

## Target Type Flowmeter for Water



measuring  
•  
monitoring  
•  
analyzing

DPT



- Patented Target/Leaf-Spring Design
- Minimal Wear Components
- Ranges: 1.5...8 to 225...500 GPM Water
- Line Sizes: 3/8"...3"
- Brass or Stainless Steel Versions
- Accuracy +/- 3% of Full Scale



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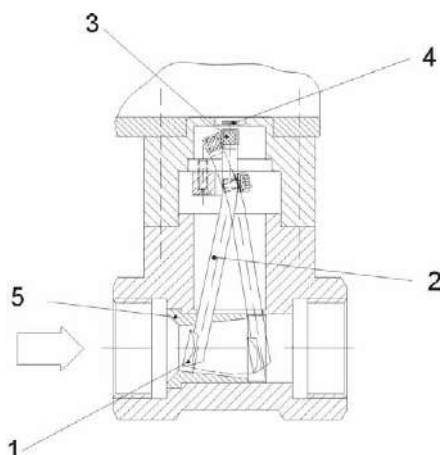
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## Target Type Flowmeter Model DPT

### Description

The DPT series uses a unique, patented target system to measure water flow. This design uses a single leaf-spring to both suspend the target and to provide the target resetting force. It is a simple, reliable design with virtually no wear. The mechanism consists of a target plate (1) and lever arm (2). Liquid flow causes the target plate and lever arm to deflect against the leaf-spring. A permanent magnet (3) attached to the lever arm and Hall effect sensor (4) mounted inside the display unit translate the angular motion of the target to an electrical signal. The signal from the Hall effect sensor is used by the electronic indicators to provide a flowrate display, adjustable setpoint switches, or an analog flow signal. The target plate measuring system offers a very low pressure loss.



### Specifications

|                                     |                                         |
|-------------------------------------|-----------------------------------------|
| <b>Flow Range:</b>                  | 1.5...8 GPM to<br>225...500 GPM Water   |
| <b>Accuracy:</b>                    | ±3% of Full Scale                       |
| <b>Repeatability:</b>               | ±1% of Full Scale                       |
| <b>Straight Piping Requirements</b> |                                         |
| <b>Inlet:</b>                       | 10x Diameter                            |
| <b>Outlet:</b>                      | 5x Diameter                             |
| <b>Operating Temperature:</b>       | -10...176 °F                            |
| <b>Maximum Pressure:</b>            | 580 PSIG at 70 °F                       |
| <b>Wetted Materials</b>             |                                         |
| <b>Brass Versions:</b>              | Brass, 316-Ti SS<br>NBR, Ceramic        |
| <b>Stainless Steel Versions:</b>    | 316-Ti Stainless Steel, FKM,<br>Ceramic |



### Displays and Controllers



#### DPT-..C3xx.. Specifications

|                                |                                                                       |
|--------------------------------|-----------------------------------------------------------------------|
| <b>Programmable Functions:</b> | Lockout Code, Switch Logic, Switch Setpoint and Hysteresis, Dampening |
| <b>Input Power:</b>            | 24 VDC ±20%, 80 mA Max.                                               |
| <b>Display:</b>                | 3 Digit LED                                                           |
| <b>Switch Type:</b>            | Open Collector PNP/NPN                                                |
| <b>Switch Rating:</b>          | 300 mA Max. Short Circuit Protected                                   |
| <b>Analog Output:</b>          | 4-20 mA, 3-wire RL=500 Ohms Max.                                      |
| <b>Housing:</b>                | 304 SS, NEMA 4X                                                       |
| <b>Electrical Connection:</b>  | Micro-DC, Male, 5-pin Plug                                            |



#### DPT-..Kxx2.. Specifications

|                               |                                                     |
|-------------------------------|-----------------------------------------------------|
| <b>Input Power:</b>           | 100 ... 230 VAC/VDC or 18-30 VAC, 10-40 VDC         |
| <b>Display:</b>               | 4-1/2 Digit LED and Bargraph 270°                   |
| <b>Relays:</b>                | 2 SPDT 5 amps @ 230 VAC                             |
| <b>Analog Output:</b>         | 4-20 mA, 4-wire, RL=500 Ohms Max. 0-10 VDC          |
| <b>Housing:</b>               | Epoxy Coated Aluminum, Polycarbonate, NEMA 4X/IP 65 |
| <b>Electrical Connection:</b> | Cable Gland, PG-13.5                                |

**Order Details** (Example: DPT-1165G NB C34P)

| Range<br>(GPM Water)   | Material <sup>1)</sup>     |                            | Fitting                                 |
|------------------------|----------------------------|----------------------------|-----------------------------------------|
|                        | Brass                      | Stainless Steel            |                                         |
| 1.5...8<br>3...13      | DPT-1105G..<br>DPT-1110G.. | DPT-1205G..<br>DPT-1210G.. | ..N3.. = 3/8" NPT<br>..G3.. = G 3/8     |
| 1.5...8<br>3...18      | DPT-1115G..<br>DPT-1120G.. | DPT-1215G..<br>DPT-1220G.. | ..N4.. = 1/2" NPT<br>..G4.. = G 1/2     |
| 1.7...14<br>5...22     | DPT-1125G..<br>DPT-1130G.. | DPT-1225G..<br>DPT-1230G.. | ..N5.. = 3/4" NPT<br>..G5.. = G 3/4     |
| 5...17<br>20...34      | DPT-1135G..<br>DPT-1140G.. | DPT-1235G..<br>DPT-1240G.. | ..N6.. = 1" NPT<br>..G6.. = G 1         |
| 15...45<br>27...60     | DPT-1145G..<br>DPT-1150G.. | DPT-1245G..<br>DPT-1250G.. | ..N8.. = 1-1/2" NPT<br>..G8.. = G 1 1/2 |
| 22...118<br>40...200   | DPT-1155G..<br>DPT-1160G.. | DPT-1255G..<br>DPT-1260G.. | ..N9.. = 2" NPT<br>..G9.. = G 2         |
| 175...396<br>225...500 | DPT-1165G..<br>DPT-1170G.. | DPT-1265G..<br>DPT-1270G.. | ..NB.. = 3" NPT<br>..GB.. = G 3         |

