Please follow the steps below to select the data required.

1. Please select the species of interest:
   Carbon dioxide

2. Please choose the units you wish to use:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>°K, °C, °F, Rankine</td>
</tr>
<tr>
<td>Pressure</td>
<td>MPa, bar, atm, torr, psi</td>
</tr>
<tr>
<td>Density</td>
<td>mol/l, mol/m³, g/ml, kg/m³, B-mole/l, B-mole/m³</td>
</tr>
<tr>
<td>Energy</td>
<td>kJ/mol, kJ/kg, kcal/mol, Btu/Bmol</td>
</tr>
<tr>
<td>Velocity</td>
<td>m/s, ft/s, mph</td>
</tr>
<tr>
<td>Viscosity</td>
<td>√Pa·s, Pa·s, cP, B-mole·s</td>
</tr>
<tr>
<td>Surface tension</td>
<td>N/m, dyn·cm, lb/ft, Btu/ft²</td>
</tr>
</tbody>
</table>

*Surface tension values are only available along the saturation curve.

3. Choose the desired type of data:
   - Isothermal properties
   - Saturation properties — temperature increments
   - Isobaric properties
   - Saturation properties — pressure increments
   - Isochoric properties

4. Please select the desired standard state convention:
   - Critical fluid

5. Press to Continue

---

Isothermal Properties for Carbon dioxide

This option will supply data on a constant temperature curve over the specified pressure range. Values should not extend outside the minimum and maximum values given. Calculations are limited to a maximum of 201 data points; increments resulting in a larger number of points will be adjusted upward to limit the number of points computed.

1. Enter temperature in selected units:
   300 °K (select value range: 216.592 to 1100.8 K)

2. Enter pressure range and increment in selected units:
   - P_low: 1 atm (default value: 0.0 atm)
   - P_high: 20 atm
   - P_increment: 1 atm

* The maximum pressure limit is the lowest of the following values:
  - 7895.36 atm
  - The pressure at which a density of 26.777 mol/l is reached.

3. Check if you want to use the display applet (requires Java capable browser) [ ]

4. Number of digits to be displayed in tables (does not affect accuracy of computation): 5

5. Press for Data

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Flu<st>id Data

Isothermal Data for T = 300.00 K

Auxiliary Data

Isothermal Data for T = 300.00 K

Auxiliary Data
HYSYS Isothermal Properties for Carbon Dioxide

click here

type from NIST
examine % dev.

HYSYS Fluid Packages: equations of state

SRK - Soave-Redlich-Kwong
PR  - Peng-Robinson
PRSV - Peng-Robinson Stryjek-Vera
LKP  - Lee-Kessler-Plocker (a.k.a., generalized compressibility factor)
ANT  - Antoine with the Ideal Gas Law

Figures 5.4-1 to 5.4-4 in the Felder and Rousseau textbook (3rd Edition)