



Diesel engine fire
pump controller,
supply 12-
24VDC, built-in
RS485,
expandable with
EXP.. modules
FFL...DP

Product designation

Product type designation

Auxiliary supply

Rated auxil. supply voltage	12/24VDC
Operating auxil. supply voltage range	7.5...33VDC

Voltage inputs

Rated voltage U_s

	min	VAC	100
	Max	VAC	250
Measurement range		V	50...264
Frequency range		Hz	45...65

Engine running input (D+) for pre-excited alternator

Operating range	VDC	0...33VDC
Maximum input current	mA	0.5mA
Max voltage at D+ terminal	VDC	12 or 24 VDC (battery voltage)
Pre-excitation current		210mA at 12VDC / 130mA at 24VDC

Engine speed input (pick-up/W input)

Input type	AC coupling
Minimum reading frequency voltage	

	High sensitivity	$\geq 2.8V_{pp}$ (1Vrms) at 40Hz $\geq 10V_{pp}$ (3.5Vrms) at 20000Hz
	Low sensitivity	$\geq 3.7V_{pp}$ (1.3Vrms) at 40Hz $\geq 7V_{pp}$ (2.5Vrms) at 2000Hz

Measuring input impedance	> 100k Ω
Max input voltage	84Vpp (30Vrms)

Pinion input

Voltage range	0...33VDC
Input current	$\leq 8mA$
Threshold	adjustable
Input delay	adjustable

NTC probe input

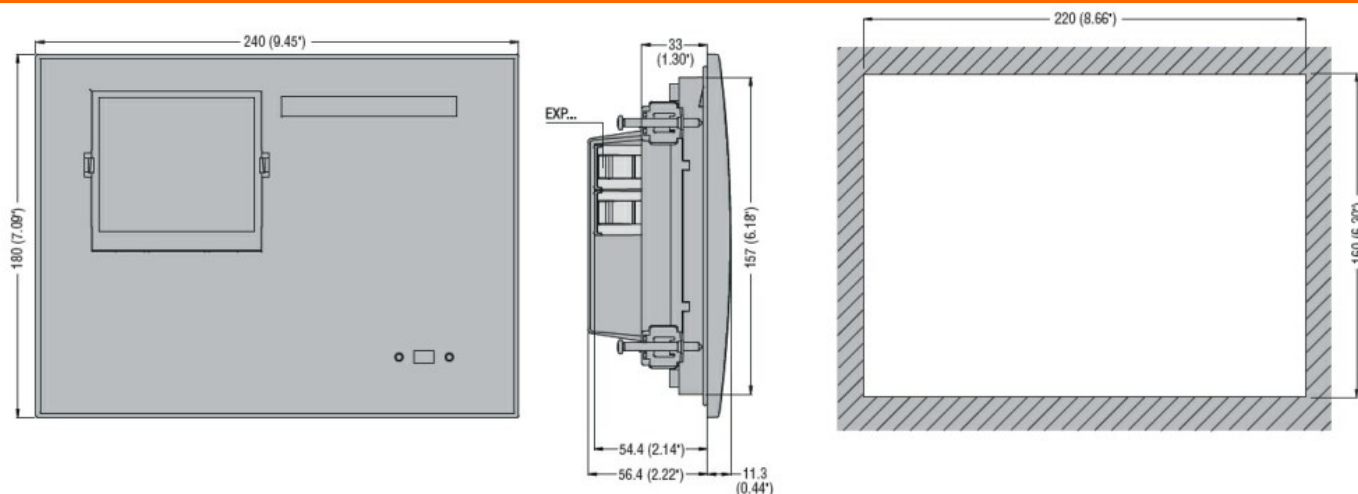
Sensor type	NTC (LOVATO code NTC01)
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Measuring range	°C	-40...+85
Maximum connection length	mt	3m
Digital inputs		
Number of digital input	Nr.	10
Digital input type		Negative
Digital input current	mA	≤6
High digital input signal	V	≥4.9V (typical 3.8V)
Low digital input signal	V	≤1.25V (typical 1.9V)
Digital input signal delay	ms	≥50
Relay outputs		
Number of relay output	Nr.	10
Mechanical endurance		10 ⁷
Electrical endurance		10 ⁵
Static Outputs		
Number of static output		1 (OUT11)
Static output type		NO
Operating voltage	V	10...30VDC
Maximum current	mA	50mA
RS485 serial interface		
Interface type		Isolated RS485 serial interface
Baud rate	bps	1200...115200
Insulation voltage (RS485-Vbatt)		1kVDC
Connections		
Type of terminal		Removable screw-type
Conductor cross section		
AWG/Kcmil	min	AWG 24
	Max	AWG 12
IEC	min	mm ² 0.2
	Max	mm ² 2.5
Tightening torque for terminals	max	Nm 0.56
	max	lbin 5
Ambient conditions		
Temperature		
Operating temperature	min	°C -25
	max	°C +70
Storage temperature	min	°C -30
	max	°C +80
Relative humidity	%	<80% (IEC/EN 60068-2-78)
Housing		
Execution		Flush-mount
Material		Polycarbonate
Degree of protection		IP65 Frontal; IP20 on terminals
Dimensions (W x H x D)	mm	240 x 180 x 43.9

