

# LS880X / BW17X

**Level Switch  
(IECEX Certified)**

# iSOLV

Process Instrumentation

analytical

bulk flow

distance

flow

**LEVEL**

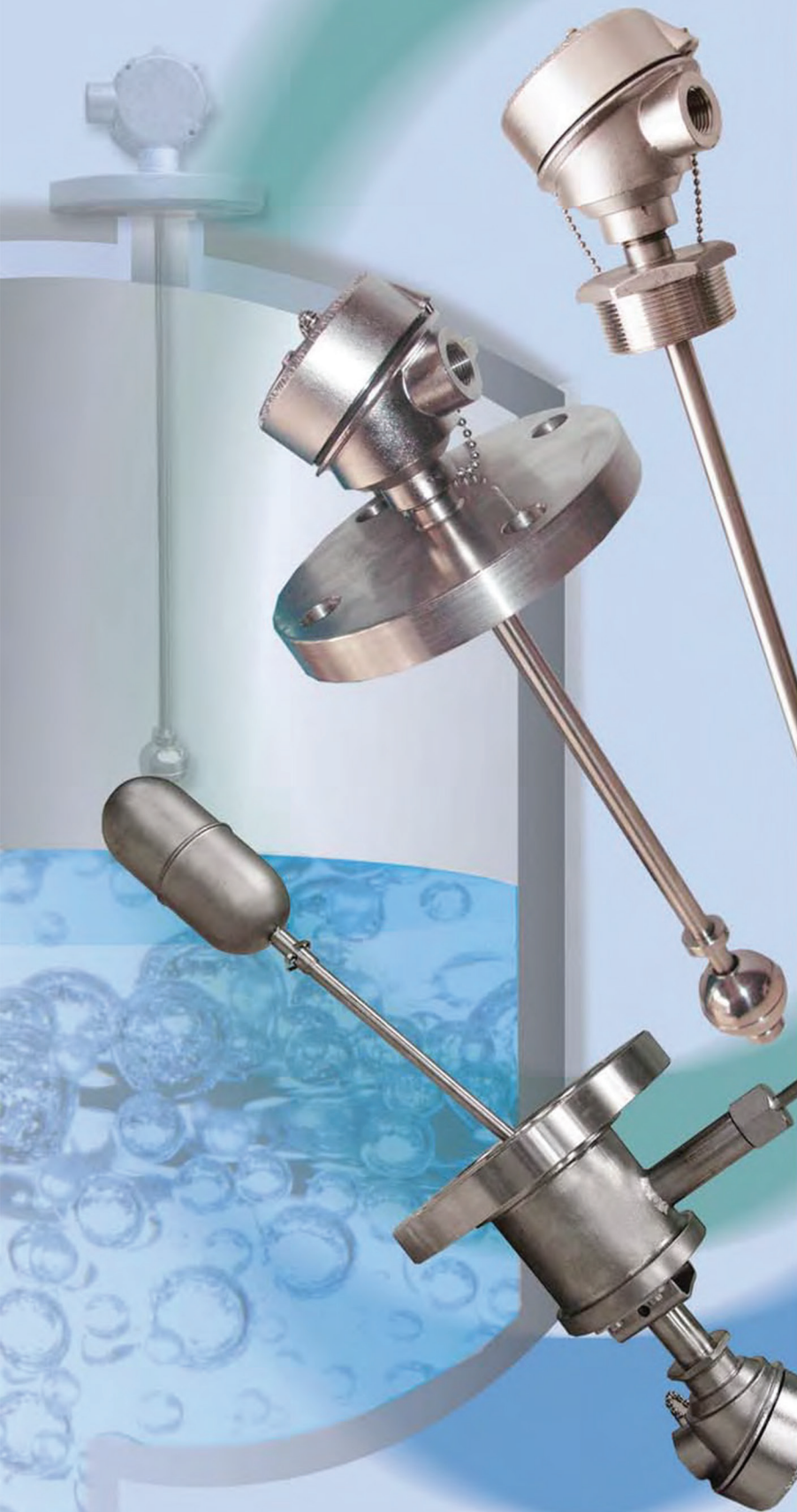
pressure

temperature

industrial  
communication

# FLOTECH

Process Automation & Instrumentation

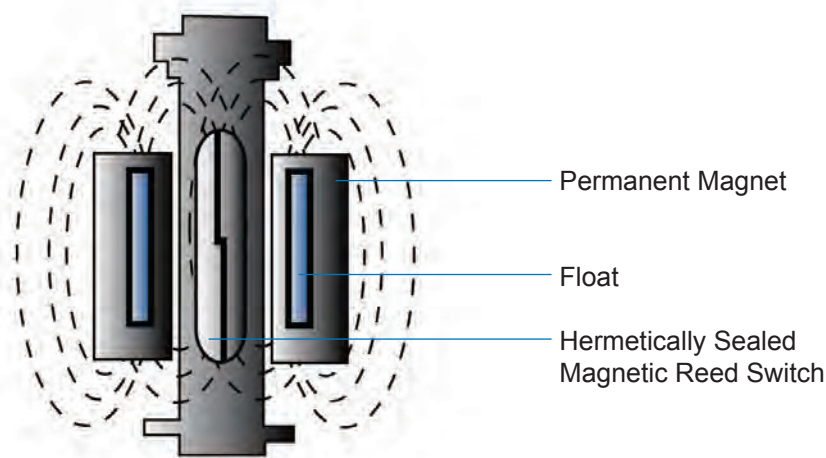


## General

**iSOLV LS880X - Series Level Switches** are simple in design and ruggedly built for long service dependability. It is available in single or multi-station unit, which provides high, low and intermediate point liquid level measurement. The units