Instructions-Parts

GRACO®

15V534 Gun Flush Box Interface Kit

313212A

Interfaces a Graco Gun Flush Box with a ProMix® 2KS Electronic Proportioner using a RoboMix Fluid Station. For professional use only.

Approved for use in explosive atmospheres only when used in conjunction with ProMix 2KS Electronic Proportioners.

100 psi (0.7 MPa, 7 bar) Maximum Air Input Pressure

Important Safety Instructions
Read all warnings and instructions in this manual. For complete warnings and instructions see your proportioning system manual and gun flush box manual 312784. Hazard symbols refer to specific procedure risks. Save all instructions.
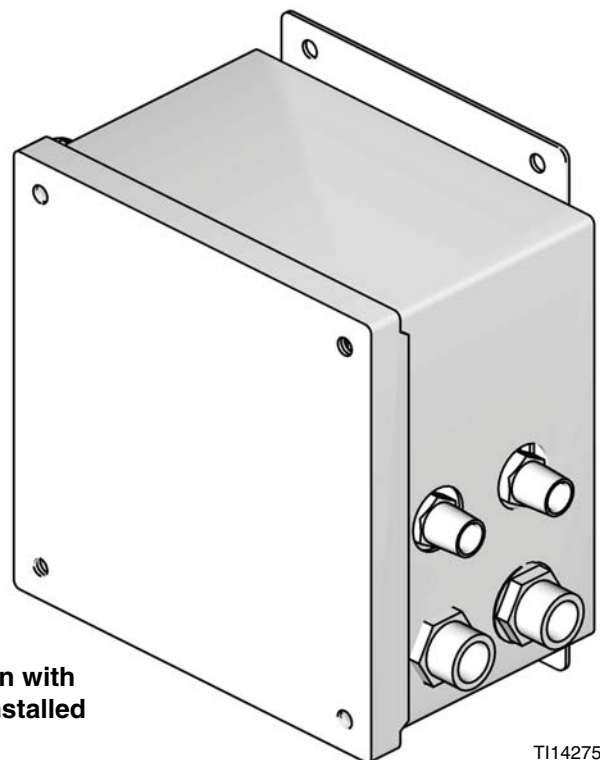
GFB Interface Kit shown with two air flow switches installed

TI14275a

CE 0359   ⟨Ex⟩ II 2 G   FM C US APPROVED

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Contents

Related Manuals

See the following manuals for additional information on the ProMix 2KS and Gun Flush Box Kits.

Manual	Description
312778	ProMix 2KS Automatic System Installation
312779	ProMix 2KS Automatic System Operation
312780	ProMix 2KS Automatic System Repair-Parts
312784	Gun Flush Box Kits

Overview

Gun Flush Box Interface Kit 15V534 provides electrical and air connections to enable a ProMix 2KS RoboMix proportioner to operate one or two gun flush boxes. See FIG. 1 for the identification label.

Order Gun Flush Box Kit 15V826 separately (see manual 312784). Each 15V826 Kit includes one gun flush box and related parts. The pressure switch, air flow switch, and solenoid valve included in Gun Flush Box Kit 15V826 will be installed in this interface module.
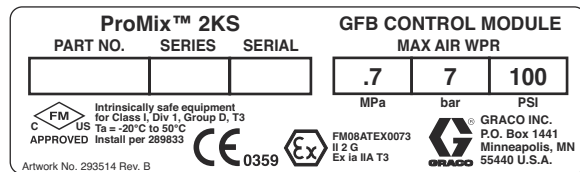

ProMix™ 2KS   **GFB CONTROL MODULE**
PART NO.   SERIES   SERIAL   **MAX AIR WPR**

.7   7   100
MPa   bar   PSI

FM   US   Intrinsically safe equipment for Class I, Div 1, Group D, T3   Ta = -20°C to 50°C
C   APPROVED   Install per 289833
Artwork No. 293514 Rev. B   CE 0359   Ex   FM08ATEX0073 II 2 G Ex ia IIA T3   GRACO INC. P.O. Box 1441 Minneapolis, MN 55440 U.S.A.

FIG. 1. GFB Interface Module Identification Label

Installation

- To avoid electric shock, ground all equipment. Turn off equipment power and shut off power at main circuit breaker before installing.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.
- Do not substitute system components as this may impair intrinsic safety.

