Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

WARRANTY

In the event that defects appear in the Goods under proper use, CPI will repair or replace, at CPI's option and cost (excluding removal and/or reinstallation costs if so necessary) within the warranty period set forth: Unless otherwise expressly agreed, whichever period expires earlier: (i) twelve (12) months from first operation of any such Goods; or (ii) eighteen (18) months from CPI's notification of Goods readiness.

CPI's warranty shall exclude liability for defects arising from: (i) installation, commissioning and/or operation, not in accordance with manual or good industry practice; (ii) use of unapproved spares, unauthorized modification or alteration of the Goods; (iii) normal wear and tear; (iv) the failure of Buyer and/or the end-user to provide adequate storage; or (v) use of the equipment otherwise than in accordance with the agreed operational parameters (including composition, pressure and temperature of the feed gas). No part shall be deemed defective by reason of its failure to resist fouling and the action of erosive or corrosive gases. Any warranty repair or replacement of Goods or re-performance of Services shall be warranted by CPI for the remainder of the original warranty period.

This Device is not field repairable. For replacement, visit www.CPIcompression.com or contact your local representative :

United States
4410 Greenbriar Drive
Stafford, Texas, 77477
USA
Tel: +1 281 207 4600
Fax: +1 281 207 4612

United Kingdom
Unit 5, Smitham Bridge Road
Hungerford, Berkshire, UK
RG17 0QP
Tel: +44 (0)1488 684 585
Fax: +44 (0)1488 684 001

Germany
Robert-Bosch-Straße 3D
64572 Buttelborn, Germany
Tel: +49(0) 6152 / 93160
Fax: +49 (0) 6152 / 82640

France
95 Rue de Neuf-Mesnil Bâtiment A8
59570 Feignies, France
Tel: +33 (0)327 63 16 64
Fax: +33 (0)327 63 08 77

Netherlands
Harregatplein 17
3214 VP Zuidland, Netherlands
Tel: +31 (0)1816 63149
Fax: +31 (0)1816 64117

Canada
6308 Davies Rd NW
Edmonton, Alberta, Canada
T6E 4M9
Tel: +1 780 468 5145

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

DESCRIPTION

The Proflo PF2 is a lubricant flow monitor used to measure the lubricant usage for divider valve metering systems. The PF2 is able to continuously monitor, display, and data log flow rates.

The Proflo PF2 allows users to configure an alarm and a shutdown value, which are tied to individual built in relays.

The built in diagnostic tools allow users to easily test the device functionality, validate settings, making installation and troubleshooting easier.

FEATURES

- Operating Temperature Range -40°C to +60°C
- Bluetooth (24VDC Recommended)
- Hazardous Location Certified
- Works with CPI, Dropsa, Lincoln and Graco Divider Blocks
- Tracks and Learns Magnet Movement
- Quick Disconnect Battery Replacement
- LCD Display with Backlight (24VDC Recommended)

CERTIFICATIONS & RATINGS

PROFLO PF2 CONFORMS TO THE FOLLOWING STANDARDS:

- UL 60079-0:2019 ED.7+R:15APR2020, UL 60079-11:2013 ED.6+R:14SEP2018, UL 61010-1:2012 ED.3+R:19JUL2019

PROFLO PF2 IS CERTIFIED TO THE FOLLOWING STANDARDS:

- CSA C22.2#60079-0:2019 ED.4, CSA C22.2#60079-11:2014 ED.2, CSA C22.2#61010-1-12:2012 ED.3+U1;U2;A1]

PROFLO PF2 COMPLIES WITH THE FOLLOWING STANDARDS:

- EN IEC 60079-0: 2018, EN 60079-11: 2012
- IEC 60079-0 (ED.7.0) (2017), IEC 60079-11 (ED.6.0) (2011)

PROFLO PF2 RATINGS:

ETL:
CSA Certificate #: ETL21CA104173915X
Class I, Division 1, Groups A, B, C and D; Temp Code T4
Class I, Zone 0, AEx ia [ia] IIC T4 Ga
With Intrinsically Safe Circuits
-20°C < TA < +60°C, IP66, TYPE 4X

ATEX/UKEX:
ATEX Certificate #: ETL21ATEX0042X
UKEX Certificate #: ITS21UKEX0329X
CEXXXX II 1 (1) G Ex ia [ia] IIC T4 Ga
-40°C < TA < +60°C

IECEX:
Ex ia [ia] IIC T4 Ga
-40°C < TA < +60°C
IECEX ETL 21.0054X

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

WARNINGS

FIRE AND EXPLOSION HAZARD

- When flammable fluids or gases are present in the work area, be aware that flammable fumes can ignite or explode.
- Follow job site fire safety protocols, procedures, codes, and regulations.

HYDRAULIC EQUIPMENT

- Follow job site hydraulic protocols, procedures, codes, and regulations.
- Relieve system hydraulic pressure before servicing hydraulic equipment.
- Hydraulic pressure relief devices are recommended in all hydraulic systems.

ELECTRICAL GROUNDING

- This equipment must be grounded to reduce the risk of static sparking.
- Follow job site grounding protocols, procedures, codes, and regulations.

MECHANICAL EQUIPMENT

- Follow job site mechanical equipment protocols, procedures, codes, and regulations.
- This product is typically used in the vicinity of reciprocating or rotating equipment. Be aware of the site hazards and potential for injury.
- Hydraulic pressure relief devices are recommended in all hydraulic systems.

PERSONAL PROTECTIVE EQUIPMENT

- Wear appropriate protective equipment to help prevent injuries.
- Follow job site PPE protocols, procedures, codes, and regulations.

