TILIA
SERIES
ACCELEROGRAPHS

Mandatory Installation of Earthquake Recorders for Buildings

Type of Building	Number and Location of Sensors
Government Buldings	
A. Hospitals, schools and other buildings above fifty (50) meters in height	At least 3 accelerographs located at (1) Ground Floor / Lowest Basement. (2) Middle Floor, and (3) Floor below Roof
B. Hospitals with fifty (50)-bed capacity or more and schools with twenty (20) classrooms or more but not less than three (3) storeys	One Accelerorgaph installed at Ground Floor / Lowest basement
C. Provincial/City/Municipal Halls and Buildings	One Accelerorgaph installed at Ground Floor / Lowest basement
Private Buildings	
A. Buildings above fifty (50) meters in height	At least 3 accelerographs located at (1) Ground Floor / Lowest Basement. (2) Middle Floor, and (3) Floor below Roof
B. Hospitals with fifty (50)-bed capacity or more and schools with twenty (20) classrooms or more but not less than 3 storeys	One Accelerorgaph installed at Ground Floor / Lowest basement
C. Commercial buildings with occupancy of at least 1,000 persons or gross floor area of at least 10,000 square meters	One Accelerorgaph installed at Ground Floor / Lowest basement
D. Industrial buildings with occupancy of at least 1,000 persons and gross floor area of at least 10,000 square meters	One Accelerorgaph installed at Ground Floor / Lowest basement

Individual Components of DPWH Compliant Earthquake Monitoring System

Tilia T100P
State-of-the-art networked seismic strong motion accelerograph with 250Hz bandwidth and a dynamic range of 100dB. The instrument integrates sensors and digitizers in the same box, greatly lowering system complexity. Instruments have double ethernet interface to allow daisy chaining multiple accelerographs in large structures. Includes GPS and Integrated relays.

Tilia Control Panel (PH Version)
Control panel for use with Tilia instruments in DPWH compliant projects in the Philippines. The panel contains 10” industrial Touch PC, power supplies for Tilia, Battery Backup power and interface for activating a siren and alarm light. The Tilia Control Panel includes software required for retrieval and analysis of seismic data, and can display live parameters and seismic intensity scales as well as the latst 1000 historic earthquakes.

Siren
105dB Alarm siren suitable for integration with Tilia Dam Control Panel and Tilia’s optional alarm relay system.

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SEISODIN

WE MAKE STRONG MOTION ACCELEROGRAPHS

DPWH Compliant Earthquake Recording Instrument

Seismic Accelerograph Solution for The Philippines

Zone 4 Seismically Qualified Accelerograph Solution for The Philippines

Tilia Earthquake Recording Instrument

Seisodin proudly presents the T100P Earthquake Recording Instrument (ERI) tailored for the Philippine market. The system is fully compliant with the strict *2015 DPWH Guidelines and Implementing Rules on Earthquake Recording Instrumentation for Buildings*, including a thorough seismic qualification by an accredited seismic test laboratory.

Turn-key Solution
Seisodin offers a full, easy-to-use solution including a control panel with live data, intensity scale and other relevant earthquake parameters, as well as audible and visual alarms, and the option to connect the system to an existing FDAS system. The solution uses a single-cable ethernet daisy chain concept for easy installation and can be delivered with between 1 and 10 sensors, making it suitable for both small and large buildings.

Seismic Qualification
IEC 60068-3-3 Seismic Zone 4
ACCREDITED TEST REPORT AVAILABLE

SPECIFICATIONS

Tilia T100P

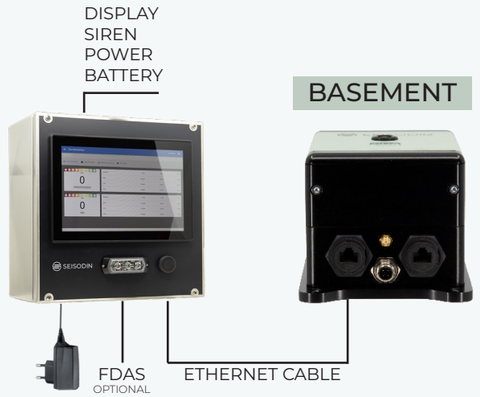
The Seisodin Tilia T100P is a highly integrated Earthquake Recording Instrument (also called ERI), tailored for precision seismic monitoring of buildings. The T100P is an enhanced version of the T100, designed to be fully compliant with the strict 2015 DPWH requirements for the Philippines. Multiple instruments can be daisy chained thanks to the integrated double ethernet interface, ensuring simple cabling and ultra precise synchronization using GPS and PTP in larger structures. Tilia T100P is seismically qualified for seismic zone 4 accordingt to IEC 60068-3-3 and is tested by an accredited laboratory.