can be designed and built for precise requirements as per customer's unique configurations such as the broad choices; mounting connections, float and stem materials and each independent float actuating position.

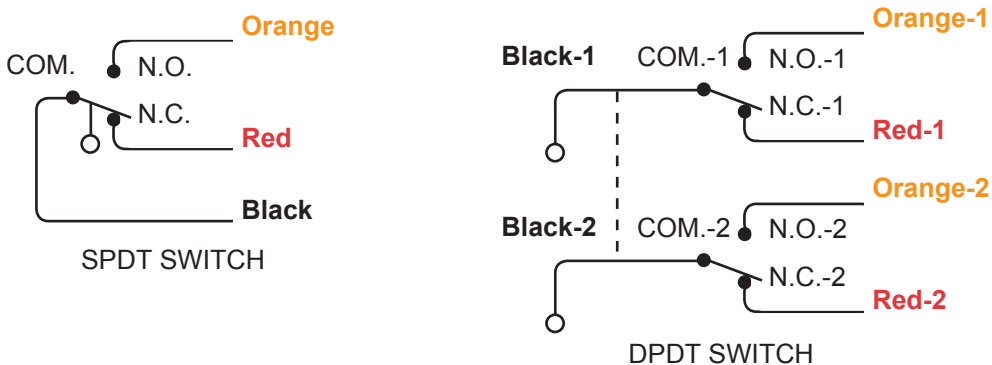
### Principle of Operation

The magnetic float moves with the medium level to actuate a hermetically sealed, magnetic reed switch within the stem.



### Electrical Connection Per Point

Standard reed switches in iSOLV LS880X series liquid level switches are hermetically sealed, magnetically actuated, make and break type.



