

## EXNR-FUSION-C

*Counter Large Digit Display*



### KEY FEATURES

- 4 or 6 digits
- 5 digit colours available
- Certified for use in ATEX zones 2 and 22
- IP66 sealed
- 316L stainless-steel enclosure
- Indoor or outdoor brightness
- Pulse signals from NPN, PNP, Contact Closure, 24V logic, 5V logic, up to 50kHz
- Viewing distances up to 110m
- AC or DC powered
- Wall or suspension mounting
- Alarm, analogue and data output options

### DESCRIPTION

EXNR-FUSION large digit displays are primarily used for displaying numerical information which is visible from a distance. In addition, the displays have several analogue, alarm and data output options which can work with systems already in situ to control processes within that system.

The EXNR enclosure is made from 316L stainless-steel and certified for use in ATEX zones 2 and 22.

The EXNR-FUSION-C is available as 4 or 6 digits and is ideal for use as a versatile counter, totaliser, frequency or RPM display.

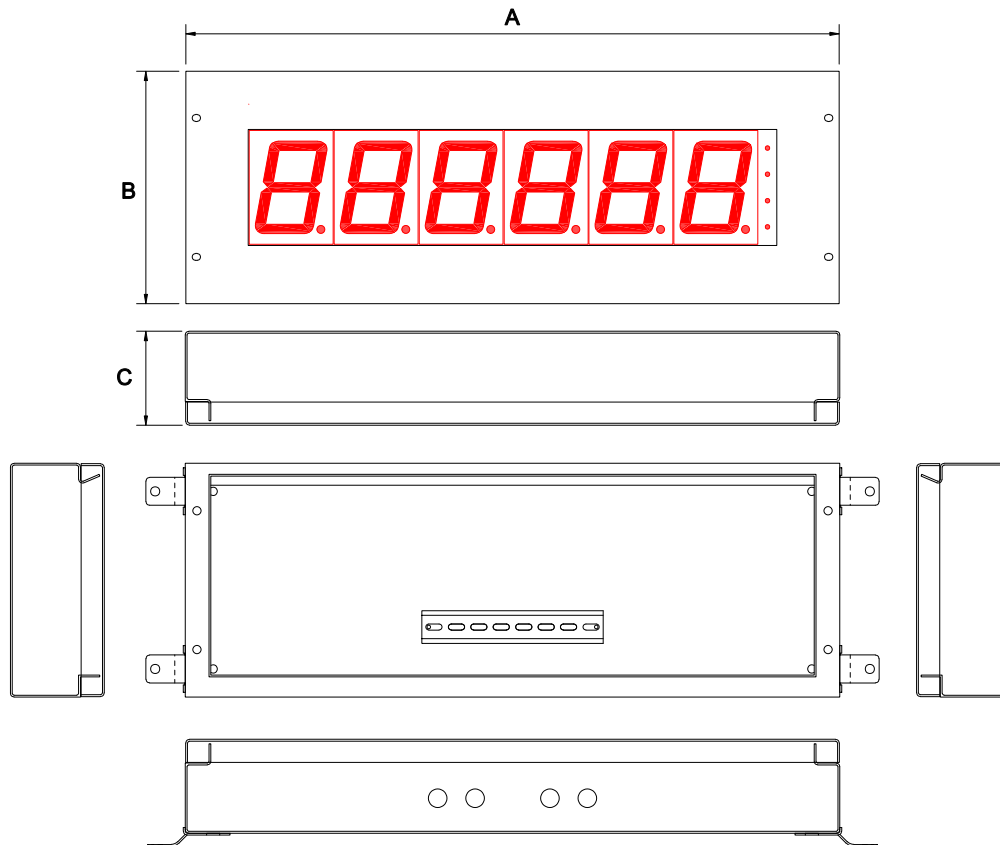
### OPERATING MODES

| Mode               | Digit Format          | Description                                                    |
|--------------------|-----------------------|----------------------------------------------------------------|
| <b>Rate</b>        | 8.8.8.8 / 8.8.8.8.8.8 | Rate, Interval, Frequency, RPM, Items per Min                  |
| <b>Period</b>      | 8.8.8.8 / 8.8.8.8.8.8 | Intervals, Bake Timer, Period Monitoring, Time between Actions |
| <b>Totaliser</b>   | 8.8.8.8 / 8.8.8.8.8.8 | Counter, Totaliser, Sum                                        |
| <b>Gated Total</b> | 8.8.8.8 / 8.8.8.8.8.8 | Gated counting, Gated Totaliser                                |
| <b>1 IN U.D</b>    | 8.8.8.8 / 8.8.8.8.8.8 | 1 input, Up/Down control                                       |
| <b>2 IN U.D</b>    | 8.8.8.8 / 8.8.8.8.8.8 | 2 input, Up/Down control                                       |
| <b>2 IN U.U</b>    | 8.8.8.8 / 8.8.8.8.8.8 | 2 input, Up/UP control                                         |
| <b>2 IN D.D</b>    | 8.8.8.8 / 8.8.8.8.8.8 | 2 input, Down/Down control                                     |
| <b>4 UUDD</b>      | 8.8.8.8 / 8.8.8.8.8.8 | 4 input, Up,Up/Down,Down control                               |
| <b>4 UUUU</b>      | 8.8.8.8 / 8.8.8.8.8.8 | 4 input, Up,Up/Up,Up control                                   |
| <b>4 DDDD</b>      | 8.8.8.8 / 8.8.8.8.8.8 | 4 input, Down,Down/Down,Down control                           |
| <b>Quadrature</b>  | 8.8.8.8 / 8.8.8.8.8.8 | Quadrature input A,B A-B, B-A                                  |



