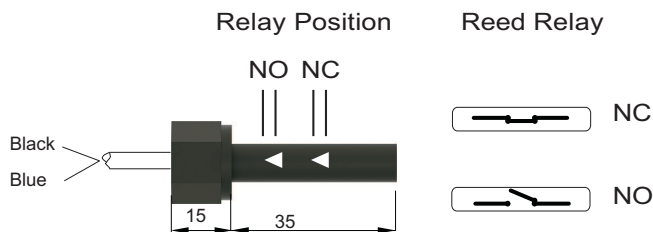


DX-EFS is used in order to check safely whether there is flow or not by detecting movement of liquids inside the pipe. It provides information about flow with high reliability without spending energy in cooling water or lubricating oil circuits, in the devices such as flash heater, central heating boiler and heater.

It should be assembled vertically.

As factory setting, contact is closed when there is flow; contact is open when flow stops. Exact opposite situation can be adjusted by user by changing position of relay in the housing.

Relay Position Settings:



Certification

- Ex** II 1/2G Ex db IIC TX¹ Ga/Gb For Gas
 II 2D Ex tb IIIC TX² Db For Dust
 -20°C ≤ Tamb ≤ +60°C , IP 66/68 (2 Metre / 2 Meters)
 * Have a look at the temperature class chart.

DX-EFS

FLOW SWITCH

DX-EFS 05s / 06s

DX-EFS 08s/10s/15s/20s/25s/32s/40s/50s

Advantages :

- * High precision.
- * Easy to adjust and assemble
- * Relay circuit is contactless with fluid.
- * Low pressure decrease.

CE 1783



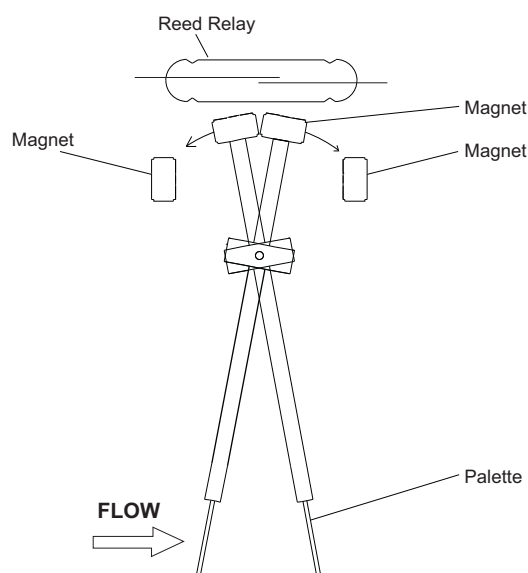
Technical Specifications :

DX-EFS....s

MATERIAL	Housing	Aluminium Enj. ALSi12Fe (Std) Black (RAL 9005)
	Body+Thread	AISI 304 St.St. (Opt. AISI 316 St.St.)
	T Body	AISI 304 St.St. (Opt. AISI 316 St.St.)
	Bolt	AISI 304 Stainless Steel
	Palette	AISI 316 Stainless Steel
	Relay Case	Polypropylene
	Seal	Viton
FLUID		Water (Oil, gas and aggressive media on request)
TOLERANCE		+/- %15 of full scale value
MAX. WORKING PRESSURE		25 bar
MAX. WORKING TEMPERATURE		(+) 145 °C
AMBIED TEMPERATURE		(-) 20 °C / (+) 60 °C
KONTACT		Reed Contact 1 x NO, 10W / VA , 200 VDC 140 VAC
ELECTRICAL CONNECTIONS		Cable Input M20 x 1,5 mm ²
PROTECTION CLASS (EN60529)		IP 66 / 68

Working Principle :

Palette, fastened from one point on the body, moves contact with fluid so that information about flow is obtained. When flow stops, it is provided that paddle comes to first position by pushing magnet with reverse pole in the paddle, attached on the body. By this means, longer life and resistance to higher pressure is provided in comparison with those of spring mechanisms. Reed relay with high precision and long life is used.



Instruction of the switching set;

- Open the switch cover.
- Please change the location of plastic switch through the the NO or NC triangles.
- Please fasten the switch plastic by tighten the screw.
- Close the switch cover.

* **WARNINGS!**

Please pay attention to following matters in order to operate your flow switch properly.

- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switched on, a load must be connected in series.
- The electrical details apply to ohmic loads.
(Capacitive or inductive loads must be operated using a protective circuit.)

Temperature Class Table

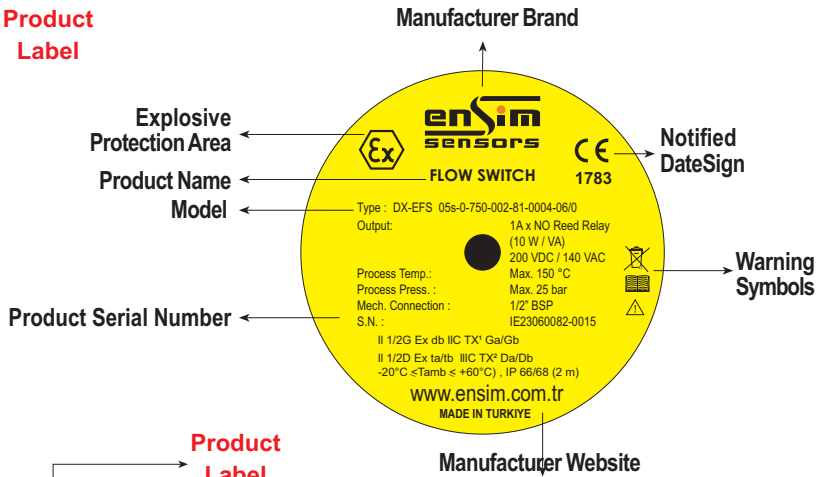
STD. MODEL	DX-EFS (Metal)
Working Temperature	(-) 20 °C... (+) 145 °C
Without opening the cover standby time	20 min.

Thermal Protection Insurance is 105 °C

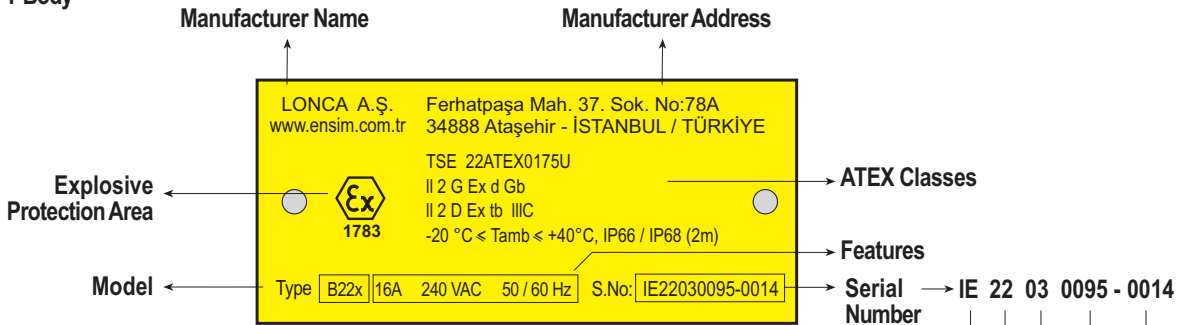
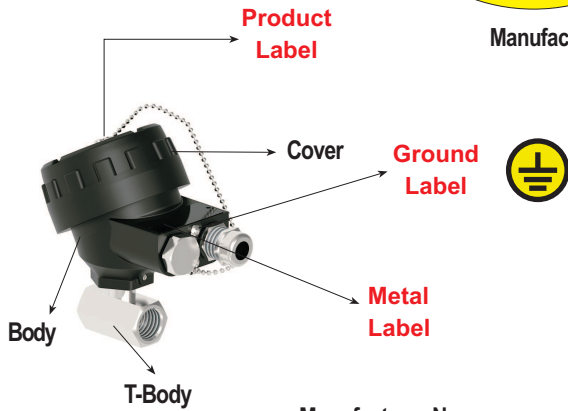
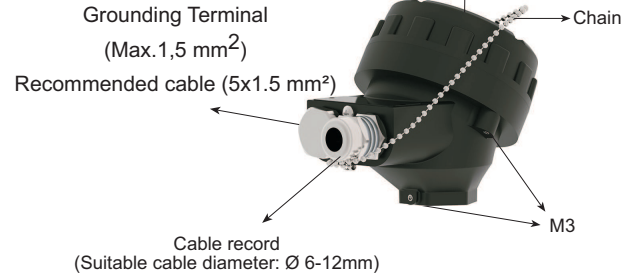
(-) 20°C < T Ambient < (+) 30°C...(+) 60°C		Working Temperature :(-) 20...(+) 145°C	GROUP II
DX-EFS05s / 06s / DX-EFS 08s...50s (Metal)			
T Ambient MAX. AMBIENT TEMPERATURE ZONE 21 / 1	T Process MAX. PROCESS TEMPERATURE ZONE 20 / 0	TEMPERATURE CLASS	
60°C	<80°C	T6	
60°C	<95°C	T5	
60°C	<125°C	T4	
60°C	<145°C	T3	

