



# Hazardous Location GRP Strobe Light

Model WV450XD and WV450XE

## GLASS REINFORCED POLYESTER DESIGN FOR LOW MAINTENANCE AND CORROSION RESISTANCE

- Available in 10, 15 and 21 Joule Units
- Seven available lens colors: Amber, Blue, Clear, Green, Magenta, Red and Yellow
- 316 stainless steel mounting bracket included
- Available voltages ( $\pm 15\%$ ):  
10J – 110VAC and 220VAC only  
15J – 24-48VDC only  
21J – 110VAC and 220VAC only
- IP66
- Corrosion resistant GRP (Glass Reinforced Polyester)
- Included dome guard
- M20 entries standard
- Strobe tube life of 10,000 hours
- Body color natural black as standard - other colors available
- Zone rated, IECEx, ATEX  
Ex d IIB +H2 T3-T4  
Ex de IIB +H2 T3-T4

The Federal Signal model WV450X is ideally suited for explosive atmospheres and harsh environments. It is designed to serve the demanding needs of offshore marine and land based industrial applications. The housing is made of corrosion resistant components, which dramatically reduces the cost of long-term maintenance.

The WV450X utilizes all of the latest techniques in non-metallic housing construction. The body of the product is comprised of Glass Reinforced Polyester (GRP) and 316 stainless steel hardware. The use of GRP in the design improves corrosion resistance and reduces weight as compared to traditional metal housings. The GRP construction also saves time and money over the life of the product by reducing or, in most cases, completely eliminating the need to perform regular field inspections of the flame path.

The WV series comes standard with metric entries, a 316 stainless steel dome guard and a 10,000 hour rated strobe tube. There are two versions of the WV450X available with three Joule options each (10J, 15J and 21J). The flameproof "d" versions come standard with a 316 stainless steel mounting brackets and two M20 entries for field cable gland connections. The increased safety "e" versions have the added feature of a terminal chamber with three M20 entries. The increased safety design allows for quick field termination and pass through wiring.

**ATEX**



**CE GOST**

| Model        | Operating Voltage | Maximum Operating Current | Joule Units | Temperature Code at 55°C | Flash Rate | Lamp Life Hrs. |
|--------------|-------------------|---------------------------|-------------|--------------------------|------------|----------------|
| <b>WV450</b> | 110VAC            | 0.27 A                    | 10          | T3                       | 60         | 10,000         |
|              | 220-248VAC        | 0.23 A                    | 10          | T3                       | 60         | 10,000         |
|              | 24-48VDC          | 0.94/0.48 A               | 15          | T4                       | 60         | 10,000         |
|              | 110VAC            | .075A                     | 21          | T3                       | 60         | 10,000         |
|              | 220-248VAC        | .050A                     | 21          | T3                       | 60         | 10,000         |
|              |                   |                           |             |                          |            |                |

Specify color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (M) Magenta, (R) Red or (Y) Yellow



**HAZARDOUS GRP STROBE (WV450XD/WV450XE)****SPECIFICATIONS**

|                          | Effective<br>Candela<br>Peak | Average<br>Effective<br>Candela<br>on HV | Peak<br>Intensity<br>Candela | Actual Output<br>Joules |
|--------------------------|------------------------------|--|------------------------------|-------------------------|
| 10 Joules                | 174                          | 110                                      | 195,000                      | 10.75                   |
| 15 Joules                | 312                          | 195                                      | 298,000                      | 16.3                    |
| 21 Joules                | 393                          | 297                                      | 357,700                      | 21.5                    |
| Glass Color Transmission |                              |  |                              |                         |
| Red<br><.81              | Amber<br><.48                | Yellow<br><.85                           | Blue<br><.12                 | Green<br><.52           |

Terminals: E xd: (DC) 4 way block (2 in, 2 out)  
(AC) 6 way block (3 in, 3 out)

Cable Entries: Ex de: 3 position dual pole terminal block  
Ex d: 2 entries - M20 x 1.5  
Ex de: 3 entries - M20 x 1.5

Operating Temperatures:  
"d" version without terminal chamber  
ATEX -55°C to 55°C (-67°F to 131°F)  
IECEX -20°C to 55°C (-4°F to 131°F)

"e" version with terminal chamber  
ATEX -20°C to 55°C (-40°F to 131°F)  
IECEX -20°C to 55°C (-4°F to 131°F)

Mounting: Via 316 stainless steel bracket  
Exterior Dome: Toughened glass  
Guard: 316 Stainless steel  
External Fasteners: 316 Stainless steel

Net/Shipping Weight:  
WV450XD  
Net 3.23 Kg (7.1 lbs.)  
Shipping 3.88 Kg (8.6 lbs.)