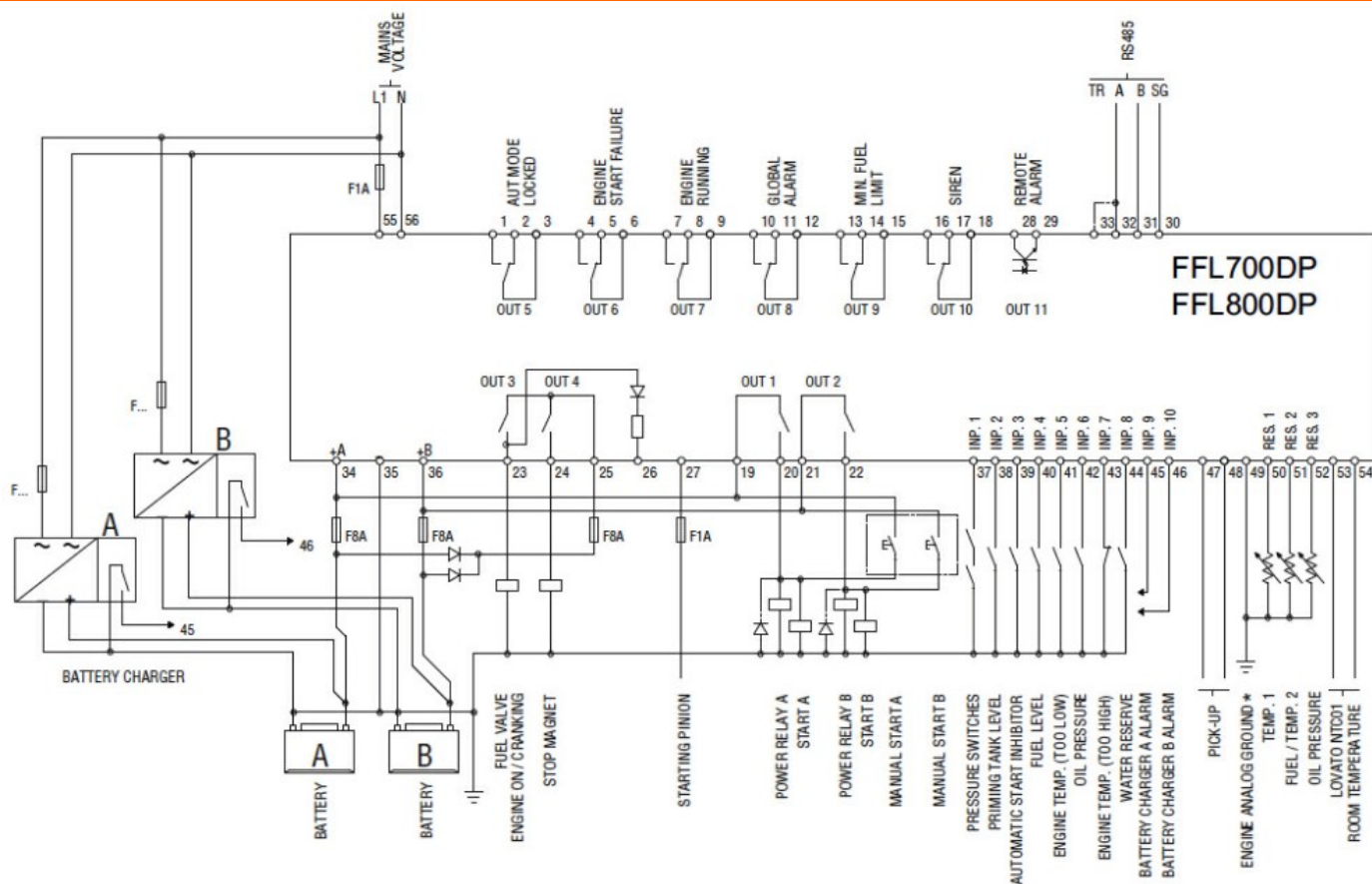
Weight

g 980

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

IEC/EN 61000-6-2

IEC/EN 61000-6-3

IEC/EN 61010-1

IEC/EN 61010-2-030

UNI EN 12845

Certificates

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ETIM classification

ETIM 8.0

EC002685 -
Central fire alarm
control panel