


Translation

(1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 15 ATEX E 045 X**
- (4) Equipment: **Sensors type CMF*******
- (5) Manufacturer: **Micro Motion Inc.**
- (6) Address: **7070 Winchester Circle, Boulder, Co. 80301, USA**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the Test and Assessment Report BVS PP 15.2093 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2012 + A11:2013 General requirements**
EN 60079-11:2012 Intrinsic Safety "i"
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

 **II 2G Ex ib IIB/II C T* Gb**
II 2D Ex ib IIIC T* Db
IP 66/67

DEKRA EXAM GmbH
Bochum, dated 2015-05-18

Signed: Wiegand

Certification body

Signed: Dr. Wittler

Special services unit

(13) Appendix to

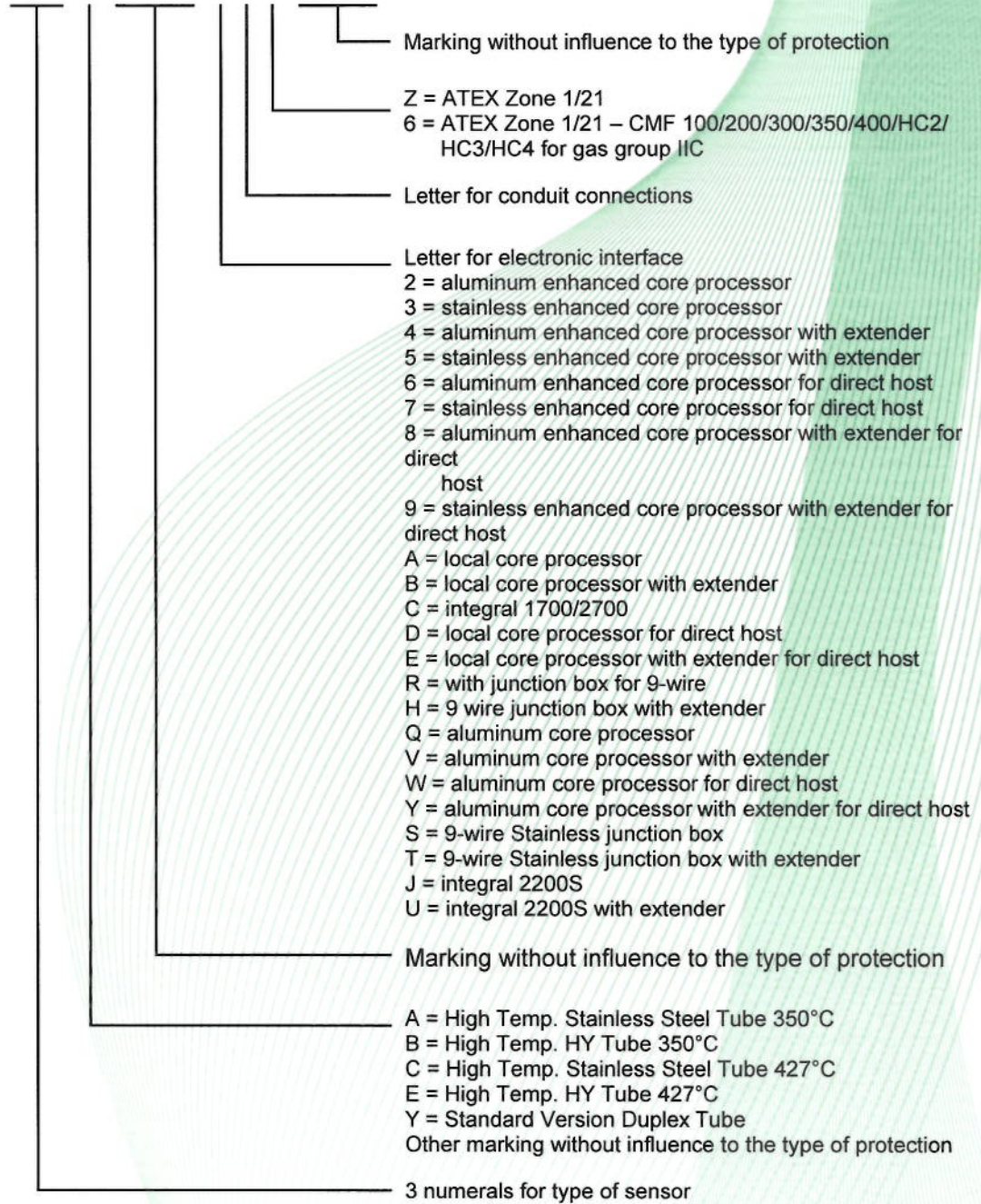
(14) **EC-Type Examination Certificate**
BVS 15 ATEX E 045 X

