

# DF-G1 Expert™ Dual Display Fiber Amplifier



## Quick Start Guide

Advanced sensor with dual digital displays for use with plastic and glass fiber optic assemblies

For complete technical information about this product, including dimensions, accessories, and specifications, see [www.bannerengineering.com](http://www.bannerengineering.com) and search for your model number. The instruction manual is p/n 161999.



### WARNING:

- **Do not use this device for personnel protection**
- Using this device for personnel protection could result in serious injury or death.
- This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A device failure or malfunction can cause either an energized (on) or de-energized (off) output condition.

## Overview

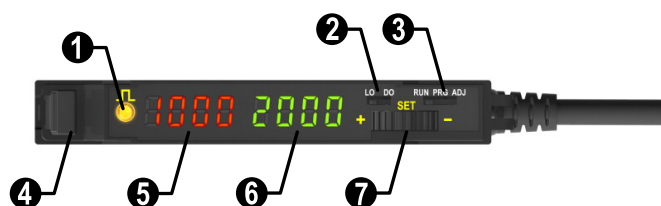


Figure 1. DF-G1 Model Features

|   |                          |
|---|--------------------------|
| 1 | Output LED               |
| 2 | LO/DO Switch             |
| 3 | RUN/PRG/ADJ Mode Switch  |
| 4 | Lever Action Fiber Clamp |
| 5 | Red Signal Level         |
| 6 | Green Threshold          |
| 7 | +/-SET/- Rocker Button   |

## Models

| Model       | Outputs                                                             | Connector <sup>1</sup>                                  |
|-------------|---------------------------------------------------------------------|---------------------------------------------------------|
| DF-G1-NS-2M | Single NPN                                                          | 2 m (6.5 ft) cable, 4-wire                              |
| DF-G1-PS-2M | Single PNP                                                          |                                                         |
| DF-G1-KS-2M | Dual outputs, 1 push-pull IO-Link and 1 PNP (complementary outputs) |                                                         |
| DF-G1-NS-Q5 | Single NPN                                                          | 150 mm (6 in) PVC pigtail, M12 Euro QD connector, 4-pin |
| DF-G1-PS-Q5 | Single PNP                                                          |                                                         |
| DF-G1-KS-Q5 | Dual outputs, 1 push-pull IO-Link and 1 PNP (complementary outputs) |                                                         |
| DF-G1-NS-Q7 | Single NPN                                                          | Integral M8 Pico QD connector, 4-pin                    |
| DF-G1-PS-Q7 | Single PNP                                                          |                                                         |
| DF-G1-KS-Q7 | Dual outputs, 1 push-pull IO-Link and 1 PNP (complementary outputs) |                                                         |

### <sup>1</sup> Connector options:

- A model with a QD connector requires a mating cordset .
- For 9 m cable, change the suffix 2M to **9M** in the 2 m model number (example, DF-G1-NS-**9M**).
- For 150 mm (6 in) PVC pigtail, M8 Pico QD connector, 4-pin change the suffix 2M to **Q3** in the 2 m model number (example, DF-G1-NS-**Q3**).

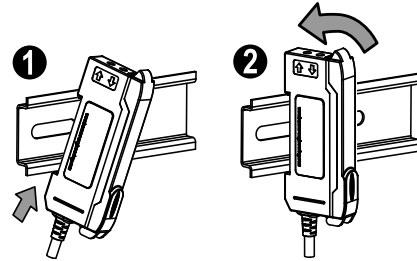


## Installation Instructions

### Mounting Instructions

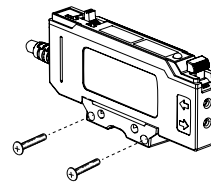
#### Mount on a DIN Rail

1. Hook the DIN rail clip on the bottom of the DF-G1 over the edge of the DIN rail (1).
2. Push the DF-G1 up on the DIN rail (1).
3. Pivot the DF-G1 onto the DIN rail, pressing until it snaps into place (2).



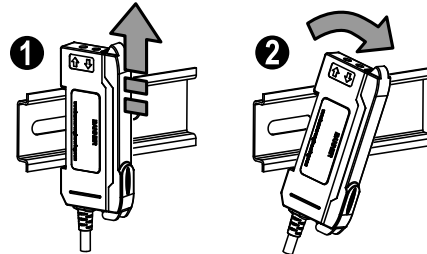
#### Mount to the Accessory Bracket (SA-DIN-BRACKET)

1. Position the DF-G1 in the SA-DIN-BRACKET.
2. Insert the supplied M3 screws.
3. Tighten the screws.



#### Remove from a DIN rail

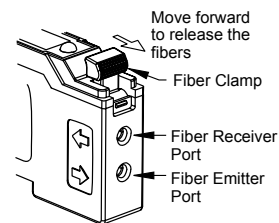
1. Push the DF-G1 up on the DIN rail (1).
2. Pivot the DF-G1 away from the DIN rail and remove it (2).



### Installing the Fibers

Follow these steps to install glass or plastic fibers.

1. Open the dust cover.
2. Move the fiber clamp forward to unlock it.
3. Insert the fiber(s) into the fiber port(s) until they stop.
4. Move the fiber clamp backward to lock the fiber(s).
5. Close the dust cover.



### Fiber Adapters



**Note:** If a thin fiber with less than 2.2 mm outer diameter is used, install the fiber adapter provided with the fiber assembly to ensure a reliable fit in the fiber holder. Align the fibers to the end of the adapters. Banner includes the adapters with all fiber assemblies.