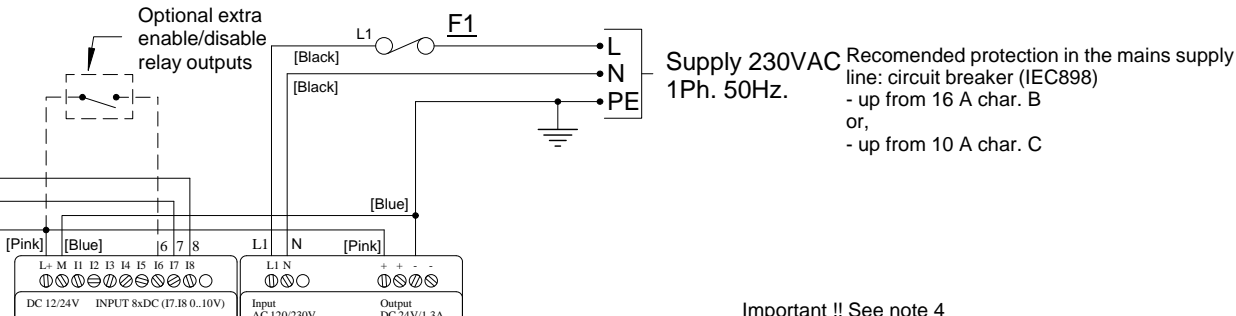
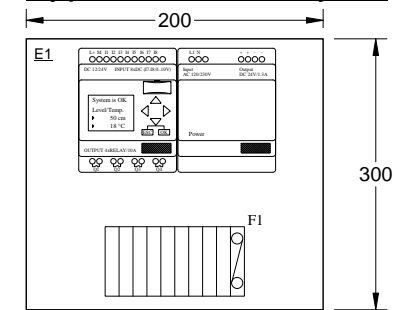


Notes :
 Connect 24VDC to :
 I1 for test low level alarm
 I2 for test high level alarm
 I3 for test low temp. alarm
 I4 for test high temp. alarm



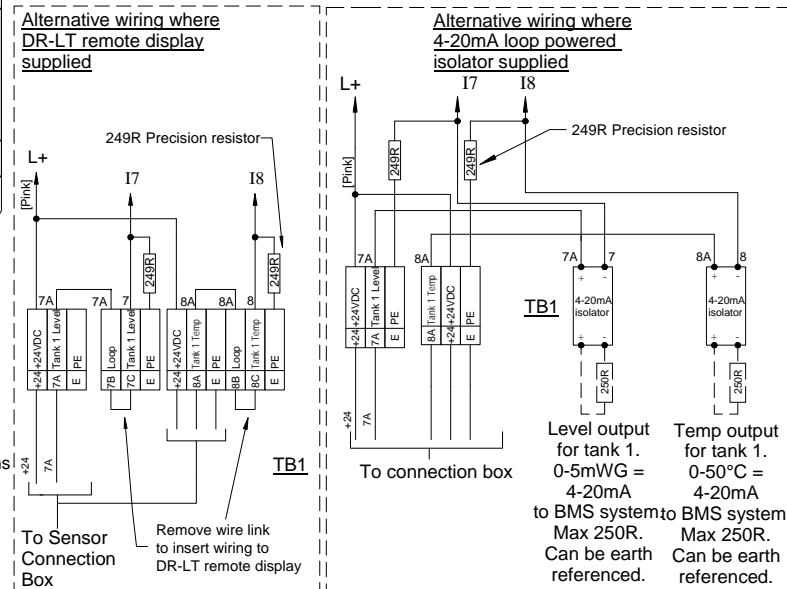
Typical internal layout



Item	Description	Part No./Type
BOX	Connection Box	GTC-x00001
E1	Enclosure 200x300x132	SPP-510302
F1	Mains Fuse T6.3Ax20mm	RFH-100063
LG1	LOGO Smart Relay	SGT-024104
LVL	Level Sensor Standard	RNT-442050
	Level Sensor Submersible	RNT-342050
	Level & Temp Submersible	RNT-342550
PS1	LOGO Power Supply	SGT-024113
PR1, PR2	Precision resistor 0.1%	RRR-1249E2
TB1	Terminal Block	SJD-063160
TMP	Temperature Sensor Subm.	GSR-542005
	Temperature Sensor Std.	GSR-442005
	Level & Temp Submersible	RNT-342550

For Wire No.s/Colours see Work Instr. 05/103.

