



FLOW SWITCHES

CM-G
CM-S

- GENERAL PURPOSE APPLICATION 15 mm TO 300 mm LINES ●
- WATER SPRINKLER APPLICATION 50 mm TO 150 mm LINES ●



CM - G



CM - S

The SWITZER Style CM paddle operated flow switches are versatile instruments meant to monitor a wide range of water flow. Simple design and rugged mechanical parts ensure high reliability.

The deflection of the paddle assembly due to velocity of flowing liquid against the restoring force of the range spring through a sealed lever operates the microswitch at a pre-determined flow rate. Total isolation exists between the process medium and the switch mechanism.

The enclosure is protected against ingress of solid particles and from dripping water.

Style CM-G Flow switches are for general purpose use. These are available for line sizes from 15 to 300 mm NB and can be used in a variety of applications to monitor no flow or loss of flow of water.

For style CM-G, 1" screwed process connection is standard.

Style CM-S switches are specifically designed with large diameter flexible paddle for sprinkler applications in fire safety systems and suitable for use in water pipes from 50 mm(2") to 150 mm(6") NB. The actuation can be set between 15 to 40 LPM in increasing flow as per international fire safety practice.

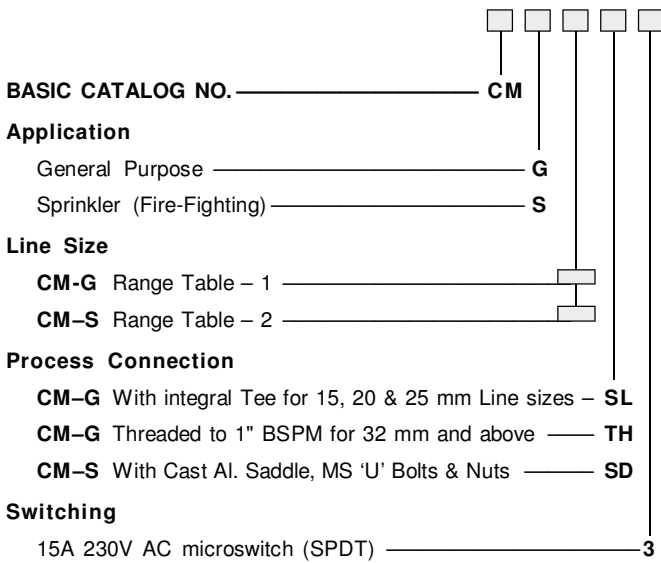
Style CM-S is fixed to the pipe line using a Cast Aluminium saddle and 'U' bolts and nuts.

Other type of flow switches such as BM, HM, HR, FM, PM are available for applications involving aggressive media, Chemical solutions, lube oil, etc., Consult Switzer Sales for details or visit our web-site www.switzerinstrument.com.

GENERAL SPECIFICATIONS

	<u>CM-G — General Purpose</u>	<u>CM-S — Sprinkler Application</u>
Enclosure	Engineering Plastic Cover Weatherproof to IP:55	Engineering Plastic Cover Weatherproof to IP:55
Wetted Parts	Body : GF Nylon Seal : Silicone Paddle : 304 SS	Body : GF Nylon Seal : Silicone Paddle : HDPE
Process Connection	Screwed 1" BSPM	Saddle (Aluminium); 'U' Bolts & Nuts (MS)
Line Sizes	15 mm to 300 mm NB	2" to 6" Sch.10 to 40 water pipes
Setting Range	Refer table	15 to 40 LPM for all line sizes
Deadband	10% of max. flow	Within 13 LPM
Repeatability	±2% of FSR	±2% of FSR
Max. Line Pressure	10 bar	10 bar
Max. Process Temp.	100°C	100°C
Pressure Loss	Less than 80 mbar at max. flow	Less than 100 mbar at max. flow
Switching	Snap acting SPDT microswitch, 15A, 230V AC (Res)	Snap acting SPDT microswitch, 15A, 230V AC (Res)
Electrical Connection	22 mm clear entry via grommet	22 mm clear entry via grommet
Orientation	Horizontal / Vertical pipe	Horizontal / Vertical

ORDERING MATRIX



RANGE TABLE –1 General Purpose Application

LINE SIZE NB mm	Switching Range LPM				Max. Flow (LPM Water) at Velocity 2M / Sec
	'ON' Falling Flow		'ON' Rising Flow		
	MIN.	MAX.	MIN.	MAX.	
015	3	9	8	12	21
020	4	11	9	14	38
025	10	30	16	32	60
032	12	50	22	52	100
040	14	54	28	58	150
050	20	72	40	76	250
065	30	110	60	120	400
080	55	165	100	170	600
100	140	380	220	400	1000
	75	265	165	285	
125	300	730	420	750	1500
	130	390	260	420	
150	440	1000	620	1120	2000
	150	460	350	500	
200	1000	2200	1300	2300	3700
	500	1300	900	1500	
250	1500	3160	2000	3400	6000
	1000	2200	1600	2500	
300	2000	4000	2650	4250	8000
	1600	2600	2500	3200	

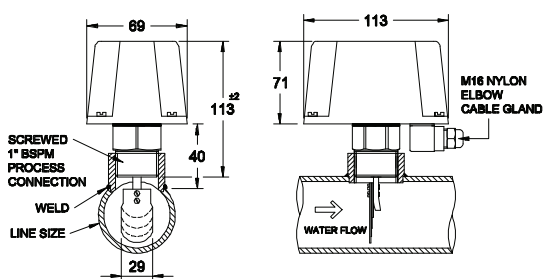
RANGE TABLE –2 Sprinkler Application *

LINE SIZE in mm (inch)	Switching Range LPM				Deadband
	'ON' Falling Flow		'ON' Rising Flow		
	MIN.	MAX.	MIN.	MAX.	
050, 065, 080 (mm) 2, 2½, 3 (inch)	8	36	15	40	10 to 15
100, 150 (mm) 4, 6 (inch)	15	40	25	50	15 to 20

* **Important** : Only one hole of dia 40 mm for 2& 2½ inch and dia 50 mm for 3,4 & 6 inch dia pipes need to be drilled on top of the pipe. **No welding or threading required. Refer figure below.**

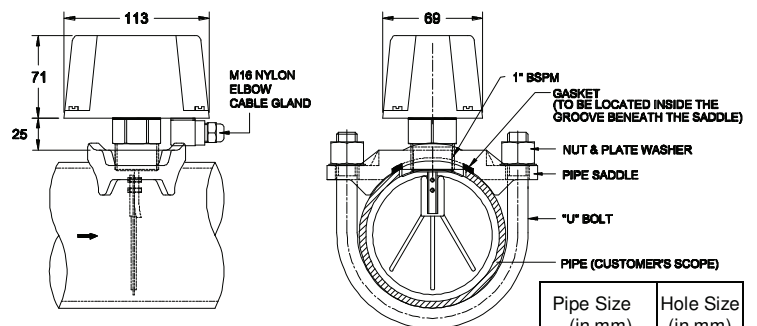
MOUNTING DIMENSIONS

General Application (Screwed Mounting) – CM-G



All dimensions are in mm

Sprinkler Application (Saddle Mounting) – CM-S --- SD



Pipe Size (in mm)	Hole Size (in mm)
50 & 65	40
80, 100 & 150	50

This is not a contractual document. Prior notification of changes in specifications is impracticable due to continuous improvement

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CHECK AT:

<http://www.switzerprocess.co.in/offices.htm>