

# Eagle Quantum Premier® 12 Channel High Speed Deluge Module (HSDM) EQ3780HSDM



## DESCRIPTION

The EQ3780HSDM High Speed Deluge Module (HSDM) is specifically designed to expand the capability of the Det-Tronics Eagle Quantum Premier® (EQP) System by providing the capability to activate ultra-high speed suppression systems for hazardous applications such as munitions manufacturing.

The HSDM provides up to six (6) configurable input channels and up to six (6) configurable output channels that can be programmed for supervised or unsupervised operation. Typical initiating devices include optical flame detectors, heat detectors, and manual pull stations. Output channels are designed to activate Factory Mutual (FM) approved solenoids. Solenoids that are activated by the HSDM are typically used to initiate pilot-actuated deluge valves.

A unique cascade output feature allows the output of the HSDM to be connected to the input of another HSDM, extending the systems capability to activate multiple solenoids with a single input.

An LED indicator is provided that indicates normal or fault status of the entire HSDM. Additionally, each input and output channel of the HSDM is provided with LED indicators for normal, active and fault conditions.

The HSDM can be mounted directly to a panel, or it can be DIN rail mounted. System status can be determined using the system status indicators that are resident on the module and the Eagle Quantum Premier Safety System Software (S3).

## FEATURES AND BENEFITS

- ▲ Typical 2 mS independent response time
- ▲ Uniquely programmable outputs - one-to-one, one-to-many, or many-to-one
- ▲ Cascade capability
- ▲ Internal independent logic capabilities
- ▲ RFI and EMI hardened (CE Marked and Maritime Compliant)
- ▲ Expands the capabilities of the Det-Tronics Eagle Quantum Premier® system
- ▲ Provides up to six (6) Class B Input Channels (Supports Class A wiring when two input channels are combined)
- ▲ Provides up to six (6) Class B Output Channels (Supports Class A wiring when two output channels are combined)
- ▲ Input and Output channels are configurable as supervised or unsupervised points
- ▲ Output Channels are capable of continuously driving 2A at 30Vdc, up to a maximum of 10A per module
- ▲ Individual channel LEDs indicate Normal, Active, and Fault status
- ▲ Provides remote I/O capabilities via LON/SLC
- ▲ Panel or DIN rail mounting
- ▲ Module level status LED indicator
- ▲ Plug-in wiring connectors
- ▲ Meets the requirements of NFPA 72
- ▲ FM, CSA, ATEX, IECEx, Exida, and DNV-GL certified
- ▲ SIL 2 rated per IEC 61508 Series



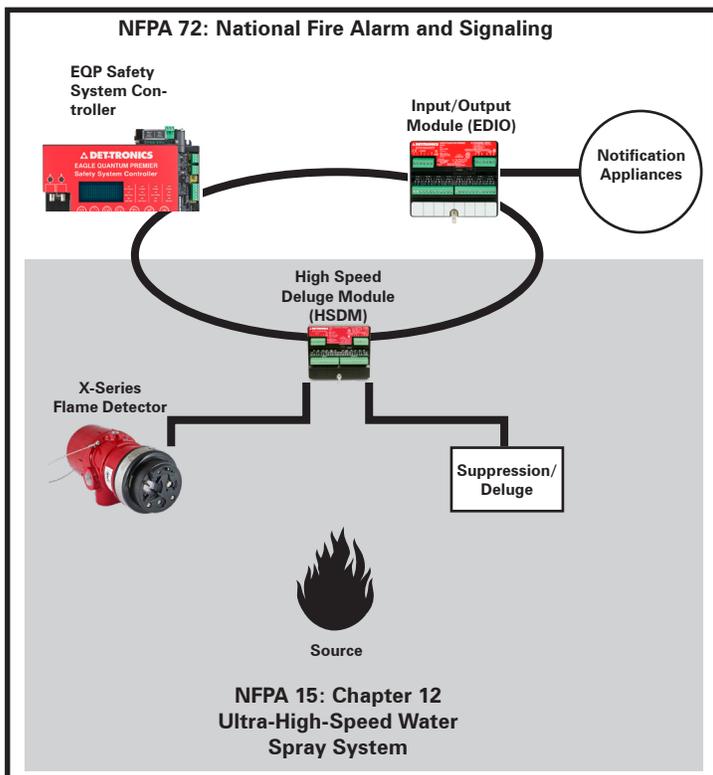
## SPECIFICATIONS

<b>Input Voltage</b>	24 Vdc nominal, 18 to 30 Vdc, 0.005 Vac maximum AC ripple. 21.3 to 26.4 Vdc (24 Vdc nominal) for pre-action / deluge applications.
<b>Power Consumption</b>	3.0 Watts maximum consumption at 30 Vdc with all inputs and outputs active (output load requirements not included).
<b>SLC Output</b>	Digital communication, transformer isolated (78.5 kbps).
<b>Temperature Range</b>	Operating: -40°C to +75°C (-40°F to +167°F) Storage: -55°C to +85°C (-67°F to +185°F)
<b>Response Time</b>	Output typically activates in <0.002 seconds after detecting a valid input.
<b>Humidity</b>	5 to 95% RH, non-condensing.
<b>Vibration</b>	DNVGL-CG-0339 (Class A).
<b>Shipping Weight (Approx.)</b>	1 lbs. (0.45 kg).
<b>Dimensions</b>	5.75 inches (14.6 cm) x 5.36 inches (13.6 cm) x 1.56 inches (3.96 cm).
<b>Warranty</b>	12 months from installation, or 18 months from manufacture.

### Certifications

<b>FM &amp; CSA:</b>	Class I, Div. 2, Groups A, B, C, & D (T4) Class I, Zone 2, Group IIC (T4)
<b>ATEX &amp; CE:</b>	ATEX/EMC Directive Compliant Ⓢ II 3 G Ex nA nC IIC T4 Gc EN 60079-29-1 DEMKO 05 ATEX 138864X Tamb = -40°C to +75°C
<b>IECEX:</b>	IECEX ULD 10.0004X Ex nA nC IIC Gc Tamb = -40°C to +75°C
<b>SIL:</b>	IEC 61508: 2010 Certified SIL 2 Capable

### Ultra-High-Speed Detection and Releasing System



Specifications subject to change without notice.

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Det-Tronics manufacturing system is certified to ISO 9001—  
the world's most recognized quality management standard.



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