(15) 15.1 Subject and type

Sensor type CMF*** *****

Instead of the *** in the complete denomination letters and numerals will be inserted which characterize the following variations:

CMF * * * * * * * * * * * * * * *



15.2 Description

The flow sensor in combination with a transmitter is used for flow measurement.

The flow sensor, which consists of magnetically excited oscillating tubes, contains as electrical components coils, resistors, temperature sensors and terminals and connectors.

When used with an integral mounted junction box (BVS 09 ATEX E071 U), the variation gets the denomination CMF***** (S or T)***** for a SS enclosure and CMF***** (R or H)***** for an aluminum enclosure.



- When used with an integral mounted signal processing device type 700 (DMT 01 ATEX 081 U), the variation gets the denomination type CMF*** ***** (A, B, D or E)***** for an SS enclosure and CMF*** ***** (Q, V, W or Y)***** for an aluminum enclosure.



- When used with an integral mounted enhanced signal processing device type 800 (BVS 05 ATEX E 111 U), the variation gets the denomination type CMF*** ***** (3, 5, 7 or 9)***** for a SS enclosure and CMF*** ***** (2, 4, 6 or 8)***** for an aluminum enclosure.



- The high temperature version CMF*** (A, B, C or E)***** can be executed with a junction box or core processor/enhanced core processor or 1700/2700 transmitter or 2200 transmitter ; this variation has therefore always the denomination CMF*** (A, B, C or E)*****. By mounting the sensor directly to the 1700/2700 or 2200S transmitter the use of the unit will be modified.



- When used with an integral transmitter type 2200S (BVS 08 ATEX E 099 X), the variation gets the denomination type CMF***** (J or U)*****. By mounting the sensor directly to the 2200S transmitter the use of the unit will be modified.



Modifications to the design which have impact on the electrical parameters are indicated by a Construction Identification Code (CIC). This code consists of two digits, starting with an A and followed by a sequence number; for example A4. The CIC can be found on the approval label.

The drive coil series resistance for the High Temp Sensors (CMF***A, B, C or E) suitable for IIC applications are identified with a Construction Identification Code (C.I.C.) of A4.


15.3 Parameters


15.3.1 Type CMF***** (R, H, S or T)***** with J-box except CMF*** (A, B, C or E)**** (R, S)*****





15.3.1.1 Drive circuit (connections 1 - 2 or wires red and brown)


Voltage	U_i	DC	11.4	V
Current	I_i		2.45	A
Power	P_i		2.54	W
Effective internal capacitance	C_i		Negligible	
Effective internal inductance	L_i		Per following table	

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF010***** (R,H,S,T)*Z****	(IIC)	2.51	0	945.1	-240

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF025***** (R,H,S,T)*Z****	(IIC)	2.51	0	170.1	-240
CMF050***** (R,H,S,T)*Z****	(IIC)	2.51	0	170.1	-240
CMF100***** (R,H,S,T)*Z****	(IIC)	6.7	58.4	89.0	-40
CMF100***** (R,H,S,T)*Z****	(IIC)	6.7	52.4	89.0	-60
CMF100***** (R,H,S,T)*6****	(IIC)	6.7	0	177.0	-240


Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF200***** (R,H,S,T)*Z****	(IIB)	9.5	85.8	0	-55
CMF200***** (R,H,S,T)*6****	(IIC)	9.5	0	177.0	-240
CMF300***** (R,H,S,T)*Z****	(IIB)	9.5	85.8	0	-55
CMF300***** (R,H,S,T)*6****	(IIC)	9.5	0	177.0	-240


Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF350*****(R,H,S,T)*Z****	(IIB)	11.75	71.4	19.8	-68
CMF350*****(R,H,S,T)*6****	(IIC)	11.75	0	187.1	-240
CMF400*****(R,H,S,T)*Z****	(IIB)	11.75	71.4	19.8	-68
CMF400*****(R,H,S,T)*6****	(IIC)	11.75	0	187.1	-240


Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMFHC2*****(R,H,S,T)*Z****	(IIB)	5.0	19.5	38.5	-50
CMFHC2*****(R,H,S,T)*6****	(IIC)	5.0	0	126.0	-240
CMFHC3*****(R,H,S,T)*Z****	(IIB)	5.0	19.5	38.5	-50
CMFHC3*****(R,H,S,T)*6****	(IIC)	5.0	0	126.0	-240
CMFHC4*****(R,H,S,T)*Z****	(IIB)	5.0	19.5	38.5	-50
CMFHC4*****(R,H,S,T)*6****	(IIC)	5.0	0	126.0	-240
CMFHC*Y*****(R,H,S,T)*Z****	(IIB)	5.0	19.5	38.5	-50/-40
CMFHC*Y*****(R,H,S,T)*6****	(IIC)	5.0	0	126.0	-240/-40


15.3.1.2 Pick-off circuit coil (Terminals 5/9 and 6/8 or wires green/white and blue/grey)


Voltage	U_i	DC	21.13	V
Current	I_i		18.05	mA
Power	P_i		45	mW
Effective internal capacitance	C_i		Negligible	
Effective internal inductance	L_i		Per following table	

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF010*****(R,H,S,T)*Z****	(IIC)	2.51	0	0	-240

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF025*****(R,H,S,T)*Z****	(IIC)	2.51	0	0	-240
CMF050*****(R,H,S,T)*Z****	(IIC)	2.51	0	0	-240
CMF100*****(R,H,S,T)*Z****	(IIC)	0.441	11.1	0	-40
CMF100*****(R,H,S,T)*Z****	(IIC)	0.441	9.9	0	-60
CMF100*****(R,H,S,T)*6****	(IIC)	0.441	0	0	-240

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF200*****(R,H,S,T)*Z****	(IIB)	0.6	21.14	0 to 567.9	-55
CMF200*****(R,H,S,T)*6****	(IIC)	0.6	0	0 to 567.9	-240
CMF300*****(R,H,S,T)*Z****	(IIB)	0.6	21.14	0 to 567.9	-55
CMF300*****(R,H,S,T)*6****	(IIC)	0.6	0	0 to 567.9	-240


Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp (°C)
CMF350*****(R,H,S,T)*Z****	(IIB)	12.4	109.8	0 to 566.4	-68
CMF350*****(R,H,S,T)*6****	(IIC)	12.4	0	0 to 566.4	-240
CMF400*****(R,H,S,T)*Z****	(IIB)	12.4	109.8	0 to 566.4	-68
CMF400*****(R,H,S,T)*6****	(IIC)	12.4	0	0 to 566.4	-240

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp (°C)
CMFHC2*****(R,H,S,T)*Z****	(IIB)	2.8	49.2	42.6 to 566.4	-50
CMFHC2*****(R,H,S,T)*6****	(IIC)	2.8	0	198.4 to 566.4	-240
CMFHC3*****(R,H,S,T)*Z****	(IIB)	2.8	49.2	42.6 to 566.4	-50
CMFHC3*****(R,H,S,T)*6****	(IIC)	2.8	0	198.4 to 566.4	-240
CMFHC4*****(R,H,S,T)*Z****	(IIB)	2.8	49.2	42.6 to 566.4	-50
CMFHC4*****(R,H,S,T)*6****	(IIC)	2.8	0	198.4 to 566.4	-240
CMFHC*Y*****(R,H,S,T)*Z****	(IIB)	2.8	49.2	42.6 to 566.4	-50/-40
CMFHC*Y*****(R,H,S,T)*6****	(IIC)	2.8	0	198.4 to 566.4	-240/-40

