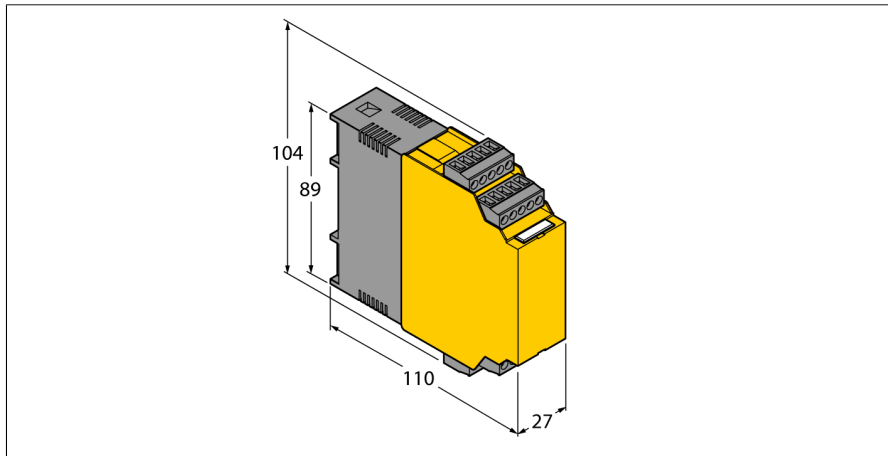


Flow monitoring For the Connection of Flow Sensors IO-Link device with relay outputs FM-IM-3UR38X



- Relay output for flow, temperature and faults
- Adjustment of switchpoint, no teaching of flow boundaries (QuickTeach)
- LED band for indication of flow speed and media temperature
- Monitoring of operating and display range
- Detection of wire-break and short-circuit on the sensor side
- Standard IO or IO-Link operating mode
- Parametrized via pushbutton or software-supported via IO-Link

Type designation	FM-IM-3UR38X
Ident-No.	7525102
Operating voltage	20...250VAC
Operating voltage	20...125 VDC
Frequency	≥ 40...≤ 70 Hz
Short-circuit protection	yes
Input function	Connection of flow sensors
Design	Terminal chamber
Dimensions	110 x 27 x 89 mm
Housing material	Polycarbonate/ABS
Electrical connection	Terminal block terminals / housing (IEC 60529 / EN 60529)
Packaging unit	1

Functional principle

All non-Ex flow sensors from the FCS series (immersion sensors) and FCI series (inline series) can be operated with the FM-IM external processing unit.

The flow module features four status LEDs as well as a 10-segment LED band for local monitoring. Software-based diagnostic options are also available to the user, such as wire-break and short-circuit on the sensor side. Furthermore, monitoring of flow rates and media temperatures within a predefined operating and display range.

The upper and lower limits of the flow range are taught in using the max./min. teach mode implemented. The flow switchpoint is easily adjusted by means of the Quick-Teach function, without having to program a lower and upper limit of the flow range. Working on the calorimetric principle, the connectible sensors not only detect the flow rate but also the media temperature.

The flow module can be operated either in IO-Link (IOL) or in standard IO (SIO) mode via the integrated IO-Link interface. In SIO mode, the switching outputs are operated in the standard way. In IOL mode the current process signal is transmitted cyclically as a 10 bit-serial value.

Parametrization is initiated either via pushbutton or software-supported via IO-Link interface. The actual parametrization is then implemented via the tool-based DTM or IODD within the FDT frame PACTware™ or acyclically near the control via On-Request Data Objects (ORDO).

Flow monitoring
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FM-IM-3UR38X

	<p>Accessories flow module FM-IM-3UR38X Ident no. 7525102</p>	<p>Wiring Diagram</p> <p>Only for non-Exp sensors Type FCS/FCL/NA</p>
	<p>Accessories Als separates Zubehör erhältlich: IO-Link Kommunikationsleitung IOL-COM/3M Verbindung zwischen FM-IM (PC Port) und IO-Link Master Ident.-Nr. 7525110</p>	<p>Wiring Diagram</p>

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LED display

LED	Color	Status	Description
Pwr	green	on	Operating voltage applied Device ready for operation
		flashing	Operating voltage applied IO-Link communication active (inverted flash with T on 900 ms and T off 100 ms)
Flow	yellow	off	Switching output flow [low]
		on	Switching output flow [high]
		flashing	Teach mode / display of diagnostic data for specification see manual
Temp	yellow	off	Switching output media temperature [low]
		on	Switching output media temperature [high]
		flashing	Teach mode / display of diagnostic data for specification see manual
Fault	red	off	Switching output fault [high]
		on	Switching output flow [low] (for error pattern in combination with LEDs see manual)

For detailed description of the display patterns and flashing codes see instruction manual FM-IM / FMX-IM (D101880)

IO-Link (Process Data Objects)

Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
	Flow Value 10 Bit (Bit 15 = MSB, Bit 6 = LSB)										not assigned			Out 3 (Fault)	Out 2 (Temp)	Out1 (Flow)