



Emflux 2030
Irrigation Flowmeter
(Designed for Dethridge Meter Replacement)

Designed to meet the specific requirements of open channel irrigation schemes, the 'Irriflow' is a high performance flowmeter for farm offtakes.

Features

- Operates on batteries with solar power recharge.
- No obstruction in flow path, no moving parts.
- Extremely low headloss.
- Broad operating range.
- Simple installation.
- Tamper-proof design.
- Each Irriflow flowmeter is supplied with a 3 point calibration certificate, traceable to national standards.
- Pit Mount - Designed to be attached to a discharge headwall with the flowmeter ID similar to the discharge pipe, therefore producing no appreciable head loss.
- No Mounting Tabs - Designed for encasement into piping systems.

General Applications

The Irriflow uses the well proven electromagnetic method of measurement, which applies Faraday's Law as the principle of operation. This technique features a straight through section of pipe with no obstruction to restrict flow, and no moving parts to wear or break.

Emflux 2030 Specification

Detector Specifications

Wetted materials: 304 stainless steel housing
316 stainless steel electrodes
Insulating rubber liner

Head loss Negligible (application specific)

Cable 5 to 30 metres (16 to 98 feet) fitted and potted

Transmitter Specifications

Displays 2 line alphanumeric LCD

Flow rate in: Megalitres per day x 0.1
Metres per second x 0.1
Litres per second x 0.1

Flow total in: Megalitres x 0.001, cubic metres

Battery volts
Solar panel volts

Outputs 4.20mA, externally powered (option)
Digital pulse open collector
Frequency
Serial MODBUS

Flowrange 0.5 to 40 megalitres (0.1 to 11.5 million US gallons per day). Maximum flow is determined by available head,

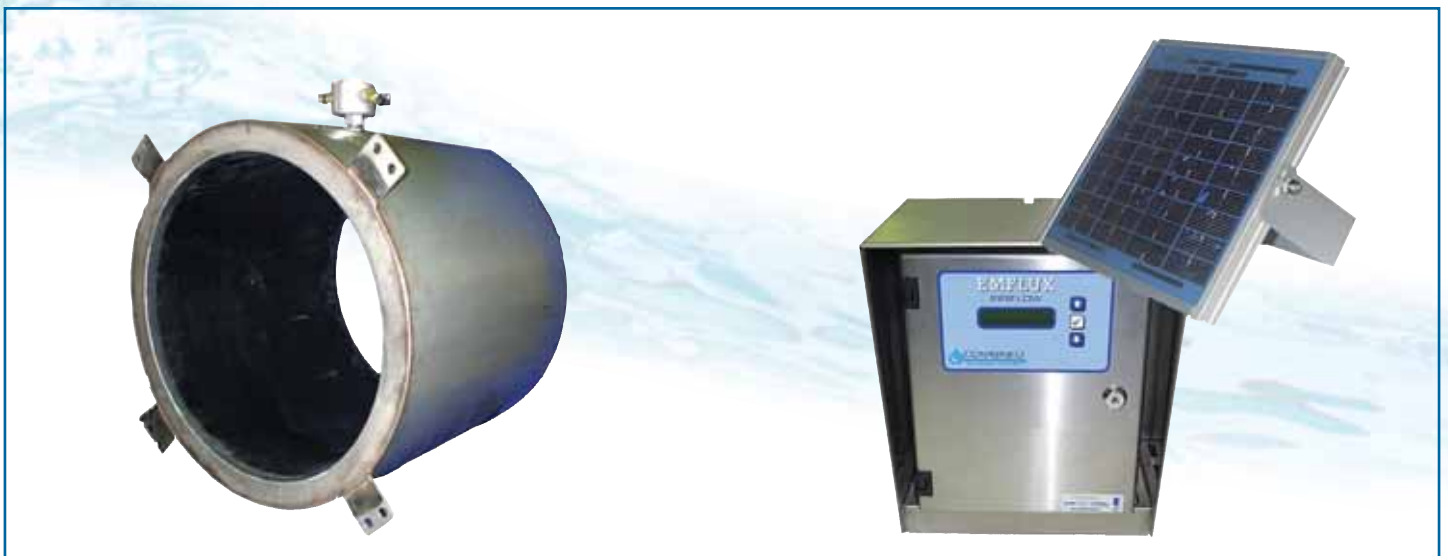
Power supply 12 VDC from battery with solar recharge

