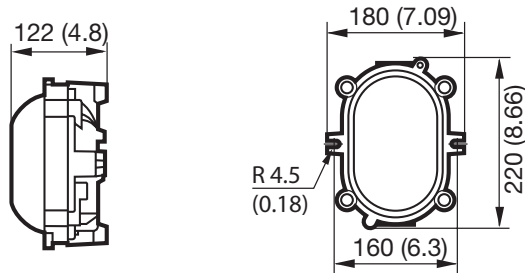
SBDS Series Beacon Lighting Units
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Applications

- For use in hazardous locations in a wide range of plants.
- In areas where audible signals cannot be heard.

Features

- Fixtures operate in any position.
- Suspension via integral bolt.
- Threaded flame path.
- Internal earth terminal 2 x 4 mm².
- External earth terminal 1 x 4 mm².
- Two M20 threaded entries with one blanking plug.
- Globe available in four colors: red, amber, green and clear (to be ordered separately).
- Static Beacon:
  — E27 lamp holder.
  — Permissible lamps not supplied:
    – 100 W incandescent max.
    – 18/20/25 W compact fluorescent
  — Connection to lamp holder via two terminals 1 x 2.5 mm² or 2 x 4 mm² terminal block supplied.
- Rotating Beacon:
  — E14 lamp holder.
  — 40 W incandescent lamp supplied.
  — Rotating speed: approximately 170 rotations per minute.
  — Beaten mirror to reinforce bright effect.
  — Connection via two terminals 2 x 4 mm².

Standard Materials

- Body and bezel: gray painted marine aluminum
- Glass: colorless sealed shock resistant
- Reflector for static beacon: internal aluminum
- Globe: colored polymethacrylate
- Protective guard: zinc plated steel
- Mounting bracket: zinc plated steel

Certifications and Compliances

♦ATEX Certification

- **Certification Type: AB14**
  — Gas: Zones 1 and 2
    – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 G
    – Type of Protection: Ex d IIB
    – Temperature Class: *See Table below*

Static Beacon with Red Globe   **Rotating Beacon**

  — Dust: Zone 21 and 22
    – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 D
    – Type of Protection: Ex tD A21
    – Surface Temperature: *See Table on following page*
  — Ambient Temperature:
    — Static: -40 °C to +50 °C
    — Rotating: -20 °C to +50 °C
- CE Declaration of Conformity: 50231
- ATEX Certificate: LCIE 02 ATEX 6053
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK08
- Internal Volume: ≤ 2 dm³ (2 liters)

♦Others Certification

  — INMETRO Certificate: BVC11.0480 ①

T Rating (Gas) and Surface Temperature (Dust) Table

Lamp Type and Wattage	T Rating for Gas				Surface Temperature for Dust	
	Ta = +40 °C		Ta = +50 °C		Ta = +50 °C	
	T Rating	Cable Entry Temperature	T Rating	Cable Entry Temperature	Surface Temperature	Cable Entry Temperature
18 W Compact Fluorescent	T6	–	T5	–	+85 °C	–
20 W Compact Fluorescent	T6	–	T5	–	+85 °C	–
25 W Compact Fluorescent	T6	–	T5	–	+85 °C	–
100 W Incandescent	T4	+115 °C	T3	+125 °C	+145 °C	+125 °C
40 W Rotating	T5	–	T4	–	+110 °C	–

① *Inmetro certification available on special request only. Contact your local sales for more information*
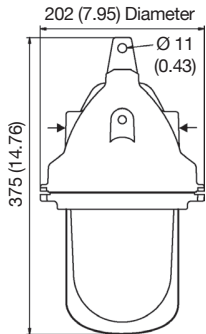
SBDS Series Beacon Lighting Units
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