SPECIAL CONDITIONS OF USE

- Do not open the equipment when an explosive atmosphere is present. The battery is not replaceable in a Hazardous Location.
- Only use CPI battery assembly Part No. 650140000095964, which incorporates the Tadiran TL-5903 battery .
- The quick disconnect cable, and internal powered connections, are protected by power barriers when installed in a Hazardous Location. Power barriers greatly reduce the risk of electrical arcs during cable connect or disconnect. The powered connections can also be disconnected at the barriers to completely remove the potential for electrical arc occurrence when connecting or disconnecting the cable in a Hazardous Location when an explosive atmosphere is present.
- Electrostatic hazard warning. Follow the procedures of the installation site including any procedures or codes applicable to operating equipment in Hazardous Locations. The Proflo PF2 should be earth grounded using the housing grounding connection. The device should also be wiped with a damp cloth prior to contact to eliminate the occurrence of static electricity and potential static induced electrical arcs.
- The aluminum enclosure may produce incendiary sparks if subjected to impact or friction. When installed into an EPL Ga environment the end user shall carry out a risk assessment and shall only install the equipment if the risk of these hazards occurring is negligible.
- The Proflo PF2 has three installation options which are all considered fixed installations.

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

TROUBLESHOOTING

Problem	Cause	Correction
Divider Block locked up	Wrong Magnet Housing Installed	Make sure proper magnet housing is used for divider block manufacturer
No Display	Low Battery	Replace battery
	No 24V power	Check power supply
	Defective screen	Contact manufacturer
Unit goes into Alarm with 24 V power supply	Wrong current flow setting	Check normally open or normally closed setting

REPLACEMENT PART NUMBERS

Proflo PF2 Part No.

CPI Part No.	Description
650040000000PF2	Proflo PF2

Magnet Assembly Part No.

CPI Part No.	Description
65004000095775T	Magnet Housing , Trabon (CPI , Graco, Sloan)
65004000095775D	Magnet Housing , Dropsa (SMX)
65004000095775L	Magnet Housing, Lincoln

Cable Assembly Part No.

CPI Part No.	Description
6500400PF2CC02M	Connector cable, 2 Meter

Battery Part No.

CPI Part No.	Description
650140000095964	Battery, 3.6V Lithium with connector

Mounting Bracket Kit Part No.

CPI Part No.	Description
650140000095787	Mounting Bracket Kit

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

COMPLIANCE STATEMENTS

ISED non-interference disclaimer
This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:
1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with the Canadian ICES-003 Class A specifications. CAN ICES-003(A) / NMB-003 (A).

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempt de licence. L'exploitation est autorisée aux deux conditions suivantes :
1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet appareil numérique de la Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

RF Exposure statement
This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the radiator and any part of your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations ISED CNR-102 établies pour un environnement non contrôlé. Une distance de séparation d'au moins 20 cm doivent être maintenue entre l'antenne de cet appareil et toutes les personnes. Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

FCC Compliance Statement
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation. Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

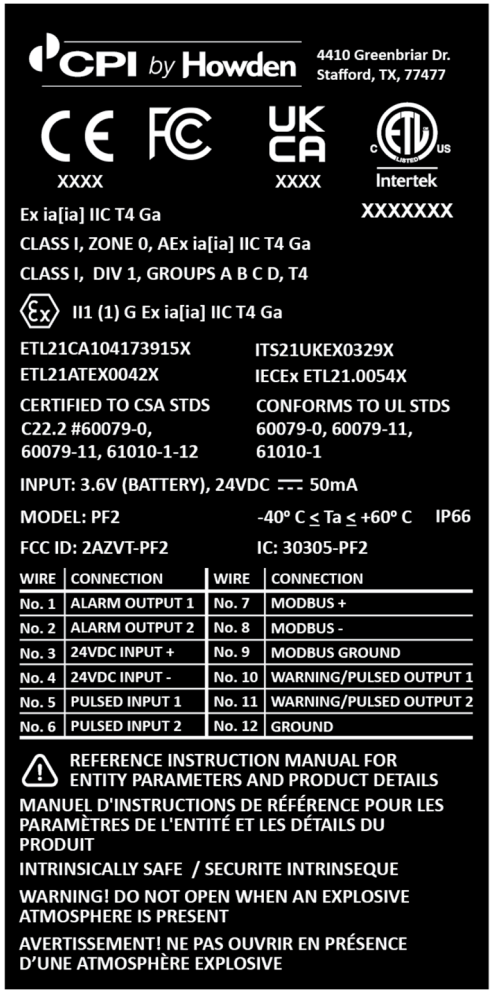
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

RF Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, this equipment should be installed and operated with minimum distance 20 cm (7.9 inches) between the antenna and your body during normal operation. Users must follow the specific operating instructions for satisfying RF exposure compliance.