## DIMENSIONAL DRAWINGS

Wall or Suspension Mounting



## DIMENSIONS (mm)

| Model   | Digit Format | Width (A) | Height (B) | Depth (C) |
|---------|--------------|-----------|------------|-----------|
| EXNR-24 | 2" 4 digit   | 350       | 225        | 100       |
| EXNR-26 | 2" 6 digit   | 450       | 225        | 100       |
| EXNR-44 | 4" 4 digit   | 525       | 250        | 100       |
| EXNR-46 | 4" 6 digit   | 700       | 250        | 100       |
| EXNR-64 | 6" 4 digit   | 625       | 350        | 100       |
| EXNR-66 | 6" 6 digit   | 850       | 350        | 100       |
| EXNR-84 | 8" 4 digit   | 800       | 400        | 100       |
| EXNR-86 | 8" 6 digit   | 1125      | 400        | 100       |

Notes:

- i. E & OE

## TECHNICAL DATA

|                            |                                                                                       |          |          |          |
|----------------------------|---------------------------------------------------------------------------------------|----------|----------|----------|
| Digit Height (inches)      | 2.2 (F2)                                                                              | 4.0 (F4) | 5.9 (F6) | 7.9 (F8) |
| Digit Height (millimeters) | 57                                                                                    | 102      | 150      | 200      |
| Viewing Distance (feet)    | 82                                                                                    | 180      | 262      | 360      |
| Viewing Distance (metres)  | 25                                                                                    | 55       | 80       | 110      |
| Number of Digits           | 4 or 6                                                                                |          |          |          |
| Digit Format               | 8.8.8.8. or 8.8.8.8.8.8.                                                              |          |          |          |
| Input Signal               | NPN, PNP, Contact Closure, 24V logic, AC tachometer, 100mV passive Inductance pick up |          |          |          |
| Accuracy                   | +/- 0.05% of range                                                                    |          |          |          |
| Excitation Voltage         | 24V @ 30mA                                                                            |          |          |          |
| Digit Colour               | Red, green and yellow. White and blue available in 6" and 8"                          |          |          |          |
| Brightness                 | Indoor or outdoor with 7 levels of adjustment                                         |          |          |          |
| Power Supply               | 95-265V AC (standard), 11-30V DC (optional), 48V AC (optional)                        |          |          |          |
| Power Burden               | 40VA maximum                                                                          |          |          |          |
| Mounting                   | Brackets supplied for wall or suspension mounting                                     |          |          |          |
| Logic Inputs               | 3 x NPN or contact closure for TARE, PEAK/VALLEY and RESET                            |          |          |          |

## Environmental

|                                |                                                                               |
|--------------------------------|-------------------------------------------------------------------------------|
| Enclosure Material             | 316L stainless-steel                                                          |
| Lens Material                  | Polycarbonate, 6mm thick                                                      |
| Sealing                        | IP66                                                                          |
| Enclosure Certification (gas)  | II 3 G EX nR IIC T6 Gc                                                        |
| Enclosure Certification (dust) | II 3 D Ex tc IIIC T85°C Dc IP66                                               |
| Storage Temperature            | -20°C to +70°C, non-condensing                                                |
| Operating Temperature          | 0°C to +50°C, non-condensing                                                  |
| Connectors                     | Internal detachable screw terminal connectors accessed via compression glands |

## Analogue Output (optional)

|                |                                                                                                    |
|----------------|----------------------------------------------------------------------------------------------------|
| ANB Option     | -10 to +10V into loads >1k Ohms, resolution 0.4mV                                                  |
| ANI Option     | 0-20mA or 4-20mA into loads <500 Ohms, resolution 0.4uA                                            |
| ANV Option     | 0-10V into loads >1k Ohms, resolution 0.2mV                                                        |
| Scaling        | Fully adjustable, direct or inverse. Can be derived from GROSS or NETT value                       |
| Response Speed | Derived from displayed value, updated x10 per second, display filtering applies to analogue output |
| Linearisation  | Derived from displayed value                                                                       |
| Isolation      | 250V AC optically isolated from input, logic, excitation, power, alarms and data output ports      |
| Accuracy       | +/- 0.1% of range                                                                                  |
| Linearity      | +/- 0.02% of range                                                                                 |
| Stability      | +/- 50ppm/°C                                                                                       |

