100 Series



MODEL 120A

FEATURES

- Non-linear Tank Correction
- Four Level Alarms
- Fully Programmable
- Level Bar Graph Display
- Tank Contents Display
- Powered by 4-20mA Loop
- Panel, Wall and Pipe Mounting
- Watertight to IP67 (Nema 4X)
- CE Compliant

LOOP POWERED

Level Monitor



The 120A Level Monitor accepts a 4-20mA signal from a wide range of level sensors, including Pressure Transmitters, Ultrasonic Sensors or Capacitance Probes, and displays both level and tank contents on a large LCD display.





The 120A is a high accuracy Level Monitor designed to operate with analogue level sensors. Having an IP67 weatherproof case, tactile keyboard and various mounting options, makes it a very versatile unit.

Solid state relay outputs provide up to four level alarms and a 25 point non-linearity correction table allows the instrument to be programmed to fit most tanks.

The Level Monitor is powered entirely from the 4-20mA current loop and, therefore, requires no external power or batteries.

The instrument is fully programmable with set-up parameters such as span, offset,

alarm levels, etc, stored in a non-volatile memory which will retain all data for more than 10 years without power.

The monitor is housed in a rugged, yet attractive, IP67 (Nema 4X) polycarbonate enclosure which is completely watertight. A wall mounting bracket (no gland holes) is supplied as standard, while panel and pipe mounting brackets are available as options.

GENERAL SPECIFICATIONS

Operating

Temperature Limits: -20 to +60°C, -4 to +140°F

Enclosure

Cable Entry: By cable gland **Materials:** Polycarbonate and ABS

Display

Level: 20 segment LCD bar graph

Level Span: 0...100% proportional to input signal. Non-inverting tanks - 0% equals 4mA and 100% is 20mA. Inverting tanks - 0% equals

20mA and 100% is 4mA

Contents: 7 digit 12mm (0.48") high LCD (continuously powered) with $4^{1}/2$ digital resolution

and trailing zeros

Interference: CE compliance

4-20mA

Resolution and Linearity: 0.05% of span

Accuracy: 0.05% of span @ 25°C, 0.1% (typically) of span full temperature range

Update Time: 0.5 second **Connection:** 2 wire

Voltage Drop: 2.5V maximum

High & Low Alarms

Type: 4 x open collector outputs suitable for driving DC solenoid or external relays. The outputs provide: 1. high-high, 2. high, 3. low, 4. low-low

Switching Power: 200mA, 30Vdc maximum Saturation Voltage: 0.8Vdc typical across the

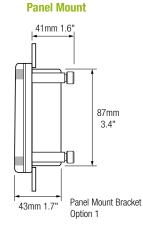
output in the "ON" state

Isolation: All outputs are separately opto-isolated

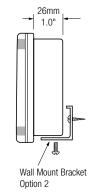
DIMENSIONS

Overall Sizes

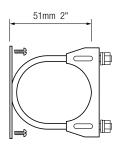
151mm (5.9") width 98mm (3.9") height 43mm (1.3") depth



Wall Mount (standard glands)



Pipe Mount Adapter



Pipe Bracket Option 6

TERMINAL DESCRIPTIONS

Terminal Inputs & Outputs				
Number		Number		
1	Low-low Alarm ()	7	High Alarm (–) or Pulse (–)	
2	Low-low Alarm (+)	8	High Alarm (+) or Pulse (+)	
3	4-20ma Input ()	9	High-high Alarm (–)	
4	4-20ma Input (+)	10	High-high Alarm (+)	
5	Low Alarm (-)			
6	Low Alarm (+)			

PRODUCT CODES

Product Code & Mounting Types				
120A	•		Level Monitor	
Enclosure Mounting		0 1 2 6	Wall Mounting (no gland holes) Panel Mount Brackets Wall Mounting (standard glands) Pipe Mount Adapter	

Typical Part Number: 120A.2

Instruments within the Contrec family:

100 Series – Accurate process instruments for field mounting applications

200 Series – Intrinsically safe, precise and reliable process instruments

400 Series – Rugged and dependable batch and flow control solutions

505 Series – Next generation flow instruments for a variety of applications **515 Series** – Precise flow and batch control for more complex applications

1000 Series – Robust load computers for petroleum and chemical applications

TRAC 40 – Vehicle mount custody transfer approved registers







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