To reduce the risk of serious injury, including fluid injection, splashing, pinching or injury from moving parts, relieve pressure before installing the kit. Follow the **Pressure Relief Procedure** in the ProMix 2KS Operation or Service manual.

Location

Install the gun flush box module enclosure (1) within 15 ft (4.5 m) of the RoboMix, to ensure that the cable (23) will reach the RoboMix. The module is approved for use in a hazardous location. See FIG. 1.

Mount the Enclosure

1. See **Dimensions**, page 13.

2. Ensure that the wall and mounting hardware are strong enough to support the weight of the equipment, fluid, hoses, and stress caused during operation.

3. Using the equipment as a template, mark the mounting holes on the wall at a convenient height for the operator and so equipment is easily accessible for maintenance.

4. Drill mounting holes in the wall. Install anchors as needed.

5. Bolt equipment securely.

Install the Cable

1. Loosen the captive screws and remove the front cover from the enclosure.

2. The cable (23) has bare wires at both ends. Thread the shortest end (4 in. [102 mm]) into the enclosure through the strain relief bushing (7). See FIG. 2.

3. Connect the cable wires to the left side of the terminal strip (12), as indicated by the label (20). See FIG. 2 and Table 1.
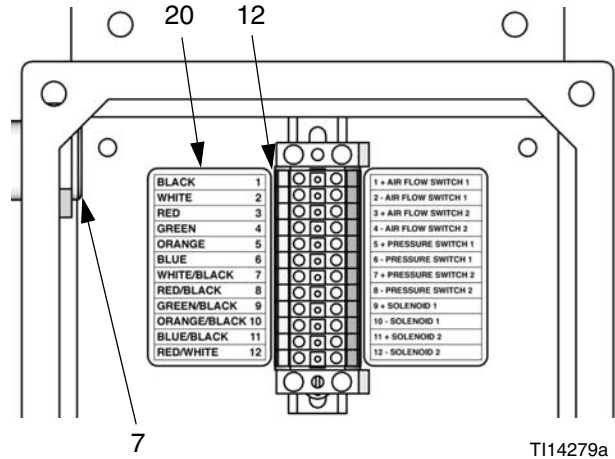
FIG. 2. Connect Cable to Terminal Strip

4. Connect the other end of the cable (5 in. [127 mm]) to pins 1-4 and 7-10 of the 10 position connector (24) and pins 1-4 of the 6 position connector, as shown in the **Cable (23) Wire Harness Detail** on page 11.

Table 1: Terminal Strip Wire Connections

Pin No.	Cable Wire Colors	Pin No.	Switch Wires
1	Black	1	Air Flow Switch 1 +
2	White	2	Air Flow Switch 1 -
3	Red	3	Air Flow Switch 2 +
4	Green	4	Air Flow Switch 2 -
5	Orange	5	Pressure Switch 1 +
6	Blue	6	Pressure Switch 1 -
7	White/Black	7	Pressure Switch 2 +
8	Red/Black	8	Pressure Switch 2 -
9	Green/Black	9	Solenoid 1, + (12V), Red
10	Orange/Black	10	Solenoid 1, - (COM), Black
11	Blue/Black	11	Solenoid 2, + (12V), Red
12	Red/White	12	Solenoid 2, - (COM), Black

Install the Air Flow Switch

NOTE: The GFB Interface Module Kit does not include an air flow switch (AFS). The AFS is supplied with the gun flush box kit. Install the AFS in the interface module as follows.

1. Each gun flush box kit includes one air flow switch (AFS). The GFB interface module can accommodate 1 or 2 air flow switches. Install the switch(es) in the right side of the enclosure. See FIG. 3.

⚠ 1 AFS is part of gun flush box kit; not included with GFB Interface Kit.