## Alarm Outputs (optional)

|                    |                                                                                        |
|--------------------|----------------------------------------------------------------------------------------|
| AL2 and AL4 Option | 2 or 4 x SPST mechanical relays, 2A @ 250V AC, resistive load                          |
| DSS and QSS Option | 2 or 4 x solid state relays, specify AC or DC, 100mA max @ 250V AC, 500mA max @ 60V DC |
| SPCO Option        | 2 x SPCO mechanical relays, 2A @ 250V AC, resistive load                               |
| Response Speed     | For mechanical relays allow 105mS, for solid state relays allow 100mS                  |

## Data Output (optional)

|                |                                                                                                   |
|----------------|---------------------------------------------------------------------------------------------------|
| 232 Option     | RS232 ASCII                                                                                       |
| 485 Option     | RS422/RS485 ASCII + Modbus ASCII                                                                  |
| RTU Option     | Modbus RTU                                                                                        |
| Response Speed | Derived from displayed value, updated x10 per second, display filtering applies to data output    |
| Isolation      | 250V AC optically isolated from input, logic, excitation, power, alarms and analogue output ports |



## ORDERING GUIDE

|                                                      |                                                      |                                       |                       |            |            |            |            |            |            |            |
|------------------------------------------------------|------------------------------------------------------|---------------------------------------|-----------------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Digit Height:</b>                                 |                                                      | <b>EXNR - X</b>                       | <b>X</b>              | <b>- C</b> | <b>- X</b> | <b>- X</b> | <b>- X</b> | <b>- X</b> | <b>- X</b> | <b>- X</b> |
| <b>2</b> 2 inches (57mm)                             | <b>4</b> 4 inches (102mm)                            |                                       |                       |            |            |            |            |            |            |            |
| <b>6</b> 6 inches (150mm)                            | <b>8</b> 8 inches (200mm)                            |                                       |                       |            |            |            |            |            |            |            |
| <b>4</b> 8.8.8.8. - 4 digit, numeric format          |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>6</b> 8.8.8.8.8.8 - 6 digit, numeric format       |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>Function / Input Type:</b>                        |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>C</b> Counter                                     |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>Analogue Output:</b>                              |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>0</b> None                                        | <b>ANB</b> -10 to +10V                               | <b>ANI</b> 4-20mA                     | <b>ANV</b> 0-10V      |            |            |            |            |            |            |            |
| <b>Alarm Outputs:</b>                                |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>0</b> None                                        | <b>AL2</b> 2 x SPST mechanical relays                | <b>AL4</b> 4 x SPST mechanical relays |                       |            |            |            |            |            |            |            |
| <b>DSS</b> 2 x solid state relays (specify AC or DC) | <b>QSS</b> 4 x solid state relays (specify AC or DC) |                                       |                       |            |            |            |            |            |            |            |
| <b>SPCO</b> 2 x SPCO mechanical relays               |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>Data Output:</b>                                  |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>0</b> None                                        | <b>232</b> RS232                                     | <b>485</b> RS422/485 + Modbus ASCII   | <b>RTU</b> Modbus RTU |            |            |            |            |            |            |            |
| <b>Digit Colour:</b>                                 |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>Indoor</b>                                        |                                                      | <b>Outdoor</b>                        |                       |            |            |            |            |            |            |            |
| <b>B</b> Blue 6" and 8"                              |                                                      | <b>BDLV</b> Blue 6" and 8"            |                       |            |            |            |            |            |            |            |
| <b>G</b> Green                                       |                                                      | <b>GDLV</b> Green                     |                       |            |            |            |            |            |            |            |
| <b>R</b> Red                                         |                                                      | <b>RDLV</b> Red                       |                       |            |            |            |            |            |            |            |
| <b>W</b> White 6" and 8"                             |                                                      | <b>WDLV</b> White 6" and 8"           |                       |            |            |            |            |            |            |            |
| <b>Y</b> Yellow                                      |                                                      | <b>YDLV</b> Yellow                    |                       |            |            |            |            |            |            |            |
| <b>Power:</b>                                        |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>48VAC</b> 48V AC                                  | <b>AC</b> 95-265V AC                                 | <b>DC</b> 11-30V DC                   |                       |            |            |            |            |            |            |            |
| <b>Mounting:</b>                                     |                                                      |                                       |                       |            |            |            |            |            |            |            |
| <b>2</b>                                             | Wall, cable glands on bottom surface                 |                                       |                       |            |            |            |            |            |            |            |
| <b>3</b>                                             | Suspension, cable glands on bottom surface           |                                       |                       |            |            |            |            |            |            |            |
| <b>4</b>                                             | Wall, cable glands on top surface                    |                                       |                       |            |            |            |            |            |            |            |
| <b>5</b>                                             | Suspension, cable glands on top surface              |                                       |                       |            |            |            |            |            |            |            |

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