



Description

Electronic measuring sensor Series 3311 serves for transformation of air pressure value to electric signal. It is designed for operation in meteorology and environmental observation, e.g. automatic weather stations, at airports, on research vessels, at industrial sites, for mobile measuring systems etc.

Construction and mode of operation

With a piezoresistive pressure sensor and signal conditioning electronic the actual air pressure will be transformed into a proportional standardised electrical output. The dust and water resistant synthetic housing (ABS) of the sensor will protect the electronic against the influence of the weather. A sinter filter on the bottom of the housing ensures the necessary pressure balance.

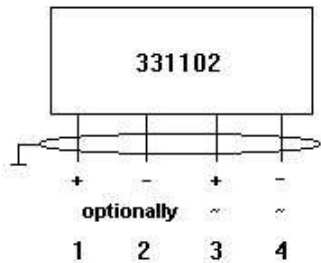
Technical Data

| | |
|------------------------|---|
| linearity | ± 0.5 hPa |
| temperature error | max. ± 0.006 % FS /K -20...40°C |
| temperature hysteresis | ± 0.5 hPa (remaining offset shift after exposure at -25 oder 40°C) * |
| Vcc offset error | max. ± 0.01 % FS /V (offset with supply voltage different from test certificate) |
| position error | ± 0.1 hPa for 90° (0° with perpendicular wall mounting) |
| settling time | ca. 10 min. |
| measuring range | 900...1050 hPa |
| working range | 200...1060 hPa |
| over pressure | 0...4000 hPa |
| operating voltage | |
| 331102 | 10...28 V DC |
| 331103, 331104 | 13...28 V DC |
| operating current | typical 40 mA, max. 80 mA |
| electronic output | |
| 331102 | 0...5 V (for measuring range), load resistance > 10 kOhm |
| 331103 | 4...20 mA (for measuring range), load resistance 0...500 Ohm |
| 331104 | 0...20 mA (for measuring range), load resistance 0...500 Ohm |
| mounting | on perpendicular walls with two screws though two holes with an diameter of 4.5 mm outside of the protected area of the housing |
| operating temperature | -25...70 °C * |
| protecting | IP 54 |
| cable | |
| 331102 | LiYCY 4 x 0,2 mm ² |
| 331103, 331104 | LiYCY 6 x 0,2 mm ² |
| dimension | 115 x 65 x 40 mm, weight approx. 100 g |

* additional hysteresis effect at the temperature above 40 °C

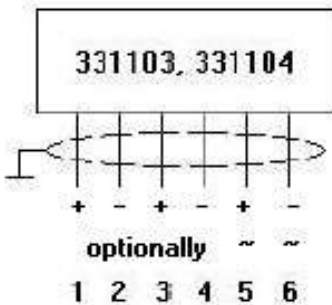
Connection chart

331102



| position | colour | connection |
|----------|----------------------|--|
| 1 | yellow | output 0...5 VDC |
| 2 | green | output ground |
| 3 | red | supply: +10...28 VDC, optionally 24 VAC |
| 4 | blue green/yellow | supply ground, optionally 24 VAC cable screen |

331103, 331104



| position | colour | connection |
|----------|-----------------------|---|
| 1 | yellow | 5V output signal |
| 2 | green | 5V output ground |
| 3 | red | 20 mA output signal |
| 4 | black | 20 mA output ground |
| 5 | white | supply 13...28 VDC, optionally 13...24 VAC |
| 6 | brown green/yellow | ground supply, optionally 13...24 VAC cable screen |

The Fischer company reserves the right to make changes/improvements to their products and to their specifications at any time without prior notice to anyone.



Feingerätebau K. Fischer GmbH
Venusberger Straße 24
D-09430 Drebach
Germany

Phone +49 (0) 37341 487-0
Fax +49 (0) 37341 487-30
E-Mail info@meteoclima.de
Internet www.meteoclima.de