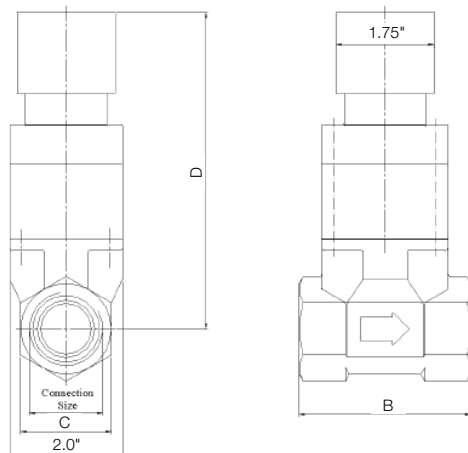
<sup>1)</sup> Replace "G" with "H" to order LPM

\*Please Specify Flow Direction and Display Orientation When Ordering

| Accessory for C3xx |                                             |
|--------------------|---------------------------------------------|
| 807.007            | 5-Pin Micro-DC Connector with 6-foot Cable  |
| 807.007/5M         | 5-Pin Micro-DC Connector with 16-foot Cable |
| 807.007/10M        | 5-Pin Micro-DC Connector with 32-foot Cable |

**Dimensions**

**Compact Electronics DPT-..C3xx..**

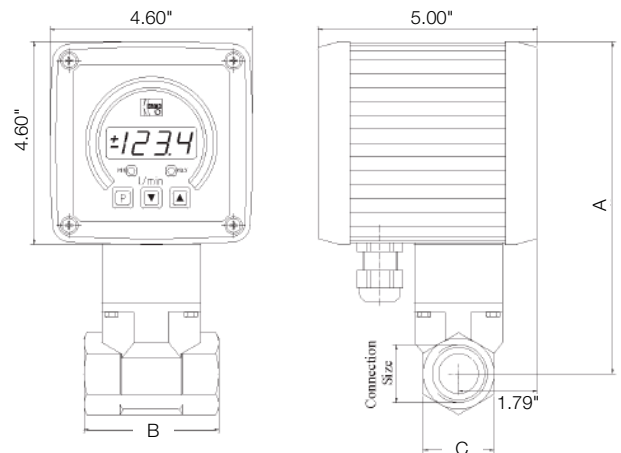


| Fitting (NPT or G) | B     | C      | D     |
|--------------------|-------|--------|-------|
| 3/8"               | 3.07" | 27 mm  | 5.43" |
| 1/2"               | 3.07" | 27 mm  | 5.43" |
| 3/4"               | 3.07" | 41 mm  | 5.43" |
| 1"                 | 3.07" | 41 mm  | 5.43" |
| 1-1/2"             | 3.07" | 55 mm  | 6.10" |
| 2"                 | 3.20" | 70 mm  | 6.18" |
| 3"                 | 4.17" | 100 mm | 6.85" |

**Order Details: Continued**

| Electronic                   |                                                                                                   |                                                                                                                                          |                          |
|------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| ADI Electronic               |                                                                                                   |                                                                                                                                          |                          |
| Display                      | Supply                                                                                            | Output                                                                                                                                   | Contacts                 |
| ..K.. = Bar<br>Graph/Digital | ..0.. = 100-230<br>V <sub>AC/DC</sub><br>..3.. = 18-30 V <sub>AC</sub> ,<br>10-40 V <sub>DC</sub> | ..0.. = without<br>..4.. = 4-20 mA,<br>0-10 V                                                                                            | ..2 = 2 SPDT<br>Switches |
| Compact Electronic           |                                                                                                   |                                                                                                                                          |                          |
| Display                      | Supply                                                                                            | Output/Contacts                                                                                                                          |                          |
| ..C.. = Digital              | ..3.. = 24 V <sub>DC</sub>                                                                        | ..0R = 2x Open Collector, PNP<br>..0M = 2x Open Collector, NPN<br>..4P = 4-20 mA, 1x Open Coll. PNP<br>..4N = 4-20 mA, 1x Open Coll. NPN |                          |

**Electronic Display/Controller DPT- ..Kxx2..**



| Fitting (NPT or G) | A     | B     | C      |
|--------------------|-------|-------|--------|
| 3/8"               | 7.32" | 3.07" | 27 mm  |
| 1/2"               | 7.32" | 3.07" | 27 mm  |
| 3/4"               | 7.32" | 3.07" | 41 mm  |
| 1"                 | 7.32" | 3.07" | 41 mm  |
| 1-1/2"             | 8.0"  | 3.07" | 55 mm  |
| 2"                 | 8.0"  | 3.20" | 70 mm  |
| 3"                 | 8.74" | 4.17" | 100 mm |