

# DuoFlash<sup>®</sup> Ex

## Twin-Filament Flasher

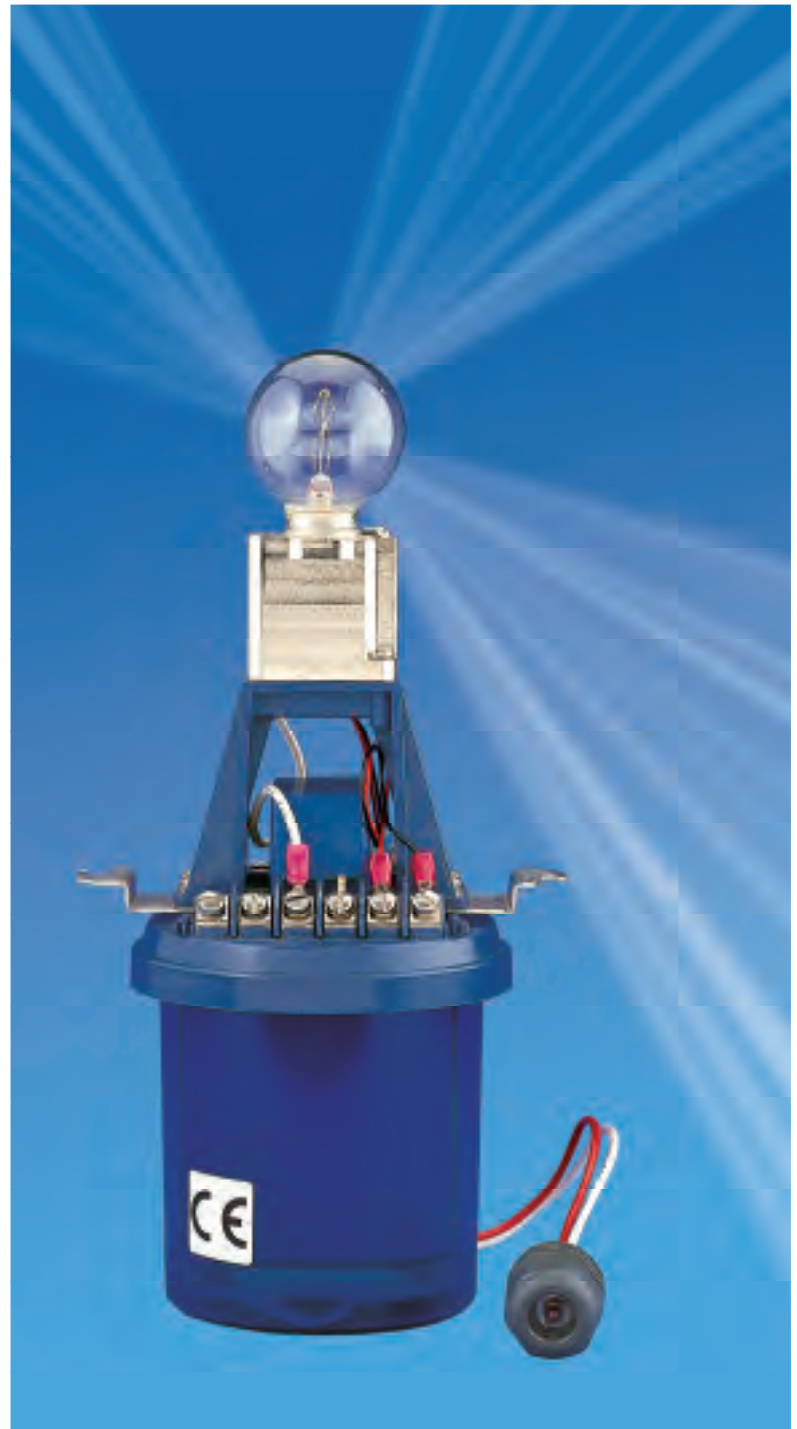


TIDELAND SIGNAL CORPORATION

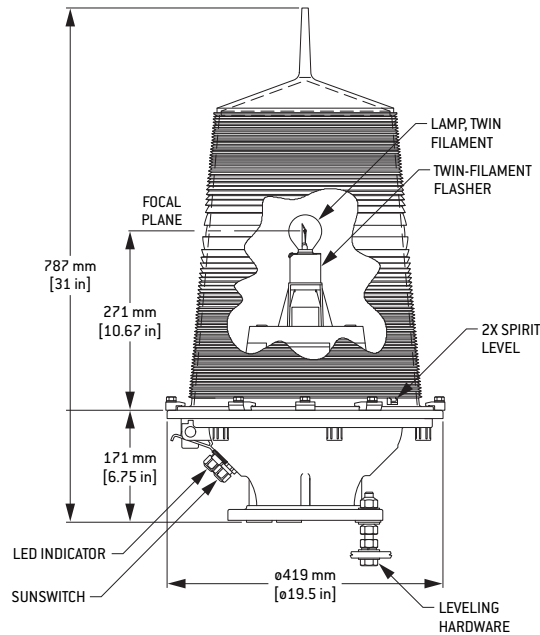
The DuoFlash<sup>®</sup> Ex flasher is used with Tideland's ML-155 and ML-300 MaxLumina<sup>®</sup> marine signal lanterns. A variety of protection techniques ensures electrical safety to the latest Zone 1, IIC, T-3 hazardous area standards. DuoFlash Ex, installed in the ML-300 lantern with a 10.3V/40W lamp, meets IALA nominal range intensity requirements for a 10 NM light, or a secondary light on platforms in the United Kingdom or Norwegian North Sea. When DuoFlash Ex is used in an ML-155 lantern with red lens and 10.3V/7.3W lamp, requirements for a subsidiary light are also met for North Sea platforms.

### FEATURES:

- 256 preprogrammed field-selectable flash codes
- Synchronisation – lanterns connected to same sync line flash simultaneously
- Polling photocell control – assures unaffected synchronisation when variations in photocell calibration or failure of a photocell occurs
- Power regulator to ensure correct power is delivered at the lamp
- ON and OFF photocell levels
- Reverse polarity protection
- If the primary filament fails, a secondary filament operates, illuminating an external LED
- Full monitor and control access



DuoFlash Ex twin-filament flasher in a ML-300 MaxLumina marine signal lantern.



**ML-155 MaxLumina Lantern with Ex Twin-Filament Lamp**

Effective Intensity Table (Subsidiary Light 7.3W/7.3W, 10.3V Lamp) (Schmidt-Clausen Method)