FIG. 3. Install Air Flow Switch (two shown)

2. Connect the wires from AFS#1 to the right side of the terminal strip (12) pins 1 (+) & 2 (-), as indicated by the label (21). See FIG. 4 and Table 1.
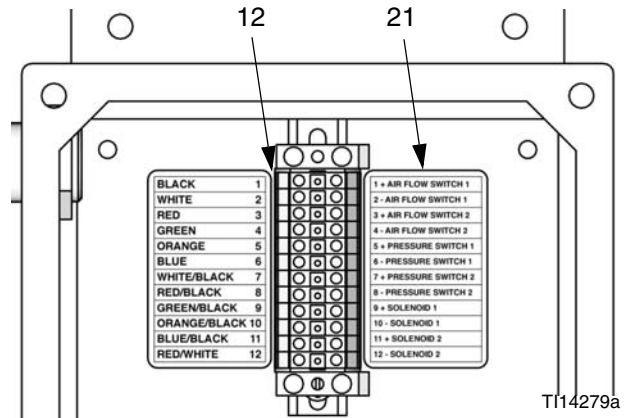
FIG. 4. Connect Air Flow Switch to Terminal Strip

3. If using a second gun flush box, connect the wires from AFS#2 to the right side of the terminal strip (12) pins 3 (+) & 4 (-), as indicated by the label (21). See FIG. 4 and Table 1.

Install the Pressure Switch

NOTE: The GFB Interface Module Kit does not include a pressure switch (PS). The pressure switch is supplied with the gun flush box kit. Install the pressure switch in the interface module as follows.

1. Each gun flush box kit includes one pressure switch (PS). The GFB interface module can accommodate 1 or 2 pressure switches. Install the switch(es) in the left side of the enclosure. See FIG. 5.

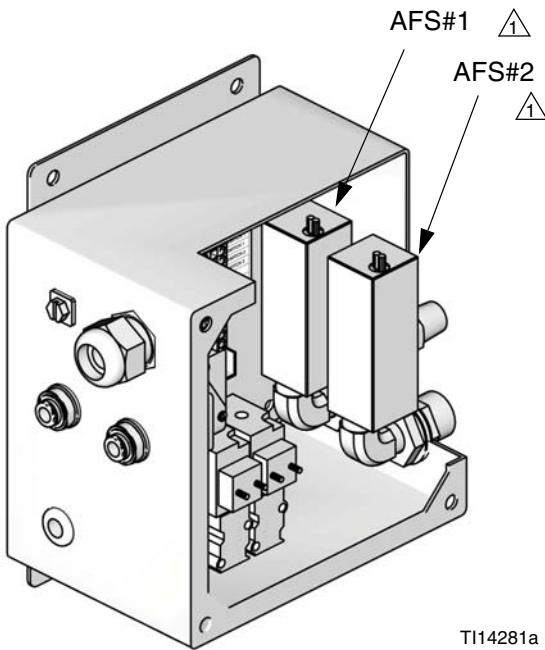⚠1 Pressure switch is part of gun flush box kit; not included with GFB Interface Kit.

FIG. 5. Install Pressure Switch (two shown)

2. Connect the wires from PS#1 to the right side of the terminal strip (12) pins 5 (+) & 6 (-), as indicated by the label (21). See FIG. 6 and Table 1.
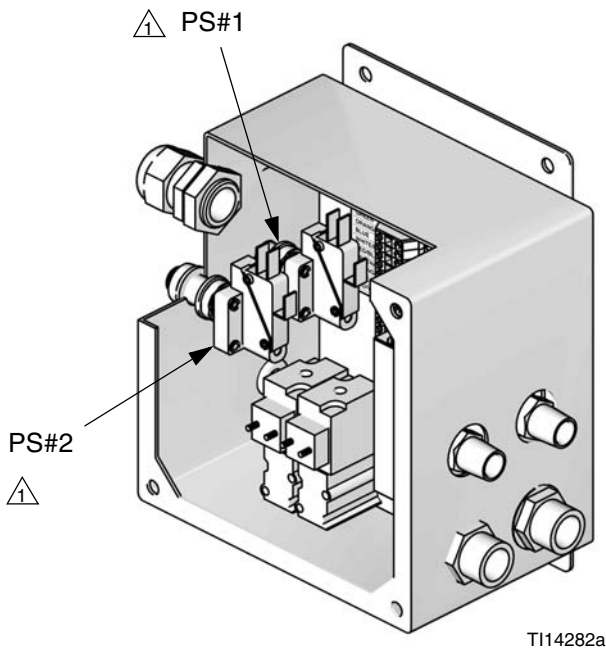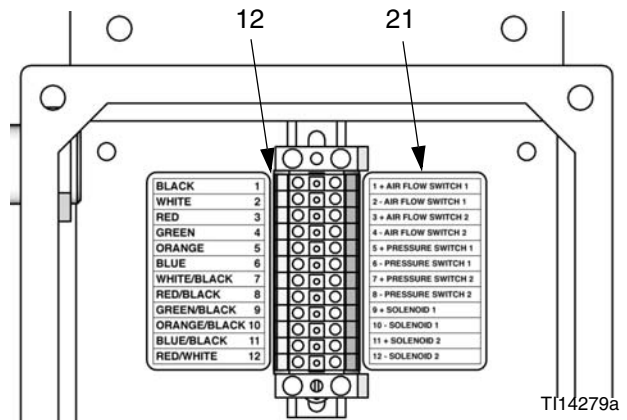

