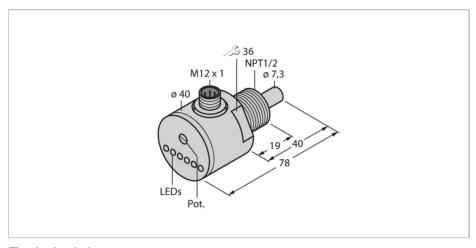


FCS-N1/2A4-ARX-H1140 Flow Monitoring – Immersion Sensor with Integrated Processor



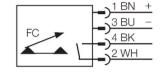
Technical data

Type FCS-N1/2A4-ARX-H1140 Mounting Immersion sensor Water Operating Range 1150 cm/s Oil Operating Range 3300 cm/s Stand-by time typ. 8 s (215 s) Switch-on time typ. 2 s (115 s) Switch-off time typ. 2 s (115 s) Temperature jump, response time max. 12 s Temperature gradient ≤ 250 K/min Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67 Design Immersion	ldent. no.	6871035
Water Operating Range 1150 cm/s Oil Operating Range 3300 cm/s Stand-by time typ. 8 s (215 s) Switch-on time typ. 2 s (115 s) Switch-off time typ. 2 s (115 s) Temperature jump, response time max. 12 s Temperature gradient ≤ 250 K/min Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Туре	FCS-N1/2A4-ARX-H1140
Oil Operating Range 3300 cm/s Stand-by time typ. 8 s (215 s) Switch-on time typ. 2 s (115 s) Switch-off time typ. 2 s (115 s) Temperature jump, response time max. 12 s Temperature gradient ≤ 250 K/min Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Mounting	Immersion sensor
Stand-by time typ. 8 s (215 s) Switch-on time typ. 2 s (115 s) Switch-off time typ. 2 s (115 s) Temperature jump, response time max. 12 s Temperature gradient ≤ 250 K/min Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Water Operating Range	1150 cm/s
Switch-on time typ. 2 s (115 s) Switch-off time typ. 2 s (115 s) Temperature jump, response time max. 12 s Temperature gradient ≤ 250 K/min Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Oil Operating Range	3300 cm/s
Switch-off time typ. 2 s (115 s) Temperature jump, response time max. 12 s Temperature gradient ≤ 250 K/min Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Stand-by time	typ. 8 s (215 s)
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Medium temperature -20+80 °C Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Temperature jump, response time	max. 12 s
Operating voltage 21.626.4 VDC Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Temperature gradient	≤ 250 K/min
Current consumption ≤ 70 mA Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Medium temperature	-20+80 °C
Output function Relay output, NO contact Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Operating voltage	21.626.4 VDC
Rated operational current 1 A Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Current consumption	≤ 70 mA
Short-circuit protection no Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Output function	Relay output, NO contact
Reverse polarity protection yes AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Rated operational current	1 A
AC switching voltage 250 VAC DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Short-circuit protection	no
DC switching voltage 60 VDC Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	Reverse polarity protection	yes
Max. AC switching capacity 500 VA Max. DC switching capacity 50 W Protection class IP67	AC switching voltage	250 VAC
Max. DC switching capacity 50 W Protection class IP67	DC switching voltage	60 VDC
Protection class IP67	Max. AC switching capacity	500 VA
	Max. DC switching capacity	50 W
Design Immersion	Protection class	IP67
	Design	Immersion

Features

- Sensor for liquid media
- Calorimetric principle
- Adjustment via potentiometer
- Status indicated via LED chain
- DC 4-wire, 21.6...26.4 VDC
- NO contact, relay output
- Plug-in device, M12 x 1

Wiring diagram



Functional principle

Our insertion - flow sensors operate on the principle of thermodynamics. The measuring probe is heated by several °C as against the flow medium. When fluid moves along the probe, the heat generated in the probe is dissipated. The resulting temperature is measured and compared to the medium temperature. The flow status of every medium can be derived from the evaluated temperature difference. Thus TURCK's wear-free flow sensors reliably monitor the flow of gaseous and liquid media.



Technical data

Housing material	Stainless steel, V4A (1.4571)
Sensor material	Stainless steel, V4A (1.4571)
Max. tightening torque housing nut	30 Nm
Electrical connection	Connector, M12 × 1
Process Pressure	100 bar
Process connection	NPT ½"
Switching state	LED chain, Green/Yellow/Red
Flow state display	LED chain
Indication: Drop below setpoint	LED red
Indication: Setpoint reached	LED yellow
Indication: Setpoint exceeded	4 x LEDs green