

DESCRIPTION OF OPERATION

The 53 Series control panels are designed for automatic, suspension probe operation of pumps in dewatering applications. Upon rising water level, when the start probe comes into contact with water, the pump will activate and upon receding water level, the pump will deactivate once the stop probe is not in contact with water. To operate the pump manually, turn the Hand-Off-Auto (HOA) switch to the 'HAND' mode and for normal automatic operation, turn the HOA switch to the 'AUTO' position.

STANDARD FEATURES

- UL listed control panels used for automatic dewatering applications
- Multi-voltage transformer, 208/230/460 VAC (operates all pump voltages)
- Heavy duty and padlockable NEMA 4X thermoplastic enclosure
- Green pump run indicator light, rated heavy duty and watertight
- Motor Protective Switch (MPS) - provides disconnect, short circuit, and adjustable overload protection
- Heavy duty IEC rated magnetic motor contactor
- Heavy duty watertight cable connectors for pump, power, and floats - quick installation
- Labeled/numbered field wiring terminals
- Thermal label schematic affixed to inner door
- Includes (2) 50 foot mechanical suspension probe
- UL 508 listed for USA and Canada



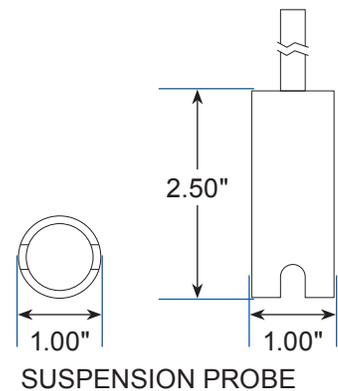
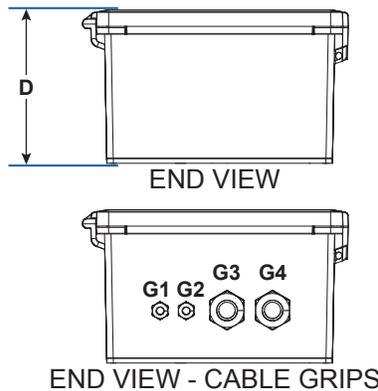
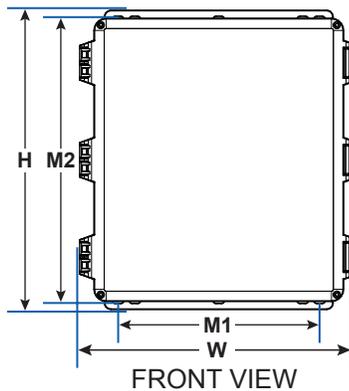
*53 Series panels are designed for use with pumps with circle thermal motor protectors that do NOT require switching in the panel. If your pump has miniature motor protectors that require thermal cutoff in the panel, see the 93 Series panels.



SPECIFICATIONS

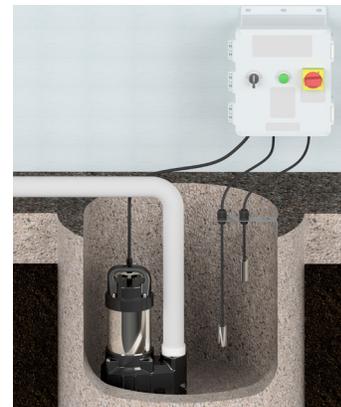
(Exterior Enclosure Dimension in Inches) (Cable Grip Diameter Range in Inches)

MODEL NUMBER	VOLTAGE	AMPERAGE	W	H	D	M1	M2	G1 and G2	G3 and G4
5300	208/230/460	2.5 - 4.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5301	208/230/460	4.0 - 6.3	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5302	208/230/460	6.0 - 10.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5303	208/230/460	9.0 - 14.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5304	208/230/460	17.0 - 23.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.51 - 1.02
5305	208/230/460	24.0 - 32.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.71 - 1.26
5306	208/230/460	30.0 - 40.0	16.09	17.85	9.27	12.00	16.75	0.12 - 0.35	0.71 - 1.26
5307	208/230/460	37.0 - 50.0	16.09	17.85	9.27	12.00	16.75	0.12 - 0.35	0.71 - 1.26
5308	208/230/460	48.0 - 65.0	16.09	17.85	9.27	12.00	16.75	0.12 - 0.35	0.71 - 1.26
5309	208/230/460	1.6 - 2.5	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5310	208/230/460	0.63 - 1.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5312	208/230/460	13.0 - 18.0	10.03	11.85	7.27	6.00	10.75	0.12 - 0.35	0.43 - 0.83
5313	208/230/460	20.0 - 50.0	18.16	19.85	11.27	14.00	18.75	0.12 - 0.35	0.71 - 1.26
5314	208/230/460	40.0 - 80.0	18.16	19.85	11.27	14.00	18.75	0.12 - 0.35	0.71 - 1.26