FIG. 6. Connect Pressure Switch to Terminal Strip

3. If using a second gun flush box, connect the wires from PS#2 to the right side of the terminal strip (12) pins 7 (+) & 8 (-), as indicated by the label (21). See FIG. 6 and Table 1.

Install the Solenoid

NOTE: The GFB Interface Module Kit does not include a solenoid (SO). The solenoid is supplied with the gun flush box kit. Install the solenoid in the interface module as follows.

1. Each gun flush box kit includes one solenoid (SO). The GFB interface module can accommodate 1 or 2 solenoids. Install the solenoid(s) on the manifold at the bottom rear of the enclosure. See FIG. 7.

NOTE: See **Parts** on page 11. If you are using two gun flush boxes, remove the two sealing screws (4) from the solenoid manifold (8) before installing SO#2. Also remove the plug (5) from the connector (15).

⚠1 Solenoid is part of gun flush box kit; not included with GFB Interface Kit.
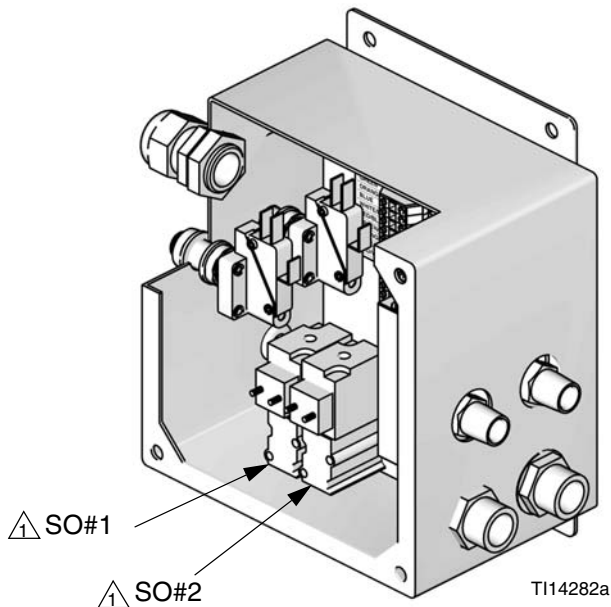
FIG. 7. Install Solenoid (two shown)

2. Connect the wires from SO#1 to the right side of the terminal strip (12), as indicated by the label (21); red (+12V) to pin 9, black (COM) to pin 10. See FIG. 8 and Table 1.
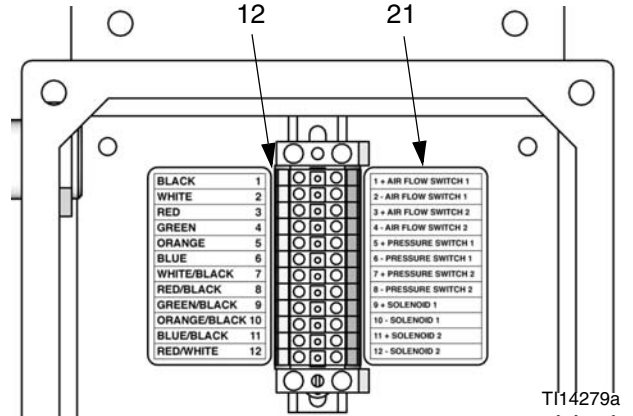
FIG. 8. Connect Solenoid to Terminal Strip

3. If using a second gun flush box, connect the wires from SO#2 to the right side of the terminal strip (12), as indicated by the label (21); red (+12V) to pin 11, black (COM) to pin 12. See FIG. 8 and Table 1.

