

**FS20**

# FLOW SWITCH FS20

*FS20R & FS20 Din Weather Proof  
FS20X – Explosion Proof*



**FS-20R**

### Technical Data

**Size:** From 1/2" to 1"  
**Service:** For "Non-corrosive" liquid fluid available

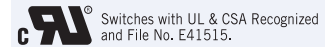
*\*In general, We DON't recommend using FS20 for the seawater application! But, if it is necessary, please let us know, we can customize the special magnet with lining to match up!*

**Material:** Wetted parts 316 stainless steel  
**Temperature Limit:** -20 to 150°C  
**Pressure Limit:** 7.0 MPa (70 kg/cm<sup>2</sup>)  
**Enclosure Housing:** FS20R- Weather proof  
FS20 Din- Weather proof  
FS20X- Explosion proof  
**Switch Function:** SPDT micro switch  
**Switch Rating:** 3A/250VAC, 3A/30VDC, 0.4A/125VDC  
**Conduit Connection:** Female 1/2", 3/4" G, NPT, and M20xP1.5 or M25xP1.5 available

### Patent No.

M290238

### Approvals:



### CAUTION.

If using the FS20 for the Emergency Shower, please contact with the manufacturer at the first!!

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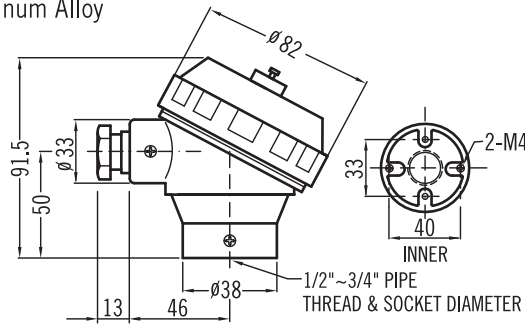
**FS-20 DIN**

### Head Type

#### FS20R – Weather Proof IP68

**Material:** Aluminum Alloy

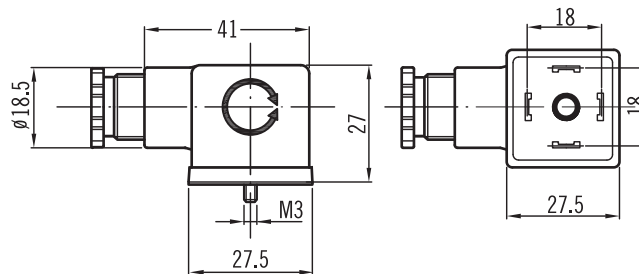
unit=mm



#### FS20 Din – Weather Proof IP65

**Material:** Thermoplastic Rubber  
**Cable Gland:** PG9  
**Connector:** DIN43650

unit=mm



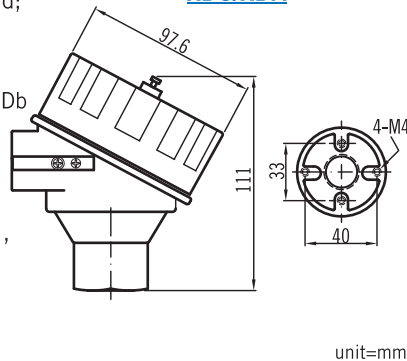
#### FS20X – Explosion Proof

**Material:** Aluminum Alloy- standard;  
SS316 available

**ATEX Approvals:** II 2G D  
Ex db IIC T6 Gb  
Ex tb IIIC T100°C Db

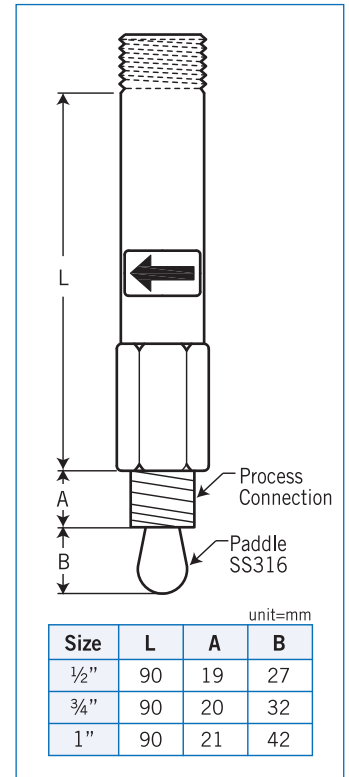
**FM Approvals:** XP/II/1/ABCD/T6;  
DIP/II, III/1/EF/T6; Type 4X,  
Explosion proof for Class I,  
Division 1, Groups A,B,C and D;  
and dust-ignition proof for class II,  
III, Division 1, Groups E,F and G,  
hazardous (classified) locations;  
indoor/outdoor (NEMA Type 4X).

