

Selection and Ordering data

Order code

7ME360

- 0 -

K12 + K12 + R12

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For sensor and RTD cables for quick delivery see tables at end of section.

Selection and Ordering data		Order No.	Ord. code	Selection and Ordering data		Order No.	Ord. code
SITRANS FUH1010 (Oil)				SITRANS FUH1010 (Oil)			
• IP65 (NEMA 4X) wall mount				• IP65 (NEMA 4X) wall mount			
• IP65 (NEMA 7) compact explosionproof				• IP65 (NEMA 7) compact explosionproof			
• IP66 (NEMA 7) wall mount explosionproof				• IP66 (NEMA 7) wall mount explosionproof			
Number of ultrasonic paths/meter type				RTD temperature sensor (includes mounting hardware for pipes above 1.5" OD)			
Single path (precision volume)	0			No RTDs (Note: temperature input is required for SITRANS FUH systems) 1 x Standard clamp-on RTD 2 x Standard clamp-on RTD ²⁾ 1 x Submersible clamp-on RTD 2 x Submersible clamp-on RTD ²⁾	0		
Single path (interface detector)	1				1		
Dual channel/Dual path (interface detector)	2				2		
Dual path (precision volume)	3				3		
Dual path (standard volume/mass)	4				4		
Special: Four path (standard volume/mass) only	9		H 1 A	Sensor for channel/path 1 (includes standard pipe mounting kit and spacer bar for indicated max. outer diameter listed) See "Sensor selection charts" for specifications.			
Flowmeter functions and I/O configurations Includes graphic or digital display				no sensor			A
<u>IP65 (NEMA 4X) wall mount and IP66 (NEMA 7 wall mount explosionproof) units</u>				For the following A1H to D4H sensors, temperature range is -40 °C to 65 °C (-41 °F to 150 °F), nominal 21 °C (70 °F):			
• Standard	A			A2H (high precision) Trackmount and straps provided up to 75 mm (3")		H	
- Graphic display				A3H (high precision) Trackmount and straps provided up to 75 mm (3")		J	
- 4 x 4 ... 20 mA analog input				B1H (high precision) Trackmount and straps provided up to 125 mm (5")		K	
- 2 x 0 ... 10 V				B2H (high precision) Trackmount and straps provided up to 125 mm (5")		L	
- 2 x 4 ... 20 mA analog output				B3H (high precision) Trackmount and straps provided up to 125 mm (5")		T	
- 2 x pulse output				C1H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾		M	
- 4 x form C relay				C2H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾		N	
- 2 x RTD input				D1H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾		P	
• Extended I/O option	C			D2H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾		Q	
- additional 2 x 4 ... 20 mA outputs				D3H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾		U	
- Form C relays				D4H (high precision) Mounting frame and straps provided up to 1200 mm (48") ¹⁾		R	
- 4 x digital pulse outputs (2 x open collector and 2 x 0 ... 5 V TTL)							
<u>IP65 (NEMA 7) compact explosionproof units</u>							
• Standard	D						
- Digital display							
- 2 x 4 ... 20 mA (Loop)							
- 2 x 4 ... 20 mA analog input							
- 2 x status (open collector)							
- 1 x RTD input							
• Digital pulse option	F						
- 1 x digital pulse open collector output							
- 2 x 4 ... 20 mA (Loop)							
- 2 x 4 ... 20 mA analog input							
- 1 x status (open collector)							
- 1 x RTD input							
Meter power options							
90 ... 240 V AC	A						
9 ... 36 V DC (except compact NEMA 7)	B						
9 ... 36 V DC negative GND (compact only)	J						
9 ... 36 V DC positive GND (compact only)	K						
Communication options							
RS 232 (standard)		0					
Standard MODBUS configurations include Baudrate: 9600, Parity: None, Stop Bits: 1, Data bits: 8, MODBUS data: 16 bit, Data format: word normal, Mode: RTU, and MODBUS format: Gould. For other configurations please select option 9 and L1Y and state requirements in plain text MODBUS (excludes NEMA 7 compact)							
Other Version,MODBUS, N2, Other Baud Rate, Other Parity, State in Plain Text		1					
		9					

1) Supplied spacer bar supports pipes up to 750 mm (30 inches). For pipes larger than 750 mm (30 inches) purchase also, spare part 7ME3960-OMS40 (1012BN-4).

