

## C&H SERVICES SBU



**A2Zflo-S**<sup>TM</sup>

*A fit & forget steam measurement system*

### ■ Why Steam Measurement?

Steam is generated by combustion of expensive fuel in an industrial boiler & its cost is an essential attribute to the manufacturing cost of product & hence it has to be monitored on a continuous basis. Steam is measured to fulfill the objective of knowing the specific steam consumption & reduce it to lower the manufacturing cost.

## MONITORING IS THE FIRST STEP TO SAVING MONEY

### ■ Working Principle

Steam Flow Meter is suitable for measurement of mass flow of saturated steam. The computational instrument accepts signals from Differential Transmitter, Pressure Transducer & Temperature Transmitter. The square root of differential pressure created across a calibrated orifice plate is directly proportional to steam flow through the pipe. This flow is converted to mass flow by multiplying it with the density of steam and both instantaneous and totalized flow are indicated on a LED type display unit.

### ■ Technical Specifications

Service	Saturated Steam
Size	40 to 350 NB
Type of Flow Meter	Differential Pressure (DP) type
Flow Element	Orifice Plate
Flow Element MOC	SS 316
Density Compensation	Provided Online
Type of Flanges	WNRF, 300#, ANSI / ASME
Accuracy of meter	+/- 0.25%
Display	Separate display windows for Instantaneous & Totalized flow indication, LED Type
Output	4-20 mA DC, isolated, (with max 600 Ohm load), proportional to instantaneous mass flow rate
Design Standard	BS 1042
<b>Computation &amp; Display Unit</b>	
Power supply	85 - 265 V AC, 50 Hz, 1 phase
Mounting	Wall mounting
Enclosure	Aluminium Die-cast
Protection Class	Equivalent to IP 65
Humidity	90% RH max
Programming	By Keypad with 3 level password protection
Display	4 digit (Instantaneous) / 6 digit (Totalized), 0.5" height x 7 segment LED with programmable decimal point position

### ■ Features & Benefits

- Low cost solution to customer with accurate flow measurement.
- Fit & forget type design due to its rugged construction
- Equipped with on-line density compensation
- User has the following 4 alternatives for density compensation mode during steam measurement, thus ensuring flow measurement every time even if there is failure of one of more components
  - Pressure & Temperature compensation
  - Pressure compensation
  - Temperature Compensation
  - Uncompensated
- Displaying Instantaneous, Totalized flow, steam pressure & steam temperature
- Special computer designed orifice plate ensure accurate measurement
- Retransmission to PLC/PC on Modbus RTU protocol, RS232 or RS485
- Featured with the indication of superheated steam or wet steam when temperature crosses +/- 7 deg C from saturation level.
- User friendly programmable display unit, hence easy to install & recalibrate at site
- IBR certified steam flow meter can be offered.

### ■ Ordering Information

- Specify line size
- Steam mass flow – Minimum, Normal & Maximum flow
- Steam pressure – Minimum, Operating & Boiler design pressure

For more information, please get in touch with your nearest Thermax Representative. You can also mail us at [info.c&hservices@thermaxindia.com](mailto:info.c&hservices@thermaxindia.com) visit us at: [www.thermaxindia.com](http://www.thermaxindia.com)

*In view of our constant endeavour to improve the quality of our products, we reserve the right to alter or change specifications without prior notice. All photographs shown in this publication are representative in purpose, and to be used for reference only. For actual details and specifications, please refer to Thermax offer document.*



**THERMAX**

Sustainable Solutions in  
Energy & Environment

#### COOLING & HEATING DIVISION Services SBU

D - 13, MIDC Industrial Area, R. D. Aga Road,  
Chinchwad, Pune 411 019. INDIA  
Tel. : +91-20-2747 5941  
Fax: +91-20-2747 7080  
E-mail : [info.c&hservices@thermaxindia.com](mailto:info.c&hservices@thermaxindia.com)

#### AHMEDABAD 380 006

Tel. : (079) 2657 5408 / 5341 / 7073  
Fax : (079) 2657 7270  
E-mail : [aadmin@thermaxindia.com](mailto:aadmin@thermaxindia.com)

#### BANGALORE 560 020

Tel. : (080) 2346 7761 - 64  
Fax : (080) 2346 7760  
E-mail : [adminblr@thermaxindia.com](mailto:adminblr@thermaxindia.com)

#### CHENNAI 600 018

Tel. : (044) 2435 3831 - 34  
Fax : (044) 2435 3841  
E-mail : [chennaidivsupp@thermaxindia.com](mailto:chennaidivsupp@thermaxindia.com)

#### HYDERABAD 500 482

Tel. : (040) 2339 6820, 2331 0254  
Fax : (040) 2331 2335  
E-mail : [hyd\\_sec@thermaxindia.com](mailto:hyd_sec@thermaxindia.com)

#### MUMBAI 400 016

Tel. : (022) 2204 5391, 2204 5324  
Fax : (022) 2204 0859  
E-mail : [psecret@thermaxindia.com](mailto:psecret@thermaxindia.com)

#### NEW DELHI 110 057

Tel. : (011) 2614 5319, 2614 5701  
Fax : (011) 2614 5311, 2614 8679  
E-mail : [psupport@thermaxindia.com](mailto:psupport@thermaxindia.com)

#### KOLKATA 700 017

Tel. : (033) 2282 6711 - 13  
Fax : (033) 2282 6796  
E-mail : [mbiswas@thermaxindia.com](mailto:mbiswas@thermaxindia.com)

#### International Offices:

##### MIDDLE EAST (DUBAI)

Tel: +9714-8861424; E-mail:  
[info@thermaxdubai.ae](mailto:info@thermaxdubai.ae)

##### SOUTH EAST ASIA (MALAYSIA)

Tel: +60127798493  
Email: [thermax@tm.net.my](mailto:thermax@tm.net.my)

##### HO, AFRICA, SAARC & OTHER COUNTRIES

Tel: +91-20-66128802/8818/8845  
Email: [info.c&hservices@thermaxindia.com](mailto:info.c&hservices@thermaxindia.com)

#### International offices:

Indonesia, Russia, Kazakstan, Saudi Arabia,  
Bangladesh, Sri Lanka, Hong Kong, China,  
Thailand, Malaysia, Philippines, UAE, Kenya,  
Nigeria, Brazil, UK, USA

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