

pressure



Pressure range

CPC010C	10 psi / 0.7 bar
CPC030C	30 psi / 2 bar
CPC200C	200 psi / 15 bar

Ideal for on-site use

Complete ready-to-use calibration systems in one carrying case or as individual indicators

One hand operation

No need for a flat surface to operate the system

High flexibility

The calibration system can easily be disassembled with the indicator being used separately for pressure monitoring tasks

Save time - instant general view

The display shows reference pressure and transmitter loop current from the device-under-test at the same time

Transmitter loop

Measure the transmitter loop current up to 24 mA (125%) and the pressure at the same time

Easy pressure switch test

Automatically records opening and closing point values on the display

Record min. and maximum readings

Use the CPC indicator to capture the minimum and maximum pressure readings in safety valve applications

Easy recalibration of the unit

No need to send it back to the manufacturer. Re-calibrate and adjust at your local calibration laboratory

ISO 9001 Manufacturer

JOFRA™ CPC Series

Compact Pressure Calibrator

Portabel field instrument designed for easy and reliable pressure calibration

JOFRA CPC series is a traceable, field instrument designed for easy and reliable check and calibration of pressure. Use the CPC series in process control applications such as verification or calibration of pressure gauges, transducers, transmitters, pressure switches and safety valves.



PRODUCT DESCRIPTION

The JOFRA CPC calibrator series is the new generation of the successful AMETEK series of pressure calibrators. The CPC series is recognized by its high quality and carefully selected features that save time and make calibration tasks easy to perform; e.g. dual information display, 11 different pressure units, transmitter mA reading, min/max recording, peak reading, and semi-automatic pressure switch test finding the closing, opening and the hysteresis pressure (dead band).

Maintenance of the instrument is made easy. Re-calibration of the unit can be performed locally with an accurate pressure reference: No need to send the unit back to the manufacturer for re-calibration. For all systems the pump and the indicator are separate so replacement of the pump does not mean that you have to send the complete system for repair.

JOFRA CPC can be delivered as an individual indicator or as a complete calibration system ready for use in a carrying case, including pump, hose, connectors, battery, test leads, user manual, and traceable calibration certificate.

AMETEK®
CALIBRATION INSTRUMENTS

JOFRA™ CPC Series

Compact Pressure Calibration system A

- 10 psi / 0.7 bar
- 30 psi / 2 bar
- 200 psi / 15 bar

This system includes the JOFRA CPC calibrator together with one of the following pneumatic hand pumps: T-730 or T-740, depending on the chosen pressure range.

System A is an easy-to-use singlehand operated calibration system. No need for a flat surface to operate the system - just hold it in your hand.

The System A comes in an aluminum carrying case with cutouts for fittings, hose, and the complete assembled calibration unit - no time is required to assemble the unit every time you need it. The calibrator (indicator) can at any time be used separately for other pressure test tasks.



A special quick connector between the pump and the indicator makes it possible to separate the system in seconds.

The JOFRA CPC delivery always includes a protective softcase for the indicator. All CPC indicators are delivered calibrated in both pressure and vacuum. If a vacuum pump is required see the accessory list.

Standard delivery

CPC calibrator (indicator):

- Traceable calibration certificate (NIST)
- With pressure and vacuum performance
- 9V Battery
- converter to 1/4 in NPT female
- converter to 1/4 in BSP female
- Test leads; red and black
- Soft case and shoulder strap
- User manual

Also included with system A delivery:

- Hand pump T-730 for CPC010 (10 psi)
- Hand pump T-730 for CPC030 (30 psi)
- Hand pump T-740 for CPC200 (200 psi)
- Hose 0.6 m / 24 in with 1/4 in BSP and NPT female connector
- Quick connector between pump and indicator
- 1 roll of teflon tape
- Aluminum carrying case
- Fitting to go from the quick connector on indicator to 1/4 in BSP or NPT female

Shipping information (system):

Weight: 550 g / 194 oz
Size: 188 x 350 x 560 mm / 7.4 x 13.8 x 22 in

T-700 series hand pumps

This hand pump is used in the CPC System A. 3 pump models are available, each covering a specific pressure range.

The pump features a built-in relief valve, a vernier valve for fine adjustment, and dual pressure output. There is an easy connection between the pump and the calibrator.