Connect the Cable to the RoboMix Control Board

NOTICE
To avoid damaging circuit board when servicing, wear grounding strap on wrist and ground appropriately.

1. See the ProMix 2KS Repair-Parts manual. Open the RoboMix to access the control board.

2. Connect the 10 position connector (24) to J1 on the control board. See FIG. 9.

J1 Pins 1-4, 7-10
(10 position
Connector 24)
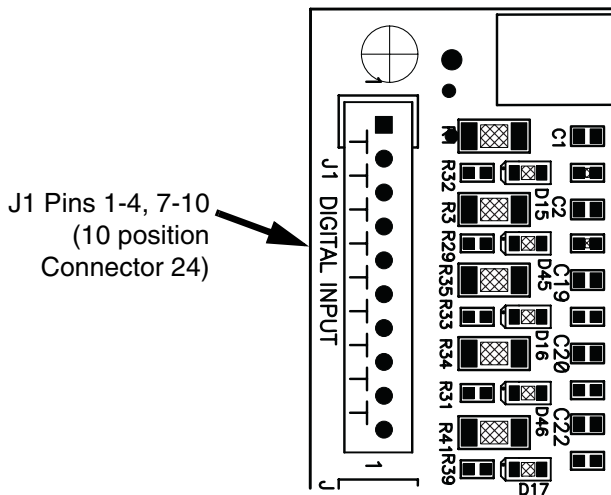
FIG. 9: RoboMix Control Board J1 Connections

3. Connect the 6 position connector (25) to J8 on the control board. See FIG. 10

J8 Pins 1-4
(6 position Connector 25)
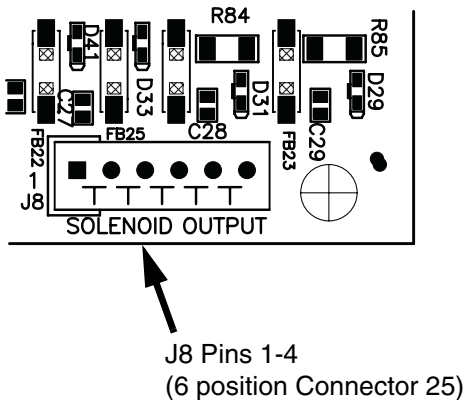
FIG. 10: RoboMix Control Board J8 Connections

Connect the Gun Flush Box

NOTE: Use 5/32 in. (4 mm) OD tubing to connect the gun flush box air ports to the interface module air ports, as follows. See FIG. 12.

1. From the **P** port to the air supply.

2. From the **A** port to the pressure switch air input.

3. From the **C** port to the gun flush box solenoid output.

4. From the **S** port to the atomizing air safety shutoff valve pilot port. See the gun flush box manual for details on the safety shutoff valve.

5. From the AFS to the atomizing air safety shutoff valve IN port. See the gun flush box manual for details on the safety shutoff valve.

Connect Air Supply to Module

Connect a 1/4 in. (6 mm) OD tube between a clean, dry air supply (filtered to 10 microns) and the module air inlet fitting (13). See **Parts** on page 11.

Replace the Cover

Reinstall the cover on the enclosure and secure with the four captive screws.

Ground the Enclosure

Connect a ground wire (Y) from the enclosure's ground screw (6) to a true earth ground. See FIG. 11.

