

# Harris F9800 Series

## Image Intensifier, Gen 3, 18-MM

Performance: F9400/F9800M16G/M18G/M20G

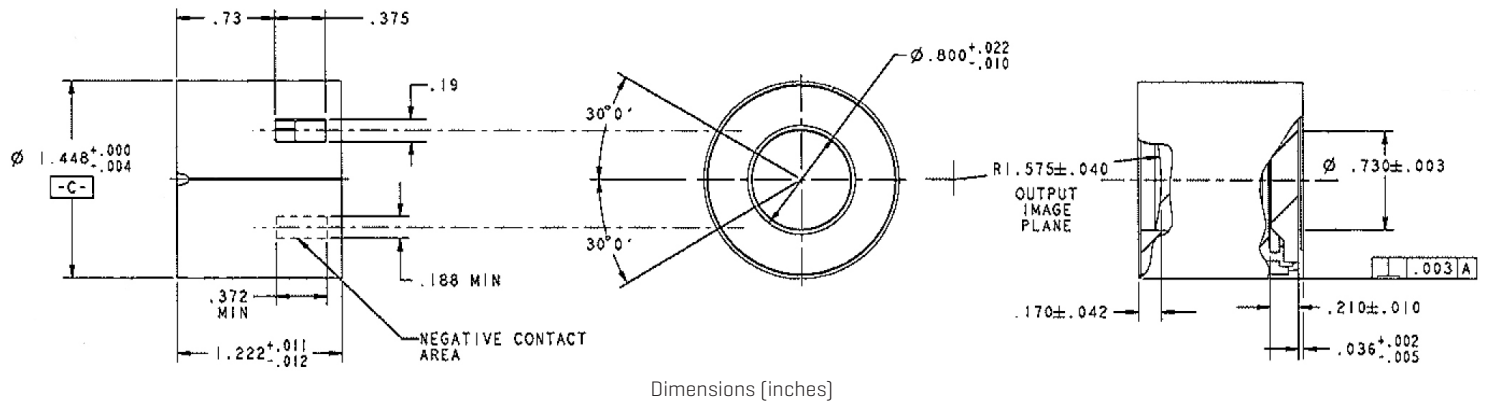


Harris F9400/F9800M16G/M18G/M20G 18-MM Gen 3 Image intensifiers are engineered for night vision systems used in aviation, ground, weapons sights and OEM applications. Each of these intensifiers features a high-efficiency GaAs photocathode bonded to a glass input window, a microchannel plate current amplifier and a P-43 phosphor screen on an inverting fiber optic output window. These technologies deliver a very high Signal-to-Noise Ratio (SNR) for extended detection ranges and exceptional resolution in no and low-light conditions. This series is enhanced with Harris Pinnacle® performance and the world's fastest auto-gated power supply for outstanding response in high-light or light-polluted urban environments. Harris offers tube options with different performance levels that comply with U.S. DoS and DoD guidelines for Gen 3 export. They are available in white phosphor (F9400 (P-45)) and green phosphor (F9800) configurations.

**GENERAL**

Nomenclature F9400/F9800M16G/M18G/M20G Image Intensifier (MX-10160)

| SPECIFICATION  | F9400/F9800M16G | F9400/F9800M18G | F9400/F9800M20G |
|--|-----------------|-----------------|-----------------|
| Resolution, lp/mm, (Minimum)                         | 64              | 64              | 64              |
| High-Light Resolution @20 fc (min) lp/mm             | 36              | 36              | 36              |
| Photocathode Sensitivity (Minimum)                   |                 |                 |                 |
| @ 2856° K, µA/lm                                     | 1800            | 2000            | 2000            |
| @ 880 nm, mA/W                                       | 80              | 100             | 100             |
| Signal/Noise Ratio (Minimum)                         | 22              | 28.2            | 28.2            |
| FOM (Maximum)  | 1600            | 1800            | 2000            |
| EBI, x10 <sup>-11</sup> lm/cm <sup>2</sup> (Maximum) | 2.5             | 2.5             | 2.5             |
| Luminous Gain, fL/fc                                 |                 |                 |                 |
| @2X10 <sup>-6</sup> fc (Minimum)                     | 40000 - 70000   | 40000 - 70000   | 50000 - 80000   |
| @2X10 <sup>-4</sup> fc (Minimum)                     | 14000 - 21000   | 14000 - 21000   | 14000 - 21000   |
| Output Brightness, fL @1 and 20 Fc                   | 2.8 - 4.2       | 2.8 - 4.2       | 2.8 - 4.2       |
| Output Brightness Uniformity (Maximum)               |                 |                 |                 |
| @ 2856° K, and @ 830 µm                              | 3:1             | 3:1             | 3:1             |
| MTF (Minimum)  |                 |                 |                 |
| @2.5 lp/mm   | Info Only       | Info Only       | Info Only       |
| @7.5 lp/mm   | Info Only       | Info Only       | Info Only       |
| @15.0 lp/mm  | 61%             | 61%             | 61%             |
| @25.0 lp/mm  | 38%             | 38%             | 38%             |
| Photocathode Diameter, mm (Minimum)                  | 17.5            | 17.5            | 17.5            |
| Reliability, Hrs. (Minimum)                          | 10000           | 10000           | 10000           |
| Power Supply   | Auto-gated      | Auto-gated      | Auto-gated      |
| Maximum Spots Allowed in Each Zone                   | Zone            | Zone            | Zone            |
| Spot Size (in.)                                      | 1 2 3           | 1 2 3           | 1 2 3           |
| >.012 or Larger                                      | 0 0 0           | 0 0 0           | 0 0 0           |
| >.009 – .012   | 0 0 0           | 0 0 0           | 0 0 0           |
| >.006 – .009   | 0 1 1           | 0 1 1           | 0 1 1           |
| >.003 – .006   | 0 2 2           | 0 2 2           | 0 2 2           |



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Harris Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers in more than 100 countries and has approximately \$6 billion in annual revenue. The company is organized into three business segments: Communication Systems, Space and Intelligence Systems and Electronic Systems. Learn more at [harris.com](http://harris.com).

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