# 690

## Portable Hydraulic Pressure Calibrator

## **DATASHEET**



# Redefining Measurement & Calibration Solutions

The Tekneka 690 is a portable pressure calibrator for hydraulic pressure calibration up to 1000 bar that generates pressure and has precision control. It is a independent pressure calibration instrument that combines electrical signal measurement and loop power to quickly and conveniently calibrate for extensive on-site calibration.

It has a lever-type hand pump that can generate and control up to 1000 bar of hydraulic pressure with an accuracy of 0.02% F.S, then use the built-in volume controller to accurately regulate the pressure with the secondary fine pressure control.

The full-graphic touchscreen display, along with an intuitive menu selection, provides excellent visibility and operability. The upper side of the Tekneka 690 is equipped with connectors and adaptors for quick and easy DUT connections.

#### **Electrical connections for Transmitter:**

- Measurement up to ±15V, ±24mA
- Supply up to 0  $\sim$  10V DC, 0  $\sim$  24mA
- Power: 24V DC
- Loop Power

Pressure switch test, help functions

Hydraulic adaptor set (optional)

### **Applications**

- Calibration of Hydraulic Pressure Transducers and Gauges
- Testing Hydraulic System Components
- Maintenance and Troubleshooting of Hydraulic Equipment
- Pressure Testing in Research and Development
- Quality Assurance in Manufacturing
- Calibration Services

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## **Easy Calibration Task Settings (Touch Screen)**



Main Screen





Help Screen Application connection diagram display function



Pressure Units Selection Available to select 13ea of pressure units

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## **Task Menu (Advanced Features)**









Task Menu

Min/Max Test

Leak Test

Switch Test

## **General Specifications**

| Pressure Range                   | 0 to 200 bar1000 bar   |  |
|----------------------------------|--|--|
| Accuracy                         | ±0.02% F.S   |  |
| Electrical Measurements          | ±15V DC, ±24mA DC, Accuracy ± (0.01% of Reading + 1digit), Loop Power  |  |
| Electrical Supply                | 0 ~ 10V DC, 0 ~ 24mA, Accuracy ± (0.015% of Reading + 1digit), Loop Power  |  |
| Sensor Supply Power              | Power 24V DC   |  |
| Display                          | Full color touch screen LCD, 110mm (4.3") diagonal 480 x 272 pixels Resolution ±999999 (Available to select 4 to 6 digits)   |  |
| Power                            | Lithium-ion rechargeable battery, Charger 9V, 6A (use 30 hours on a 5 hours charge)  |  |
| Operating<br>Temperature Range   | 0 to 70°C (5 to 75°C with water)   |  |
| Storage Temperature<br>Range     | -30 to 80°C (5 to 75°C with water)   |  |
| Temperature<br>Compensated Range | 0 to 50°C (5 to 75°C with water)   |  |
| Pressure Units                   | bar, mbar, Pa, hPa, kPa, MPa, kgf/cm², psi, mmH <sub>2</sub> 0, cmH <sub>2</sub> 0, inH <sub>2</sub> 0, mmHg, inHg, mSW, fSW (mSW and fSW units are applied on a water temperature of 15°C with reference to U.S. Navy Dividing Manual, Revision 7, Table 2-10. Pressure Equivalent) |  |
| Test Port                        | 1/4" PF Female   |  |
| Weight                           | 4.2kg including batteries  |  |
| Size                             | 210mm (W) x 360mm (D) x 110mm (H)  |  |
| Oil Reserver Volume              | 100 cc   |  |
| Media                            | Water or Mineral Oil   |  |
|                                  |  |  |

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## **Ordering Information**

Model (690 - Range) / Description (Portable Hydraulic Pressure Calibrator/Media)

| 200 bar  | 0 to 200 bar  |           |
|----------|---------------|-----------|
| 350 bar  | 0 to 350 bar  | W (Water) |
| 700 bar  | 0 to 700 bar  | O (Oil)   |
| 1000 bar | 0 to 1000 bar |           |
|          |               |           |

### **Accessories**







Rechargeable Battery



**Battery Charger** 



Test Leads Set

## **Optional Items**



Hydraulic Quick Adaptor Set (up to 2000 bar) (1/8, 1/4, 3/8, 1/2 PT | PF, NPT)



Flexible Tubes (30cm to 300cm)



External Pressure Manifold