**Quick Start Guide**

600-R-D-O-O-x Programmable PID Controller

### GETTING STARTED
- Unpack Contents
- Verify model number and application
- Power Controller
- Program for your application

**Note**
Change all menu parameters by using the front panel buttons

### What’s Included
- 48x48 DIN 600-R-D-O-O-x Gefran Controller
- Mounting Bracket
- Panel Sealing Gasket
- Screw Terminal Cover
- Multi-Language Manual

#### Program Your Gefran Controller
1. Press and hold $ until PRS appears — ENTER 99
2. Press $ once, Pro appears — ENTER 120
3. Press $ once, PRS appears — ENTER 99
4. Press and hold $ until H.d appears
5. Press $ repeatedly until but appears — ENTER 1
6. Press $ twice, $ appears — ENTER the Input Sensor number from the list
7. Press $ repeatedly until L.o.5* appears — ENTER the minimum Input Scale limit
8. Press $ once, H./.5* appears — ENTER the maximum Input Scale limit
9. Press $ repeatedly until L.o.L* appears — ENTER the minimum Alarm Scale limit
10. Press $ once, H./.L* appears — ENTER the maximum Alarm Scale limit
11. Press and hold $ until you return to the main process display. This is the display after PRS and will be indicated by the Process Variable if an input sensor is connected, or Lo, H., 5br, Err if no input is connected.
12. Use the $ and $ buttons to adjust the control setpoint (SV) from the main display.
13. Press $ once from the main display, $ appears to adjust the Alarm 1 setpoint.
14. Press the $ button to switch between automatic and manual control modes from the main display. LED 1 ($) will light while in manual mode.

#### Connect Your Controller
- Additional wiring configurations are available in the User’s Manual and General Setup Guide

* Parameter may be left at default value for input types 0..37

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If needed, automatic tuning (Self-Tune) can be enabled with the following steps:

1. Press and hold $ until CFG appears
2. Press $ once, $ appears — ENTER 2
3. Press $ once
4. Cycle power to the controller
5. LED 3 ($) will flash during the tuning process

Self-Tune will automatically save new PID values once complete

This Quick Start Guide provides basic information on setting up the Gefran 600 controller for the application referenced above. Additional software and hardware configuration information can be found in the User’s Manual included with this controller or online at www.gefran.com
**Quick Start Guide**

**600-R-D-0-0-x Programmable PID Controller**

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**Note**
Change all menu parameters by using the front panel buttons

**Program Your Gefran Controller**

1. Press and hold until **PR5** appears — ENTER 99
2. Press 6 once, **Pro** appears — ENTER 120
3. Press 6 once, **PR5** appears — ENTER 99
4. Press and hold until **Hd** appears
5. Press 6 twice, **Clr** appears — ENTER 1
6. Press 6 once, **Rn** appears — ENTER 0
7. Press and hold until **CFG** appears
   - ENTER 0 cooling with Air
   - ENTER 1 cooling with Oil
   - ENTER 0 cooling with Water
8. Press and hold until **rP** appears
9. Press 6 twice, **YP** appears — ENTER the Input Sensor number
10. Press 6 repeatedly until **Lo.5** appears — ENTER the minimum Input Scale limit
11. Press 6 once, **Hi.5** appears — ENTER the maximum Input Scale limit
12. Press 6 repeatedly until **Lo.0** appears — ENTER the minimum Alarm Scale limit
13. Press 6 once, **Hi.0** appears — ENTER the maximum Alarm Scale limit
14. Press and hold until **Uk** appears
15. Press 6 once, **U** appears — ENTER 1
16. Press and hold 6 until you return to the main process display. This is the display after **PR5** and will be indicated by the Process Variable if an input sensor is connected, or **Lo. H. Sbr. Err** if no input is connected.
17. Use the + and - buttons to adjust the control setpoint (SV) from the main display.
18. Press the button to switch between automatic and manual control modes from the main display. LED 1 (L1) will light while in manual mode.