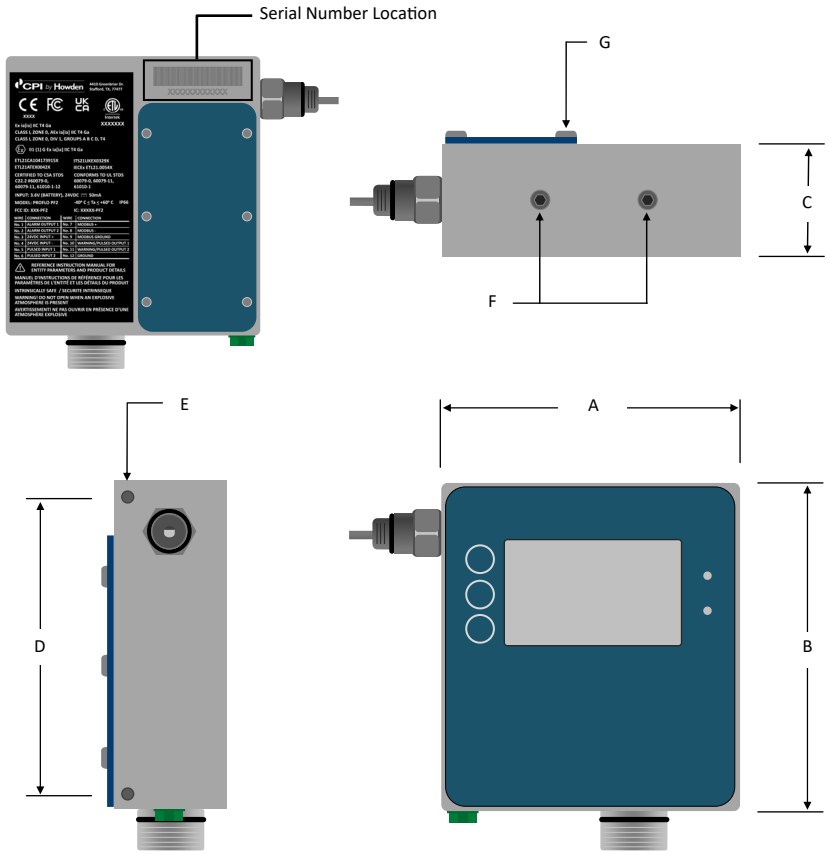
Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

PRODUCT LABEL



PRODUCT DIMENSIONS



Dimension	Inches (in.)	Millimeters (mm)
A	3.9	100
B	4.3	110
C	1.5	38
D	3.9	100
E	10-32 UNF	-
F	1/4-28 UNF	-
G	6-32 UNC	-

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

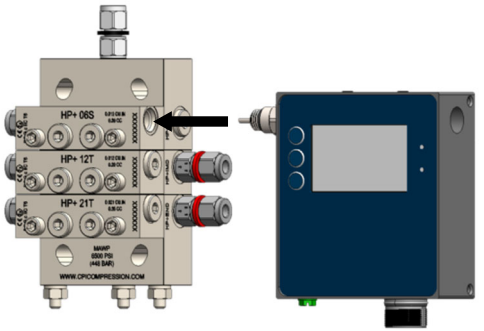
Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

INSTALLATION

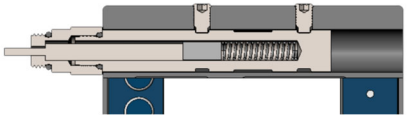
Divider Block Mounting

a. Remove divider valve end plug and install magnet housing. The magnet housing may be installed in any convenient location.

b. Slide device onto magnet housing. Ensure set screws are seated in the grooves. **Do not overtighten set screws.** 25 inch pounds max.



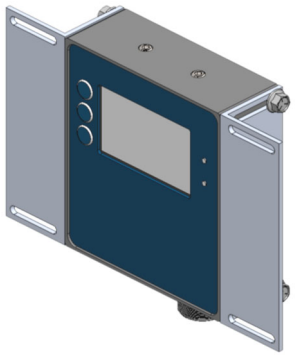
Divider Block Mounting



Control Panel Mounting

a. Use 4 screws to attach brackets to the device.

b. Face the flat surface of the bracket towards the front for Control Panel mounting.

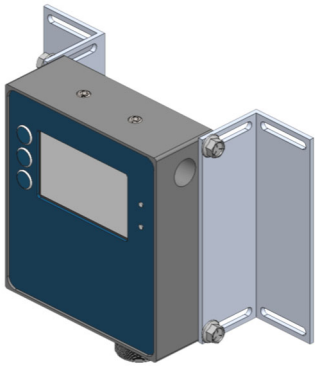


Control Panel Mounting

Compressor / Wall Mounting

a. Use 4 screws to attach brackets to the device.

b. Face the flat surface of the bracket towards the back for wall mounting .



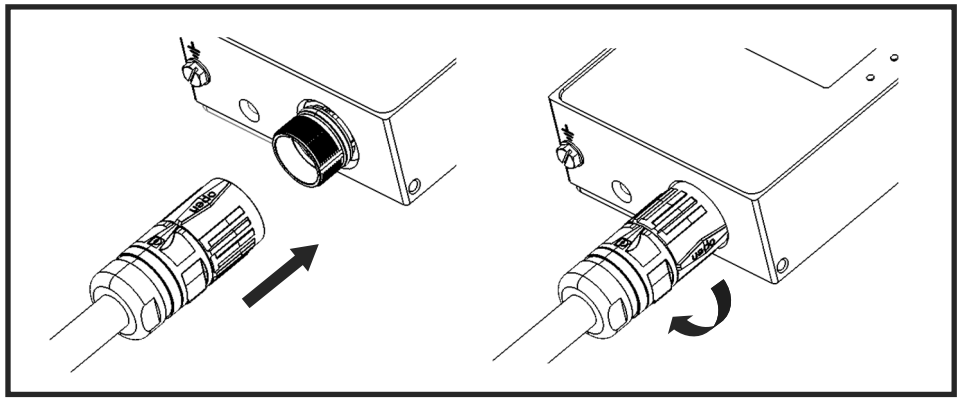
Wall Mounting

INSTALLATION

Cable Connection

***WARNING**: Incorrect wiring can cause damage to internal circuitry and may void the warranty. Keep power turned off while connecting and disconnecting the cable from Proflo PF2.*

a. On the male connector. Ensure the "OPEN" text on the lock nut is in line with the "P" mark on the cable.
b. Align the slot inside the PF2 female connector with key on the male connector, then push the two connectors together.
c. Turn the locknut clockwise 1/4 of a turn to lock the cable in position. (see diagram below)