	Lamp Type and Wattage	Supply	Frequency (Hz)	Rating (Amps)	Weight kg	Volume dm³	Catalog Number
	Clear Static Beacon						
	100 W maximum	–	–	–	7.5	30	**SBDSSC**
	Clear Rotating Beacon						
	40 W Incandescent	48 V ±10%	50/60 Hz	1 A	8.5	30	**SBDSRC4004A**
	40 W Incandescent	48 Vdc ±10%	–	1 A	8.5	30	**SBDSRC4004D**
	40 W Incandescent	110 V ±10%	50/60 Hz	0.5 A	8.5	30	**SBDSRC4011A**
	40 W Incandescent	230/240 V ±10%	50/60 Hz	0.23 A	8.5	30	**SBDSRC4024A**

Accessories and Replacement Parts

Type		Catalog Number
Polymethacrylate Globe		
	Red	**SBDGR**
	Green	**SBDGG**
	Amber	**SBDGA**
	Clear	**SBDGC**
Zinc Plated Steel Protective Guard		
	Not to be used if a colored globe is used.	**LDPG3Z**
Zinc Plated Steel Hinged Bracket		
	For installation on flat surface	**LDPHBZ**

Dimensions in Millimeters (Inches)

202 (7.95) Diameter Ø 11 (0.43) 375 (14.76)

202 (7.95) Diameter Ø 11 (0.43) 350 (13.78)

250 (9.84) 80 (3.15) 202 (7.95) Diameter
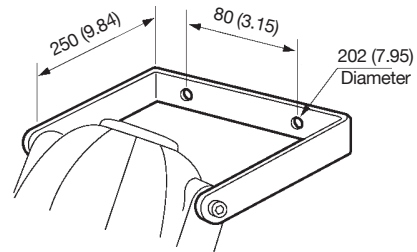
Lighting Unit with Globe   **Lighting Unit**   **LDPHBZ Mounting Bracket**
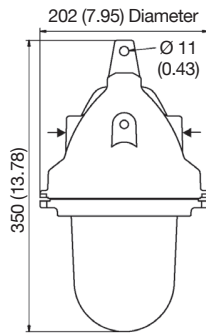
Shaded catalog numbers are normally stocked items. All other items are made to order.

Appleton®

SBDB Series Beacon and Strobe Lighting Units
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Applications

- For use in hazardous locations in a wide range of plants.
- In areas where audible signals cannot be heard.
- To warn of unsafe conditions and other communication needs.

Features

- Fixtures operate in any position.
- Mounting strap for surface mounting supplied.
- High temperature internal wiring.
- Threaded flame path.
- Stainless steel fastenings.
- Closed by screwing on bezel.
- Connection through an increased safety Exe compartment with terminal block
  — Two 2 x 6 mm^2 and two earth terminal 1 x 4 mm^2.
- External earth terminal 1 x 4 mm^2.
- Two side M20 threaded entries supplied with:
  — 1 x M20 plastic cable-gland for unarmored cable — 6.5 to 14.5 mm sealing diameter.
  — 1 x M20 blanking plug.
- Static Beacon:
  — E27 lamp holder.
  — Permissible lamps not supplied:
    – 100 W incandescent max.
    – 18 W compact fluorescent.
  — Globe available in four colors:
    – Red, amber, green and clear (to be ordered separately).
- Rotating Beacon:
  — E14 lamp holder.
  — 40 W incandescent lamp supplied.
  — Rotating speed: approximately 170 rotations per minute.
  — Beaten mirror to reinforce bright effect.
  — Globe available in four colors:
    – Red, amber, green and clear (to be ordered separately).
- 5 Joules Strobe Beacon:
  — Xenon lamp supplied.
  — Instantaneous illuminance: 50,000 candles.
  — Strobe 60 flashes per minute.
  — Operating factor 100%.
  — Life duration: 70% efficiency after 8 million flashes.
  — Internal red colored lens supplied as standard.
  — Other lenses available in five colors:
    – Amber, blue, green, yellow and clear (factory installed).

