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Bulletin No. G3BFDM
Drawing No. LP0591
Effective

PRELIMINARY

MODEL G3BFDM - BIG FLEXIBLE DISPLAY

- ***Large 38.5" (977.9 mm) x 19" (482.6 mm) Red LED display with 0.2" diameter pixels; 128 x 64 dot resolution***
- ***Presents the display information on a G303 to the plant floor***
- ***Connects to the RS485 port of a G303***
- ***Field replaceable display boards***
- ***Replaceable fan filter***
- ***Flexible 4 eyebolt mounting***
- ***Universal AC power (85 - 265 VAC, 50 / 60 hz)***
- ***Optional NEMA 4 cooling kit available***

DESCRIPTION

GENERAL

The G3BFDM is a large (38.5" x 19") LED display (128 x 64 pixel resolution), which is driven from the RS485 port of a G303. The G3BFDM mirrors the display of the G303. The display of the G3BFDM is built using 32 display tiles in an 8 column by 4 row configuration. Each display tile has a 6 circuit dip switch which is used to set its location address. This address is determined by the tile's physical location within the G3BFDM display.

MECHANICAL

The display is housed in a welded steel enclosure. The display window (0.118" thick red acrylic) is sealed to the enclosure using a gasket and bezel strips. The gasketed rear panel is bolted to the enclosure. The enclosure is designed to be hung from an overhead support.

The G3BFDM enclosure is vented to allow for the cooling of the unit. The user can easily convert it for NEMA 4 operation using the optional BFD NEMA 4 conversion kit. The kit includes a sealed cover plate (to plug the vent hole), an external "cabinet cooler" (to replace the internal fan) and a din-rail mounted power supply to operate the "cabinet cooler". Even though the use of this conversion kit provides the G3BFDM with a NEMA 4 rating, it is not intended to be operated outside in direct sunlight.

ELECTRICAL

Power to the G3BFDM is provided by a universal AC input power supply. Both AC mains and the G303 RS485 cable enter the enclosure thru separate conduit fittings. AC power connects to the power supply via a 3 position removable terminal block. The RS485 signal connects to the communication board via either an RJ45 modular plug or a 2 position removable terminal block.

OPERATION

A database is written for the G303 using Crimson Version 2.0 (or later) as usual. The BFD driver is selected from "Red Lion" in the list of Manufacturers for the RS485 port (Communications Menu). The G303 will begin controlling the BFD display when the BFD port is connected to the RS485 port of the G303.

SAFETY SUMMARY

All safety related regulations, local codes and instructions that appear in the literature or on equipment must be observed to ensure personal safety and to prevent damage to either the instrument or equipment connected to it. If equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

CONTENTS OF PACKAGE

- G3BFDM Display
- Hardware kit including #8-32 screws & #8 flat washers for the rear cover and this instruction booklet.
- Mounting kit including eyebolts, locknuts, conduit fittings & seals & hole plugs
- This hardware bulletin

ORDERING INFORMATION

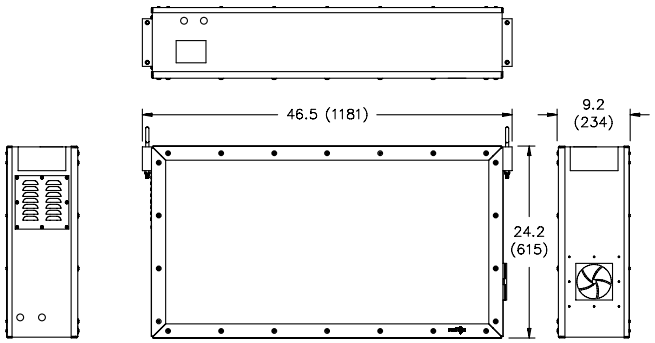
MODEL NO.	DESCRIPTION	PART NUMBER
BFDM	Big Flexible Display - Red	G3BFDM00
	Big Flexible Display with NEMA 4 Option	G3BFDNEM
G303	G303 128 x 64 Indoor	G303M000

SPECIFICATIONS

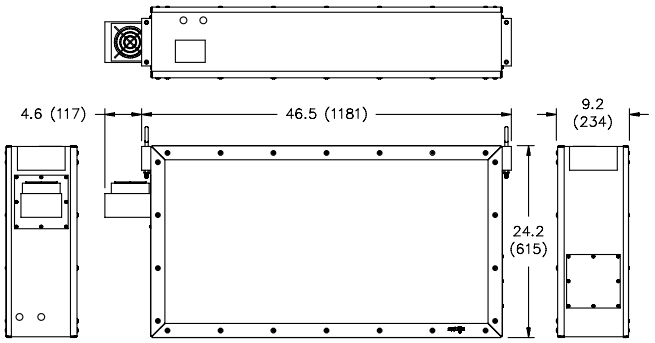
1. **POWER**: Universal AC input (85 - 265 VAC 50/60 hz); 2 A @ 120 VAC; 1 A @ 240 VAC
2. **DISPLAY**: 128 x 64 resolution using 0.2" diameter red LED pixels. Overall display measures 38.5" x 19"
3. **COMMUNICATIONS**: Connects to the host G303 thru RS485 port via either RJ45 or 2 position removable terminal block; 115,200 baud, 8 bit, 1 stop bit, no parity.
4. **ENVIRONMENTAL CONDITIONS**:
   Operating Temperature Range: 0 to 50°C
   Storage Temperature Range: -10 to 60°C
   Altitude: Up to 2000 meters.
5. **CONSTRUCTION**: Welded steel enclosure with sealed red acrylic display window. Removable gasketed rear cover attaches with bolts. Welded mounting blocks to receive 3/8" eyebolts (provided) for suspension.
6. **MOUNTING REQUIREMENTS**: Suspend from overhead truss or other suitable structure using chain or cable. Suspension eyebolts and locknuts are included. See “Mounting Instructions” for more info. Refer to local safety codes for additional requirements.
7. **WEIGHT**: 117 lbs. (53.07 Kg)

