THERMAL FLOW SWITCH

AI.AX-ECooling

DESCRIPTION

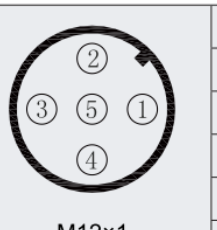
AI.AX-ECooling Flow Switch is an intelligent thermal diffusion principle based flow monitoring sensor. It adopts ARM processing core and combines with high quality sensors and dedicated circuit. With temperature -compensation and calibration, it can ensure measurement accuracy in the case of water temperature change. It is available for real-time monitoring of pipe water flow. It can be used for cooling or lubrication system flow monitoring to realize pre-warning and protection for critical equipment when there is flow fault. It uses fully enclosed design, stainless steel construction to adapt to a variety of application environment. It is with overvoltage, over-current and reverse polarity protection function. With self-luminous OLED screen, it allows switchable display between the progress bar and digital display numbers. AI.AX-ECooling supports quick action point set, also it has display inversion function that enables installation in any direction, and no need for frequent adjustment and maintenance. It can be applied for operation protection of large equipment in fields such as power generation, metallurgy, steel, paper, boilers etc.

FEATURES

- Optional power supply 24VDC or 220VAC
- OLED screen, switchable display between the progress bar and digital display
- All stainless steel housing, IP67 protection
- Temperature compensation
- 2-way PNP /2-way NPN /1 relay output are optional /2-way PNP+4~20mADC
- No moving parts, maintenance-free
- Switch output, control point setting continuously on panel
- Compact size, support inverted display
- Mounting joint can be equipped with different interfaces for a variety of pipe diameters requirement

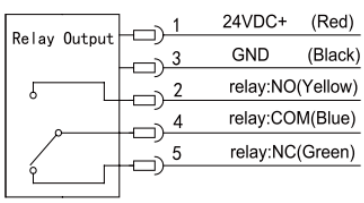
SPECIFICATION

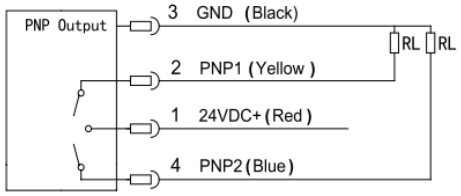
ELECTRICAL CONNECTION



M12×1

Color	Pin	220VAC Definition	24V DC Definition
Red	1	Power L	IN+
Black	3	Power N	IN-
Yellow	2	Relay: NO	Relay NO, NPN1, PNP1
Green	5	Relay: NC	Relay NC, 4mA ~ 20mADC
Blue	4	Relay: COM	Relay COM, NPN2, PNP2



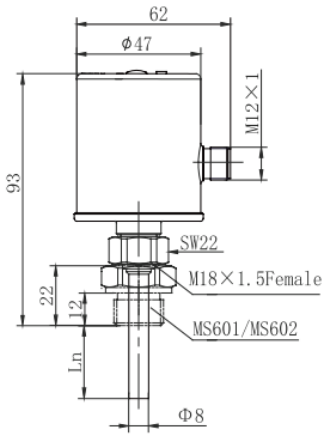


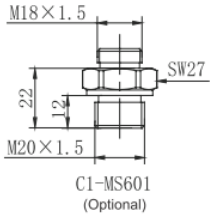
Measure Range	1cm/s~150cm/s (water);
Optimal Range	3cm/s ~ 100cm/s (water)
Power Supply	(24±4.8)V DC / 220VAC
Working Current	≤ 60mA
Switch Accuracy	±10cm/s
Hysteresis	±2cm/s~±8cm/s
Initial Time	2s~15s, 8s(typ.)
Switch-off Time	1s~15s, 2s(typ.)
Switch-on Time	1s~13s, 2s(typ.)
Output Signal	1relay\2 NPN\2 PNP\2PNP+4~20mADC
Output Function	NO, NC(optional)
Relay Characters	Switch voltage: ≤ 250V AC / 30V DC
	Switch current: ≤3A
Transistors Characters	Switch voltage drop: ≤ 1.5V
	Switch current: ≤ 400mA
Display	OLED indicator, resolution 128×32
Electrical Protection	Reverse, short-circuit,over-voltage
Housing	Stainless steel
Button	PP
Probe	Stainless steel
Installation	Joint mounting + adaptor
Endurance Pressure	10MPa
Set	Button
Electrical Connection	M12×1 5-pin plug
Gross weight	265g
Water Temp.	-20℃ ~80℃
Storage Temp.	-30℃ ~85℃
Working Temp.	-20℃ ~70℃
Protection	IP67
Temperature Compensation	5℃ ~50℃ (water)
Electromagnetic Compatibility	GB/T17626.2/3-2006, GB/T 17626.4-2008
Shock	≤3g (GB/T JJG 882-2004)
Impact	≤ 50g/11ms (GB/T 2423.5-1995)