Standard Material of Fixtures

- Body and bezel: gray painted marine aluminum
- Lens: colorless sealed shock resistant glass
- Internal reflector for static beacon: aluminum
- Mounting strap: gray painted aluminum

Standard Material of Accessories

- Globe: colored Polymethacrylate
- Protective guard: zinc plated steel

Options

- Other lens colors for strobe beacon

Strobe Lighting

Beacon Lighting
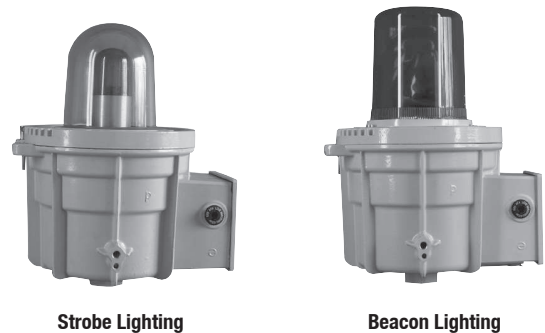
Certifications and Compliances

◆ATEX/IECEx Certification

- **Certification Type: LTd (model (LT1d)**
  — Gas: Zones 1 and 2
    – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 G
    – Type of Protection: Ex de IIC
    – Temperature Class: *See Table on following page*
  — Dust: Zone 21-22
    – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II2 D
    – Type of Protection: Ex tD A21
    – Surface Temperature: *See Table on following page*
  — Ambient Temperature:
    – Strobe: -40 °C to +55 °C
    – Rotating Beacon: -20 °C to +50 °C
  — CE Declaration of Conformity: 50246
  — ATEX Certificate: LCIE 02 ATEX 6165
  — IECEx Certificate: IECEx LCI Ex 04.0019
  — Index of Protection according EN/IEC 60529: IP66/67
  — Impact Resistance (shock): IK08

◆Others Certification

  — INMETRO Certificate: BVC11.0417 [1]

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[1] *Inmetro certification available on special request only. Contact your local sales for more information*
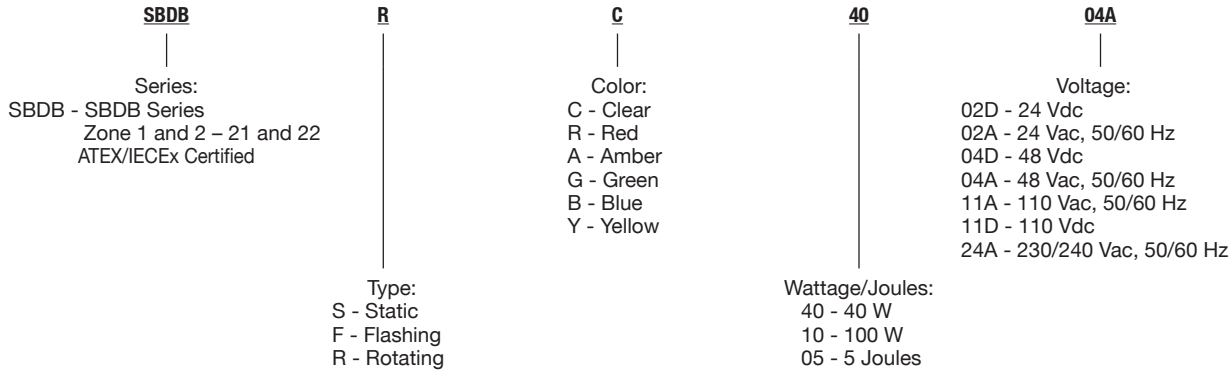
SBDB Series Beacon and Strobe Lighting Units
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Order using catalog numbering guide below or select catalog number from the following pages.

Catalog Numbering Guide — SBDB Series Beacon and Strobe Lighting Units

SBDB	R	C	40	04A

Series:
SBDB - SBDB Series
  Zone 1 and 2 – 21 and 22
  ATEX/IECEx Certified

Type:
S - Static
F - Flashing
R - Rotating

Color:
C - Clear
R - Red
A - Amber
G - Green
B - Blue
Y - Yellow

Wattage/Joules:
40 - 40 W
10 - 100 W
05 - 5 Joules

Voltage:
02D - 24 Vdc
02A - 24 Vac, 50/60 Hz
04D - 48 Vdc
04A - 48 Vac, 50/60 Hz
11A - 110 Vac, 50/60 Hz
11D - 110 Vdc
24A - 230/240 Vac, 50/60 Hz

