

CPC700 YÜKSEK BASINÇ KONTROLÖRÜ

Applications

- Healthcare and avionics industry
- Industry (laboratory, workshop and production)
- Transmitter and pressure gauge manufacturers
- Calibration service companies and service industry
- Research and development laboratories

Special features

- Pressure ranges: 0 ... 700 bar (0 ... 10,000 psi)
- Control speed 30 s
- Control stability 0.008 % FS
- Accuracy down to 0.01 % IS (IntelliScale)



Pneumatic high-pressure controller, model CPC7000

Description

Version

The CPC7000 pneumatic high-pressure controller always provides a suitable calibration solution on account of its accuracy class. Its outstanding control performance is particularly impressive thanks to special valve technology and the high-accuracy pressure sensor as a measuring unit. With this the controller is suitable as a factory or working standard for the testing or calibration of any type of pressure measuring instrument.

Design

The CPC7000 is available as a desktop instrument or as a 19" rack-mounting kit. The sensors can be changed via the front, without having to take out the complete controller, e.g. out of a calibration rig (plug-and-play).

Functionality

The touchscreen, through its intuitive user interface, delivers ease of use. The large number of menu languages adds to its user friendliness. In addition to specifying a specific pressure set point, either by entering it via touchscreen or sending it via remote interface, the pressure can be changed in defined,

programmable steps by using the STEP buttons. Moreover, the user can also easily create extensive test programs using the instrument menu. Depending on the application, the control rate can be set as a user-defined variable rate.

Software

The WIKA-CAL calibration software enables the convenient calibration of pressure measuring instruments and the generation of test certificates. Additionally, the instrument can also be remotely controlled using the serial command formats, the Mensor standard, SCPI or further optional command sets are available.

Complete test and calibration systems

On request, complete mobile or stationary test systems can be manufactured. There is an IEEE-488.2, RS-232, USB and an Ethernet interface for communication with other instruments, and thus the instrument can be integrated into existing systems.

Specifications Model CPC7000

Reference pressure sensors		
Pressure range	CPR8000	CPR8050
Accuracy ¹⁾	Standard: 0.01 % Full span ²⁾ Option: 0.01 % IS-50 ³⁾	0.01 % Full span ²⁾
Gauge pressure	100 ... 400 bar (1,500 ... 6,000 psi)	400 ... 700 bar (6,000 ... 10,000 psi)
Absolute pressure	101 ... 401 bar (1,515 ... 6,015 psi)	401 ... 701 bar (6,015 ... 10,015 psi)
Calibration interval	365 days	365 days
Optional barometric reference		
Function	The barometric reference can be used to switch pressure types ⁴⁾ , absolute <=> gauge. With gauge pressure sensors, the measuring range of the sensors must begin with -1 bar (-15 psi) in order to carry out an absolute pressure emulation.	
Measuring range	552 ... 1,172 mbar abs. (8 ... 17 psi abs.)	
Accuracy ¹⁾	0.01 % of reading	
Pressure units	38 and two freely programmable	

- 1) It is defined by the total measurement uncertainty, which is expressed with the coverage factor (k = 2) and includes the following factors: the intrinsic performance of the instrument, the measurement uncertainty of the reference instrument, long-term stability, influence of ambient conditions, drift and temperature effects over the compensated range during a periodic zero point adjustment.
- 2) FS = Full span = end of measuring range - start of measuring range
- 3) 0.01 % IS-50 accuracy: Between 0 ... 50 % of the full scale, the accuracy is 0.01 % of half of the full scale and between 50 ... 100 % of the full scale, the accuracy is 0.01 % of reading.
- 4) For a pressure type emulation, we recommend a native absolute pressure sensor, since the zero point drift can be eliminated through a zero point adjustment.

Basic instrument	
Instrument	
Instrument version	Standard: Desktop case Option: 19" rack-mounting kit
Dimensions	see technical drawings
Weight	approx. 40 kg (88.2 lbs)
Warm-up time	approx. 15 min
Display	
Screen	8.9" LC colour display with resistive touchscreen
Resolution	4 ... 6 digits depending on range and units
Connections	
Pressure connection	M16 x 1.5 female with sealing cone Optional barometer: M12 female thread
Filter elements	All pressure connections of the instrument feature a 20-µm filter.
Permissible pressure media	Minimum nitrogen 2.8 or better
Overpressure protection	Burst disc up to 1,000 bar (14,500 psi)
Permissible pressure	
Supply port	107 ... 110 % FS at least 30 ... 50 bar (435 ... 725 psi) over nominal pressure
Measure/Control port	max. 105 % FS
Voltage supply	
Power supply	AC 100 ... 240 V, 50 Hz / 60 Hz
Power consumption	max. 120 VA
Permissible ambient conditions	
Storage temperature	0 ... 70 °C (32 ... 158 °F)
Humidity	5 ... 95 % r. h. (non-condensing)
Compensated temperature range	15 ... 45 °C (59 ... 113 °F)
Mounting position	horizontal