

Temporary mount assembly for FLO-DAR™ sensor

Safety Information

Please read this entire document before unpacking, setting up or operating this equipment. Pay attention to all danger and caution statements. Failure to do so could result in serious injury to the operator or damage to the equipment.

To ensure that the protection provided by this equipment is not impaired, do not use or install this equipment in any manner other than that specified in this document.

Use of Hazard Information

DANGER

Indicates a potentially or imminently hazardous situation which, if not avoided, will result in death or serious injury.

Important Note: Indicates a situation which, if not avoided, may cause damage to the instrument. Information that requires special emphasis.

Overview

DANGER

Explosion hazard. Training in pre-entry testing, ventilation, entry procedures, evacuation/rescue procedures and safety work practices is necessary before entering confined spaces.

DANGER

Explosion hazard. If the installation is in a hazardous location, make sure to review the Hazardous Location Control Drawing (108001200) and all safety precautions in the FLO-DAR™ Intrinsic Safe Sensor User Manual (DOC026.53.00817).

The temporary mount assembly is for the installation of a FLO-DAR™ Sensor in various types of manholes without drilling holes or making permanent modifications.

Temporary mount assemblies are available for a range of surface spans and include a standard or extended frame. Refer to [Table 1](#).

The foundation for the temporary mount assembly is a jack bar assembly with a jack on one end and a spring loaded foot on the other.

The jack bar assembly can be positioned vertically or horizontally between two rigid surfaces. Mounted on the bar is a slide with two setscrews. This permits horizontal and vertical positioning of the sensor.

There is a control lever (see [Figure 1](#)) on the jack mechanism with the word UP on it. With this lever in the UP position, operate the jack handle to extend the jack bar. The lever should be left in the UP position when installed. To remove the jack bar assembly, pull the lever out of the UP position and operate the jack handle to retract the jack bar. There is also a trigger on the jack handle that when the control lever is out of the UP position and the trigger is pressed, the jack bar will slide freely.

The temporary mount assembly uses standard 3/4 inch pipe fittings as attachment points. Other commercially available pipe fittings can be added to easily solve different site configurations.

Table 1 Temporary mount assemblies

Frame	Length Range	Catalog No.
Standard	86–132 cm (34–52 in.)	800016401
	132–178 cm (52–70 in.)	800016402
	178–224 cm (70–88 in.)	800016403
	226–272 cm (89–107 in.)	800016404
Extended	86–132 cm (34–52 in.)	800016301
	132–178 cm (52–70 in.)	800016302
	178–224 cm (70–88 in.)	800016303
	226–272 cm (89–107 in.)	800016304

Components

Refer to [Figure 1](#) for the components included.

