

TRANSIENT DRAINAGE PROCESSES ON STORAGE RESERVOIR

Model Number : GOTT-TDPSR-01



DESCRIPTION





The GOTT-TDPSR-01 allows to investigate transient drainage processes in storage reservoirs, to simulate a rainwater retention basin and to study the operation of a surge chamber. The unit includes two reservoirs and a transparent surge chamber. The upper reservoir includes an adjustable weir and the lower reservoir includes an overflow and a drainage line with two valves. The surge chamber is installed in this line. The drainage line of the surge chamber includes a gate to generate water hammers. The water inlet line to the upper reservoir includes a computer controlled pump, a valve to regulate the inlet flow and a flow sensor. The overflow and the surge chamber include two drains. The unit includes a protective cover to prevent spillages.

This Computer Controlled Unit is supplied with the GOTT Computer Control System (SCADA), and includes: The unit itself + a Control Interface Box + a Data Acquisition Board + Computer Control, Data Acquisition and Data Management Software Packages, for controlling the process and all parameters involved in the process.

FEATURES

- Advanced Real-Time SCADA.
- Open Control + Multicontrol + Real-Time Control.
- Calibration exercises, which are included, teach the user how to calibrate a sensor and the importance of checking the accuracy of the sensors before taking measurements.
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SPECIFICATIONS

MAIN CONTROL UNIT	CODE 642-001	CONTROL INTERFACE BOX	CODE 642-002	DATA ACQUISITION BOARD	CODE 642-003	DATA MANAGEMENT SOFTWARE	CODE 642-004
							
<ul style="list-style-type: none"> • Metallic structure and panels in painted steel. • Main metallic elements in stainless steel. • Upper reservoir: Includes an adjustable rectangular weir, which can be used as a gate or as an overfall weir • Lower reservoir: It includes an overflow and a drainage line • Surge chamber 		<ul style="list-style-type: none"> • The Control Interface Box is part of the SCADA system. • Control interface box with process diagram in the front panel • The unit control elements are permanently computer controlled. • Simultaneous visualization in the computer of all parameters involved in the process. • Calibration of all sensors involved in the process. • Real time curves representation about system responses. 		<ul style="list-style-type: none"> • PCI Express Data acquisition board • Analog Input • Number of channels= 16 single-ended or 8 differential. • Resolution=16 bits, 1 in 65536. • Sampling rate up to: 250 KS/s • Analog output • Number of channels=2 • Resolution=16 bits, 1 in 65536. • Maximum output rate up to: 900 KS/s. • Digital Input/Output: • Number of channels=24 I/O 		<ul style="list-style-type: none"> • The three softwares are part of the SCADA system. • Compatible with actual Windows operating systems. • Graphic and intuitive simulation of the process in screen. • Compatible with the industry standards. • Sampling velocity up to 250 KS/s (kilo samples per second). • It allows the registration of the alarms state and the graphic representation in real time. 	

TRAINING PROGRAM

- Study of the main drainage processes between storage reservoirs.
- Demonstration of transient drainage processes in two consecutive storage reservoirs.
- Determination of discharge in two consecutive storage reservoirs..
- Demonstration of transient drainage processes in a rainwater retention basin.
- Measure of the oscillations of the surge chamber.
- Measure of the natural frequency of the surge chamber.
- Measure of the water level fluctuations.
- Sensors calibration.
- Open Control, Multicontrol and Real Time Control.
- The Computer Control System with SCADA allows a real

Manuals :

- (1) All manuals are written in English.
- (2) Model Answer
- (3) Teaching Manuals

General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manual & Training will be provided where applicable.
- (3) Design & specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

Warranty :

2 Years

ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
TRANSIENT DRAINAGE PROCESSES IN STORAGE RESERVOIRS	GOTT-TDPSR-01	642-001

*Proposed design only, subject to changes without any notice.