

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

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

Complete marine program

Part of a complete program of marine approved temperature, pressure and signal calibrators; including temperature sensors

See more at www.jofra.com

ISO 9001 Manufacturer

JOFRA™ CPC Series

Compact Pressure Calibrator

NOTICE
Now with new upgraded
system B pump

Portable 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.

The 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

- 0 to 10 psi (0.7 bar)
- 0 to 30 psi (2 bar)
- 0 to 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.



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.



Pressure range, T-730.....0 to 30 psi / 0 to 2 bar
 Pressure range, T-740 0 to 200 psi 0 to 15 bar
 Pressure 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

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:

- Base model AXX: Pump T-730 for CPC010 (10 psi / 0.7 bar)
- Base model AXX: Pump T-730 for CPC030 (30 psi / 2 bar)
- Base model AXX: Pump T-740 for CPC200 (200 psi / 15 bar)
- Base model AVX: Pump T-750 for CPC010 (10 psi / 0.7 bar) to CPC200 (200 psi / 15 bar)
- 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: 12.3 lb / 5.5 kg
 Size: 7.4 x 13.8 x 22 in / 188 x 350 x 560 mm

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
- T-746 Servicekit for T-730 or T-740 pumps
- T-747 Servicekit for T-750 pump

Ordering information system A

Order No. Description

	Pressure calibrator - 1st thru 3th char.
CPC	CPC pressure calibrator
	Indicator pressure range - 4th thru 7th char.
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 thru 10th char.
AXX	CPC calibration system A (pump T-730 or T-740)
AVX	CPC calibration system A (pump T-750)
IND	CPC indicator only
	Certificate - 11th char.
G	NIST traceable certificate (standard)
H	Accredited certificate
CPC030CAXXG	Sample order number
	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-930 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.

T-930 hand pump

The T-930 pump is an easy-to-use single hand-operated pneumatic pump. The T-930 pump features both vacuum and pressure generation up to 500 psi (35 bar).



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..... -14 psi to 500 psi / -0.95 to 35 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

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-930 for all ranges
- 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
- Alluminum 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: 12.3 lb / 5.5 kg
 Size: 7.4 x 13.8 x 22 in / 188 x 350 x 560 mm

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	Role of teflon tape
75P013	Service kit for T-930 pump

Ordering information system B

Order No. Description

Pressure calibrator - 1st thru 3th char.	
CPC	CPC pressure calibrator
Indicator pressure range - 4th thru 7th char.	
200C	Vacuum to 200 psi (15 bar)
Base model number - 8th thru 10th char.	
BXX	CPC calibration system B
IND	CPC indicator only
Certificate - 11th char.	
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 100 psi Vacuum to 7 bar	Vacuum to 300 psi Vacuum to 20 bar	Vacuum to 1000 psi Vacuum to 70 bar	Vacuum to 2000 psi Vacuum to 140 bar
Imperial ranges						
psi	-10.0000	10.0000	-12.000	30.000	-12.00	200.00
inH ₂ O@4°C	-276.81	276.81	-332.17	830.42	-332.2	5536.1
inH ₂ O@20°C	-277.30	277.30	-332.76	831.89	-332.8	5545.9
inH ₂ O@60°F	-277.08	277.08	-332.50	831.24	-332.5	5541.6
ftH ₂ O@4°C	-23.067	23.067	-27.681	69.202	-27.68	461.35
ftH ₂ O@20°C	-23.108	23.108	-27.730	69.324	-27.73	462.16
ftH ₂ O@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/cm ²	-0.7138	0.7138	-0.8464	2.0394	-0.8464	15.2957
cmH ₂ O@4°C	-713.82	713.82	-846.4	2039.5	-846.4	15296.2
cmH ₂ O@20°C	-715.08	715.08	-847.9	2043.1	-847.9	15323.2
mH ₂ O@4°C	-7.1382	7.1382	-8.464	20.395	-8.464	152.962
mH ₂ O@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
 DNV Marine Approval, Certificate no.: A-9557

*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 temperature, pressure, and signal - including calibration software.

JOFRA Temperature standards
 Portable precision thermometer.
 Dry-block and liquid bath calibrators:
 4 series, with more than 20 models - featuring speed, portability, accuracy and advanced documenting functions with JOFRACAL temperature calibration software.

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.

JOFRA / JF Marine Instruments
 A complete range of calibration equipment for temperature, pressure and signal, approved for marine use under the brand name JOFRA and JF Instruments.

FP temperature sensors
 A complete range of temperature sensors for industrial and marine use.

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



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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