**Connect Your Controller**

- Additional wiring configurations are available in the User’s Manual and General Setup Guide

**Input Sensor**

<table>
<thead>
<tr>
<th>Sensor Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TC J °C</td>
<td>PT100 °C</td>
</tr>
<tr>
<td>TC J °F</td>
<td>PT100 °F</td>
</tr>
<tr>
<td>TC K °C</td>
<td>PTC °C</td>
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<tr>
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<td>PTC °F</td>
</tr>
<tr>
<td>TC S °C</td>
<td>NTC °C</td>
</tr>
<tr>
<td>TC S °F</td>
<td>NTC °F</td>
</tr>
<tr>
<td>TC T °C</td>
<td>4...20 mA</td>
</tr>
<tr>
<td>TC T °F</td>
<td>0...10 V</td>
</tr>
</tbody>
</table>

**If needed, automatic tuning (Self-Tune) can be enabled with the following steps**

1. Press and hold 6 until **CFG** appears
2. Press 6 once, **S.Tu** appears — ENTER 2
3. Press 6 once
4. Cycle power to the controller
5. LED 3 (L3) will flash during the tuning process
6. Self-Tune will automatically save new PID values once complete

This Quick Start Guide provides basic information on setting up the Gefran 600 controller for the application referenced above. Additional software and hardware configuration information can be found in the User’s Manual included with this controller or online at www.gefran.com

GEFRAN SpA
Via Sebina, 74 - 25050 PROVAGLIO D’ISEO (BS) ITALY

Note
Change all menu parameters by using the front panel buttons
### GETTING STARTED

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### Note

Change all menu parameters by using the front panel buttons

### Program Your Gefran Controller

1. Press and hold \( F \) until \( P R S \) appears — ENTER 99
2. Press \( F \) once, \( P R S \) appears — ENTER 99
3. Press \( F \) once, \( P R S \) appears — ENTER 99
4. Press and hold \( F \) until \( H d \) appears
5. Press \( F \) twice, \( C l r \) appears — ENTER \( H \)
6. Press \( F \) twice, \( b u t \) appears — ENTER \( I \)
7. Press and hold \( F \) until \( C F G \) appears

#### Input Sensor

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</tr>
<tr>
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</tr>
<tr>
<td>6 TC S °C</td>
<td>26 NTC °C</td>
</tr>
<tr>
<td>7 TC S °F</td>
<td>27 NTC °F</td>
</tr>
<tr>
<td>8 TC T °C</td>
<td>44 4...20 mA</td>
</tr>
<tr>
<td>9 TC T °F</td>
<td>46 0...10 V</td>
</tr>
</tbody>
</table>

### Connect Your Controller

- Press \( F \) and hold until \( H d \) appears
- Press \( F \) once, \( C l r \) appears — ENTER \( H \)
- Press \( F \) once, \( b u t \) appears — ENTER \( I \)
- Press and hold \( F \) until \( C F G \) appears

#### Power

- \( F \) once, \( P R S \) appears — ENTER 99

#### Alarm

- \( F \) once, \( A l m \) appears — ENTER \( A l m \)

- Cycle power to the controller
- LED 3 \( L 3 \) will flash during the tuning process

Self-Tune will automatically save new PID values once complete

If needed, automatic tuning (Self-Tune) can be enabled with the following steps

1. Press and hold \( F \) until \( P R S \) appears
2. Press \( F \) once, \( S . T u \) appears — ENTER \( 2 \)
3. Press \( F \) once
4. Cycle power to the controller
5. LED 3 \( L 3 \) will flash during the tuning process

Self-Tune will automatically save new PID values once complete

* Parameter may be left at default value for input types 0...37

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**GEFRAN SpA**

Via Sebina, 74 - 25050 PROVAGLIO D'ISEO (BS) ITALY
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**Program Your Gefran Controller**
- Press and hold F until PASS appears — ENTER 99
- Press F once, Pro appears — ENTER 120
- Press F once, PASS appears — ENTER 99
- Press and hold F until HR d appears
- Press F twice, CLR appears — ENTER H1
- Press F once, AL n appears — ENTER 0
- Press and hold F until CFG appears
- Press and hold F until CFG appears
  - ENTER 0 cooling with Air
  - ENTER 1 cooling with Oil
  - ENTER 0 cooling with Water
- Press and hold F until T or P appears
- Press F once, T or P appears — ENTER the Input Sensor number
- Press F repeatedly until L or S* appears — ENTER the minimum Input Scale limit
- Press F once, H or H* appears — ENTER the maximum Input Scale limit
- Press F repeatedly until L or L* appears — ENTER the minimum Alarm Scale limit
- Press F once, H or L* appears — ENTER the maximum Alarm Scale limit
- Press and hold F until O or P appears
- Press F once, OR appears — ENTER 1
- Press and hold F until you return to the main process display. This is the display after PASS and will be indicated by the Process Variable if an input sensor is connected, or La, Hr, Sbr, Err if no input is connected.
- Use the + and - buttons to adjust the control setpoint (SV) from the main display.
- Press the button to switch between automatic and manual control modes from the main display. LED 1 (L1) will light while in manual mode.