INFORMATION FOR NON-HAZARDOUS LOCATION

TABLE 1: CONNECTOR WIRING

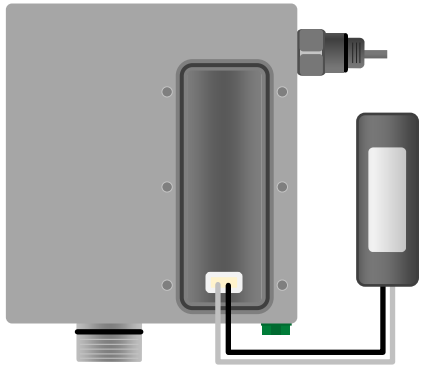
WIRE	CONNECTION	NON_HAZARDOUS LOCATION LIMITS
No.1	Alarm Output 1	100 VDC, 125 VAC (100mA MAX.)
No.2	Alarm Output 2	100 VDC, 125 VAC, (100mA MAX.)
No.3	24VDC Input +	9VDC - 28VDC
No.4	24 VDC Input -	9VDC - 28VDC
No.5	Pulsed Input 1	Any Dry Contact Closure
No.6	Pulsed Input 2	Any Dry Contact Closure
No.7	Modbus +	5V, 3.3V Compatible
No.8	Modbus -	5V, 3.3V Compatible
No.9	Modbus Ground	N/A
No.10	Warning / Pulsed Output 1	100 VDC, 125 VAC, (100mA MAX.)
No.11	Warning / Pulsed Output 2	100 VDC, 125 VAC, (100mA MAX.)
No.12	Ground	N/A

***NOTE**: WARNING / PULSED OUTPUT wiring is utilized by two functions, but only one function can be active at one time.*

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

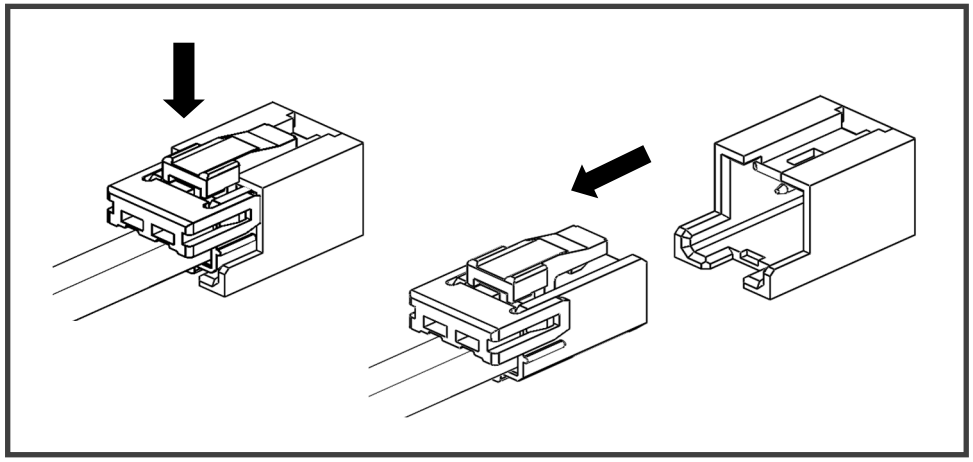
BATTERY REPLACEMENENT



Installation and replacement Proflo PF2 battery is intended to be done only when an explosive atmosphere is not present.

a. Use T-10 wrench to loosen and remove (6) screws that hold the battery cover.
b. Remove the battery cover.
c. Remove the battery from the housing and disconnect it from the connector.
d. Connect new battery to the connector and place it into the housing.
e. Ensure cover gasket is in place.
f. Reinstall the battery cover and tighten (6) screws with T-10 Torx wrench.

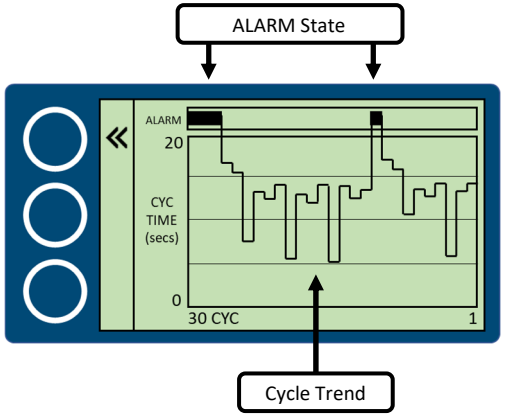
Note: Only use CPI battery P/N 650140000095964



TREND

The **TREND** screen displays cycle time trend over the last 30 cycles. Allows the user to view cycle time fluctuation that can be used to evaluate pump and or divider block performance.

ALARM message flashes in the top right corner when the cycle time exceeds the **ALARM SET** time and is represented as a single cycle in the chart.



EXAMPLE:

A lubrication system with a target cycle time of 11 seconds for the desired flow rate.

Twelve consecutive cycle times (seconds): 13, 12, 14, 6, 13, 11, 14, 5, 13, 12, 14, 6.

Setting flow rate by using only CURRENT cycle could result in 14 seconds or 5 seconds.

Setting flow rate by only the average of CURRENT and LAST cycles could result in 14 second average or 10 second average.

The average of 4 readings is 11.25 seconds (reflects the repeating pattern of the overall lubrication system).

The average of 6 readings is 11.6 seconds.

The average of 15 readings is 11.5 seconds.

The average of 30 readings is 11.2 seconds.

Rounding to the nearest second shows that this system requires a minimum of 4 consecutive measurements to get accurate results. Home Screen shows average of 6 cycles and average of 30 cycles which allows the user to get more accurate flow rate average that corelates with the **TREND** chart.