TI14277a

FIG. 11. Ground the Enclosure

GUN FLUSH BOX

**AIR SAFETY
SHUTOFF VALVE**

TI13110b

INTERFACE MODULE

AFS

TI14278a

FIG. 12: Gun Flush Box to Interface Module Air Connections

Parts

TI14279a

TI14280a

1 If using two gun flush boxes, remove item 5 and two of item 4.

12 (Ref)

```
1   AIR FLOW SWITCH #1 + (BLK)
2   AIR FLOW SWITCH #1 - (WHT)
3   AIR FLOW SWITCH #2 + (RED)
4   AIR FLOW SWITCH #2 - (GRN)
5   PRESSURE SWITCH #1 + (ORG)
6   PRESSURE SWITCH #1 - (BLU)
7   PRESSURE SWITCH #2 + (WHT/BLK)
8   PRESSURE SWITCH #2 - (RED/BLK)
9   SOLENOID #1 +12 (GRN/BLK)
10  SOLENOID #1 COM (ORG/BLK)
11  SOLENOID #2 +12 (BLU/BLK)
12  SOLENOID #2 COM (RED/WHT)
```
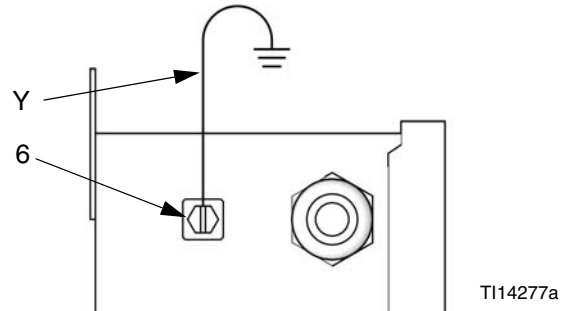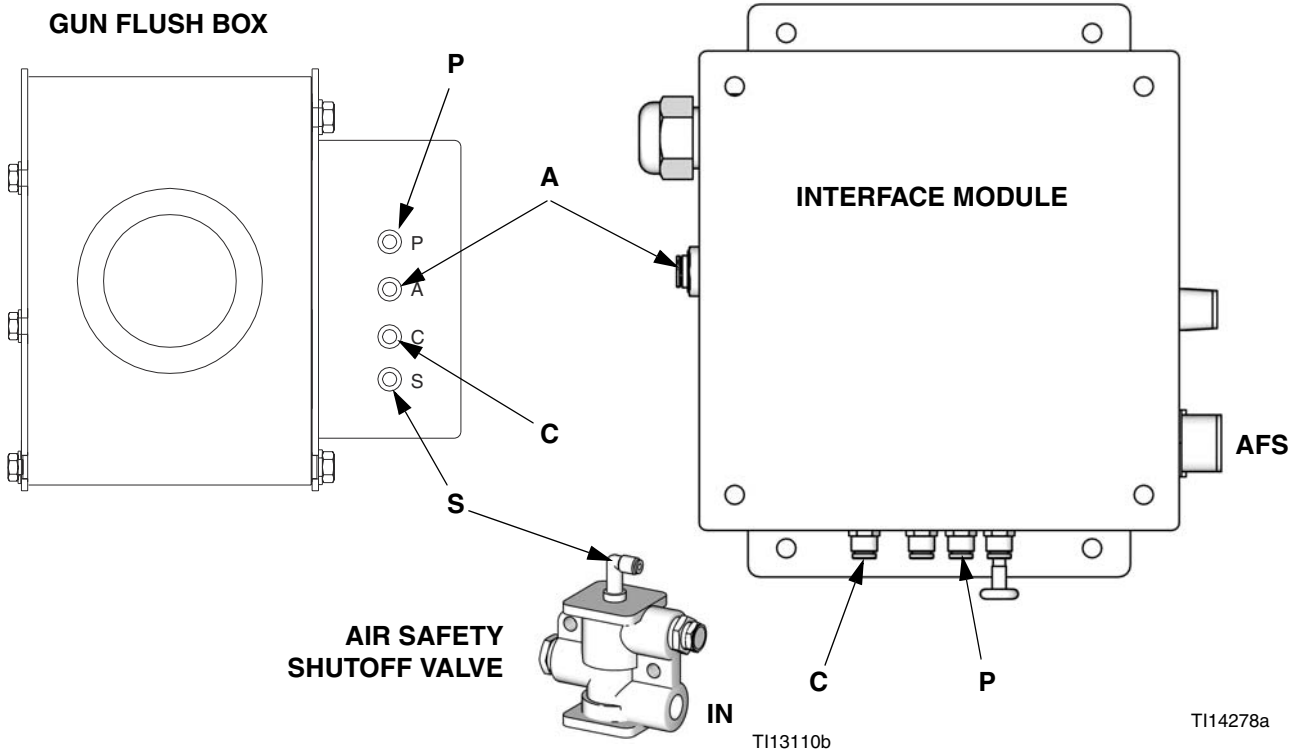
Cable (23) Wire Harness Detail