2) Dual channel interface detector only

Selection and Ordering data		Order No.	Ord. code
SITRANS FUH1010 (Oil)			
• IP65 (NEMA 4X) wall mount	7ME3600-		
• IP65 (NEMA 7) compact explosionproof	7ME3601-		
• IP66 (NEMA 7) wall mount explosionproof	7ME3603-		
	 0 - 		
Sensor for channel/path 1 (continued)			
For the following B1H to D4H sensors, temperature range is -1 °C up to 104 °C (30 °F up to 220 °F), nominal 65 °C (150 °F):			
B1H (high temperature range HP)	Z	P 1 K	
B2H (high temperature range HP)	Z	P 1 L	
B3H (high temperature range HP)	Z	P 1 T	
C1H (high temperature range HP)	Z	P 1 M	
C2H (high temperature range HP)	Z	P 1 N	
D1H (high temperature range HP) ¹⁾	Z	P 1 P	
D2H (high temperature range HP) ¹⁾	Z	P 1 Q	
D3H (high temperature range HP) ¹⁾	Z	P 1 U	
D4H (high temperature range HP) ¹⁾	Z	P 1 R	
Sensor for channel/path 2			
(includes pipe mounting kit and spacer bar for indicated max. outer diameter listed) See "Sensor selection charts" for specifications.			
no sensor		A	
For the following A1H to D4H sensors, temperature range is -40 °C to 65 °C (-41 °F to 150 °F), nominal 21 °C (70 °F):			
A2H (high precision)	Trackmount and straps provided up to 75 mm (3")	H	
A3H (high precision)	Trackmount and straps provided up to 75 mm (3")	J	
B1H (high precision)	Trackmount and straps provided up to 125 mm (5")	K	
B2H (high precision)	Trackmount and straps provided up to 125 mm (5")	L	
B3H (high precision)	Trackmount and straps provided up to 125 mm (5")	T	
C1H (high precision)	Mounting frame and straps provided up to 1200 mm (48") ¹⁾	M	
C2H (high precision)	Mounting frame and straps provided up to 1200 mm (48") ¹⁾	N	
D1H (high precision)	Mounting frame and straps provided up to 1200 mm (48") ¹⁾	P	
D2H (high precision)	Mounting frame and straps provided up to 1200 mm (48") ¹⁾	Q	
D3H (high precision)	Mounting frame and straps provided up to 1200 mm (48") ¹⁾	U	
D4H (high precision)	Mounting frame and straps provided up to 1200 mm (48") ¹⁾	R	

Selection and Ordering data		Order No.	Ord. code
SITRANS FUH1010 (Oil)			
• IP65 (NEMA 4X) wall mount	7ME3600-		
• IP65 (NEMA 7) compact explosionproof	7ME3601-		
• IP66 (NEMA 7) wall mount explosionproof	7ME3603-		
	 0 - 		
For the following B1H to D4H sensors, temperature range is -1 °C up to 104 °C (30 °F up to 220 °F), nominal 65 °C (150 °F):			
B1H (high temperature range HP)	Z	Q 1 K	
B2H (high temperature range HP)	Z	Q 1 L	
B3H (high temperature range HP)	Z	Q 1 T	
C1H (high temperature range HP)	Z	Q 1 M	
C2H (high temperature range HP)	Z	Q 1 N	
D1H (high temperature range HP) ¹⁾	Z	Q 1 P	
D2H (high temperature range HP) ¹⁾	Z	Q 1 Q	
D3H (high temperature range HP) ¹⁾	Z	Q 1 U	
D4H (high temperature range HP) ¹⁾	Z	Q 1 R	
Approvals			
FM/CSA/CE/C-TICK (default), also for non hazardous area		1	
ATEX		2	
INMETRO (Brazil)		3	
¹⁾ Supplied spacer bar supports pipes up to 750 mm (30 inches). For pipes larger than 750 mm (30 inches) purchase also, spare part 7ME3960-OMS40 (1012BN-4).			

Selection and Ordering data

Order code

Further designs

Please add **"-Z"** to Order No. and specify Order code(s).

Cable assembly for sensors (add for # of paths)

See "Sensor cable selection chart"

K..

Cable assembly for RTDs (add for # of RTDs)

See "RTD cable selection chart"

R..

Cable termination kit (for one cable pair)

• Termination for standard, plenum and armored sensor cable

T01

• Termination for submersible cable

T11

• RTD cable termination kit for standard RTD

T21

• RTD cable termination kit for submersible RTD

T31

Languages (Meter and Documentation), English (default)

• German

B10

• French

B12

• Spanish

B13

• Italian

B14

Tag name plate

• Stainless steel tags with 3.2 mm (0.13 inch) characters (68 characters max.)

