



SOREL
Mikroelektronik GmbH

SOREL TDC5A SOLAR THERMAL CONTROLLER

User-friendly solar thermal controllers for residential and commercial applications...



ITEM # 10500

The SOREL TDC5A differential temperature controller sets a new standard in solar thermal differential control.

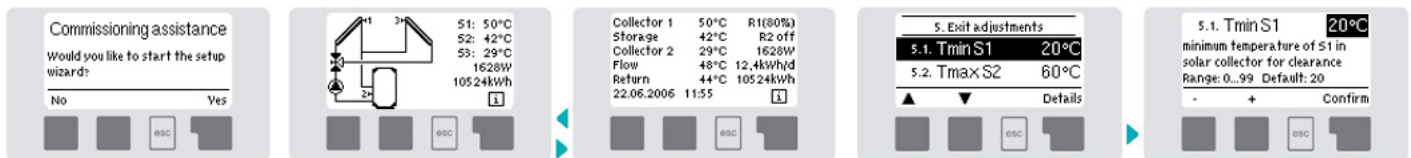
Combining practical design with a feature rich, crystal clear operator guidance system, SOREL can offer sophisticated control in an extremely user-friendly package. Users are presented with programming and operational information, in graphical or plain written text formats in one of many user selectable languages*.

The TDC5A is intended for basic solar control applications requiring up to two storage tanks, as well as scheduled thermostatic control of a secondary heat source. The TDC5A has six temperature sensor inputs, one variable speed triac output, and two 120VAC relay outputs.

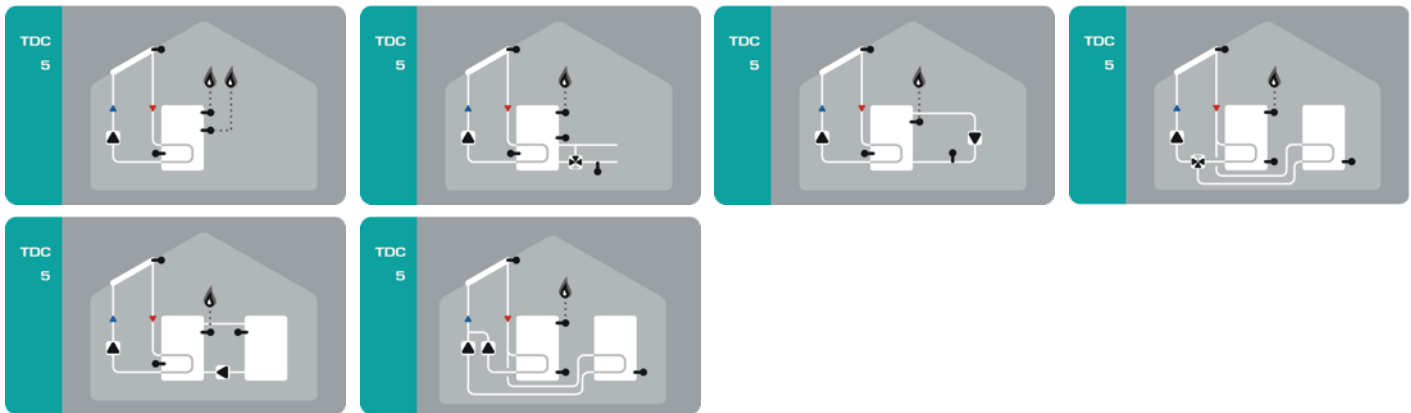
Quiet and efficient variable speed pump control of wet rotor type circulators (up to 140watt) is also possible using the TDC5A's internal triac based speed control circuitry. In addition, every SOREL TDC series controller is capable of logging operational, and averaged solar performance data for up to 5 years**.



TEXT & GRAPHICS



PROGRAMS



SPECIFICATIONS

Temperature Sensor Inputs	6	SD-CARD Based Data Logging	NO
VFS Sensor (Flow + Temperature) Inputs	NO	Ethernet Networking Capable	NO
120VAC Relay Outputs	2	CAN-Bus Networking Capable	NO
Dry Contact Relay Outputs	NO	Fahrenheit / Celsius Temperature Conversion	YES
Variable Speed Triac Outputs	1	Simple Heat Metering	YES
Analog 0-10V / PWM Pump Speed Output	NO	Internal Data Logging**	YES
Real Time Clock / Thermostat	YES	Anti - Legionella for Solar	YES
Programs / Schemas	6	Anti - Legionella for Heating	YES
Multi-Language Text*	YES	Approved to CSA / UL Standards (cLCus)	YES

* North America specific models feature English, Spanish and French languages as standard. Additional languages may be implemented based on locale, and memory limitations. Please contact SOREL Mikroelektronik regarding alternate language availability. ** Standard data logging functionality is limited to on screen viewing of text and graphical data. Data export is not possible. Averaged historical data is available based on hourly, daily, weekly, monthly and yearly intervals. Granular data is not stored. *** Please visit the SOREL website for complete up to date product information.