WARNING / NOTE: *Adjusting the system using CURRENT and / or LAST readings only may result in incorrect system flow rates and likely further adjustments that never appear consistent. This leads users to believe the overall system isn't working correctly.*

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

BARRIER INFORMATION FOR HAZARDOUS LOCATION

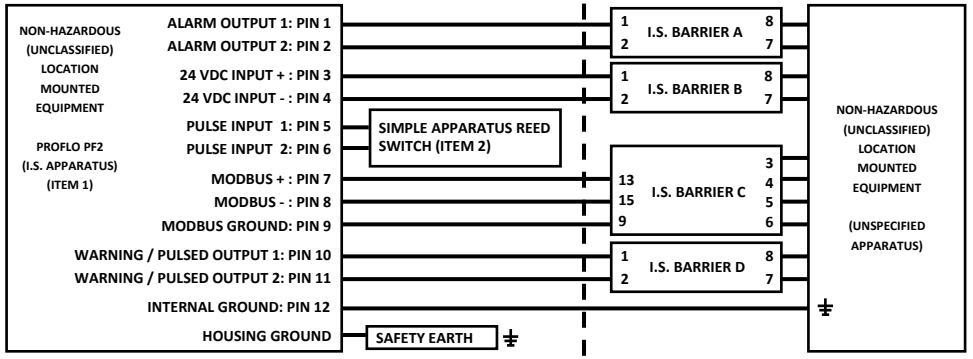


TABLE 2 ENTITY PARAMETERS

ITEM	CONNECTION	Uo	Io	Co	Lo	Po	Ui	Ii	Ci	Li	Pi
A	ALARM OUTPUT	-	-	-	-	-	28 V	50 mA	0 uF	47.93 mH	320 mW
B	24V POWER INPUT	-	-	-	-	-	28 V	100 mA	0 uF	18 uH	750 mW
C	MODBUS RS-422	-	-	-	-	-	5.88 V	277 mA	0 uF	0 uH	408 mW
D	PULSED OUTPUT	-	-	-	-	-	28 V	50 mA	0 uF	47.93 mH	320 mW
E	PULSED INPUT	5.88 V	120 uA	43 uF	1 mH	175 uW	-	-	-	-	-

TABLE 3: ITEM A&D (REFER TO TABLE 1) CABLE PARAMETERS

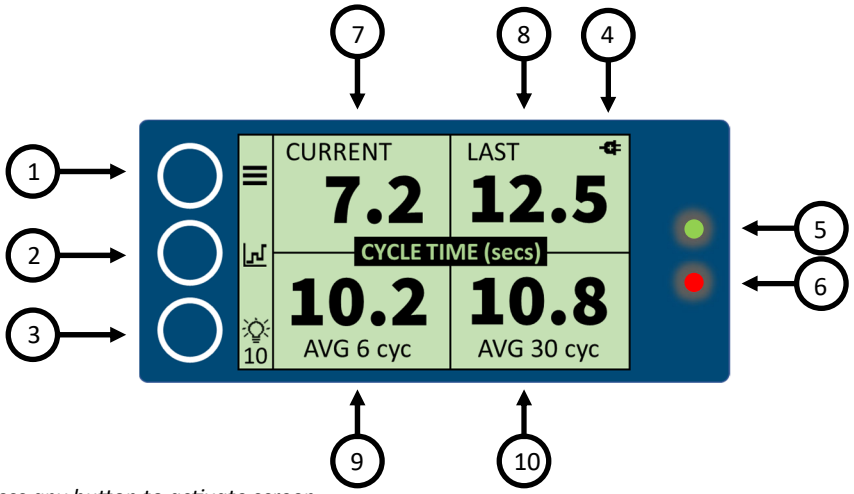
CAPACITANCE	Co: 83 nF	Ci: 45.1 nF	Cc <= 37.9 nF
INDUCTANCE	Lo: 1000 uH	Li: 0 uH	Lc <= 14 mH
L/R RATIO	Lo/Ro: 4.39 uH/ohm	-	Lc/Rc <= 4.39 uH/ohm
EARTHING	Isolated	Isolated	Isolated

TABLE 4: ITEM C (REFER TO TABLE 1) CABLE PARAMETERS

CAPACITANCE	Co: 43 uF	Ci: 0 uF	Cc <= 43 uF
INDUCTANCE	Lo: 279 uH	Li: 0 uH	Lc <= 279 uH
L/R RATIO	Lo/Ro: 305.4 uH/ohm	-	Lc/Rc <= 305.4 uH/ohm
EARTHING	Isolated	Isolated	Isolated

OPERATING INSTRUCTION

HOME SCREEN



Press any button to activate screen

Item	Symbol	Name	Description
1	☰	Menu	Enters the Menu
2	📈	Trend	Shows cycle time trend
3	💡	Backlight	Enables & toggles backlight time presets *
4	🔌	Power	DC power supply indicated
	🔋		Battery power indicated
5	NA	Green LED	Status Indicating Light
6	NA	Red LED	Status Indicating Light
7	NA	Current	Current cycle time
8	NA	Last	Previous cycle time
9	NA	Avg 6	Average cycle time of the last 6 cycles
10	NA	Avg 30	Average cycle time of the last 30 cycles

** Battery powered unit toggles between 0 - 5 min., DC powered unit toggles between 0 - 60 min.*

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

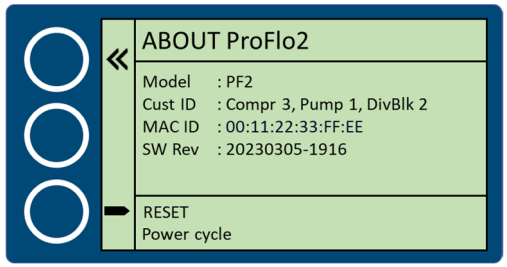
Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

LANGUAGE

This function enables the user to change the displayed language.