Range, T-730: 0 to 30 psi / 0 to 2 bar
Range, T-740: 0 to 200 psi / 0 to 15 bar
Range, T-750: -0.850 to 0 bar / -25 to 0 inHg
Test medium: Air
Wetted parts: Aluminum, brass, stainless steel, nylon, Nylatron GS
Connections to test object: 0.6 m / 24 in hose + 1/4" female BSP and NPT

Accessories

Part No. Description

Recommended fitting set for the system - to interface your device-under-test with the test hose:

- 65R191 Fitting set BSP female: 1x1/8", 1x3/8", 1x1/2" teflon tape and packings (60R191)
- 65R192 Fitting set NPT female: 1x1/8", 1x1/4", 1x3/8" 1x1/2" teflon tape and packings (60R191)
- 60R191 Set of rubber packings for 65R191 and 65R192
- 60I104 Role of teflon tape
- 60R178 Fitting: From the quick connector to 1/4" BSP fem.
- 60R166 Fitting: From the quick connector to 1/4" NPT fem.
- SPK-HPC-002 System quick connector including T-873
- T-873 Replacement swivel fitting for the pumps
- 124109 Aluminum carrying case for CPC system A
- T-746 Servicekit for T-730 og T-740
- T-747 Servicekit for T-750 pump

Ordering information system A

Order No. Description

Pressure calibrator - 1st thru 3th characters	
CPC	CPC pressure calibrator
Indicator pressure range - 4th through 7th characters	
010C	Vacuum to 10 psi / 0.7 bar
030C	Vacuum to 30 psi / 2 bar
200C	Vacuum to 200 psi / 15 bar
Base model number - 8th through 10th characters	
AXX	CPC calibration system A
IND	CPC indicator only
Certificate - 11th character	
G	NIST traceable certificate (standard)
H	Accredited certificate
Sample order number	
CPC030CAXXG	JOFRA CPC 30 psi / 2 bar pressure calibration system A. T-730 hand pump and NIST traceable calibration certificate.

JOFRA™ CPC Series

Compact Pressure Calibration system B

- -30 inHg to 200 psi
- -1 to 15 bar

This system includes the dual function pneumatic hand pump. With this pump you can calibrate both vacuum and pressure applications. It takes just a few seconds to switch between vacuum and pressure, just push one button (valve) on the T-910 handpump.

The system B comes in a carrying case with cutouts for fittings, hose and the complete assembled calibration unit - no time required to assemble the unit every time.

The indicator and the pump are fitted with a special quick connector that makes it possible to separate the system in seconds without any tool. This quick connector also makes it possible to use the assembled system with the indicator twisted to any angle.



Standard delivery:

CPC calibrator (indicator):

- Traceable calibration certificate (NIST)
- With pressure and vacuum performance
- 9 V Battery
- converter to 1/4 in NPT female
- converter to 1/4 in BSP female
- Test leads; red and black
- Soft carrying case
- User manual

Also included with system B delivery:

- Hand pump T-910
- Hose 1 m / 40 in with 1/4 in BSP and NPT female connector
- Quick connector between pump and indicator
- 1 roll of teflon tape
- Aluminum carrying case and shoulder strap
- Fitting to go from the quick connector on the indicator to 1/4 in BSP or NPT female (when using the indicator as a gauge in the process)

Shipping information (system):

Weight: 550 g / 194 oz
Size: 188 x 350 x 560 mm / 7.4 x 13.8 x 22 in

T-910 hand pump

The T-910 pump is an easy-to-use single hand operated pneumatic pump.

The T-910 pump features both vacuum and pressure generation up to 40 bar / 580 psi.

One button (valve) makes it easy to switch from vacuum to pressure measurements.

Built-in release valve, vernier valve for fine adjustment and dual pressure output enable safe and simple operation.



Pressure range.....-29 inHg to 580 psi / -0.960 to 40 bar
Test medium.....Air
Wetted parts.....Anodized aluminum, nickel-plated brass, stainless steel, Nylon
Connections to test object:Hose 1 m / 40 in +
..... 1/4" BSP and NPT female

Accessories

Part No. Description

Recommended fitting set 65R191 or 192 for the system - to interface your device-under-test with the test hose:

65R191	Fitting set BSP female: 1x1/8", 1x3/8", 1x1/2" teflon tape and packings (60R191)
65R192	Fitting set NPT female: 1x1/8", 1x1/4", 1x3/8" 1x1/2" teflon tape and packings (60R191)
60R191	Set of rubber packings for 65R191 and 65R192
60I104	Roll of teflon tape
60R178	Fitting: From the quick connector to 1/4" BSP fem.
60R166	Fitting: From the quick connector to 1/4" NPT fem.
SPK-HPC-001	System quick connector (system B)
124110	Aluminum carrying case for CPC system B
75P012	Service kit for T-910 pump

Ordering information system B

Order No. Description

Pressure calibrator - 1st through 3th characters	
CPC	CPC pressure calibrator
Indicator pressure range - 4th through 7th characters	
200C	Vacuum to 200 psi / 7 bar
Base model number - 8th through 10th characters	
BXX	CPC calibration system B
IND	CPC indicator only
Certificate - 11th character	
G	NIST traceable certificate (standard)
H	Accredited certificate
CPC200CBXXG	Sample order number
JOFRA CPC 200 psi pressure calibration system B and NIST traceable calibration certificate.	