SOREL ACCESSORIES FOR STDC / TDC / XTDC CONTROLLERS

SOREL GmbH
Mikroelektronik

User-friendly solar thermal controllers for residential and commercial applications...

TEMPERATURE SENSORS



SOREL temperature sensors utilize 1000 Ohm platinum sensing elements to ensure precise measurements along with long term reliability and accuracy.

Sensors are available in various length and cable jacket configurations suitable for temperatures up to 300 degrees C / 570 degrees F. Sensing head option options include well type, pipe mount, and surface mount.

Temperature sensors are compatible with all SOREL solar thermal controller models.

MODEL #	ITEM #	DESCRIPTION	CABLE	LENGTH	MAX TEMP
TT/P4	1004	6mm Diameter Standard Temp Well Sensor	PVC	4m / 155"	95C / 200F
TT/S2	1005	6mm Diameter High Temp Well Sensor	SILICONE	2m / 77"	180C / 350F
TT/S4	1006	6mm Diameter High Temp Well Sensor	SILICONE	2m / 155"	180C / 350F
TT/T2.5	1007	6mm Diameter Ultra High Temp Well Sensor	SPECIAL	2.5m / 98"	300C / 570F
TR/S1.5	1008	Round Pipe High Temp Sensor	SILICONE	1.5m / 59"	180C / 350F
TR/P4	1009	Round Pipe Standard Temp Sensor	PVC	4m / 155"	95C / 200F
TF/S2	1010	Flat Surface High Temp Sensor	SILICONE	2m / 77"	180C / 350F
TD/P4	1011	Tertiary Sensor Standard Temp	PVC	4m / 155"	95C / 200F
TA/52	1012	Wall Mount Ambient Air Temp Sensor (1 Output)	-	-	95C / 200F
TA/53	1013	Wall Mount Ambient Air Temp Sensor (3 Output)	-	-	95C / 200F

FLOW SENSORS



SOREL / Grundfos VFS Vortex Flow sensors combine high accuracy flow and temperature sensing into one compact and reliable device. Utilizing state of the art vortex shedding technology, VFS sensors can measure flow in wet, aggressive environments with no moving parts. Ideal for solar thermal applications.

Sensors are available in various flow rate configurations to meet individual applications. 0-5 Volt linear analog voltage output. VFS Sensors are compatible with the TDC4 and XTDC models only.

MODEL #	ITEM #	DESCRIPTION	FLOW RANGE	TEMP RANGE
VFS1-12	12401	VFS Sensor 1-12LPM - Stainless Body 3/4" NPSM	1-12LPM / 0.25-3GPM	0-100C / 32-212F
VFS2-40	12402	VFS Sensor 2-40LPM - Stainless Body 3/4" NPSM	2-40LPM / 0.50-10GPM	0-100C / 32-212F
VFS5-100	12403	VFS Sensor 5-100LPM - Stainless Body 1" NPSM	5-100LPM / 1.25-25GPM	0-100C / 32-212F
VFS10-200	12404	VFS Sensor 10-200LPM - Plastic Body 1-1/4" NPSM	10-200LPM / 2.50-50GPM	0-100C / 32-212F

OTHER ACCESSORIES



SOREL offers a variety of mounting and installation accessories designed to integrate perfectly with SOREL STDC, TDC and XTDC series solar thermal controllers.

RC Series thermostat + setpoint modules are specifically designed for space heating applications using the XTDC series controller. Flush mounting kit is compatible with the TDC series controllers only.

MODEL #	ITEM #	DESCRIPTION	TEMP RANGE
RC-21	1021	Room Temperature Thermostat / Setpoint Module	0-100C / 32-212F
RC-22	1022	Room Temperature Thermostat / Setpoint / Humidistat Module	0-100C / 32-212F
PMKIT1	12100	TDC Series Flush Mounting Kit for NEMA Rated Electrical Enclosures	0-100C / 32-212F

* Accessories may not be compatible with all models. Please consult the controller user guide and or operational manual to verify compatibility, and suitability for your specific application.