ABOUT (AND RESET)

The **ABOUT** screen displays information about the Unit, such as Model, Customer ID and Software Revision.



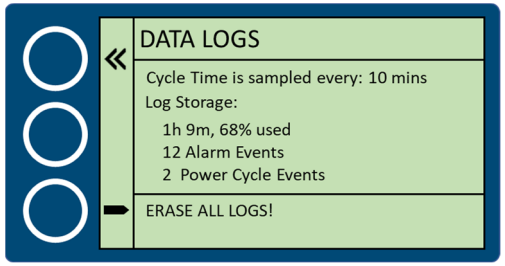
The Customer ID can be changed through Console or Modbus communications terminal.

The **RESET** function will power-cycle the device when desired. Resetting the device will not change and settings.

DATA LOGS

DATA LOGS shows total run time with **% of storage capacity used,** number of Alarm Events that occurred and number of times the unit has been powered off/ on.

Collected data can be erased if needed by selecting **ERASE ALL LOGS!**

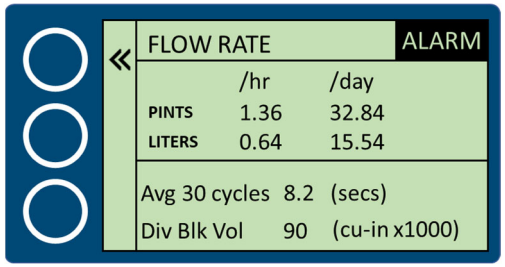


FLOW RATE

FLOW RATE screen shows Pints and Liters per hour / day with average cycle time and volume on the divider block.

This data is a function of the **DIV BLK UNIT** & **DIV BLK VOL** settings and the measured cycle times.

Div Blk Vol is displayed in the selected Unit and multiplier, it represents the total volume (full cycle) - cu-in x1000 - cc x100



BLE FIRMWARE UPDATE

(this may change wording)

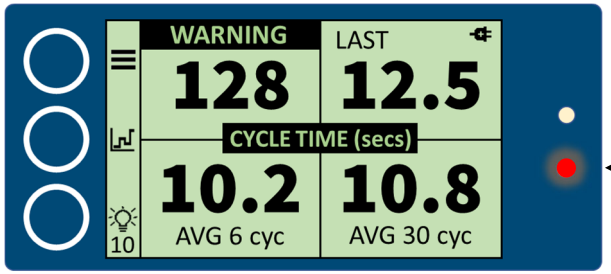
The **BLE FIRWARE UPDATE** function allows the user to connect to a mobile device application via the near-field-communications protocol in order to update the device firmware.

Upon selecting OK, the device will Reset to the BLE DFU Bootloader mode. During this time, the screen will be blank (OFF) and the Red LED will flash every 1 sec. while the device is discoverable. If no input is received within 2 minutes, the device will return to the Home Screen, and no settings will be changed.

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

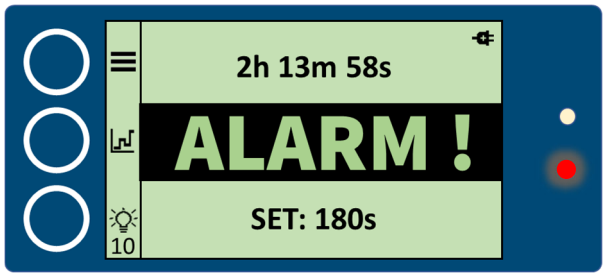
Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

HOME SCREEN (CONTINUED)



Red LED Single blink = Warning active

IF enabled, the "WARNING" message appears in the upper left corner when the cycle time slows down below the desired **WARNING SET** time.



Red LED Double blink = Alarm active

"ALARM" message flashes on the screen when the cycle time slows down beyond the programmed **ALARM SET** (shutdown) time.

SELECTION SYMBOLS

Back Down Up Select

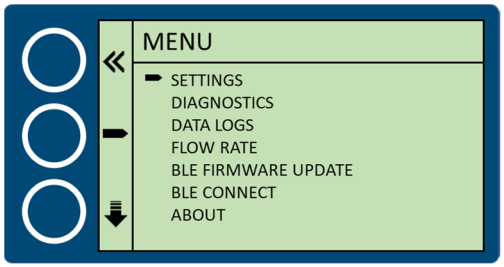
MENU OPTIONS

To access ***Menu***:

Press ***Menu*** button on the Home Screen to enter menu options.

Use ***Down*** button to scroll through the menu

Use ***Select*** button to select an option



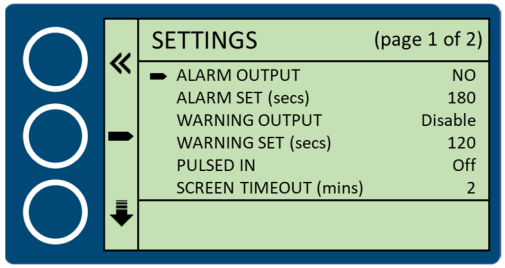
SETTINGS

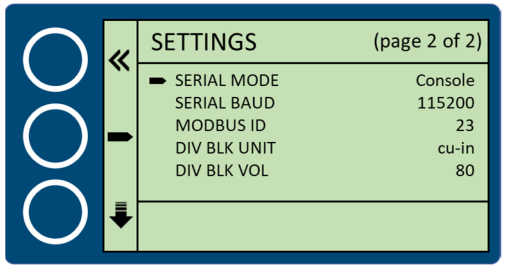
The **SETTINGS** screen displays the list of settings and the current state for each on the right hand side of the screen.