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**Connect Your Controller**
- Additional wiring configurations are available in the User’s Manual and General Setup Guide

If needed, automatic tuning (Self-Tune) can be enabled with the following steps

1. With the machine at ambient temperature and the control setpoint (SV) set...
   - Press and hold F until CFG appears
   - Press F once, S Tu appears — ENTER 2
   - Press F once
   - Cycle power to the controller
   - LED 3 (L3) will flash during the tuning process

   Self-Tune will automatically save new PID values once complete

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Program Your Gefran Controller

1. Press and hold  for until PAS appears — ENTER 99
2. Press once, Pro appears — ENTER 20
3. Press once, PAS appears — ENTER 99
4. Press and hold  until Hend appears
5. Press repeatedly until but appears — ENTER 1
6. Press twice, Typ appears — ENTER the Input Sensor number from the list
7. Press repeatedly until Lo.S* appears — ENTER the minimum Input Scale limit
8. Press once, Hi.S* appears — ENTER the maximum Input Scale limit
9. Press and hold  until you return to the main process display. This is the display after PAS and will be indicated by the Process Variable if an input sensor is connected, or Lo, Hi, Sbr, Err if no input is connected.

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Connect Your Controller

Additional wiring configurations are available in the User’s Manual and General Setup Guide

If needed, automatic tuning (Self-Tune) can be enabled with the following steps

With the machine at ambient temperature and the control setpoint (SV) set...

- Press and hold  until CFG appears
- Press once, S.Tu appears — ENTER 2
- Press once
- Cycle power to the controller
- LED 3 (L3) will flash during the tuning process

Self-Tune will automatically save new PID values once complete

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Program Your Gefran Controller
1. Press and hold \( F \) until \( PRS \) appears — ENTER 99
2. Press \( F \) once, \( Prs \) appears — ENTER 28
3. Press \( F \) once, \( Prs \) appears — ENTER 99
4. Press and hold \( F \) until \( H.d \) appears
5. Press \( F \) twice, \( C.tr \) appears — ENTER \( H \)
6. Press \( F \) twice, \( b.u \) appears — ENTER \( l \)
7. Press and hold \( F \) until \( C.FG \) appears
8. Press \( F \) until \( C.FG \) appears
9. Press \( F \) until \( C.FG \) appears
10. Press and hold \( F \) until \( C.FG \) appears

Connect Your Controller
1. Press \( F \) and hold until \( PAS \) appears — ENTER 99
2. Press \( F \) once, \( Pro \) appears — ENTER 128
3. Press \( F \) once, \( PAS \) appears — ENTER 99
4. Press \( F \) until \( Hrd \) appears
5. Press \( F \) twice, \( Ctr \) appears — ENTER 14
6. Press \( F \) once, \( Lo.S \) appears — ENTER the minimum Input Scale limit
7. Press \( F \) repeatedly until \( Hi.S \) appears — ENTER the maximum Input Scale limit
8. Press and hold \( F \) until \( Lo.L \) appears — ENTER the minimum Alarm Scale limit
9. Press \( F \) repeated until \( Hi.L \) appears — ENTER the maximum Alarm Scale limit
10. Press \( F \) repeatedly until \( AL1 \) appears
11. Press \( F \) once, \( AL1 \) appears
12. Press \( F \) once, \( AL2 \) appears
13. Press \( F \) three times, \( r.l.1 \) appears — ENTER \( l \)
14. Press \( F \) twice, \( r.l.2 \) appears — ENTER \( 2 \)
15. Press and hold \( F \) until you return to the main process display. This is the display after \( PRS \) and will be indicated by the Process Variable if an input sensor is connected, or \( L.a, H.s, S.b, E.r \) if no input is connected.
16. Use the \( \Delta \) and \( \nabla \) buttons to adjust the control setpoint (SV) from the main display.
17. Press \( F \) once from the main display, \( A.L.1 \) appears to adjust the Alarm 1 setpoint.
18. Press the \( \Delta \) button to switch between automatic and manual control modes from the main display. LED 1 (\( L.M.1 \)) will light while in manual mode.

Notes:
- Parameter may be left at default value for input types 0..37
- Additional wiring configurations are available in the User’s Manual and General Setup Guide.
Gefran 600: Temperature Controller - Quick Start Guide