



FLOW COMPUTER

MODEL EC351

Benefits

Compact flow computer combines signals from volumetric flowmeters with those from pressure, temperature and density sensors. Using appropriate flow equations, a wide range of important variables can be calculated and displayed.

1. Calculates and displays mass flow, corrected volume, heat, delta heat and other process variables.
2. Fast initial start-up possible using the "Quick Setup" program.
3. Function keys are programmable.
4. Outputs are galvanically isolated.
5. Has a multi-language (English, German, French) cleartext display.
6. Easy connection to and full compatibility with EF77 flowmeters.

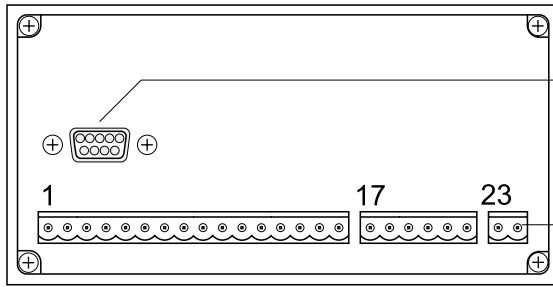


Specifications

Model	EC351
Display	Two-line, backlit, liquid crystal, 20 characters per line
Line Voltage (Power Supply)	● Standard: 85 – 260 V AC (50/60 Hz) ● Option: 20 – 55 V AC (50/60 Hz)/16 – 62 V DC
Power Consumption	AC: less than 10 VA; DC: less than 10 W
Integral Supply for Transmitters	24 V DC, 100 mA regulated
Operating Temperature	32 – 122 °F
Protection Standard	Front Panel: IP 65 / NEMA 4X; Housing: IP 20 (EN 60529)
Housing Material	Flameproof plastic

Inputs	Flow	Analog Input	Range	0/4 – 20 mA, 0 – 10 V, 0 – 5 V, 1 – 5 V	
			Resolution	18 bit	
		Automatic Error Recognition	Signal over-range, current loop broken		
		Voltage Input Restriction	V_{max} : 50 V DC, R_{in} : > 25 k Ω		
		Current Input Restriction	V_{max} : 24 V DC, R_{in} : 100 Ω		
	Pulse Input	Trigger Level	Current Pulse: 12 mA; Voltage Pulse: 10 mV, 100 mV, 2.5 V		
		Input Restriction	V_{max} : 50 V DC, I_{max} : 25 mA, f_{max} : 20 kHz		
	Pressure, Density, Temperature	Current Input	Range	0/4 – 20 mA	
			Automatic Error Recognition	Signal over-range, current loop broken	
		Pt100 (RTD) Input	Connection	3-wire	
			Temperature Resolution	0.01 °C (°F)	
		Linearity	Corrected internally		
		Automatic Error Recognition	RTD short, RTD open		
Outputs	Relay Output (x2)	Function	Flow alarm, temperature alarm, pressure alarm		
		Pulse Output	f_{max} : 5 Hz		
		Contacts	SPDT 240 V, 1 A		
	Current Output (x2)	Range	0/4 – 20 mA		
		Resolution	16 bit		
		Linearity	0.05% o.f.s. (at 68 °F)		
		Maximum Load Resistance	1 k Ω		
	Pulse Output (selectable)	Open Collector	Voltage < 30 V DC, current < 25 mA, V_{CE} < 0.4 V		
		Voltage Pulses	Voltage 24 V, current < 15 mA, internal resistance: 100 Ω , f_{max} : 50 Hz		
	Printer Output	Interface	Serial interface RS232, 9-pin DSUB connector		

Connecting Terminals



(Rear view of panel mount housing)

Serial interface RS 232
(Common ground connection
with Terminal 4)

3 separate terminal strip
connectors can be easily
removed to simplify wiring

Terminal Designation	Inputs/Outputs
1 +24 V DC supply (internally connected with terminal 8)	Flow input
2 Pulse or voltage input (active+, passive-)* or high-range current input for split range DP transmitters	
3 Current input (active+, passive-)* or low-range current input for split range DP transmitters	
4 (-) Ground connection, 24 V DC supply	Active inputs*
5 (+) Pt100	Pt100 or
6 (+) Pt100	Current input
7 Pt100 (-) or current input (active+, passive-)	1
8 +24 V DC power (internally connected with terminal 1)	Current inputs
9 (+) Pt100	Pt100 or
10 (+) Pt100	Current input
11 Pt100 (-) or current input (active+, passive-)*	2

Terminal Designation	Inputs/Outputs
12 (+) active or passive	Pulse output
13 (-) active or passive	
14 (+) Current output 1	Current outputs
15 (+) Current output 2	
16 (-) Ground connection	
17 Function: Normally Open contact (NO)	Relay output 1
18 Relay 1 wiper	
19 Function: Normally Closed contact (NC)	
20 Function: Normally Closed contact (NC)	Relay output 2
21 Relay 2 wiper	
22 Function: Normally Open contact (NO)	
23 L1 for AC L+ for DC	Power supply
24 N for AC L- for DC	

Galvanic Isolation

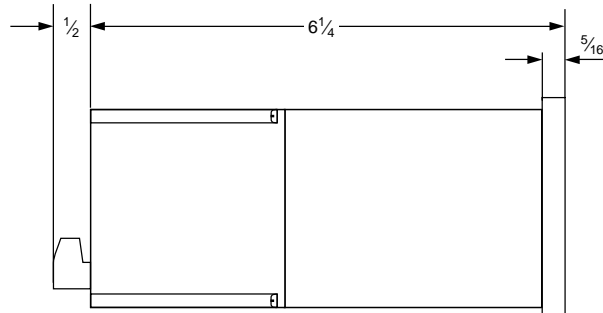
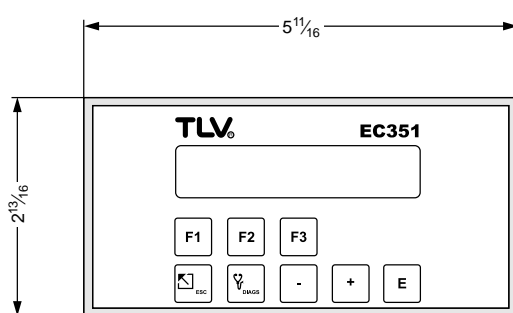


The three inputs share a common ground connection. The two current outputs also share a separate ground connection. If complete separation is required between the two current outputs, then external galvanic isolators must be used.

* active: Transmitter with own power supply (4-wire)
passive: Transmitter supplied by the flow computer (2-wire)

Dimensions

● **EC351** Housing for panel mounting



(Units: in)

Weight: approx. 1.3 lbs

TLV CORPORATION

13901 South Lakes Drive, Charlotte, NC 28273-6790
Phone: 704-597-9070 Fax: 704-583-1610
E-mail: tlv@tlvengineering.com
For Technical Service 1-800 "TLV TRAP"



ISO 9001/ISO 14001

TLV CO., LTD.
Kakogawa, Japan
is approved by LRQA Ltd. to ISO 9001/14001