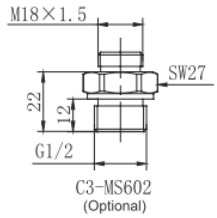
- Note: The above specification test medium is water;
- 5cm/s~100cm/s; 20℃ (Factory defaults)

OUTLINE CONNECTION (Unit: mm)

Outline Construction and Installation are shown below:



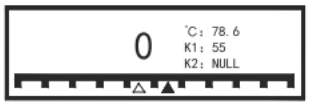




Two Display:

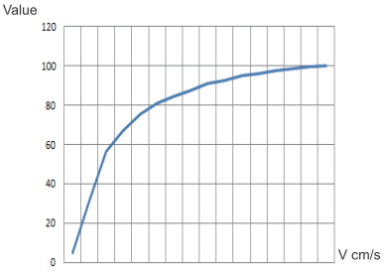
Progress Bar

Digital Display



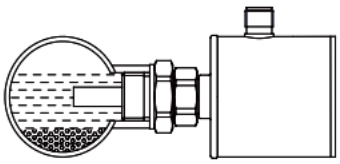
When Switch Point Sign light is flashing, it indicates that the velocity exceeds the switch action velocity

Curvilinear relation between digital indication and velocity:

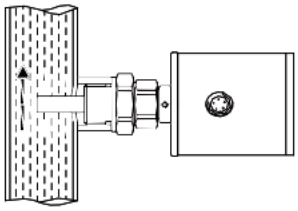


Suggested installation method:

Horizontal Pipe:



Vertical Pipe:



ORDER CODE

AI.AX-ECooling	**FLUSSOSTATO AD EFFETTO TERMICO**
	ALIMENTAZIONE
	24: 24VDC **220:** 220VAC
	ATTACCO AL PROCESSO
	1: 1/2"GAS-M **2:** 1/2"NPT-M **3:** M20X1.5 **4:** Personalizzato
	USCITE
	5: 1 contatto SPDT
	6: 2 uscite NPN
	7: 2 uscite PNP
	8: 2 uscite PNP + 4mA~20mADC
	LUNGHEZZA IMMERSIONE BARRA (SOTTOFILETTATURA)
	L1: 15mm
	L2: 21mm
	L3: 28mm
	L4: 40mm
	L5: 68mm
	L*: Personalizzato

Nota bene: nella scelta della lunghezza immersione barra considerare 12mm altezza filetto da aggiungere alla lunghezza prescelta

ESEMPIO CODICE DI ORDINAZIONE:

	Alimentazione	*Attacco al processo*	*Uscite*	*Lunghezza*	*Specifiche*
AI.AX-ECooling	**24**	**1**	**5**	**L1**	

Descrizione codice: *AI.AX-ECooling Flussostato ad effetto termico*
24: *alimentazione 24VDC*
1: *attacco al processo 1/2"GAS-M*
5: *1 contatto SPDT*
L1: *lunghezza immersione barra 15mm*

ASIT ITALIA S.R.L.

Sede operativa e Uffici
Via Quintino Sella, 6
10020 Riva presso Chieri (TO)
T (+39) 011 198 218 39 - F (+39) 011 198 371 06

INFO@ASIT-GE.COM

WWW.ASIT-GE.COM

ASIT G.E.®
GLOBAL ENGINEERING
REGISTERED TRADEMARK OF ASIT ITALIA GROUP

Member of CISQ Federation
RINA
CERTIFIED MANAGEMENT SYSTEM
ISO 9001

Company with
Certificate of Quality
System ISO 9001:2015
Cert n°38785/19/S