To access ***Settings***:

- Press ***Menu*** button on the home screen to enter menu Items.
- Use ***Down*** button to scroll down the list of **SETTINGS**
- Press ***Select*** to enter the submenu and change the settings.

NOTE: The settings page consists of 2 pages.





CHANGE AND SAVE SETTINGS

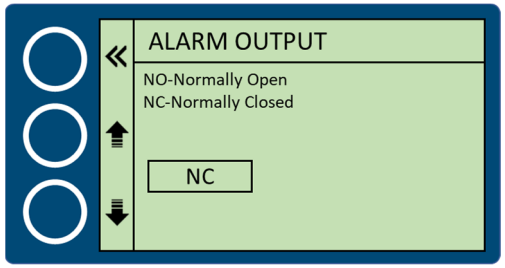
To change and save settings in the device:

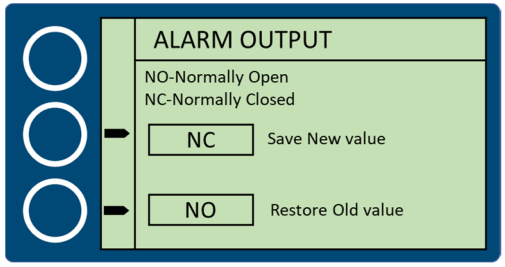
- Use ***Up*** or ***Down*** buttons to change the value.
- Press the ***Back*** button when value is changed.

Next screen will prompt to “Save New value” or “Restore Old value”

- Press ***Select*** button next to the desired option.

NOTE: The procedure to select, change or save settings will follow the same steps for other setting.





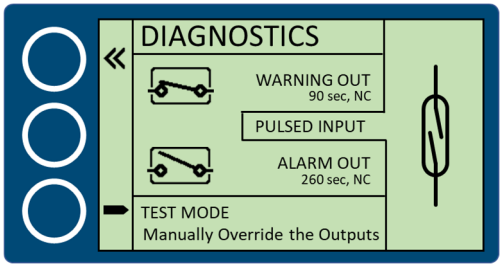
Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

DIAGNOSTICS (CONTINUED)

When **PULSED INPUT** is selected. The PF2 uses the wired input provided by the user. Refer to Table 1 for wiring details.

NOTE: *When **PULSED INPUT** is selected. The PF2 will continue use of the PULSED INPUT even when a magnetic input is present.*



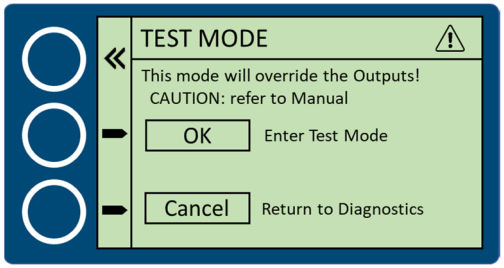
TEST MODE

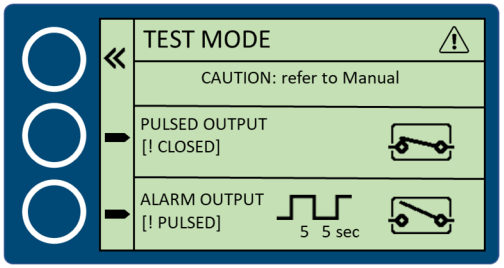
TEST MODE allows user to test the functionality of the relay switches.

WARNING: *Entering **TEST MODE** and subsequently changing output states while the compressor is running may result in inadvertent shutdown or an alarm.*

To make changes in the Test Mode:

- Use ***Select*** button for **WARNING OUTPUT** or **PULSED OUT** to toggle between **RUN, !OPEN, !CLOSED, !PULSED 10s**
- Use ***Select*** button for **ALARM OUT** to toggle between **RUN , !OPEN, !CLOSED, !PULSED 10s**

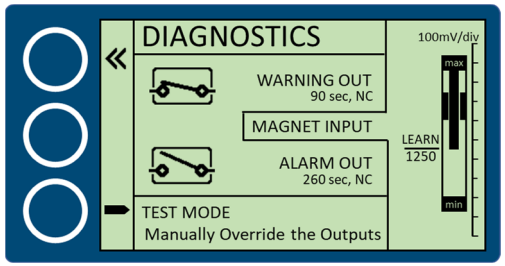




Square wave is a pulsed 5-on ,5-off

[RUN]	Normal Operation	Follows existing parameters.
[! CLOSED]	Forced CLOSED	Simulates relay in closed state.
[! OPEN]	Forced OPEN	Simulates relay in open state.
[! PULSED]	Forced 10 sec. relay cycle	Simulates a continuous 5-sec. open, 5-sec. close cycle.

DIAGNOSTICS



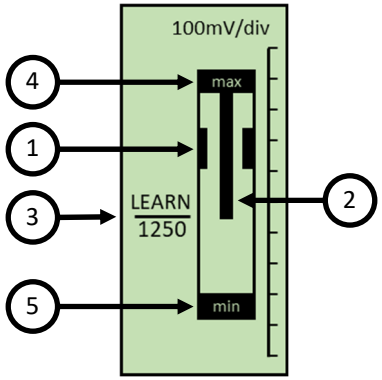
D**IAGNOSTICS** displays the current status of the following:

WARNING OUT: the set point for warning cycle time and if relay is set to **NO** or **NC** (when enabled, if disabled then **PULSED OUT** will appear instead).

ALARM OUT: the set point for alarm cycle time and if relay is set to **NO** or **NC**

PULSE STATUS: type of pulse in use, **MAGNET INPUT** or **PULSED INPUT**

When **MAGNET INPUT** is selected. The PF2 uses magnet-learning technology to eliminate the need to adjust the magnet assembly mounting position for different brands of divider blocks.