Temperature Class — Gas

	Positions					
	Lighting Downwards			Lighting Upwards		
Lamp Type and Wattage	Ta =+40 °C	Ta =+50 °C	Ta =+55 °C	Ta =+40 °C	Ta =+50 °C	Ta =+55 °C
18 W Fluorescent Compact	T6	T6	T6	T6	T5	T5
100 W Incandescent	T4	T3	T3	T3	T3	T3
40 W Rotating	T5	T4	T4	T5	T4	T4
Strobe 5 Joules	T6	T6	T6	T6	T6	T6

Temperature Rating — Dust

	Positions	
	Lighting Downwards	Lighting Upwards
Lamp Type and Wattage	Ta =+55 °C	Ta =+55 °C
18 W Fluorescent Compact	T80 °C	T95 °C
100 W Incandescent	T195 °C	T195 °C
40 W Rotating	T130 °C	T130 °C
Strobe 5 Joules	T80 °C	T80 °C

SBDB Series Beacon and Strobe Lighting Units
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Type	Supply			Rating (Amps)	Weight kg	Volume dm³	Catalog Number
Clear Static Beacon							
100 W Maximum	—	—	—	—	7.5	30	**SBDBSC**
Clear Rotating Beacon							
40 W	48 Vac	+-10%	50/60 Hz	1A	8.5	30	**SBDBRC4004A**
40 W	48 Vdc	+-10%	—	1A	8.5	30	**SBDBRC4004D**
40 W	110 Vac	+-10%	50/60 Hz	0.5A	8.5	30	**SBDBRC4011A**
40 W	230/240 Vac	+-10%	50/60 Hz	0.23A	8.5	30	**SBDBRC4024A**
Red Strobe Beacon							
5 joules	24 Vac	20-30 V	50/60 Hz	220 mA	8.5	30	**SBDBFR0502A**
5 joules	24 Vdc	18-35 V	—	230 mA	8.5	30	**SBDBFR0502D**
5 joules	48 Vac	40-54 V	50/60 Hz	180 mA	8.5	30	**SBDBFR0504A**
5 joules	48 Vdc	40-60 V	—	150 mA	8.5	30	**SBDBFR0504D**
5 joules	110 Vac	90-135 V	50/60 Hz	110 mA	8.5	30	**SBDBFR0511A**
5 joules	110 Vdc	88-132 V	—	90 mA	8.5	30	**SBDBFR0511D**
5 joules	230/240 Vac	185-255 V	50/60 Hz	55 mA	8.5	30	**SBDBFR0523A**

Accessories and Replacement Parts

Description		Catalog Number
Polymethacrylate Globe		
	Red	**SBDGR**
	Green	**SBDGG**
	Amber	**SBDGA**
	Clear	**SBDGC**
Zinc Plated Steel Protective Guard		
	Using without colored globe	**LDPG1Z**
Zinc Plated Steel Hinged Bracket		
	Bracket for installation on flat surface	**LDMHBZ**
Zinc Plated Steel M10 Eyebolt		
	Eyebolt for suspension	**LDRBM10Z**

SBDB Series Beacon and Strobe Lighting Units
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Dimensions in Millimeters (Inches)
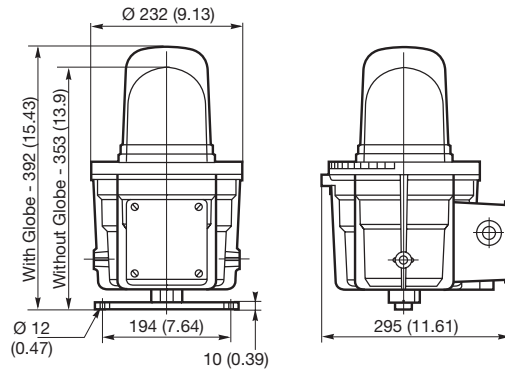
Ø 232 (9.13)

With Globe - 392 (15.43)

Without Globe - 353 (13.9)

Ø 12 (0.47)

194 (7.64)

10 (0.39)

295 (11.61)

⊛ Appleton®

SBDC Series Strobe Lighting and Static Triple Indicator
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Applications

- For use in hazardous locations in a wide range of plants.
- In areas where audible signals cannot be heard.
- To warn of unsafe conditions and other communication needs.