JOFRA CPC INDICATOR SPECIFICATIONS

This table shows the resolutions that can be obtained by the CPC indicators throughout all engineering units

Resolution	CPC010C		CPC30C		CPC200C	
	Vacuum to 10 psi Vacuum to 0.7 bar		Vacuum to 30 psi Vacuum to 2 bar		Vacuum to 200 psi Vacuum to 15 bar	
Imperial ranges						
psi	-10.0000	10.0000	-12.000	30.000	-12.00	200.00
inH2O@4°C	-276.81	276.81	-332.17	830.42	-332.2	5536.1
inH2O@20°C	-277.30	277.30	-332.76	831.89	-332.8	5545.9
inH2O@60°F	-277.08	277.08	-332.50	831.24	-332.5	5541.6
ftH2O@4°C	-23.067	23.067	-27.681	69.202	-27.68	461.35
ftH2O@20°C	-23.108	23.108	-27.730	69.324	-27.73	462.16
ftH2O@60°C	-23.090	23.090	-27.708	69.270	-27.71	461.80
inHg@0°C	-20.360	20.360	-24.432	61.081	-24.43	407.21
Metric ranges						
bar	-0.7000	0.7000	-0.8300	2.0000	-0.8300	15.0000
mbar	-700.00	700.00	-830.0	2000.0	-830.0	15000.0
kPa	-70.000	70.000	-83.00	200.00	-83.00	1500.00
kg/cm2	-0.7138	0.7138	-0.8464	2.0394	-0.8464	15.2957
cmH2O@4°C	-713.82	713.82	-846.4	2039.5	-846.4	15296.2
cmH2O@20°C	-715.08	715.08	-847.9	2043.1	-847.9	15323.2
mH2O@4°C	-7.1382	7.1382	-8.464	20.395	-8.464	152.962
mH2O@20°C	-7.1508	7.1508	-8.479	20.431	-8.479	153.232
mmHg@0°C	-525.04	525.04	-622.6	1500.1	-622.6	11251.0

Accuracy positive pressure±0.05% of F.S.*¹
 Accuracy vacuum ±0.1% F.S.*¹
 Temperature compensation±0.005% F.S. /°C outside 18 to 28°C
 ±0.003% F.S. /°F outside 64 to 82°F
 Overload maximum pressure +50% F.S.
 Overload "OL" in display activates at: +20% F.S.
 Media compatibility Non-corrosive gasses and liquids
 Connection 1/8 in. NPT female - see delivery section for adapters
 Display Dual information LCD plus icon indicators
 Display update Twice per second
 Min/Max Peak hold capture 50 milliseconds
 mA input 0 to 24 mA accuracy: ±0.015% of reading +2 µA
 Switch test Supply max. 9 V
 Power supply / Batteries 1x 9 V Alkaline (minimum 15 hours operation)
 Low battery indicator at 7 V
 Dimensions L x W x H: 200 x 82 x 54 mm / 7.9 x 3.2 x 2.1 in
 Net weight 470 g / 16.6 oz
 CE conformity: EN50082-1, 1992 and EN55022, 1994 Class B
 Safety CSA C22.2 No. 1010.1, 1992

*¹ F.S. Full Scale is the numerical value of the positive pressure range. The accuracy includes non-linearity, hysteresis, repeatability and temperature effect 18 to 28°C / 64 to 82°F.

All above specifications are specified at 23°±3°C / 73°±6°F unless otherwise noticed.



AMETEK

Calibration Instruments

offers a complete range of calibration equipment for pressure, temperature, and signal - including software.

JOFRA Temperature standards

Portable precision thermometer. Dry-block calibrators: 4 series, more than 20 models - featuring speed, portability, accuracy, and advanced documenting functions.

JOFRA Pressure standards

Convenient electronic systems ranging from -1 to 700 bar (25 inHg to 10,000 psi) - multiple choices of pressure ranges, pumps, and accuracies, fully temperature-compensated for problem-free and accurate field use.

JOFRA Signal calibration

Process signal measurement and simulation for easy control loop calibration and measurement tasks - from handheld field instruments for multi or single signals to laboratory reference level bench top instruments.

M&G Primary pressure standards

Pneumatic floating-ball or hydraulic piston deadweight testers - easy-to-use with accuracies up to 0.015% of reading.

Frode Pedersen sensors

AMETEK Denmark A/S are producing and selling temperature sensors for industrial and marine use under the brand name Frode Pedersen.

JF Marine Instruments

AMETEK offers a complete range of calibration equipment for temperature, pressure, and signal approved for marine use.

*...because calibration is
a matter of confidence*

AMETEK®
CALIBRATION INSTRUMENTS

AMETEK Calibration Instruments is one of the world's leading manufacturers and developers of calibration instruments for temperature, pressure and process signals as well as for temperature sensors both from a commercial and a technological point of view.

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