Platon Mk3. LPCB Fire Sprinkler Flowmeter

DS1162b

Features:

- Approved and listed by LPCB for automated sprinkler systems
- 150-12,500 dm^3/min range
- Easy and quick installation
- Flanged or Victaulic™ connections available
- Instantaneous reading
- Best in class flow ranges

Description:

The Shunt Gapmeter Model LPCB is approved for regular monitoring and testing of sprinkler by the Loss Prevention Certification Board (LPCB) under their 'Rules for Automatic Sprinkler Installations', in the UK, and by many equivalent organisations in other countries.

The LPCB model flowmeter provides a compact, robust and direct reading for 50mm-200mm diameter pipelines and is suitable for use in horizontal and vertical pipes.

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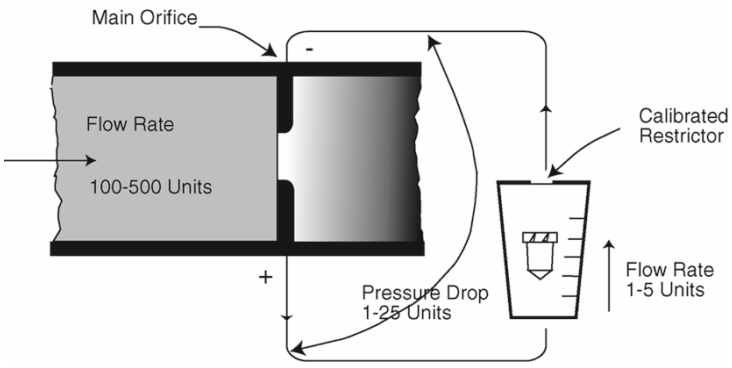
Standard Specification

Orifice Plate	Stainless Steel mounted in a 38mm thick, red polyester coated steel carrier ring.
Measuring tube	Borosillicate glass with 100mm fused-in-ceramic scale
Float	Stainless Steel
Accuracy	+/- 5% at various test flows specified by LPCB
'O' Seals	Nitrile
Indicator housing	Aluminium extrusion with plastic protection cover
Inpulse pipe	Bright nickel plated copper with plated brass connectors
Isolating valves	Full bore (8mm) brass ball valves bright nickel plated
Drain/Bleed Valves	Brass, bright nickel plated
Rodding device	Brass, bright nickel plated
Filter Unit	316 stainless steel, Perspex™ housing, plated brass connections and nitrile 'o' rings
Temperature Limitation	80 °C
Pressure Limitation	12 bar @ 20 °C
Pressure Test	30 bar hydraulic
Pressure Drop	At max flow rate 65% of the orifice pressure loss of 354"WG is recovered
Installation	As per OMM1003
Approval	Units approved by LPCB
LPCB Listing	Approved Fire and Security products and Services part 3, Automatic Sprinkler, Water Spray and Deluge Systems, Section 6: Direct reading flowmeters.

PRINCIPLE OF OPERATION

The shunt gapmeter model Mk3 LPCB is a combination of two simple measuring elements. In the main flow line an orifice plate is inserted, producing a pressure drop related to flow rate. Across the orifice plate, a shunt or bypass loop uses this pressure drop to create a small flow through a similar orifice restrictor and a variable area flowmeter. The flow in the bypass VA meter is proportional to the main line flow and special scaling on the glass tube allows the main line flow to be measured directly.



SPECIAL FEATURES

- Full bore isolating valves for meter isolation, filter cleaning or flow tube replacement.
- In-line filter avoids clogging of the bypass line or the flow restrictor with pipe debris. 'Rodding device' allowing the clearance of debris or algae from the orifice bypass restrictor.
- The flow tube is replaceable on-site.

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Flow Ranges and Order Codes

Flanged Carrier Refs		Grooved Carrier Refs		Nominal Pipe size (mm)	Flow ranges dm^3/min	Test flows dm^3/min	Accuracy @Test flows dm^3/ min
LPCB*	Platon~	LPCB*	Platon~				
088b/01	F1/15	088b/06	F1/20	50	150-750	500	+/-25
088b/02	F1/16	088b/07	F1/21	80	300-2300	800 1300	+/-40 +/-65
088b/03	F1/17	088b/08	F1/22	100	500-3500	1500 2200	+/-75 +/-110
088b/04	F1/18	088b/09	F1/23	150	900-8200	2500 3500 4500	+/-125 +/-175 +/-175
088b/05	F1/19	088b/10	F1/24	200	2500-12500	5000 7000 9000	+/-250 +/-350 +/-450

*The LPCB ref. No appears on the Carrier only

~ The Platon ref. No appears on both the Carrier and Tube

Also, the Tube and float assemblies of a particular NB are universal between the 2 carrier styles.