Enclosure Stainless steel, IP65 weatherproof
300H x 200D x 245W with sunshield and
50 mm pipe mount

IR2030 Size and Weight

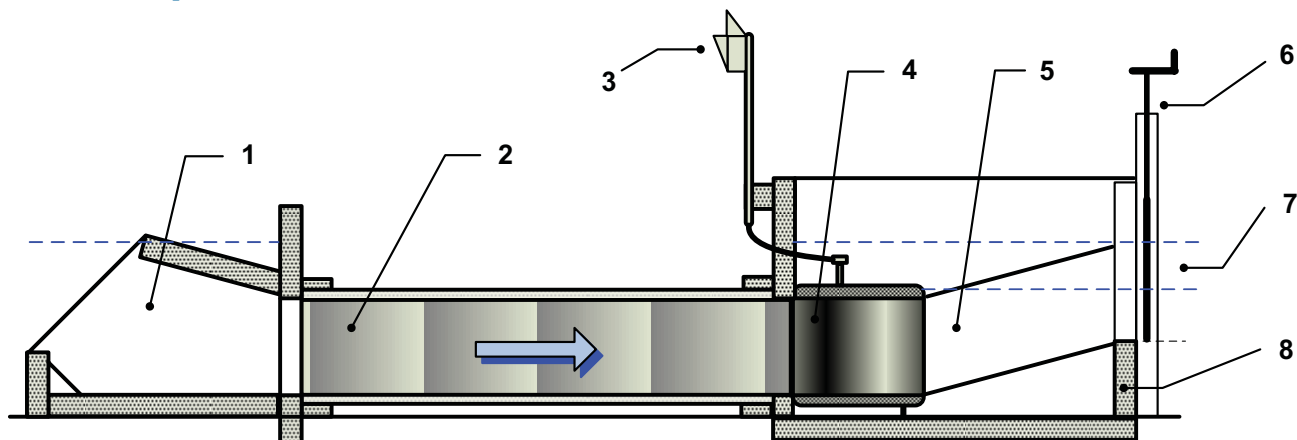
Size	I/D(mm)	O/D (mm)	H (mm)	L (mm)	Wt (kgs)
450	445	558	375	600	70
470	470	585	388	600	72
485	485	600	396	600	76
600	600	714	453	600	91

(Refer Emflux I300 brochure for more details).



Flow detector and I300 Solar Powered Transmitter shown

System Components



- 1 Upstream entry Pit
- 2 Connecting Pipe - RCP
- 3 Irriflow Solar Powered Transmitter
- 4 Tyco Mag Flow Meter Model 2030
- 5 Downstream exit Pit
- 6 Flow Control Gate or Penstock
- 7 Operating Head Loss
- 8 Downstream Sill

System Configuration

The Emflux 2030 consists of two main components, the Detector (primary element) and the Transmitter (secondary).

The Detector installs into a pipe and provides a linear, low level signal proportional to flow.

The Transmitter mounts remotely from the detector. It accepts the low level signal from the detector and converts it into industry standard outputs, as well as displaying flowrate and total flow.

To conserve power, the system periodically samples the flowrate. The reading and outputs are held until the next sample which is updated every 1 to 60 minutes (programmable). The reading may be manually updated by simply pressing a display button. This would typically occur when setting or adjusting flowrate.

System accuracy

- Better than $\pm 2.5\%$ over the flow range 0.5 ML/day - 40 ML/day.

Installation requirements

The IR2030 series requires a minimum of five diameters, of straight pipe or 1 length between pits, upstream of the meter and a minimum 600 mm (23.6 in) of clear area at the downstream end. The meters must remain full for proper operation.

How to Order

Typical specifying sequence

Example:	IR2030	450	PM	2	S	F	R
Model _____	↑	↑	↑	↑	↑	↑	↑
IR2030 = for use with I300							
Size (all 600mm long) _____		↑					
450 = ID 445mm, OD 558mm							
470 = ID 470mm, OD 585mm							
485 = ID 485mm, OD 600mm							
600 = ID 600mm, OD 714mm							
Process Connection (Upstream) _____			↑				
NM = No Mounting Tabs							
EM = End Mount							
IM = Insertion Mount							
PM = Pit Mount							
Front Tab _____				↑			
1 = No D/S Tab							
2 = With D/S Tab							
Electrodes _____					↑		
S = 316SS							
Potting _____						↑	
F = Potting (Cable must be ordered separately)							
Transmitter Location _____							↑
R = Remote							



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