### Switch Rating Max. Resistive Load.....

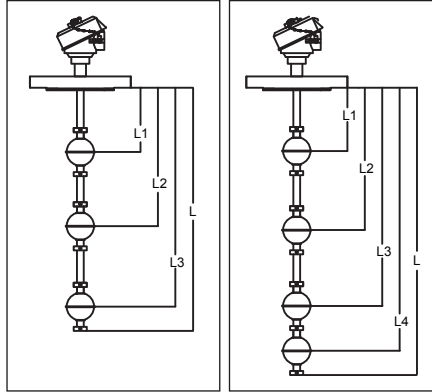
VA	Volts	Amps AC / DC
60	240	0.25

## Level Switch LS880X - Version 1 (All Stainless Steel Wetted Parts)

### Flange Connection



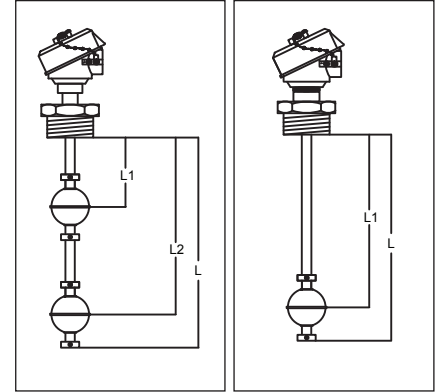
1080ST/  
1080AT/  
1088ST



### Threaded Connection



1080ST/  
1080AT/  
1088ST



### Specifications

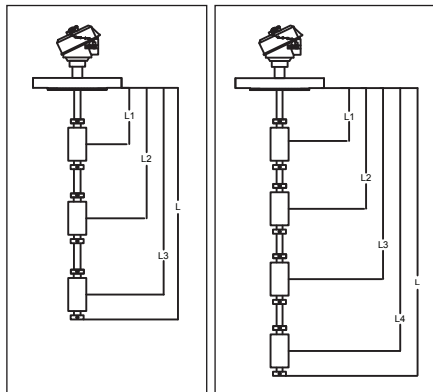
Stem and Mounting Material	: Stainless Steel
Float Material	: Stainless Steel
Float Diameter	: 52 mm
Liquid Specific Gravity	: 0.65 (min)
Process Temperature	: 60°C (Max)
Ambient Temperature	: 60°C (Max)
Operating Pressure	: 10bar / 150psi (Max)
Switch Rating	: SPDT - 60VA (Max) / DPDT (Optional)
Actuation Point	: Up to 4 points
IECEX Approval	: IECEX TRA 16.0011X Ex db IIC T6 Gb IP68

## Level Switch LS880X - Version 2 (Stainless Steel and Buna-N Wetted Parts)

### Flange Connection



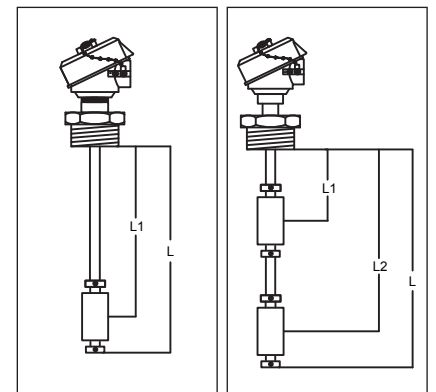
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### Threaded Connection



