

Product designation	Diesel engine fire pump controller, supply 12-24VDC, built-in RS485, expandable with EXP.. modules FFL...DP		
Product type designation			
Auxiliary supply			
Rated auxil. supply voltage	12/24VDC		
Operating auxil. supply voltage range	7.5...33VDC		
Voltage inputs			
Rated voltage Us			
	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		≥2.8Vpp (1Vrms) at 40Hz ≥10Vpp (3.5Vrms) at 20000Hz
	Low sensitivity		≥3.7Vpp (1.3Vrms) at 40Hz ≥7Vpp (2.5Vrms) at 2000Hz
Measuring input impedance			> 100kΩ
Max input voltage			84Vpp (30Vrms)
Pinion input			
Voltage range			0...33VDC
Input current			≤8mA
Threshold			adjustable
Input delay			adjustable
NTC probe input			
Sensor type			NTC (LOVATO code NTC01)
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
<b>Relay outputs</b>		
Number of relay output	Nr.	10
Mechanical endurance		10 <sup>7</sup>
Electrical endurance		10 <sup>5</sup>
<b>Static Outputs</b>		
Number of static output		1 (OUT11)
Static output type		NO
Operating voltage	V	10...30VDC
Maximum current	mA	50mA
<b>RS485 serial interface</b>		
Interface type		Isolated RS485 serial interface
Baud rate	bps	1200...115200
Insulation voltage (RS485-Vbatt)		1kVDC
<b>Connections</b>		
Type of terminal		Removable screw-type
Conductor cross section		
AWG/Kcmil	min	AWG 24
	Max	AWG 12
IEC	min	mm <sup>2</sup> 0.2
	Max	mm <sup>2</sup> 2.5
Tightening torque for terminals	max	Nm 0.56
	max	lbin 5
<b>Ambient conditions</b>		
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)
<b>Housing</b>		
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
<b>ETIM classification</b>		
ETIM 8.0		EC002685 - Central fire alarm control panel