Once in **LEARN** mode, the PF2 will monitor the stroke of the divider block element / magnet assembly for several cycles. During this time, the word LEARN is displayed above the Magnet Position Reading (in mV). During each stroke of the magnet assembly, the real-time position is illustrated within the Min/Max bar graph. After learning the stroke, a black hysteresis band is set to the middle of the range. To be considered a valid stroke, the magnet must pass through the entire hysteresis band in order to be counted.

This feature prevents inadvertent shutdown due to variations in piston travel within different divider block elements.

Item	Description
1	Hysteresis Band
2	Piston / Magnet Stroke
3	Magnet Position Reading
4	Max. Stroke Position
5	Min. Stroke Position

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

ALARM OUTPUT RELAY SET (Normally Open/Normally Closed)

ALARM OUTPUT setting allows users to change the alarm and warning relay contact to *Normally Open (NO)* or *Normally Closed (NC)* based on their preferred method of operation. Normally Open or Normally Closed refers to the contact state when the device is running during operation.

Normally Open - Is a contact that does **not** flow current in its normal state. Energizing it and switching it on will close the contact, causing it to allow current flow.

Normally Closed - Is a contact that flows current in its normal state. Energizing it and switching it on will open the contact, causing it to not allow current flow.

***NOTE**: Changing this setting will apply equally to the ALARM and WARNING relays.*

ALARM SET

ALARM SET (sec) allows users to select the maximum cycle time before activating the alarm relay (shutdown).

WARNING OUTPUT or PULSED OUTPUT

***WARNING OUTPUT** and **PULSED OUTPUT** use of the same relay, which then allows the use of one function to be active at one time.*
WARNING OUTPUT allows users to **Enable** or **Disable** the use of this function.

Enabled - activates the use of the **WARNING OUTPUT** and deactivates the use of **PULSED OUTPUT**. When enabled, the option to set the **WARNING SET (secs)** time becomes active.

Disabled - deactivates the use of the **WARNING OUTPUT** and activates the **PULSED OUTPUT**. When disabled, the option to set the ***WARNING SET (secs)*** item becomes inactive.

WARNING SET

WARNING SET (sec) allows users to select the maximum cycle time before activating the warning relay.

Note: The WARNING SET maximum value time is limited to 5 sec less than the current ALARM SET time, except if ALARM SET = 5 then WARNING SET = 0.

PULSE SOURCE

PULSE SOURCE allows user to select the source for the pulse, which drives the cycle time.

INTERNAL - Will use an Internal Magnet Assembly.

EXTERNAL - Will use an External Cycle Switch, such as the Proflo® Cycle Switch. When PULSED IN is on, the signal from a magnet assembly is ignored.

NOTE: *The device will stay in ALARM mode if* ***PULSE SOURCE*** *setting is* ***not*** *set to EXTERNAL when wired to a Proximity Switch.*

SCREEN TIMEOUT

SCREEN TIMEOUT (mins) allows user to control the duration of time the screen stays on. The **SCREEN TIMEOUT** timer restarts after each button press.

NOTE: *Shorter time duration will extend battery life. For longer time duration, a 24VDC power supply is recommended.*

SERIAL MODE

SERIAL MODE allows user to select which type of serial connection will be used to communicate with the PF2 device.

Off - No connection will be made to the device.

Modbus-RS485 - Allows user to communicate with the device via a Modbus RS485 connection, which requires an external device be connected via the provided wiring (see TABLE 1).

Console-Debug (default) - I don't know.

SERIAL BAUD

SERIAL BAUD allows user to select the serial communication speed. The selectable Baud Rates are 9600, 19200, 38400, & 115200 bps.

Compressor Products International, LLC
4410 Greenbriar Dr.
Stafford, TX 77477
United states
(T) +1 281 207 4600

Instruction Manual
proflo® PF2
650150000095788 Rev. 4
January 2023

MODBUS ID

MODBUS ID allows user to assign each device a unique ID when communicating with a single or multiple devices via Modbus. MODBUS ID's can be assigned from 1 to 253 associated with the device when running additional devices for easy identification.

NOTE: *When communicating with multiple devices through a single serial connection. A unique ID must be assigned to each device to avoid communication errors.*

DIVIDER BLOCK UNITS

DIV BLK UNITS allows user to change units from Cubic Inches to Cubic Centimeter.

NOTE: *This setting directly impacts the FLOW RATE data. Improper setting may lead to under or over lubrication.*

DIVIDER BLOCK VOLUME

DIV BLK VOL allows user to set the divider block total volume output ranging from 6 - 600 (0.006 to 0.6 cu.-in.) or 4 - 1300 (0.04 to 13 cc)

EXAMPLE:

Divider Block (06S-12T-09S)

CU-IN:

0.012 + 0.012 + 0.012 + 0.018 = 0.054 X 1000 = 54

DIV BLK VOL: 54 cu-in

Divider Block Element Outputs			
HP+ / XD+ Element Size	Number of Outputs	Volume per Output (cu-in)	Total Volume per Element (cu-in)
06T	2	0.006	0.012
06S	1	0.012	
09T	2	0.009	0.018
09S	1	0.018	
12T	2	0.012	0.024
12S	1	0.024	
15T	2	0.015	0.030
15S	1	0.03	
18T	2	0.018	0.036
18S	1	0.036	
21T	2	0.021	0.042
21S	1	0.042	
24T	2	0.024	0.048
24S	1	0.048	
30T	2	0.03	0.060
30S	1	0.06	

NOTE: *This setting directly impacts the FLOW RATE data. Improper setting may lead to under or over lubrication.*

CU-CM:

0.20 + 0.20 + 0.20 + 0.30 = 0.90 X 100 = 90