DIMENSIONS In inches (mm)

G3BFDM



G3BFDM with NEMA 4 Option (G3BFDNEM)



MOUNTING INSTRUCTIONS

This display is designed to be suspended from a ceiling truss or other suitable structure capable of supporting a minimum of 500 lbs (226.8 Kg). Extreme caution should be exercised when hanging the display to provide for the safety of personnel. Install the four eyebolts (provided) into the holes of the mounting blocks. (Refer to Figure 1.) Eyebolts should be installed so that enough of the threads are exposed at the bottom of the mounting block that the four locknuts (provided) can be fitted with a minimum of one thread exposed. (Refer to Figure 2.) Note that the eyebolt must be orientated so that the load is applied in the same plane as the loop of the "eye". (Refer to Figure 3.)

The tilt angle of the display can be adjusted by altering the length of the front suspension cables (or chains) relative to the length of the rear cables (or chains). If additional adjustment is required, consult the factory. (Refer to Figure 4.)

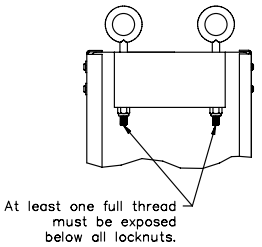


FIGURE 2

Note: Loads must always be applied to each eyebolt in the plane of the eye, not to some angle to this plane.

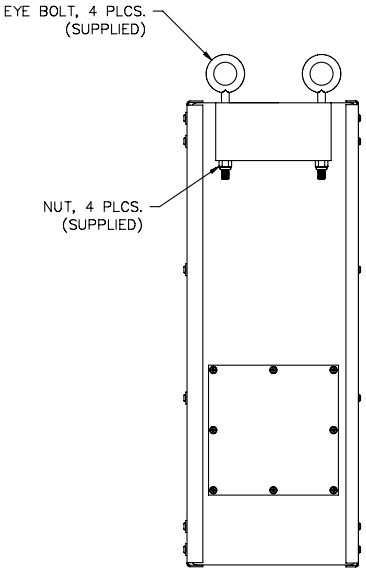


FIGURE 1

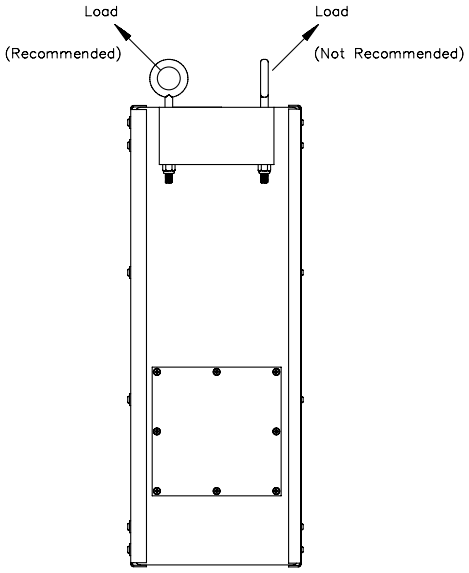


FIGURE 3

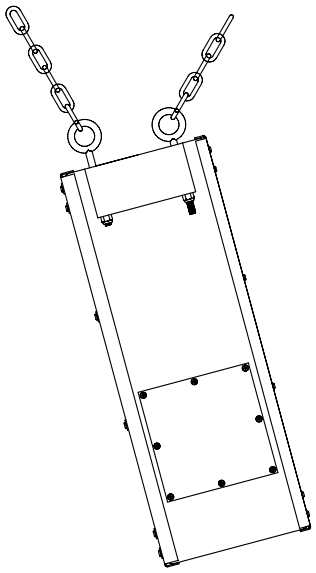
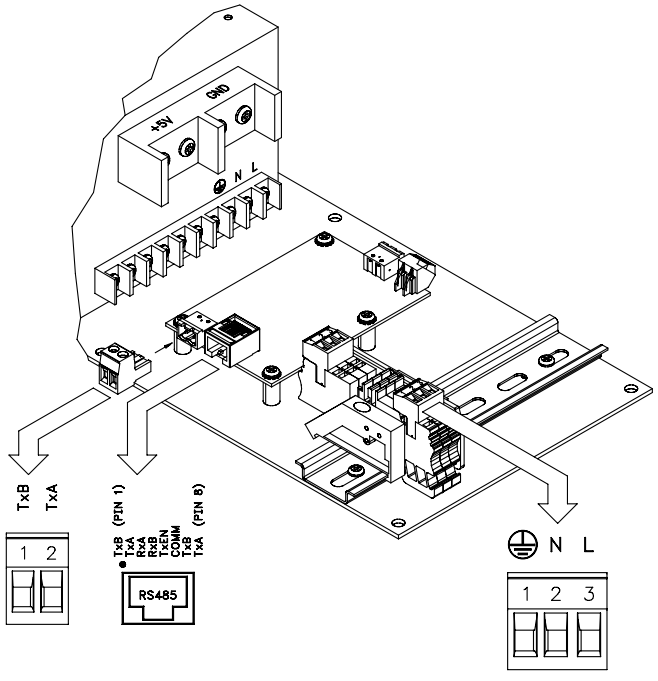


FIGURE 4

ELECTRICAL CONNECTIONS

Access to the electrical connections is provided by removing the rear cover of the BFDM. AC mains is connected to one of the available removable terminal blocks on the din rail mounted wiring assembly. A separate earth grounding point is provided. The RS485 cable from the G303 should be connected to the BFDM communications board via either the 2 position removable terminal block or the RJ45 jack.



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