

# F077 **Safe area / Intrinsically safe - Level Monitor**

with linearization and one high / low alarm output



## Features

- The display shows the actual level, height or percentage, alarm values, alarm messages and status.
- On-screen engineering units are easily configured from a comprehensive selection.
- Displays clear alarm messages.
- Red flashing LED backlight in case of a level alarm; intensity adjustable.
- Selectable on-screen engineering units for level: ml, L, m<sup>3</sup>, GAL, USGAL, kg, lb, bbl or no unit.
- Selectable on-screen engineering units for height: mm, cm, m, mtr, inch, ft, mmwk, mmwc, cmwk, cmwc, mwk, mwc, inwc, ftwc, mBar, Bar, PSI or no unit.
- Level: six large 17mm (0.67") digits.
- Eight point linearization of the tank-shape - with interpolation.
- Level monitoring: two alarm values can be set: low and high level alarm.
- Alarm values can be changed by the operator or they can be password protected.
- One alarm output for high, low or both combined level alarms.
- Intrinsically safe according ATEX, IECEx, FM and CSA C-US.
- GRP, Aluminum or high grade stainless steel enclosure.
- Auto backup of settings in EEPROM memory.
- Easy configuration with clear alphanumeric display.
- Ambient temperature: -40°C to +80°C (-40°F to 176°F).
- Various [accessories](#) are available for this product.

## Product description

The F077 is a versatile level indicator with linearization and continuous level monitoring feature. In addition to the average Span, eight linearization points can be entered to compensate for the tank shape. The unit will interpolate between these points to increase the accuracy. With the level monitoring feature, one low level and one high level alarm value can be set.

The configuration of the Span, off-set and number of decimals is done through software functions, without any sensitive DIP-switches or trimmers.

## Advantages

- Robust aluminum or stainless steel 316L field enclosure (IP65, IP67 / NEMA Type4X) . It is so rugged, a truck can even stand on it!
- Intrinsically Safe available - ATEX, IECEx, FM and CSA approval for gas and dust applications.
- Familiar easy operation with the Fluidwell "Know one, know them all" configuration structure, saving time, cost and aggravation.
- Very diverse mounting possibilities: walls, pipes, panels or directly onto outdoor sensors.

## Applications

- Level measurement where continuous level monitoring and linearization of the tank shape is important without signal re-transmission.
- The F-Series is your first and best choice for field mount indicators in safe and hazardous area applications. Especially in harsh weather conditions like rain, snow, sandy deserts, salty atmospheres and temperatures between -40°C up to +80°C (-40°F up to 176°F).

## Product specifications

### Signal Inputs

#### Level Inputs

- (0)4 - 20mA.

### Supply

#### Power Supply

- Long life Lithium battery.
- 4 - 20mA, input Loop-powered.
- 8 - 24V AC/DC.
- 115 - 230V AC.
- Basic: 8 - 30V DC.

#### Sensor Supply

- 8.2, 12, 24V DC.

### Signal Outputs

#### Alarm outputs

- Function: Configurable alarm output for high, low or both combined level alarms.
- Type: One passive NPN transistor, active PNP transistor or isolated electro-mechanical relay.

#### Analog outputs

- None.

### Hazardous Area

#### Intrinsically Safe

- ATEX:  
Gas: II 1 G Ex ia IIC T4 Ga  
Dust: II 1 D Ex ia IIIC T<sub>200</sub> 100 °C Da
- IECEx:  
Gas: Ex ia IIC T4 Ga  
Dust: Ex ia IIIC T<sub>200</sub> 100 °C Da
- CSA & FM:  
I.S. Class I/II/III, Div 1, Grp A...G, T4  
Class I, Zone 0, AEx ia IIC T4 Ga  
**Note:** Extended aluminum enclosures not available with CSA/FM approval.

#### Explosion Proof

- ATEX/IECEx:  
Gas: II 2 G Ex db IIB+H2 T5 Gb  
Dust: II 2 D Ex tb IIIC T80°C Db

### Communication

- Modbus communication available on F1-Series products.

- HART communication is available with the F018 Flow rate Monitor / Totalizer.



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We're happy to answer any questions about our products and services.  
Just send us an email or give us a call.