

The DDM800 Universal Fire & Gas Detection Module is an ancillary module for use with MZX Technology® systems and connects directly with the MX Digital loop. Built in isolation protects the DDM800 from the effects of loop faults by automatically disconnecting the side of the loop exhibiting short circuit faults. The devices which are connected to the DDM800 can be powered directly from the loop or connected via a 24Vdc power supply.

Compliance with local system design standards is possible through features such as the ability to monitor for detector removal and also distinguish between detectors and callpoint on the same 2 wire circuit. Callpoints will generate an interrupt for fast operation.

## DDM800 MX Universal Fire & Gas Detection Module MX Ancillaries

### Features:

- Interface one or two zones of conventional detectors to the MZX Digital Loop
- Integral 4-20mA interface for connecting 4-20mA devices such as gas detectors
- Operates from 24Vdc or powered directly from the loop
- Connect up to 40 fire detectors when supplied with 24Vdc
- Compatible with a wide range of fire detectors
- Compatible with M600 series intrinsically safe fire detectors via a galvanic isolator
- Compatible with series 600 detectors
- Distinguish between callpoints and detectors on the same circuit for "Alert" and "Evacuate" responses
- Fast interrupt operation for callpoint alarms
- Built in MZX Digital loop line isolators with yellow LED indicator
- Monitor detection circuit for open and short circuit faults
- When used with a diode base will sense detector removal
- Easy to install, with a flexible range of mounting options,
- Supplied as PCB only, in the M520 cover, the D800 housing or the EExD housing
- DIN Rail mounting bracket available

# DDM800

A 4-20mA device interface allows gas detectors or other devices to be monitored by the MZX control panel with events triggered at pre-defined thresholds set at the time of commissioning.

## Typical Applications include

- Refrigerant gas detection
- LPG monitoring
- Car park CO monitoring
- Toxic gas detection
- Flammable gas detection
- Oxygen depletion monitoring
- Liquid level alarms
- Flood detection
- Temperature sensing
- Pressure sensing
- Carbon Dioxide detection
- Chlorine gas monitoring

DDM800 Universal Fire & Gas Detection Module can be ordered separately or fitted in an M520 ancillary cover, compatible with standard double gang back boxes or in an IP55 rated housing. The DIN rail mounting bracket is also compatible with the DDM800.

## Satisfy Operational Requirements

The DDM800 Universal Fire and Gas Detection Module has a number of features that allows it to satisfy commonly specified installation and operational requirements.

- Detector removal will generate a fault whilst other devices on the same circuit will continue to operate.
- Evacuate and alert events can be generated by detectors and callpoint on the same conventional circuit.
- Built-in line isolators protect the DDM800 and ensure that it continues to operate when loop faults are present.

## Reduced system costs

When a limited number of conventional detectors are connected to the DDM800 Universal Fire and Gas Detection Module the unit can be loop powered removing the need for an expensive external power supply. The ability to connect two independent detection circuits further reduces the cost of a system.

## Practical solution for integrated gas detection

There is now a practical solution to monitoring for gas supply leakages, by integrating a standard 4 to 20 mA gas detector into the fire detection system via a DDM800 Universal Fire and Gas Detection Module. An enhanced level of protection is achieved at little additional cost since the existing fire detection wiring is used. Furthermore, there is no need for a separate service contract for the gas detector since it can be included in the fire alarm system maintenance schedule.



DDM800 Module in D800  
IP55 Housing



DDM800 Module on DIN  
rail mounting bracket



DDM800 Module in M520  
Ancillary Cover



DDM800 Module in EExD  
Housing

# DDM800

## Technical Specification

### Detection

#### Compatible with:

Series 600 conventional detectors  
M600 Series conventional detectors  
Zettler conventional detectors and a wide range of conventional detectors and callpoints

#### Detection circuit parameters

Resistance max	50 Ohms
Alarm current max	25mA
Standby current	2.5mA
Conventional EOL	4K7 1%
Detector removal EOL	18V 2% Zener

