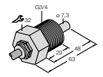
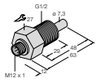
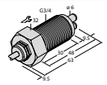
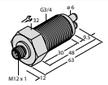
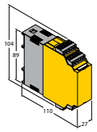
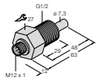
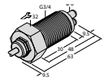
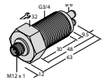
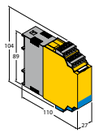
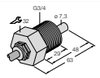
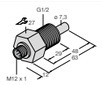
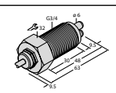
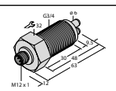
Types and Features

Flow sensors				Ex area		Medium		Housing		Flow modules
Type code/Dimension drawing										
Connection type Cable		**Connection type M12 x 1s**		**zone 0**	**zone 1**	**liquid**	**gaseous**	**immersion**	**Inline**	
FCS-…-N		FCS-…-NA-H1141				•		•		
FCS-…-NA/A		FCS-…-NA-H1141/A					•	•		FM-IM 
FCI-…-NA-H1141						•			•	
FCI-…P-NA						•			•	
FCI-…P-NA-H1141						•			•	
FCS-…-NAEX		FCS-…-NAEX-H1141			•	•		•		
FCS-…-NAEX/A		FCS-…-NAEX-H1141/A			•		•	•		
FCI-…-NAEX-H1141					•	•			•	FMX-IM 
FCS-…-NAEX0		FCS-…-NAEX0-H1141		•		•		•		
FCS-…-NAEX0/A		FCS-…-NAEX0-H1141/A		•			•	•		

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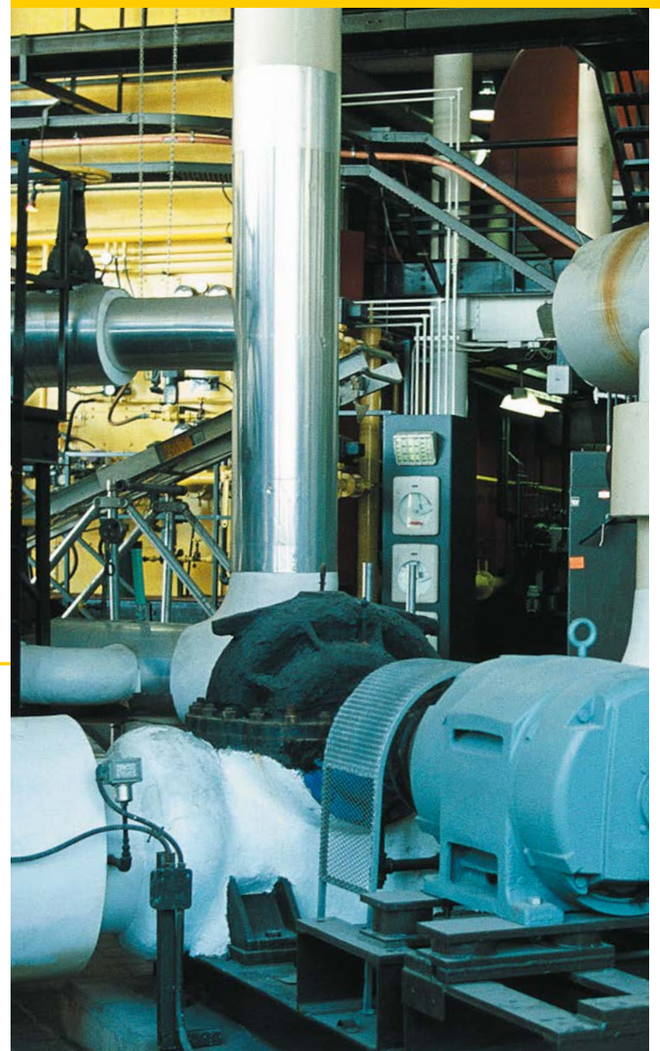
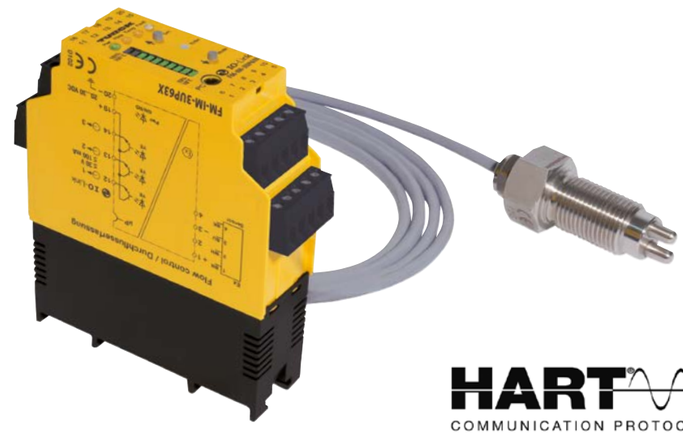
FM | FMX
Intelligent Signal Processors for Flow Sensors



FM | FMX

Intelligent Signal Processors for Flow Sensors – with Diagnostic Functions and IO-Link/Hart® Interface



The new flow modules of the FM-IM series combine easy handling and high functionality with many connection possibilites, adapted to the latest requirements.

All Turck flow sensors of the FCS (immersion) and FCI (inline) series can be operated at the new modules. The sensors working on the calorimeric principle, detect the flow speed as well as the media temperature continuously.

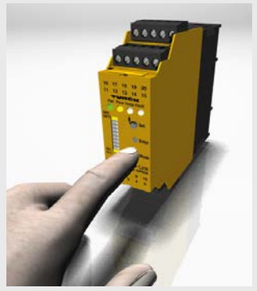
The modules are available in the approved DIN rail design and are easily configured either via pushbutton or via IO-Link /HART® interface. The user can adjust the switchpoint with the innovative quick-teach function.

Not only wire-break, short-circuit or the operating range are monitored, the diagnostic results are also indicated via LED and a 10-segment LED band, if required.

Thanks to its multifunctionality, the FM-IM series is easily integrated in any automation system. There are many application possibilites, such as run-dry protection of pumps or monitoring of coolant circuits and inerting systems.

Overview of flow modules

	Type code	20…30 VDC	20…125 DC/20…250 VAC	Flow (Out 1)	Temperature (Out 2)	Fault signal (Out 3)	IO-Link	HART®
 Non-Ex area 	FM-IM-3UP63X	•					COM (PC), Out 1	–
	FM-IM-3UR38X		•				COM (PC)	–
	FM-IM-2UPLi63X	•					COM (PC), Clamp 12	–
 Ex area 	FMX-IM-3UP63X	•					COM (PC), Out 1	–
	FMX-IM-3UR38X		•				COM (PC)	–
	FMX-IM-2UPLi63X	•					–	COM (PC), Out 1



High functionality
No complicated adjustments of upper and lower limit values. Switchpoints, flow and temperature ranges are easily set up, thanks to the quick-teach function and the intuitive menu navigation

Simple configuration
The flow modules feature two operating modes: The SIO mode (standard IO) for conventional switching and the IOL mode (IO-Link), transmitting current 12 bit process value. The flow modules are either configured via pushbuttons or remotely via the IO-Link/HART® communication interface.

Large variety of device types
The FM series features six devices. Three devices for the connection of non-Ex area sensors (FM) and three for Ex area sensors (FMX). They are equipped with standard PNP transistor outputs, relay outputs as well as analog 4…20 mA current outputs.

Display and diagnostics
The user can choose between local as well as different remote diagnostic functions. For example, wire-break, short-circuit, monitoring of the operating range and display of flow speed and media temperature.