Hardwire Installation - Send a Signal to the Control Panel

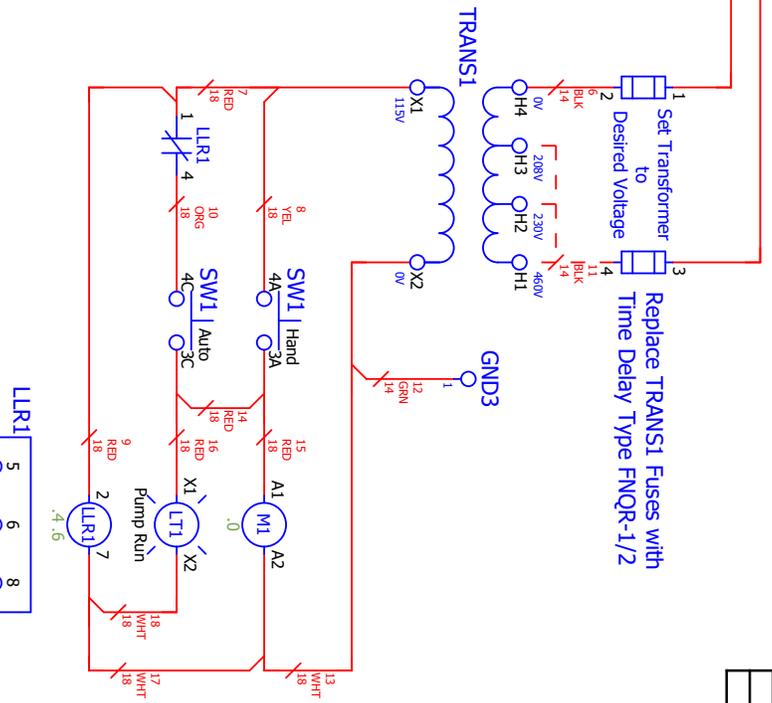
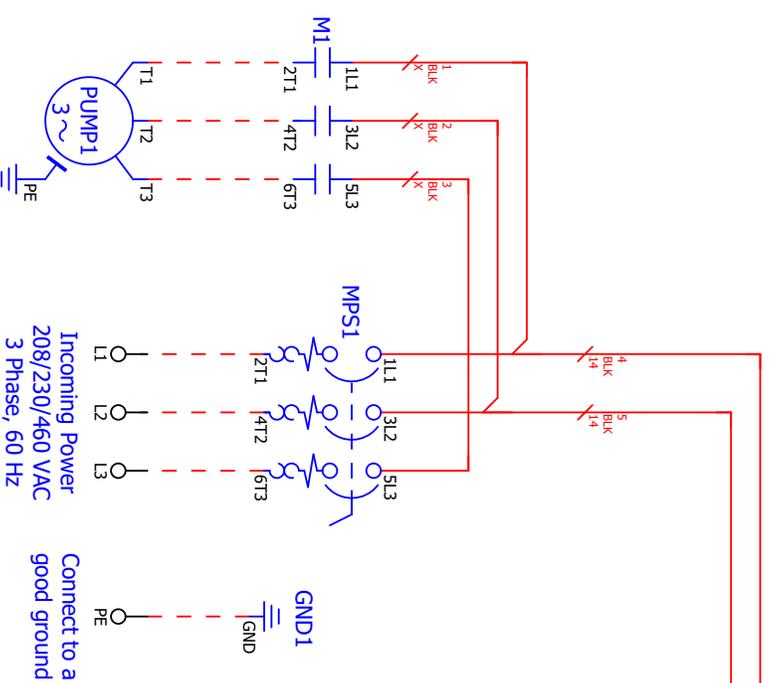
- 1) The suspension probes hang freely in the tank. The weight of the probe will keep it in place.
- 2) The suspension probes, the pump(s), and the incoming power supply are wired inside of a junction box to a control panel.
- 3) The reference probe is the lowest mounted probe, submerged in the water, and used as the reference for the stop and start probes (pump down example shown).
- 4) The stop probe is mounted at the desired stop level per application.
- 5) The start probe is mounted at the desired start level per application.

Note: Check to make sure the correct probe setup is used per application.



CAUTION: Nonmetallic enclosures does not provide grounding between conduit connections. Use grounding bushings and jumper wires.
ATTENTION: Les boîtiers non-métalliques ne permettent pas de mise à la terre entre les connexions de conduits. Utilisez des manchons de mise à la terre et des fils de liaison.

Device Tag	Description	Terminal	Field Wiring	Terminal
GND1	Ground Lug	45 In-1b	Field Supplied	
GND3	Ground Modular Terminal Block	9 In-1b		
LLR1	Liquid Level Relay, Dual Down	15 In-1b		
LTI	Green Light 120V	15 In-1b		
M1	Contactor XX A	15 In-1b		
MPS1	Motor Protection Switch XX-XX A	15 In-1b		
SW1	3M Switch			
TB1	Terminal Block 20A			
TRANS1	Transformer w/Fuse 2P, 1/2A Fuse 50VA	20 In-1b		20 In-1b



Legend

Field Wiring

←=INTRODUCTION/1

Schematic

=STANDARD REPORT/1→

<p>Tsurumi Pump 1625 Fullerton Court Glendale Heights, IL 60139 PH-630/783-0127 TsurumiPump.com</p>	This drawing contains proprietary information which must not be duplicated, used, or disclosed in whole or in part without prior written consent.	Model Number DWG Number	Tsurumi 53 Series Schematic	Quote Number	Drawn By B. Nelson	Page Number 1 of 1
	Notes: 1. WARNING! Electrical Shock Hazard! Disconnect power before servicing this product. A qualified service person must install and service this product according to applicable electrical and plumbing codes. 2. Install in accordance with National Electric Code, NFPA 70, Seal all boxes, fittings, and conduit with appropriate seal devices to prevent moisture and gasses from entering enclosure. 3. Connect all grounds to a good ground. 4. Dashed lines represent field wiring - Use minimum 60 deg C Copper Wire 5. Branch Circuit Protection Device/Disconnect Means Field Provided.	Model Number DWG Number	Tsurumi 53 Series Schematic	Quote Number	Drawn By B. Nelson	Page Number 1 of 1