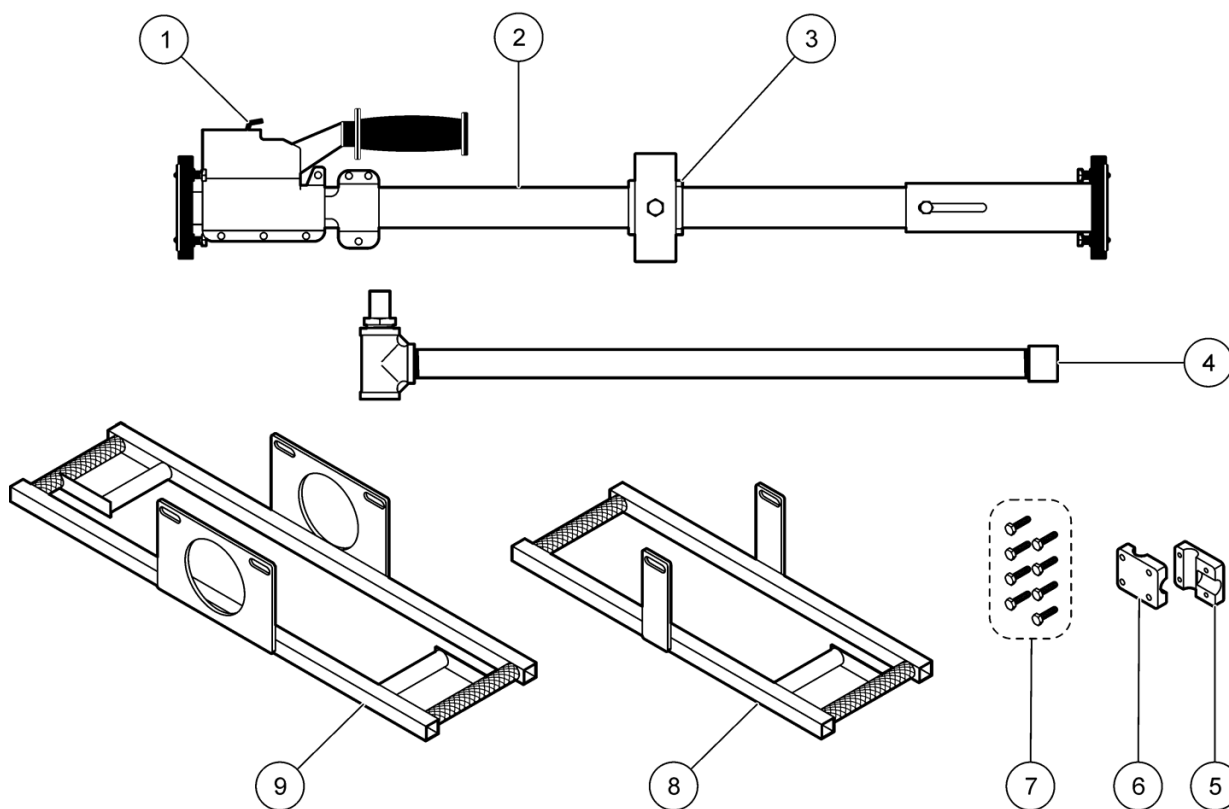


Figure 1 Temporary mount assembly components

1 Control lever	6 Clamp half, not threaded
2 Jack bar assembly	7 Clamp bolt, 1/4–20 x 1 in. (8x)
3 Slide	8 Standard Frame
4 3/4 x 24 inch extension pipe with tee fitting and bushing	9 Frame for Flo-Dar sensor with optional extended depth sensor
5 Clamp half, threaded	

Install the temporary mount assembly

Important Note: Make sure the support structures will be able to handle the force of the jack (approximately 500 lb).

The installation objectives, alignment and leveling for the sensor and sensor frame are the same as for the permanent mount described in the FLO-DAR™ Sensor User Manual (DOC026.53.00817 or DOC026.53.00786).

1. Install the jack bar assembly in the manhole. As a general rule, the jack bar should be approximately 20–24 inches above the crown (top) of the pipe. To prevent rotation along the axis of the jack bar assembly due to the weight of the sensor, install the jack bar assembly as parallel to the pipe as possible. A slight angle is required to use the optional retrieval pole and hook (See [Figure 2](#)).

Compress the spring loaded foot approximately 32–38 mm (1.25–1.5 in.) or three to four cycles of the jack handle after initial contact with the wall.

2. Assemble the extension pipe and frame to the jack bar as shown in [Figure 3](#).
3. Align and level the frame. Refer to the FLO-DAR Sensor user manual for specific dimension requirements based on sensor options. Review all safety precautions for hazardous location installations.
4. Once the temporary mount is positioned and leveled, tighten all bolts and setscrews.