(-) 20°C < T Ambient < (+) 30°C...(+) 60°C		Working Temperature :(-) 20...(+) 60°C	GROUP III
DX-EFS05s / 06s / DX-EFS 08s...50s (Metal)			
T Ambient MAX. AMBIENT TEMPERATURE ZONE 21 / 1	T Process MAX. PROCESS TEMPERATURE ZONE 20 / 0	TEMPERATURE CLASS	
60°C	<60°C	T60°C	

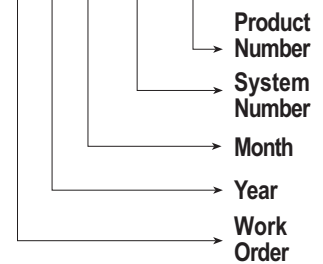
Product Label



DO NOT OPEN WHEN ENERGIZED
KEEP TIGHT WHEN CIRCUIT ALIVE



Note : If the ATEX certificate metal label is damaged,
you can contact the manufacturer with the serial number.



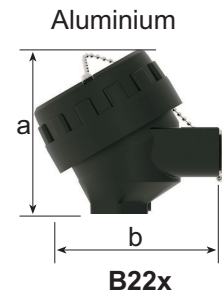
Housing:

ORDER CODE	TYPE	MATERIAL	PROTECTION CLASS	TEMPERATURE (°C)	SIZE a x b (mm)
750	B22x	Aluminium	IP 66 / 68	(-) 40...(+) 200	117 x 102

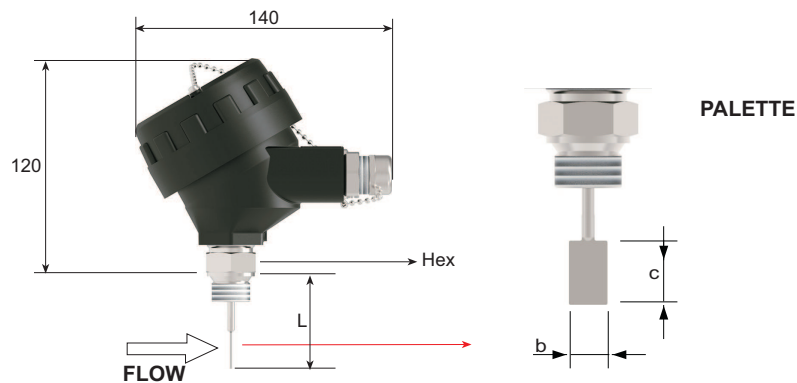
Cover Seal : NBR Nitrile Rubber 120 °C, Opt. FPM (Viton) 200 °C)

EU-Type Examination Certificate Number : TSE 22ATEX 0175U

The marking of the equipment :