WV450XE  
Net 3.9 Kg (8.6 lbs.)  
Shipping 4.54 Kg (10 lbs.)

Shipping Dimensions: 19 x 22 x 47 cm (7.5 x 9 x 18.5 in.)

ATEX Certificate Number DEMKO 06 ATEX 0425693X

Note: Covers 10, 15 and 21 Joules

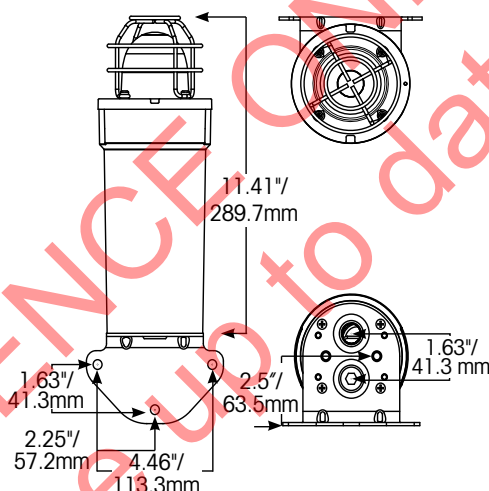
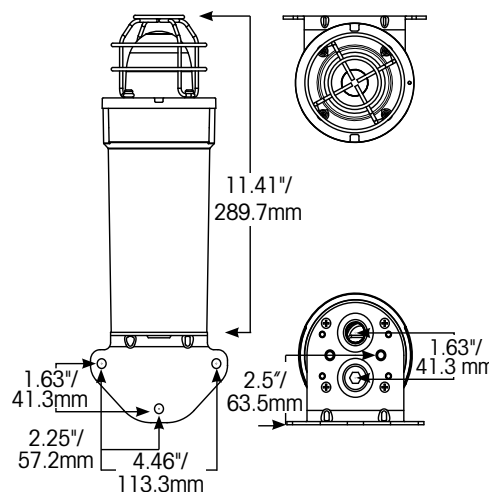
IECEX Certificate Number IECEX UL 06.0010X

Note: Covers 10 and 15 Joules only

Certification Making ("d" only version)  
Ex d IIB + H2 T3-T4 @  
-55°C ≤ Tamb ≤ 55°C

Certification Marking ("de" version)  
Ex de IIB + H2 T3-T4 @  
-20°C ≤ Tamb ≤ 55°C

Ingress Protection (IP) Rating IP66

**WV450XD****WV450XE****HOW TO ORDER**

|                           |                    |   |                      |                   |                         |
|---------------------------|--------------------|---|----------------------|-------------------|-------------------------|
| <b>WV450X</b>             | <b>D</b>           | <b>21</b>                               | <b>220</b>           | <b>R</b>          | <b>00</b>               |
| <b>TYPE</b>               |                    |   |                      |                   |                         |
| <b>PROTECTION</b>         |                    | <b>RATING</b>                           | <b>VOLTAGES ±15%</b> | <b>COLORS</b>     | <b>SPECIAL FEATURES</b> |
| <b>D</b> Flameproof "d"   | <b>10</b> 10 Joule | <b>110</b> 10J – 110VAC and 220VAC only | <b>A</b> - Amber     | <b>00</b> None    |                         |
| <b>E</b> "e" terminal box | <b>15</b> 15 Joule | <b>024</b> 15J – 24-48VDC only          | <b>B</b> - Blue      | -- Retrofit Plate |                         |
|                           | <b>21</b> 21 Joule | <b>220</b> 21J – 110VAC and 220VAC only | <b>C</b> - Clear     | -- Body Colour    |                         |
|                           |                    |   | <b>G</b> - Green     |                   |                         |
|                           |                    |   | <b>M</b> - Magenta   |                   |                         |
|                           |                    |   | <b>R</b> - Red       |                   |                         |
|                           |                    |   | <b>Y</b> - Yellow    |                   |                         |