Y19

High precision sensor selection chart IP68

Selection and Ordering data	Order No.
Operating Instructions for SITRANS FUH1010	
English NEMA 4X & NEMA 7 wall mount Standard Volume	A5E02951449
German NEMA 4X & NEMA 7 wall mount Standard Volume	A5E02951529
English NEMA 4X & NEMA 7 wall mount explosionproof Precision Volume	CQO:1010PVNFM-3
English NEMA 4X & NEMA 7 wall mount explosionproof Interface Detector	A5E02951504
English NEMA 7 compact explosionproof Standard Volume	CQO:1010DVXFM-3
English NEMA 7 compact explosionproof Precision Volume	CQO:1010PVXFM-3
English NEMA 7 compact explosionproof Interface Detector	CQO:1010BXXFM-3
This device is shipped with a Quick Start Guide and a CD containing further SITRANS F literature.	
All literature is also available for free at: http://www.siemens.com/flowdocumentation	

Based on pipe wall thickness (steel pipes only)					
Sensor	Order Code	Pipe wall (mm)		Pipe wall (inches)	
Pipe wall		min.	max.	min.	max.
A1H	G	0.64	1.02	0.025	0.04
A2H	H	1.02	1.52	0.04	0.06
A3H	J	1.52	2.03	0.06	0.08
B1H	K	2.03	3.05	0.08	0.12
B2H	L	3.05	4.06	0.12	0.16
C1H	M	4.06	5.84	0.16	0.23
C2H	N	5.84	8.13	0.23	0.32
D1H	P	8.13	11.18	0.32	0.44
D2H	Q	11.18	15.75	0.44	0.62
D4H	R	15.75	31.75	0.62	1.25
B3H	T	2.7	3.3	0.106	0.128
D3H	U	7.4	9.0	0.293	0.354

MLFB example

Application example

A clamp-on meter is required for a 12" carbon steel hydrocarbon line flowing multiple products, with a wall thickness of 12.7 mm (0.5"). Meter electronics are to be located in a Class I Div 2 area only 60 ft from the pipeline. 12 V DC power is available at the site.

Dual path operation is desired for improved accuracy and redundant measurement. Pulse output will be primary flow data source.

MLFB Order No.: **7ME3600-3CB00-3QQ1-Z**
K03 + K03 + R03

Sensor Cable Selection Chart

Sensor cable codes for length and type options				
Cable length m (ft)	Standard (PVC jacket)	Submersible (polyethylene jacket)	Plenum Rated (teflon jacket)	Armored
	-40...+80 °C (-40...+176 °F)	-40...+80 °C (-40...+176 °F)	-40...+200 °C (-40...+392 °F)	-40...+80 °C (-40...+176 °F)
Order code				
6 (20)	K01¹⁾	K11	K21	K31
15 (50)	K02	K12¹⁾	K22	K32¹⁾
30 (100)	K03¹⁾	K13¹⁾	K23	K33
46 (150)	K04¹⁾	K14	K24	K34
61 (200)	K05	K15	K25	K35
91 (300)	K06	K16	K26	K36

Selection and Ordering data	Order No.	Ord. code
SITRANS FUH1010 meter family	7 ME 3 6 0 -	0 -
IP65 (NEMA 4X) enclosure	0	
Dual path precision volume	3	
Custody Transfer option with digital pulse	C	
9 ... 36 V DC power option	B	
RS 232 Standard	0	
RTD required for viscosity comp	3	
Sensor code for path 1	Q	
Sensor code for path 2	Q	
FM approval required	1	
30 m (100 ft) sensor cable for path 1		K 0 3
30 m (100 ft) sensor cable for path 2		K 0 3
30 m (100 ft) cable for RTD		R 0 3

RTD Cable Selection Chart

RTD cable codes for length and type		
Cable length m (ft)	Standard (teflon wrapped)	Submersible (extruded jacket)
	-40 ... +200 °C (-40 ... +392 °F)	-40 ... +200 °C (-40 ... +392 °F)
Order code		
6 (20)	R01¹⁾	R11
15 (50)	R02¹⁾	R12
30 (100)	R03¹⁾	R13
46 (150)	R04	R14
61 (200)	R05	R15
91 (300)	R06	R16

¹⁾ Standard MLFB for quick delivery