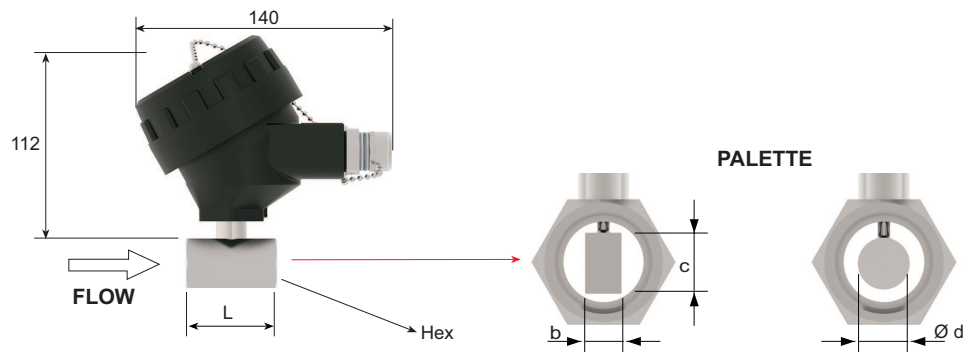


DX-EFS 05s , DX-EFS 06s



MODEL	Pipe Size	Connection Size D	Max. Flow (m ³ / h) Water	Rising Flow Rate (m ³ / h) Water	Falling Flow Rate (m ³ / h) Water	Hex (mm)	L (mm)	d (mm)
DX-EFS 05s	DN 50	1/2 " BSP	28	1,5 / 2,5	1,4 / 2,2	27	50	12 x 20
	DN 80	1/2 " BSP	75	4 / 7,5	3,8 / 7	27	50	12 x 20
	DN 100	1/2 " BSP	140	6 / 10,5	5,5 / 10	27	50	12 x 20
DX-EFS 06s	DN 100	1/2 " BSP	100	5,5 / 6,1	5,3 / 6	27	110	12 x 80
	DN 150	1/2 " BSP	140	9,5 / 12,5	9 / 12	27	110	12 x 80
	DN 200	1/2 " BSP	200	22,5 / 26	22 / 25	27	110	12 x 80

DX-EFS 08s , DX-EFS 10s DX-EFS 15s , DX-EFS 20s DX-EFS 25s , DX-EFS 32s DX-EFS 40s , DX-EFS 50s



MODEL	Pipe Size	Connection Size D	Max. Flow (L / min) Water	Rising Flow Rate (L / min) Water	Falling Flow Rate (L / dk) Water	Hex (mm)	L (mm)	Palette d Ø b-c (mm)
DX-EFS 08s	DN 8	1/4 "BSP	40	2 / 3	1,8 / 2,8	27	50	Ø 10
DX-EFS 10s	DN 10	3/8 "BSP	50	2,7	2,4	27	50	Ø 10
DX-EFS 15s	DN 15	1/2 "BSP	60	3,1	2,5	27	50	Ø 10
DX-EFS 20s	DN 20	3/4 "BSP	80	5,7	4,7	32	50	Ø 13
DX-EFS 25s	DN 25	1 "BSP	150	12 / 15	11,6 / 14,8	41	50	12 x 20
DX-EFS 32s	DN 32	1 1/4 "BSP	200	16 / 19,5	15,7 / 19,1	50	50	12 x 20
DX-EFS 40s	DN 40	1 1/2 "BSP	300	24,2 / 38	24 / 37,5	60	50	12 x 20
DX-EFS 50s	DN 50	2 "BSP	300	35 / 48	34 / 47	70	65	12 x 20

Order Form : Please consider sample models when coding

1 MODEL

DX-EFS 05s DX-EFS 06s DX-EFS 08s
DX-EFS 10s
DX-EFS 15s
DX-EFS 20s
DX-EFS 25s
DX-EFS 32s
DX-EFS 40s
DX-EFS 50s

2 CERTIFICATE

None.....0 (EN10204-3-1) Material Certification.....1

3 HOUSING

Aluminium , B22x , IP66 / 68.....750

4 CONNECTION MATERIAL

304 Stainless Steel.....001 316 Stainless Steel.....002
Special.....x

5 ELECTRICAL CONNECTION

PVC Cable (Max. 105 °C) 81 Special.....x

6 CONNECTION

Thread 1/4 " BSP Female.....0101 Thread 1/2 " BSP Male Thread.....0004
Thread 3/8 " BSP Female.....0102 Thread 3/4 " BSP Male Thread.....0005
Thread 1/2 " BSP Female.....0103 Thread 1" BSP Male Thread.....0006
Thread 3/4 " BSP Female.....0104 Special.....x
Thread 1 " BSP Female.....0105
Thread 1 1/4 " BSP Female.....0106
Thread 1 1/2 " BSP Female.....0107
Thread 2 " BSP Female.....0108

7 CONTACT STRUCTURE

NO Reed Relay (Std.) 06 NO / NC Reed Relay.....08
NC Reed Relay.....07 Special.....x

8 OPTIONAL

None...../ 0 Shetter (For the outside of the tank) 304 St. St...../ K2
Special...../ x

EXAMPLE

DX-EFS 05s-0-750-002-81-004-06/0
DX-EFS 05s Flow Switch , 316 Stainless Steel , 1/2 " BSP Male Thread , NO Contact