#### 4-20mA circuit parameters

- Sense Resistor: Value 220R 1%
- Internal to DDM800 for current sinking sensors
- Fit to terminals for current sourcing sensors
- Insertion Voltage: 5V max (Compliance Voltage 4.4V @ 20mA)

Relative to 0V when DDM800 sinking (i.e., for current sourcing sensor). Relative to DDM800 22V supply when sourcing (i.e., for current sinking sensors)

### Environmental

Temperature -25°C to 70°C  
Humidity 0% up to 95% non-condensing

### EMC

Product family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy EN 61000-6-3 for emissions

### Electrical

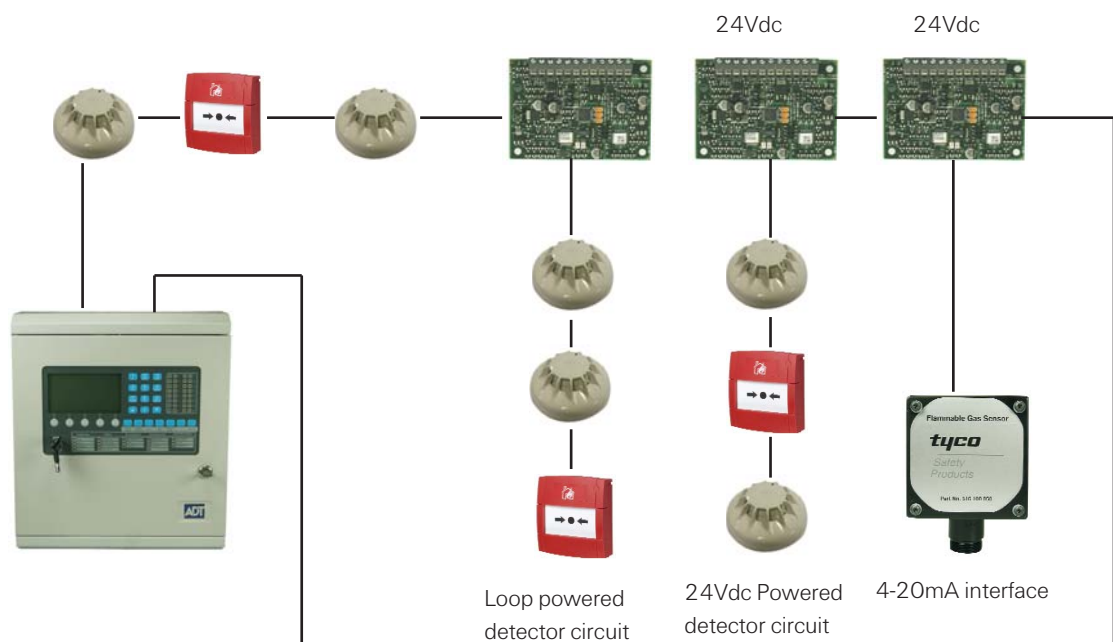
40Vdc from MZX Digital Loop  
24Vdc from external supply when required  
Fully supported from MZXConsys Version 17 and MZXDesigner Version 6

### Dimensions

PCB	60mm x 84mm x 25mm
M520 cover	87mm x 148mm x 14mm
D800 housing	118mm x 138mm x 68mm
EExD Housing	150mm x 150mm x 104mm
DIN rail bracket	88mm x 67mm x 21mm

### Ordering Information

577.800.006	DDM800 Universal Fire & Gas Detetcion Module
577.800.036	DDM800 Module in M520 Ancillary Housing
577.800.056	DDM800 Module in D800 Housing
577.800.066	DDM800 Module in EExD Housing
547.004.002	DIN Rail mounting bracket for MZX ancillary modules
557.800.057	DDM800 Detector Removal end of line (pack of 10)



For further information on how we can help you, please visit our website at [www.tycofis.com](http://www.tycofis.com) or e-mail us on [tfis.fda.uk@tycoint.com](mailto:tfis.fda.uk@tycoint.com).  
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