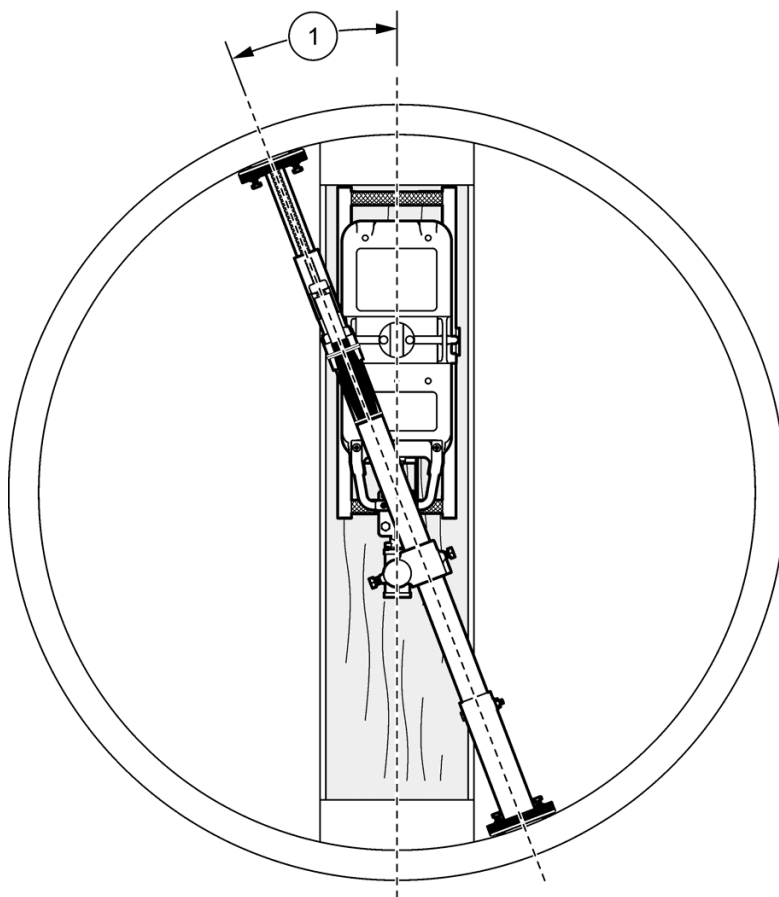


Figure 2 Installation in manhole

1 Minimum angle to allow for sensor removal using retrieval pole and hook

Assembly

Assemble the extension tube and frame to the jack bar as shown in [Figure 3](#).

Note: The standard frame can be clamped from either end to define the direction that the sensor points. Determine the sensor direction, then clamp the frame.

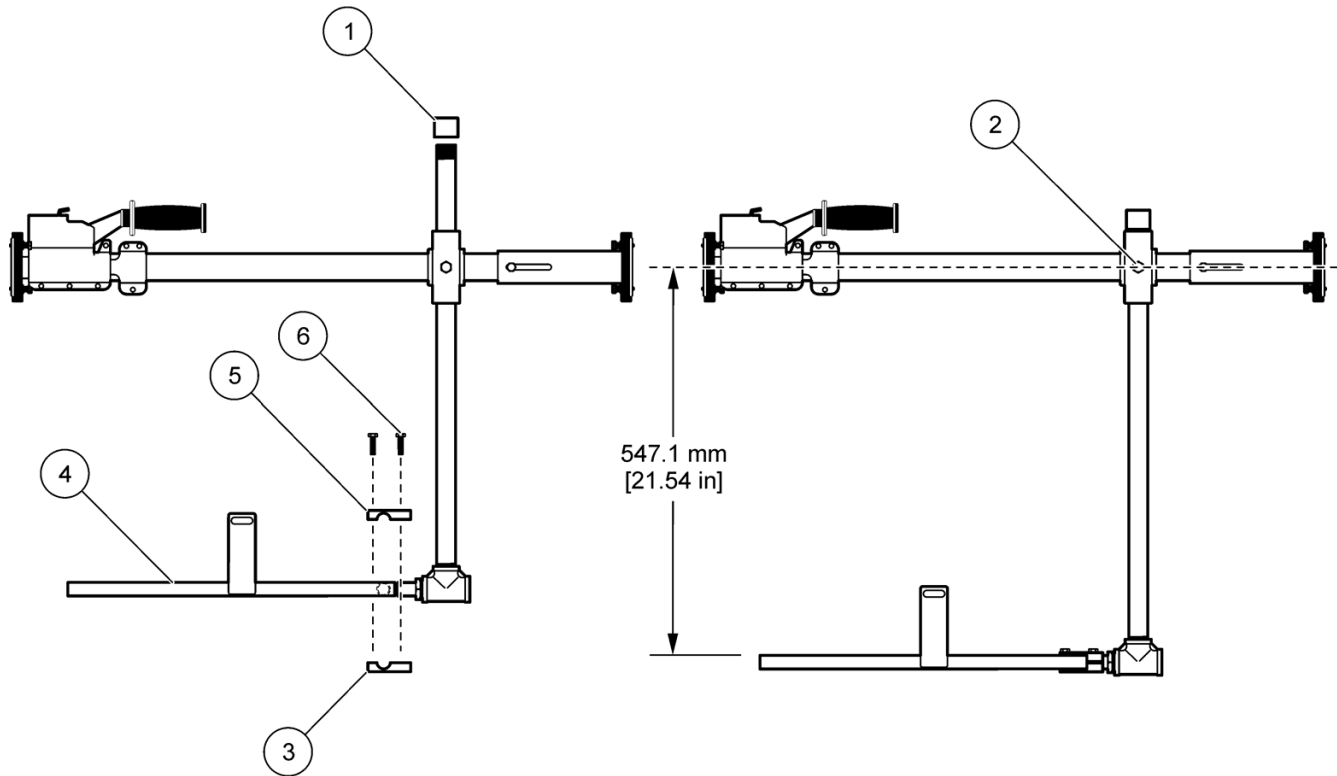


Figure 3 Assemble components

1	Pipe cap	4	Frame
2	Setscrew	5	Clamp half, not threaded
3	Clamp half, threaded	6	Clamp bolt, 1/4-20 x 1 in. (4x)