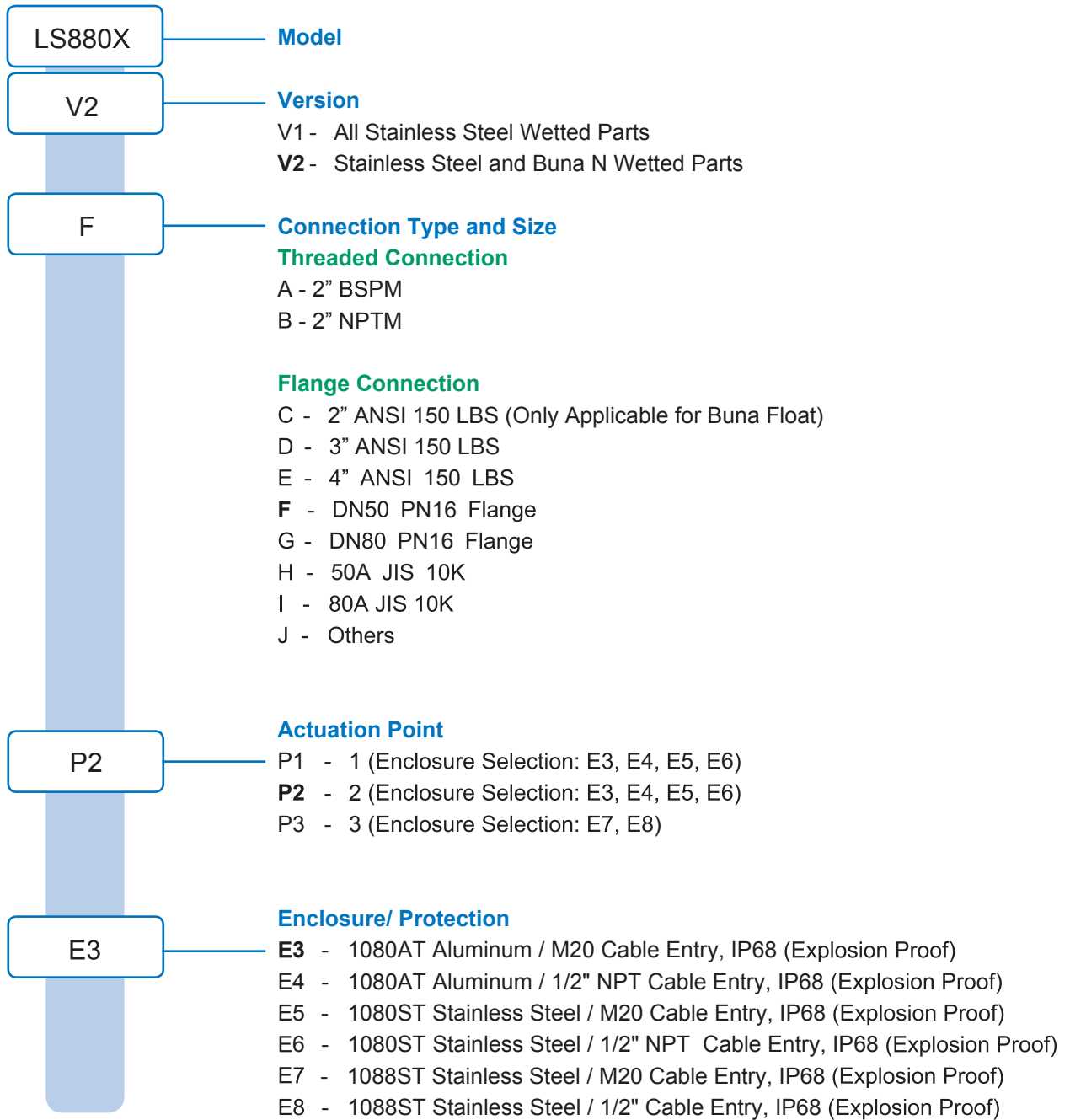
1080ST/  
1080AT/  
1088ST



### Specifications

Stem and Mounting Material	: Stainless Steel
Float Material	: Buna-N
Float Diameter	: 30.2mm
Liquid Specific Gravity	: 0.61 (min)
Process Temperature	: 60°C (Max)
Ambient Temperature	: 60°C (Max)
Operating Pressure	: 10bar / 150psi (Max)
Switch Rating	: SPDT - 60VA (Max) / DPDT (Optional)
Actuation Point	: Up to 4 points
IECEX Approval	: IECEX TRA 16.0011X Ex db IIC T6 Gb IP68

## Ordering Information



### Ordering code: (Example)



## Side Mounted Liquid Level Switch

### General

Side mounted liquid level switches are designed for horizontal mounting in a tanks or vessel through flanged pipe connections.

It is specially designed with an external test plunger mechanism.

### Principle of Operation

The device operates on a pivoted float with attached magnet follows the liquid level to initiate an electrical signal when it reaches a specific position.

Switching action is obtained by means of a magnetic follower system. These two basic component assemblies are in different compartments separated by a pressure-tight chamber.