### XDS/XDA



unit=mm

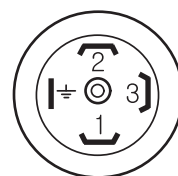
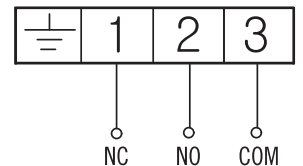
### Dimensions



Size	L	A	B
1/2"	90	19	27
3/4"	90	20	32
1"	90	21	42

### Connection Diagram

3-Wire



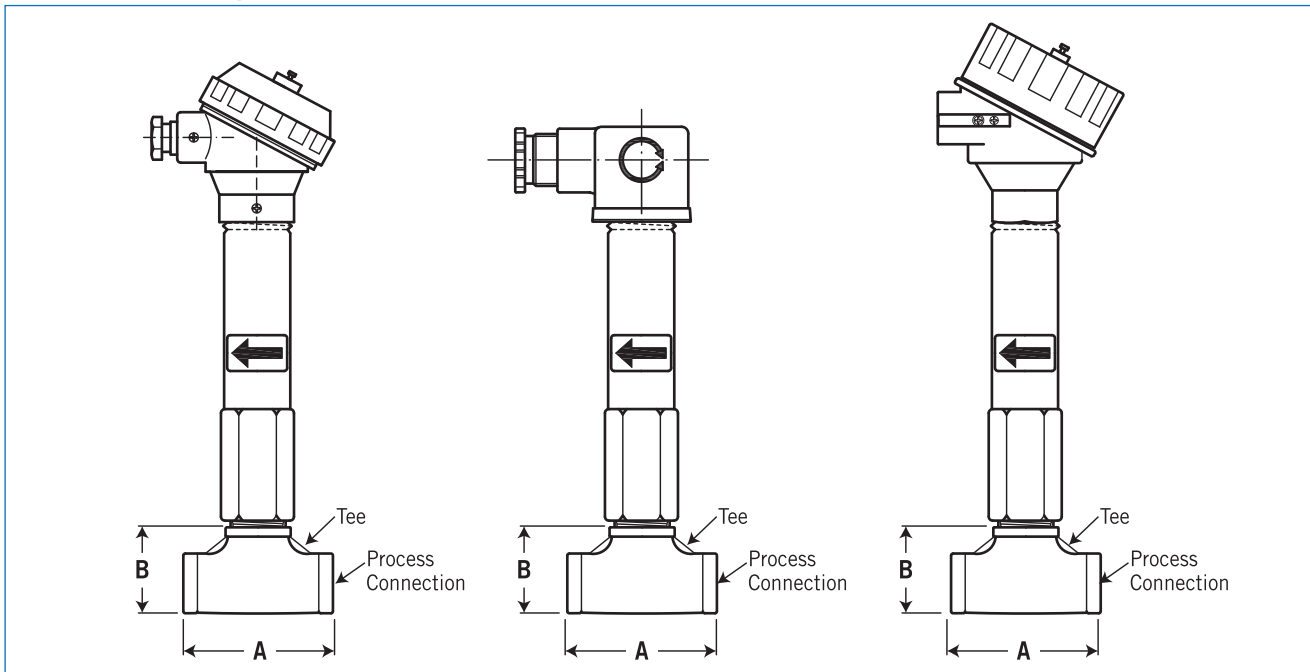
DIN

## Flow Rate Table

Process Connection (Female with Tee Fitting)	Flow Rates Required Water at 25°C		Dimensions for Tee			Max. Flow Rate @2 bars
	Acuate (on) ℓ/hour	Deacuate (off) ℓ/hour	A (mm)	B (mm)	REMARK	
½"NPT	380,...460	150,...210	52	45	---	3000 L/H
¾"NPT 1"NPT	550,...610	140,...240	64	47	¾" Paddle & ¾" Tee	7000 L/H
			67	49	¾" Paddle & 1" Tee	
1"NPT	930,...1010	750,...780	72	49	---	---

**NOTE.** The Flow Rate Table is only for reference. Please consult with manufacturer for the accurate flow rate if without tee fitting.

## With Tee Drawings



## Ordering Information

Model	Code	Type	
↓	FS-20R	Weather Proof Type	
		FS-20 DIN	
	↓	↓	Weather Proof Type
			FS-20X
	↓	↓	Explosion Proof Type
			Explosion Proof Type
	↓	↓	Code
			Process Connection
	↓	↓	A
			With Tee (Material: SS316) (1) ½"NPT (2) ¾"NPT (3) 1"NPT (4) 1"NPT (but ¾" paddle)
↓	↓	B	
		Without Tee (4) ½"NPT (5) ¾"NPT (6) 1"NPT	
↓	↓	Code	
		Head Housing Type	
↓	↓	Weather Proof (1) HN (only for FS-20R) (2) DIN 43650 (only for FS-20 DIN) (0) Option	
		Explosion Proof (3) XDS (4) XDA (0) Option	
↓	↓	Code	
		Conduit Size	
↓	↓	(1) ½"NPT(F), standard (2) PG9 cable gland (only for FS-20 DIN) (0) Option	
		Code	
↓	↓	Explosion Proof Type / Head Housing Type	
		N	
↓	↓	For Weather Proof Type, FS-20R and FS-20 DIN	
		S	
↓	↓	<b>Certificate on Housing Only / XDS &amp; XDA:</b> Class I, Groups A, B, C & D; Class II, Groups E, F & G; NEMA 4X	
		Complete Ordering Code	

### Reminder before ordering:

In general, We DON't recommend using FS20 for the seawater application! But, if it is necessary, please let us know before placing an order, we can customize the special magnet with lining to match up!