Ref. No.	Part No.	Description	Qty
1	15V531	ENCLOSURE, GFB module	1
3	118435	GROMMET	1
4	121628	SCREW, self-sealing	4
5	113279	PLUG, fitting, tube	1
6	116343	SCREW, ground	1
7	114421	BUSHING, strain relief	1
8	15V533	MANIFOLD, GFB solenoid	1
9	116457	RAIL; 3 in. (76 mm)	1
10	116804	BLOCK, end, terminal	2
11	116459	COVER, end, terminal	2
12	116458	TERMINAL, rail mount	12
13	115671	CONNECTOR, tube; 1/4 in. OD	1
14	C06061	MUFFLER	1
15	111328	CONNECTOR, tube; 5/32 in. OD	4
16	113045	SCREW, machine, truss-hd	2
18	103832	SCREW, machine	2
19	n/a	TUBE, nylon; 1.2 in. (30 mm)	1
20	293494	LABEL, cable wire connections	1
21	293495	LABEL, switch wire connections	1
23	15V819	CABLE, GFB interface	1
24	15V409	CONNECTOR, 10 position	1
25	15G795	CONNECTOR, 6 position	1

Connect a Booth Control to the RoboMix (to operate as a manual system)

To use the RoboMix as a manual system, order the 15V350 Booth Control Kit and connect as follows. The kit includes a booth control module, wall bracket, and 50 ft (15.25 m) cable.

NOTICE
To avoid damaging circuit board when servicing, wear grounding strap on wrist and ground appropriately.

1. See FIG. 13. Mount the booth control in a convenient location near the RoboMix. Bring the cable to the RoboMix and thread it through the cable path at the back.

2. See the ProMix 2KS Repair-Parts manual. Open the RoboMix to access the control board.

3. Connect the cable to J7 on the control board. Close up the RoboMix and return to operation.

Cable Path

TI12511a

Booth Control

Booth Control Cable

RoboMix

TI15110a

J7. Plug In for Booth Control Cable

RoboMix Control Board
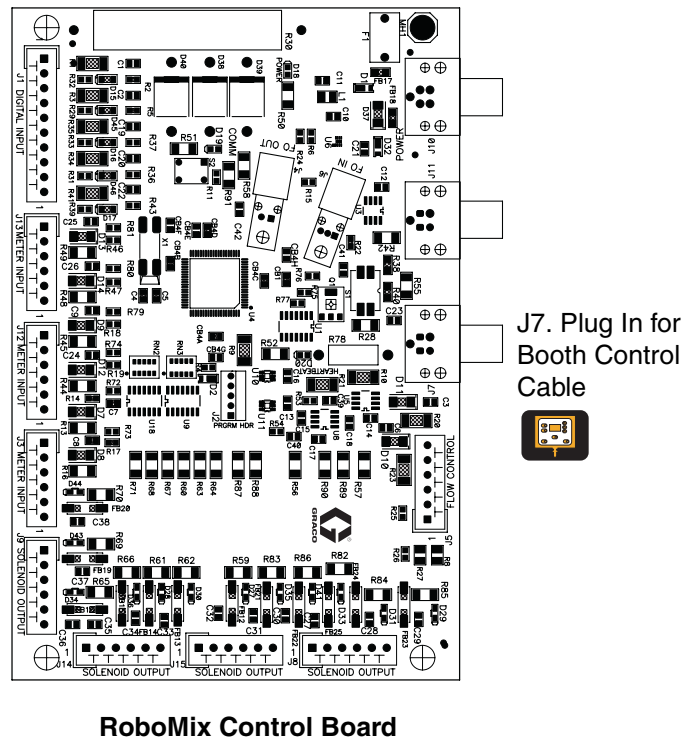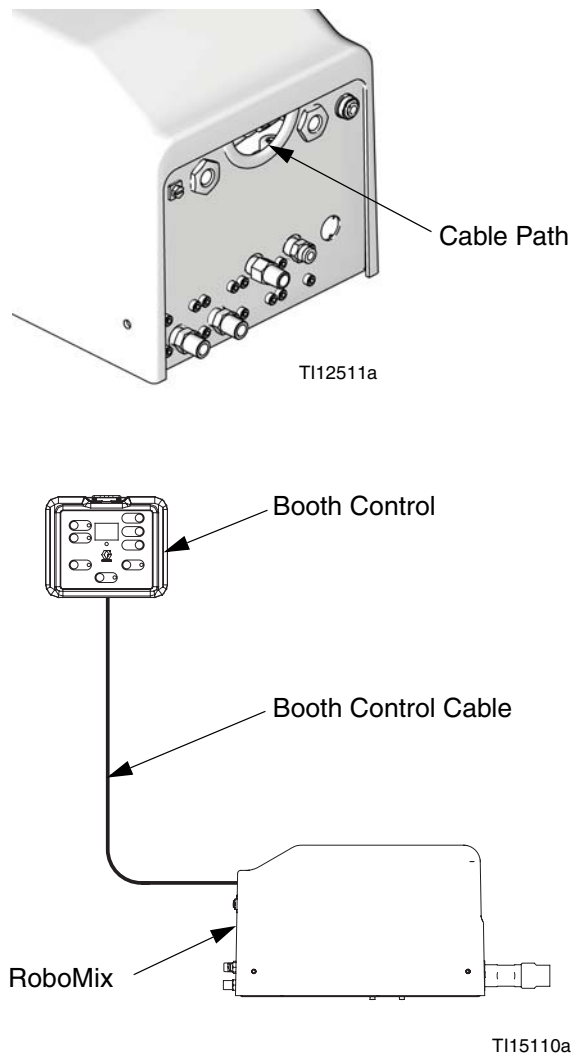
FIG. 13. Connect a Booth Control to the RoboMix