The recommended minimum lengths of pipework upstream ('A') and downstream ('B') of the meter are shown below:

Meter Size		50mm	80mm	100mm	150mm	200mm
Upstream	'A'	250mm	400mm	500mm	750mm	1000mm
Downstream	'B'	250mm	400mm	500mm	750mm	1000mm

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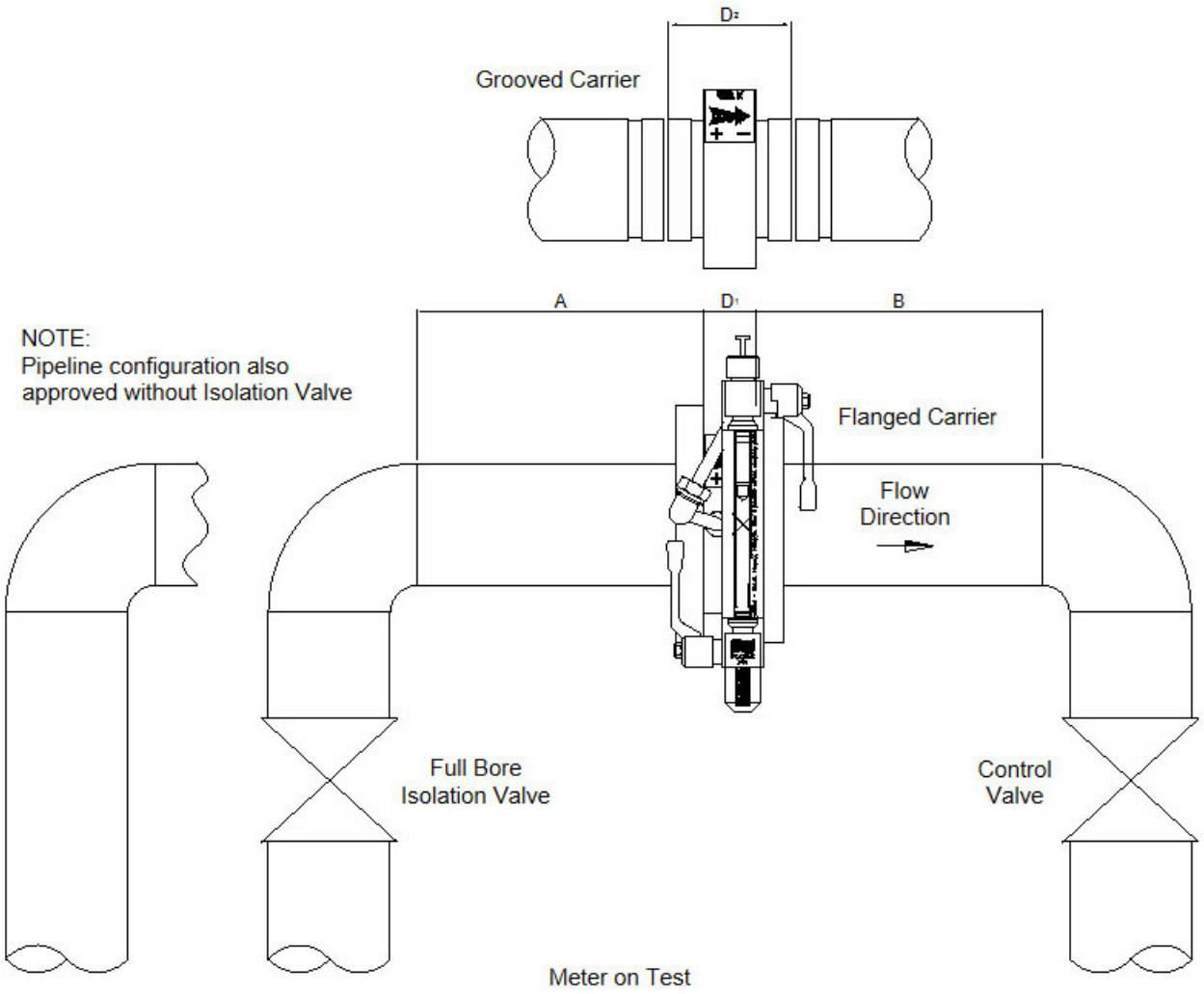
Recommended Installation



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Revision	Change Description	ECN	Date	Approved
A	Initial Release	XXXXXX	October 2023	A Royles

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