

DeltaPoint®

Resistance welding tip loss monitor



Description

Deltapoint® detects tip loss in a resistance welding cell and thus assures quality welds. Flow is measured in and out with two vortex shedding flowmeters and then compared. If a leak is detected, an alarm is sent to the robot to stop welding and the water is shutoff. Pump sequencing or dirty water will not cause nuisance tripping (like paddle wheels or thermal dispersion units). Monitors weld guns, hard tooling and robotic cells.

Features

- No moving parts to cause nuisance tripping.
- Will not allow welder to operate with out water flow, even in bypass mode.
- Visual flow indication reads in GPM, LPM.
- Visual temperature indication in degrees F or C.
- Remote shut-off and restart
- Programmable for leak rate alarm, time delay, restart delay, temperature fault level, flow OK and minimum flow indication

Instrument Specifications

- Accuracy: 2% FS flow, 1% temperature (F)
- Repeatability .25% of actual flow
- Leak rates sensed starting at 1/2 GPM (1.9 LPM)
- Response time: 1 second for flow, 1.8 seconds for temperature
- Flow ranges
 - .5 - 4 GPM (1.9 - 15.14 LPM)
 - 1.5 - 12 GPM (5.6 - 56.8 Lpm)

Electrical Specifications

- 24V DC or 120 V AC

Outputs

- DeviceNet
- Visual water flow rate to cell
- Visual water temperature from cell
- System status lights

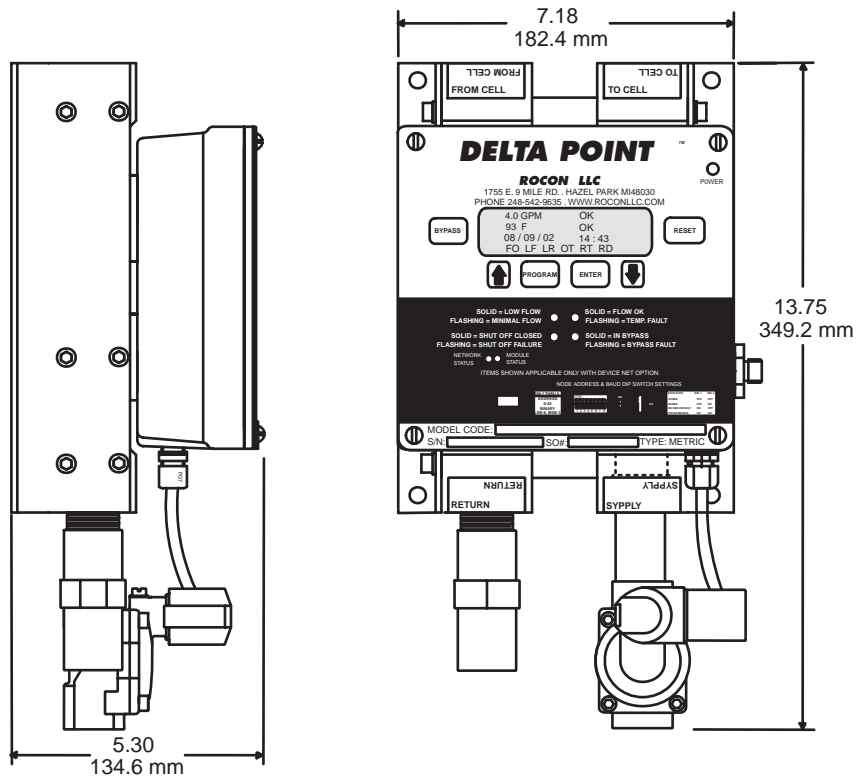
Mechanical Specifications

- Wetted parts Brass, PVDF
- Electrical enclosure Aluminum
- Weight 25 LB (11 Kg)
- Water pressure

Supply	15-100 PSIG (1 - 7 Bar)
Return	10-80 PSIG (.7 - 6 Bar)
Differential	5-80 PSID (.4 - 5.5 Bar)
Pressure drop	2.1 PSIG @ 6 GPM (.2 Bar)
- Temperature

Water	40 - 230 F (4.4 - 110 C)
Ambient	32 - 122 F (0 - 50 C)
- Porting 3/4 inch NPTF
- Pressure drop 2.1 PSIG @ 6 GPM (0.2 Bar)

DIMENSION DRAWING



HOW TO ORDER

Select the appropriate symbols to build a model code:

EXAMPLE: DP - B - 6 - D5F1MA4F1M - N - 1111 - *****

GPM SIZE
 0.5 - 4.0 GPM / (1.9 - 11.4 LPM) = A
 1.5 - 12.0 GPM / (5.7 - 45.4 LPM) = B

PORT SIZE FOR "A" or "B"
 3/4 NPTF = 6
 3/4 - 14 BSPP* = 6G*
 *ISO ±17° Adapter Fittings

SPECIAL OPTIONS IF REQUIRED

DESIGN NUMBER
 Subject to Change

DeviceNet (Standard) Wiring Options
DEVICENET CONNECTOR
RECEPTACLE FUNCTION
 DeviceNet - 5 Pin Male = D5
MANUFACTURER
 Factory Standard = F
 Others Consult Factory
CONNECTOR TYPE
 Mini = 1
 Micro = 2
GENDER
 Male = M
 Female = F
AUX POWER CONNECTOR
RECEPTACLE FUNCTION
 Auxiliary Power - 4 Pin Male = A4
MANUFACTURER
 Factory Standard = F
 Others Consult Factory
CONNECTOR TYPE
 Mini = 1
 Micro = 2
GENDER
 Male = M
 Female = F
NOTE: Consult factory for Non DeviceNet wiring. In these cases there is an alarm, remote restart and remote shutoff in various user defined wiring configurations.

STANDARD OPTIONS
 No Options Picked = N
 Shut-Off Valve - Air Activated = A
 Language Chip (English Standard)
 Spanish = S
 Solenoid Shut-off Signal = R
 Solenoid Interrupt (Consult factory) = H

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