Dimensions

4.00 in.
(101.6 mm)

7.50 in.
(190.5 mm)

Mounting Holes

4.00 in.
(101.6 mm)

6.75 in.
(171.5 mm)

6.28 in.
(159.5 mm)
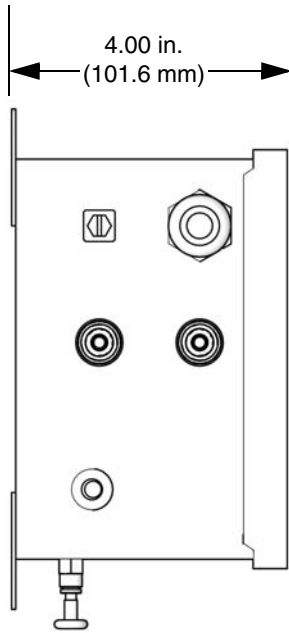
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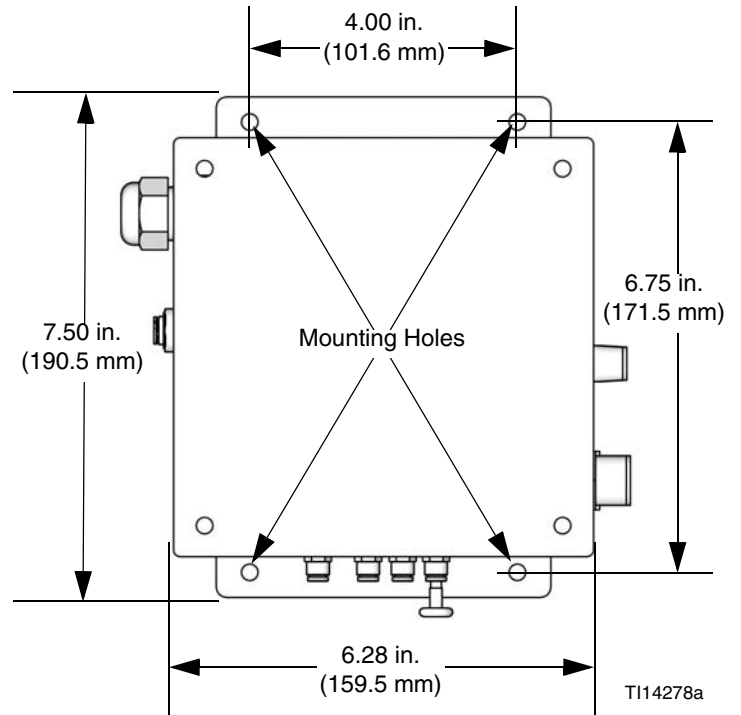
TI14278a

Technical Data

Maximum Air Input Pressure . . . .   100 psi (0.7 MPa, 7 bar)
Air Inlet Size . . . .   1/4 in. (6 mm) OD tube connector
Air Outlet Size. . . . .   5/32 in. (4 mm) OD tube connectors
Weight . . . .   6.69 lb (3.03 kg)

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

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This manual contains English. MM 313212

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