### Standard Features

- Process Connection Available:  
3"ANSI 150 LBS, 80A JIS 10K, DN80 PN16
- Probe Extension: 150mm , 200mm, 300mm
- Process Temperature: -20°C to 200°C
- Medium Density: 0.5 kg/L (minimum)

### Range of applications

The liquid level switch is used in the

- Chemical industry
- Petrochemical industry
- Power station technology
- Water and waste water industry

### Options:

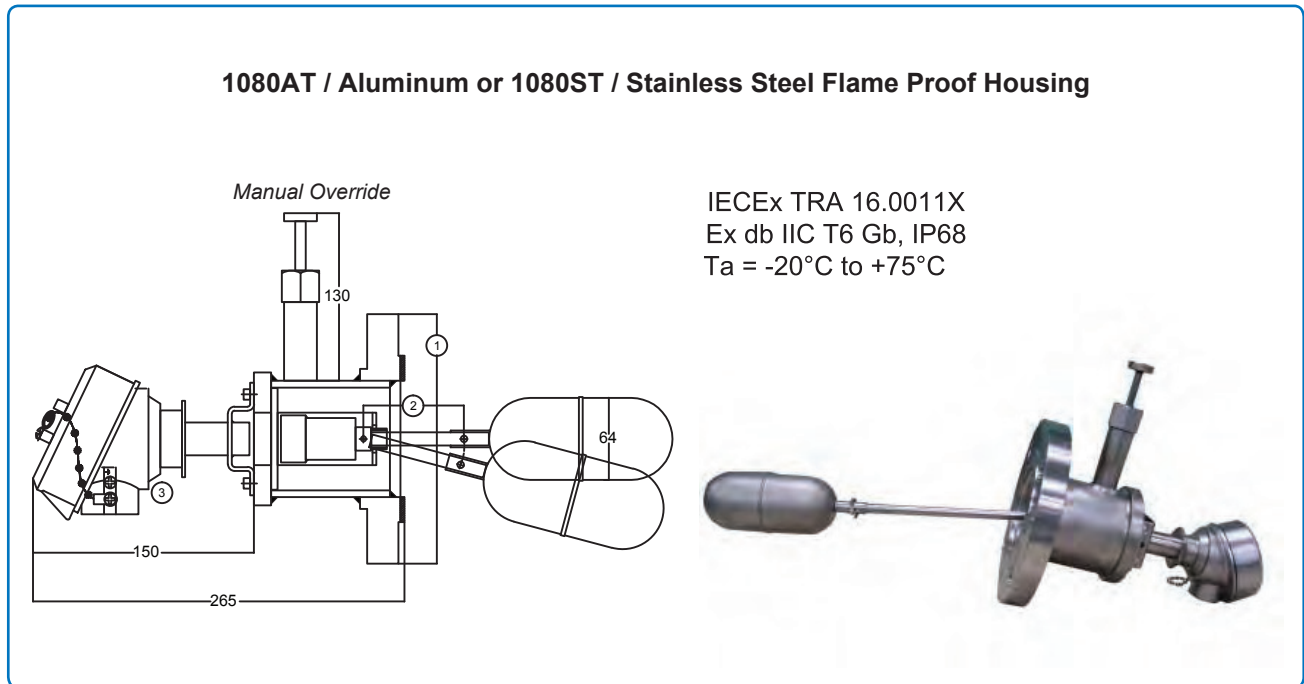
Carbon steel and stainless steel flange available upon request.

### Technical Data - Electrical

Max. switching rating	: 12 VA / 220VAC/24 VDC, 0.5A
Ambient temperature	: -20°C to + 75°C
Max.process temperature	: < 200°C
Protection category to	: IP68 Aluminum (Standard) / IP68 SS316 (Option)
Electrical Housing	: Explosion-proof, Wetted-proof (Available in aluminum alloy or stainless steel)
IECEX Approval	: IECEX TRA 16.0011X, Ex db IIC T6 Gb IP68

Note: Cable and glands for the BW17X (Horizontal) equipment shall be selected on their ability to endure 5K above the maximum ambient temperature of the equipment.