Incandescent Time (sec)	Fixed Intensity (cd)	EFFECTIVE INTENSITY IN CANDELAS – FLASHING WHITE*										
		CCT 0.2 Sec	CCT 0.3 Sec	CCT 0.4 Sec	CCT 0.5 Sec	CCT 0.6 Sec	CCT 0.7 Sec	CCT 0.8 Sec	CCT 0.9 Sec	CCT 1.0 Sec	CCT 1.2 Sec	CCT 2.0 Sec
0.104	170	74	95	108	118	125	130	134	138	140	145	155

**ML-300 MaxLumina Lantern with Ex Twin-Filament Lamp**

Effective Intensity Table (10-Mile Main Light 40W/40W, 10.3V Lamp) (Schmidt-Clausen Method)

Incandescent Time (sec)	Fixed Intensity (cd)	EFFECTIVE INTENSITY IN CANDELAS – FLASHING WHITE*									
		CCT 0.4 Sec	CCT 0.5 Sec	CCT 0.6 Sec	CCT 0.7 Sec	CCT 0.8 Sec	CCT 0.9 Sec	CCT 1.0 Sec	CCT 1.2 Sec	CCT 2.0 Sec	
0.392	2123	1104	1359	1465	1554	1618	1677	1720	1783	1921	

\*For Tideland ML-155 and ML-300 lanterns with coloured lenses, apply a reduction factor to the tabulated values for effective intensity as follows: For red or green lens, multiply by 0.30; For yellow lens, multiply by 0.65.

**SPECIFICATIONS**

Input Voltage ..... 10.3 – 16 VDC  
 Lamp Size ..... 10.3V/7.3W and 10.3V/40W  
 Timing Error ..... 0.01% maximum  
 Relative Humidity ..... 5% – 100% non-condensing  
 Certification ..... Zone 1, IIC, T-3

NOTE: Specifications are subject to change.



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Tideland Signal Corporation maintains ISO 9001:2000 accreditation. It is company policy to provide products and services that meet the highest standards of quality in the industry.

Membership Organisations



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