Features

- Threaded access cover with O-ring seal.
- Supplied with two external fixing lugs.
- Fixtures operate in any position.
- External earth terminal 1 x 4 mm².
- Two side M20 threaded entries supplied with 1 x M20 blanking plug.
- 15 Joules Strobe Beacon:
  — Xenon lamp supplied.
  — Instantaneous illuminance: 150,000 candelas.
  — Strobe 45 flashes per minute.
  — Operating factor: 10 min. stop after one hour operation.
  — Life duration: 70% efficiency after 8 million flashes.
  — Internal red colored lens supplied as standard.
  — Other lenses available in five colors:
    – Amber, blue, green, yellow and clear (factory installed).
  — Connection to plug-in terminal block via 2 x 3 x 2.5 mm² terminal.
- Static Triple Indicator Unit:
  — Ba15d lamp holders.
  — Permissible lamps not supplied:
    – 7 W incandescent or multi LED lamps.
  — Operating factor 100%.
  — Supplied with three colored interchangeable modules:
    – Red, yellow and green.
  — Each module is controlled separately.
  — Possibility of coupling two modules for simultaneous operation.
 — Connection to plug-in terminal block via 2 x 5 x 2.5 mm² terminal.

Standard Materials

- End caps and cover: anti-corrosive gray painted Zamak
- O-ring seal: Nitrile
- Sealed toughened glass.
- Fixing lug: zinc plated steel
- Protective guard: zinc plated steel

Options

- Other colored module for static triple indicator unit.
- Other lens colors available for strobe lighting

Strobe Lighting
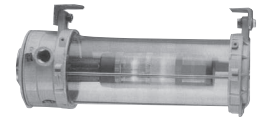
Multiple Static Indicator

Certifications and Compliances

♦ ATEX/IECEx Certification

- **Certification Type: FLd**
  — Gas: Zones 1 and 2
    – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 G
    – Type of Protection: Ex d IIC
    – Temperature Class: *See Table on following page*
  — Dust: Zone 21 and 22
    – Conforming to ATEX 94/9/CE: ⟨Ex⟩ II 2 D
    – Type of Protection: Ex tD A21
    – Surface Temperature: *See Table on following page*
  — Ambient Temperature: -40 °C to +55 °C
  — CE Declaration of Conformity: 50203
  — ATEX Certificate: LCIE 97 ATEX 6012
  — IECEx Certificate: IECEx LCI 04.0018
  — Index of Protection according EN/IEC 60529: IP66/68 (10 meters)
  — Impact Resistance (shock): IK08
  — Internal Volume: ≤ 2 dm³ — 2 liters

♦ EURASEC Certification

  — EURASEC N° TC RU C-FR.Гб05.B.00912

♦ Others Certification

  — INMETRO Certificate: BVC11.0492 [1]

Related Products

- For labels see *Labels for Emergency Lighting Units, ATX Self-Adhesive Signaling Labels for Emergency Lighting Units*.

