London Electronics Limited

Atex Zone 2 and 22 Large Digit Display

EXNR-FUSION-P

Process Input 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
- Process (4-20mA, 0-10V or 1-5V)
- 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-P is available as 4 or 6 digits and can accept most industrial process signals such as 4-20mA, 0-10V and 1-5V. The displays are easily scalable and are a versatile addition to your process. Examples of their use include showing temperature, humidity, power and RPM.

Accepted Input Types		
Input Type	**Format**	**Description**
0-12V DC	8.8.8.8 / 8.8.8.8.8.8	Any DC Voltage input source
0-25mA	8.8.8.8 / 8.8.8.8.8.8	Any DC Voltage input source
2,3 or 4 wire 4-20mA	8.8.8.8 / 8.8.8.8.8.8	Input from Humidty transmitters
2,3 or 4 wire 4-20mA	8.8.8.8 / 8.8.8.8.8.8	Input from Pressure transmitters
2,3 or 4 wire 4-20mA	8.8.8.8 / 8.8.8.8.8.8	Input from Load Cell transmitters
2,3 or 4 wire 4-20mA	8.8.8.8 / 8.8.8.8.8.8	Input from Temperature transmitters
2,3 or 4 wire 0-10V	8.8.8.8 / 8.8.8.8.8.8	Input from Humidty transmitters
2,3 or 4 wire 0-10V	8.8.8.8 / 8.8.8.8.8.8	Input from Pressure transmitters
2,3 or 4 wire 0-10V	8.8.8.8 / 8.8.8.8.8.8	Input from Load Cell transmitters
2,3 or 4 wire 0-10V	8.8.8.8 / 8.8.8.8.8.8	Input from amplified signal transmitters
3 or 4 wire	8.8.8.8 / 8.8.8.8.8.8	Input from position, length, angle potentiometer inputs

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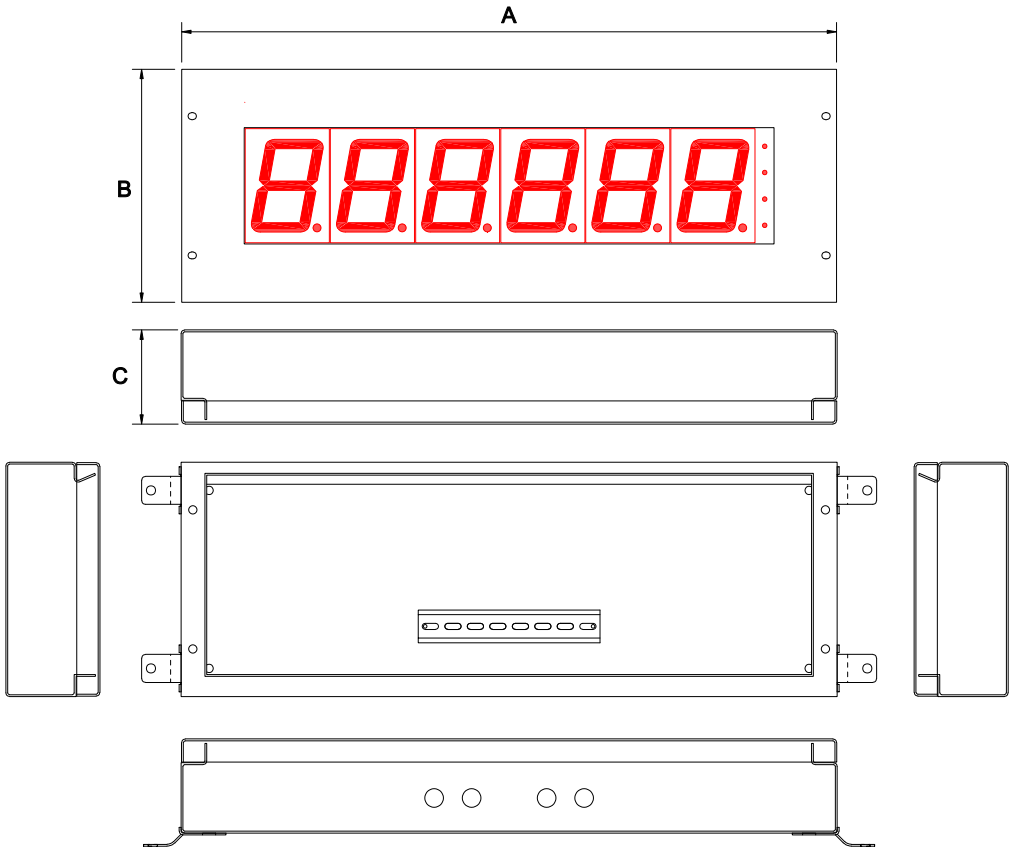
DIMENSIONAL DRAWINGS

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:

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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., 8.8.8.8.8.8.			
Input Signal	Process (0-20mA, 4-20mA, 0-10V, 1-5V)			
Accuracy	+/- 0.05% of range			
Excitation Voltage	24V @ 30mA			
Digit Colour	Red, green or yellow. Blue and white available for 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/VELLEY and RESET			
Environmental				
Enclosure Material	316L stainless steel			
Lens Material	Polycarbonate, 6mm thick			
Enclosure Certification (gas)	II 3 G EX nR IIC T6 Gc			
Enclosure Certification (dust)	II 3 D Ex tc IIIC T85°C Dc IP66			
Sealing	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			
Anlaogue 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 Output (optional)				
AL2 and AL4 Option	2 or 4 x SPST mechanical relays, 2A @ 250V AC, resisitive load			
DSS and QSS Option	2 or 4 x SPST solid state relys, 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			

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ORDERING GUIDE

EXNR - X - X - P - X - X - X - X - X - X - X

Digit Height:

- **2** 2 inches (57mm)
- **4** 4 inches (102mm)
- **6** 6 inches (150mm)
- **8** 8 inches (200mm)

Digit Format:

- **4** 8.8.8.8. - 4 digit, numeric format
- **6** 8.8.8.8.8.8 - 6 digit, numeric format

Function / Input Type:

- **P** Process input

Analogue Output:

- **0** None
- **ANB** -10 to +10V
- **ANI** 4-20mA
- **ANV** 0-10V

Alarm Outputs:

- **0** None
- **AL2** 2 x SPST mechanical relays
- **AL4** 4 x SPST mechanical relays
- **DSS** 2 x solid state relays (specify AC or DC)
- **QSS** 4 x solid state relays (specify AC or DC)
- **SPCO** 2 x SPCO mechanical relays

Data Output:

- **0** None
- **232** RS232
- **485** RS422/485 + Modbus ASCII
- **RTU** Modbus RTU

Digit Colour:

Indoor	Outdoor
B Blue 6” and 8”	**BDLV** Blue 6” and 8”
G Green	**GDLV** Green
R Red	**RDLV** Red
W White 6” and 8”	**WDLV** White 6” and 8”
Y Yellow	**YDLV** Yellow

Power:

- **48VAC** 48V AC
- **AC** 95-265V AC
- **DC** 11-30V DC

Mounting:

- **2** Wall, cable glands on bottom surface
- **3** Suspension, cable glands on bottom surface
- **4** Wall, cable glands on top surface
- **5** Suspension, cable glands on top surface

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