	Tilia T100P
Seismic Qualification:	60068-3-3 Zone 4 (cert.)
Dynamic Range:	110dB
Noise:	40ug (0-30Hz)
Fullscale:	2 or 4g
Time:	GPS, PTP, NTP
Power:	12-60V
Battery:	18650 and / or 12V Lead
Relays:	2 x NO/NC + Reset input
Connection:	Daisy Chained Ethernet
Environment:	IP67
Configuration:	Web Interface
Storage:	32GB - 128GB microSD
Connectivity:	FTP, Seisodin Cloud

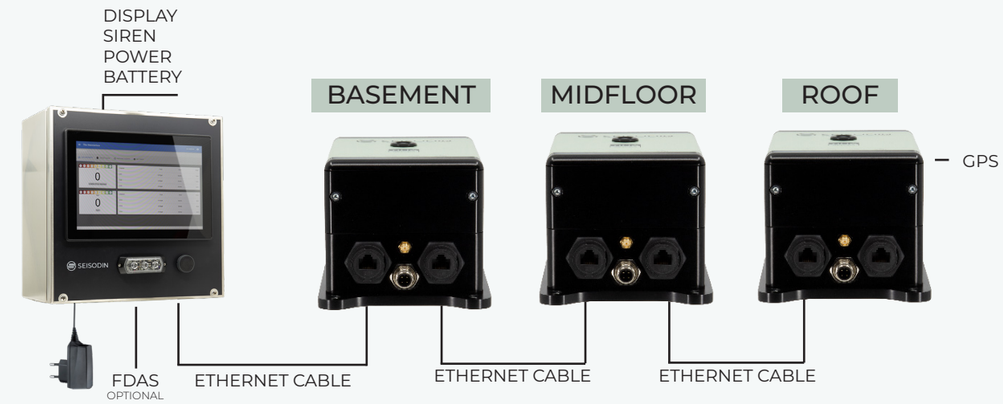
Connection Diagrams

TILIA SERIES

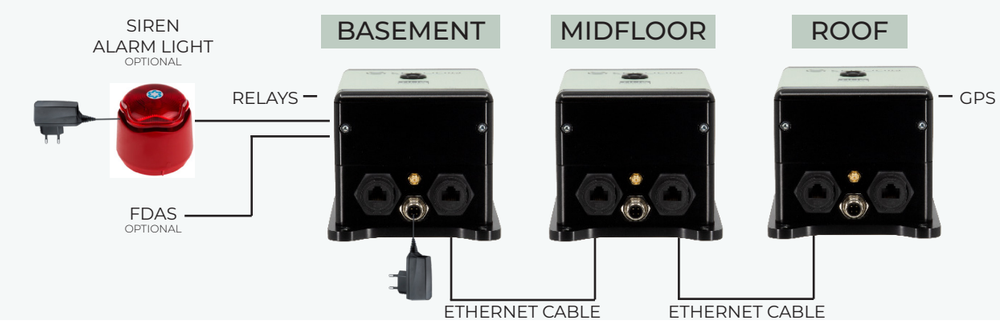
SINGLE INSTRUMENT SOLUTION — CONNECTION DIAGRAM



MULTIPLE INSTRUMENTS SOLUTION — CONNECTION DIAGRAM



STAND ALONE SOLUTION (NO DISPLAY) — CONNECTION DIAGRAM



SEISODIN

UNIQUE FEATURES

CONTROL PANEL

- **10” Touch Display** for easy viewing
- **Relays** 2 x NO/NC dry contacts
  - Use with FDAS
  - Use with Siren
- **Reset button** for relays
- **Alarm light** with high visibility
- **Siren** for alarm and evacuation
- **Power over Ethernet** for Tilia T100P daisy chain
- **Battery (UPS)** integrated for power backup of entire system
- Option to connect 4G modem

EASY CABLING

- **Daisy Chain** up to 10 sensors - easy cabling
- **Power**, **data** and **time synchronization** in a single cable
- **CAT5E** with **RJ45** connectors for affordable cabling
- **Power-over-ethernet** means only one cable for everything
- **PTP time synchronization** between sensors for industry’s most precise synchronization.

LIVE SEISMIC INTENSITY + 1000 HISTORIC EARTHQUAKES

- Live seismic intensity as PEIS or MMI
- Live PGA, PGV, PGD
- Live time history viewer
- 1000 historic earthquakes including time series
- Export data as miniseed, csv or ascii

SEISMIC QUALIFICATION

TILIA SERIES

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REPORT OF THE SEISMIC TESTS CARRIED OUT ON

“TWO (2) ACCELEROGRAPHS”

SUPPLIED BY SEISODIN

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