NOTE 1: For wiring between control panel, connection boxes, sensors and remote display units, use 0.75mm² minimum with screen e.g. "CY" cable, earthed at panel end only. Screen earth should ideally be 360 degree termination to steel enclosure or alternatively to earth stud. Any unused cores must be earthed at panel end only. Alternative to screened cable is to use individual cores in EXCLUSIVE steel conduit.
 NOTE 2: For wiring between control panel and remote display units see appropriate wiring diagram.
 NOTE 3: Using the optional extra 4-20mA Loop Powered Isolator enables connection of 250R max resistor with ground reference.
 NOTE 4: Remote display panel "DR-LT" & loop powered isolator "LPI" cannot be used together. Only one or the other is available.

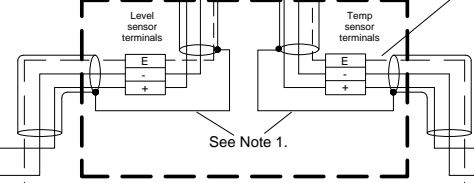


*Volt free relay outputs can be inverted to suit site conditions (i.e. N/O or N/C) Default setting is Normally Open (N/O) See "OutptIn" parameter in "set param" list on Smart relay (LG1, LG2) Refer to instructions manual for access to parameters.

Tank sensors

Level sensor wiring

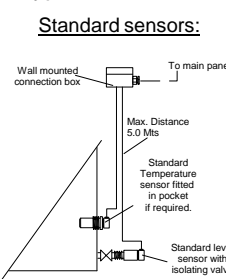
Level sensor	RNT-342050	RNT-342550	RNT-442050
0 to 5mWG submersible -4 to 20mA sensor/tech wire colours	subm Impress sensor/tech wire colours	subm Impress sensor/tech wire colours	standard sensor/tech wire colours
+24Vdc	Red	Red	No.1 (pin1)
Loop (mA output)	Black	Blue	No.2 (pin2)
Ground	Blue Yellow	Green	G/Y (pinE)
Comments on cable used.	subm. grade 4 core screen & vent tube.	3 core CY screened.	3 core CY screened.



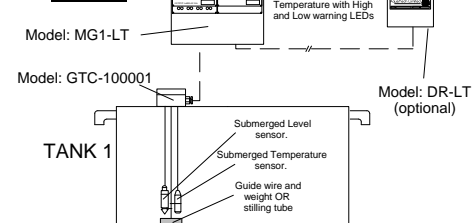
Temp sensor wiring

Temp. sensor	GSR-542005	RNT-342550	GSR-442005
0 to 50°C -4 to 20mA sensor/tech wire colours	subm Impress sensor/tech wire colours	subm Impress sensor/tech wire colours	standard sensor/tech wire colours
+24Vdc	No.1 (+)	White	No.1 (+)
Loop (mA output)	No.2 (-)	Yellow	No.2 (-)
Ground	Screen	Green	G/Y
Comments on cable used.	subm. grade 2 core screen Lapp cable	3 core CY screened.	3 core CY screened.

Typical installation:



Submersible sensors:



ISSUE	DESCRIPTION	APPD	DATE
4	Level Sensor wiring corrected	IDT	13/8/08
5	Connection box detail and wiring updated to suit revised box, and info added on inverting Q1-Q4 outputs (N/O to N/C and vice versa)	RB	7/10/09
6	Combined Level and Temperature sensor details added	RB	14/8/12



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TITLE
 Tankmatic Single Tank :
 MG1-L Level Monitor or
 MG1-T Temperature Monitor or
 MG1-LT Level & Temp. Monitor
 with Smart Relay control & BMS
 230vac 1 Ph 50Hz

DRAWN	APPROVED	DATE
JH		9/5/05
DRWG No. A11065		