Model RPO
Pressure Recorders & Recorder Controllers
Models RPO10, RPO20, RPO30

- 1, 2 & 3 pen pressure recording and controlling at low cost
- Uses proven and reliable Rototherm pressure systems
- Simple installation and maintenance requirement
- Portable stand or pipe mounting available
- Fully mechanical versions available
- Electrical, battery or mechanical chart drive options
- Electrical control options
- Pneumatic control options

Introduction
The RPO range of pressure circular chart recorders uses the well proven and reliable Rototherm stainless pressure system. These reliable and accurate instruments are suitable for most applications where there is a requirement for low cost pressure recording.

Pens
Fitted to the pen arms are disposable fibre tipped pens which are readily replaced without mess. The first pen of the two and three pen recorders trace in red ink, the second pen in blue, the third in green.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>ACCURACY</td>
<td>+/-1% FSD</td>
</tr>
<tr>
<td>AMBIENT TEMPERATURE</td>
<td>-20ºC to +50ºC</td>
</tr>
<tr>
<td>CHART DRIVE</td>
<td>Synchronous electric, battery or mechanical spring wound. 24 hour or 7 day. (other rotations on request)</td>
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<tr>
<td>CHARTS</td>
<td>Disc 240mm (9.5 inches) diameter. Standard dividing 40, 50, 60, 70 or 80 linear divisions.</td>
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<tr>
<td>INKING SYSTEM</td>
<td>Disposable fibre tipped pens. 2 pen : red &amp; blue 3 pen : red, blue and green</td>
</tr>
<tr>
<td>PRESSURE MEASURING ELEMENT</td>
<td>Stainless steel or Non Ferrous Bourdon tube or pressure capsule</td>
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<tr>
<td>PRESSURE CONNECTION</td>
<td>Standard 3/8” BSP male, with nut and tail pipe suitable for 6.35mm (1/4”) outside diameter tube. Receiver Type 1/4” BSP female (input 3-15 psi 0.2-1 Bar)</td>
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</tbody>
</table>

Control Options
Full pneumatic control is available on this range of recorders - for full details please refer to the Pneumatic recorder controller data sheet. Electric Control / Alarm - two pen recorders in this range may be specified with electrical control options.

CASE
Glass filled polyester resin. protection rated to IP55

WINDOW
Acrylic

POWER SUPPLY
200 to 250 volts, 50Hz (60Hz available); 100 to 110 volts, 50Hz (60Hz available); Instruments without electrical control require no power supply provided that a clockwork chart drive is fitted. Battery operated chart drives require 1.5 volt type “C” cell.

ELECTRICAL ALARM AND CONTROL
Contact rating (when fitted): 0.1A at 250V AC (non inductive) 0.01A at 250V DC (non-inductive) Relay contact rating: 10A at 250V 50Hz Contact adjustment range: 2% to 100%

MOUNTING
Suitable for surface or panel mounting. (Pipe mounting and portable options available)

WEIGHT
Single pen : 6.5 kg (14.25lb) 
Two pen : 7.0 kg (15.5lb) 
Three pen : 7.5 kg (16.75lb) 
Portable single pen : 8.6 kg (19 lb)
Dimensions & Fixings

PORTABLE VERSION

SURFACE MOUNTING

PANAL MOUNTING

Standard Pressure Ranges

<table>
<thead>
<tr>
<th>Pressure Range</th>
<th>Sensing Element</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 30” Hg vacuum</td>
<td>Single Capsule</td>
<td>Beryllium Copper</td>
</tr>
<tr>
<td>-15 to +15 psi</td>
<td></td>
<td></td>
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<tr>
<td>0 to 15 psi</td>
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<tr>
<td>0 to 20 psi</td>
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<tr>
<td>0 to 25 psi</td>
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<tr>
<td>0 to 30 psi</td>
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<td>0 to 40 psi</td>
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<tr>
<td>0 to 60 psi</td>
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<tr>
<td>0 to 80 psi</td>
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<td></td>
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<tr>
<td>3 to 15 psi</td>
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<td></td>
</tr>
<tr>
<td>0 to 6 bar</td>
<td>Bourdon Tube</td>
<td>Phosphor Bronze or Stainless Steel</td>
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<tr>
<td>0 to 10 bar</td>
<td></td>
<td></td>
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<tr>
<td>0 to 16 bar</td>
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<tr>
<td>0 to 25 bar</td>
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<tr>
<td>0 to 40 bar</td>
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<tr>
<td>0 to 60 bar</td>
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<tr>
<td>0 to 100 bar</td>
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<td></td>
</tr>
<tr>
<td>0 to 160</td>
<td>Bourdon Tube</td>
<td>Stainless Steel</td>
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<tr>
<td>0 to 250</td>
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<tr>
<td>0 to 300</td>
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<td>0 to 400</td>
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<tr>
<td>0 to 600</td>
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<tr>
<td>0 to 1000</td>
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<td></td>
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<tr>
<td>0 to 1200</td>
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<tr>
<td>0 to 1600</td>
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Other ranges may be available - please contact Rototherm Sales

Other Recorders & Controllers Available include:
- Temperature & Pressure Combined
- Temperature & Humidity
- Pressure & Differential Pressure
- Flow
- Level
- Electric Input Recorders - including programmable recorders
- Pneumatic Recorder Controllers

World-Wide Reliability & Quality

Rototherm’s high quality and performance is guaranteed by an uncompromising approach to quality. British Rototherm’s policy has always been to maintain a consistently high level of quality and reliability throughout its product range and service to customers.

The company has worked energetically towards establishing comprehensive quality controls and has earned a worldwide reputation for product quality.
Ordering Information

RPO recorder 1 pen
RPO recorder 2 pen
RPO recorder 3 pen

MOUNTING
Wall/Panel
Portable
Pipe

CHART DRIVE
Electric 240V 50Hz
Electric 110V 50Hz
Electric other*
Spring Wound
Battery

CHART ROTATION
24 hour
7 day
Other*

CONTROLS / ALARMS
No control
1st pen High & Low
2nd pen High & Low
1st & 2nd pen High & Low

PROCESS CONNECTION
Standard (3/8” BSP)
1/2” BSP male
1/2” NPT male
Other

ELEMENT CONNECTION MATERIAL
Brass/Beryllium Copper/Phospher Bronze
Stainless Steel
Other*

RANGE & UNITS OF MEASUREMENTS
Specify range & units

Notes
(a) Where Other* is specified please add note to order code stating exact requirements
(b) When specifying different ranges for 2 or 3 pen recorders, care should be taken to use standard/compatible charts ranges.

Example Order Code

Single pen pressure recorder, wall mounted, electrical 240 volt 50Hz chart drive, 24 hour rotation, standard stainless steel connection, stainless steel element, range 0 to 10 bar.