## Side Mounted Liquid Level Switch



### Ordering Information

BW17X	—	<b>Model</b>
V1	—	<b>Version</b> V1 - Stainless Steel Flange V2 - Carbon Steel Flange
D	—	<b>Flange Connection</b> D - 3" ANSI 150 LBS E - 80A JIS 10K F - DN 80 PN 16
P1	—	<b>Probe Extension</b> P1 - 150 P2 - 200 P3 - 300
E1	—	<b>Enclosure Protection</b> E1 - 1080AT Aluminum / M20 Cable Entry, IP68 (Explosion Proof) E3 - 1080ST Stainless Steel / M20 Cable Entry, IP68 (Explosion Proof)

### Ordering code: (Example)

BW17X V1 D P1 E3

## Certifications

### IECEX



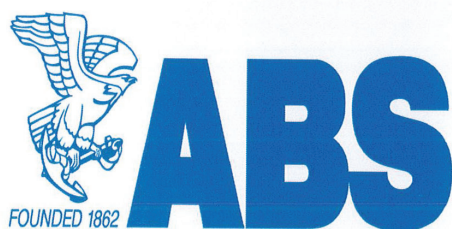
## IECEX Certificate of Conformity

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEX Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	IECEX TRA 16.0011X	Issue No: 0	<u>Certificate history:</u> Issue No. 0 (2016-07-29)
Status:	Current	Page 1 of 3	
Date of Issue:	2016-07-29		
Applicant:	Flotech Controls Pte Ltd 438 Tagore Industrial Avenue 787814 Singapore		
Equipment:	Vertical (LS880) and Horizontal (BW17) mounted level switches		
Optional accessory:			
Type of Protection:	Flameproof 'd'		
Marking:	Ex db IIC T6 Gb, IP68		

### ABS



CERTIFICATE NUMBER	DATE
14-SG1244700-PDA	29 August 2014
ABS TECHNICAL OFFICE	
Singapore Engineering Services	

## CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of  
**FLOTECH CONTROLS PTE LTD - SINGAPORE**

### REGIONAL NETWORK

#### CHINA

FLOTECH CONTROLS (SHANGHAI) CO., LTD  
 B-C, Songhu Industrial Zone, No.3  
 Yanghebang Road, Songjiang High-tech Park,  
 Shanghai, P.R.C (201615)  
 Tel: (86) 21 64593908  
 Fax: (86) 21 64595018  
 Email: info@flotechshanghai.com

福德控制仪器（上海）有限公司  
 地址：上海松江高科技园区洋河浜路3号松沪工业  
 小区B区C栋  
 邮政编码：201615  
 电话：(86) 21 64593908  
 传真：(86) 21 64595018  
 电子邮件：info@flotechshanghai.com  
 网站：www.flotechshanghai.com

#### INDONESIA

PT FLOTECH CONTROLS INDONESIA  
 Komplek Rukan Artha Gading Niaga  
 Blok F/7, Jln. Boulevard Artha Gading  
 Jakarta 14240, Indonesia  
 Tel: (62) 21 4585 0778  
 Fax: (62) 21 4585 0779  
 Email: salesjkt@flotech.co.id

#### MALAYSIA

M - FLOTECH CONTROLS SDN BHD  
 No. 20, Jalan TP 7/6  
 Taman Perindustrian UEP Subang Jaya  
 40400 Shah Alam  
 Selangor Darul Ehsan  
 Malaysia  
 Tel: (60) 3 5192 5325  
 Fax: (60) 3 5192 5327  
 Email: sales@mflotech.com.my

#### SINGAPORE - HEAD OFFICE FLOTECH CONTROLS PTE LTD

438 Tagore Industrial Avenue  
 Singapore 787814  
 Tel: (65) 6553 0366  
 Fax: (65) 6553 0828  
 Email: info@flotech.com.sg  
 Website: www.flotech.com.sg  
 www.isolv.com.sg  
 Reg. No.198204457H



Certificate SG95/04276



Certificate SG13/04547