T Rating (Gas) and Surface Temperature (Dust) Table

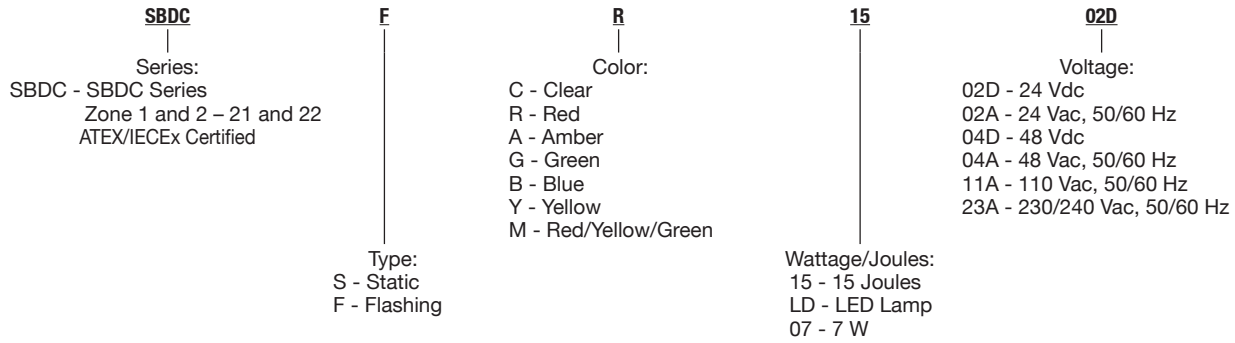| Ambient Temperature	Gas		Dust
	Ta = +40 °C	Ta = +55 °C	Ta = +55 °C
Strobe 15 Joules	T6	T5	T95 °C
Static Indicator	T6	T6	T80 °C

[1] *Inmetro certification available on special request only. Contact your local sales for more information*

SBDC Series Strobe Lighting and Static Triple Indicator
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Catalog Numbering Guide

SBDC	F	R	15	02D

Series:
SBDC - SBDC Series
    Zone 1 and 2 – 21 and 22
    ATEX/IECEx Certified

Type:
S - Static
F - Flashing

Color:
C - Clear
R - Red
A - Amber
G - Green
B - Blue
Y - Yellow
M - Red/Yellow/Green

Wattage/Joules:
15 - 15 Joules
LD - LED Lamp
07 - 7 W

Voltage:
02D - 24 Vdc
02A - 24 Vac, 50/60 Hz
04D - 48 Vdc
04A - 48 Vac, 50/60 Hz
11A - 110 Vac, 50/60 Hz
23A - 230/240 Vac, 50/60 Hz

Red Strobe Beacon

Type		Supply			Rating (Amps)	Weight kg	Volume dm³	Catalog Number ① ②
15 joules	24 Vdc	18-30 V	—		700 mA	6.8	31	**SBDCFR1502D**
15 joules	48 Vdc	40-60 V	—		350 mA	6.8	31	**SBDCFR1504D**
15 joules	110 Vac	95-127 V	50/60 Hz		350 mA	6.8	31	**SBDCFR1511A**
15 joules	230 Vac	185-255 V	50/60 Hz		190 mA	6.8	31	**SBDCFR1523A**

Triple Static Indicator

Type	Lamp Holder	Wattage	Weight kg	Volume dm³	Catalog Number ②
Red, yellow and green 230 Vac, 50/60 Hz	Ba15d	7 W	6.8	31	**SBDCSM0723A**

① *For lens color other than Red on the IECEx certified product change the replace the letter **R** in the 5th position to the appropriate option: **C** for Clear, **A** for Amber,*
*   **G** for Green, **B** for Blue or **Y** for Yellow. Example for clear lens: SBDCF**C**1502D.*
② *For LED lamp on the IECEx certified product change the replace the letters **15** or **07** with the letters **LD** in the 7th and 8th positions. Example: SBDCFR**LD**02D.*

SBDC Series Strobe Lighting and Static Triple Indicator
Flameproof

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

Accessories and Replacement Parts

Type	Weight kg	Volume dm³	Catalog Number
Mounting Brackets – Quick One Hand Fixings: Set of Two			
Zinc plated steel			**FDFBZ**
	0.40	0.7	
Stainless steel			**FDFBS**
Surface Mounting Brackets: Set of Two			
Zinc plated steel			**FDSBZ**
	0.55	0.5	
Stainless steel			**FDSBS**
Half Clamps – Set of Two – Zinc Plated Steel			
42 mm to 49 mm			**FDHC49Z**
	0.80	0.5	
60 mm			**FDHC60Z**
Protective Guard			
Zinc plated steel	0.55	8.0	**FDPG1Z**

Dimensions in Millimeters (Inches)