15.3.1.3 Temperature circuit (terminals 3, 4 and 7 or wires orange, yellow and violet)

Voltage	U_i	DC	21.13	V
Current	I_i		26	mA
Power	P_i		112	mW
Effective internal capacitance	C_i		Negligible	
Effective internal inductance	L_i		Negligible	



Identification resistor circuit (terminals 3 and 4 or wires orange and yellow)

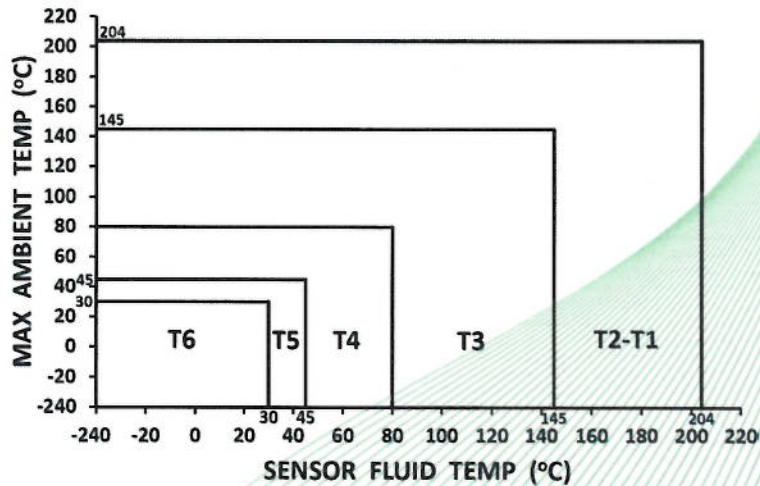
Sensor type		Inductance (mH)	Coil Resistance (Ω)	Serial Resistor (Ω)	Minimum Ambient/Fluid Temp (°C)
CMF350*****(R,H,S,T)*Z****	(IIB)	N/A	N/A	39,7 to 42,2	-68
CMF350*****(R,H,S,T)*6****	(IIC)	N/A	N/A	39,7 to 42,2	-240
CMF400*****(R,H,S,T)*Z****	(IIB)	N/A	N/A	39,7 to 42,2	-68
CMF400*****(R,H,S,T)*6****	(IIC)	N/A	N/A	39,7 to 42,2	-240

15.3.1.4 Temperature class/ maximum surface temperature T

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and is shown in the following graphs:

15.3.1.4.1

			
Sensor type		Sensor type	
CMF010*****(R,H,S,T)*Z****	(IIC)	CMF025*****(R,H,S,T)*Z****	(IIC)
		CMF050*****(R,H,S,T)*Z****	(IIC)
Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series			



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

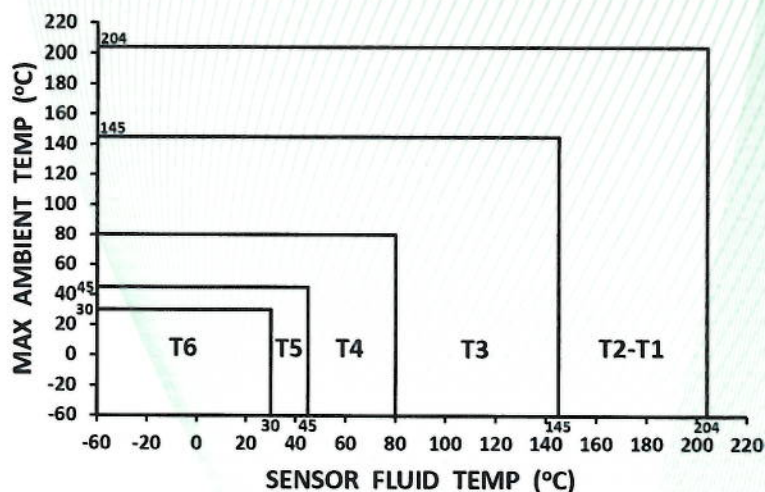
Ambient temperature range

T_a

see graph

15.3.1.4.2

			
Sensor type		Sensor type	
CMF100*****(R,H,S,T)*Z****	(IIC)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C.



Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

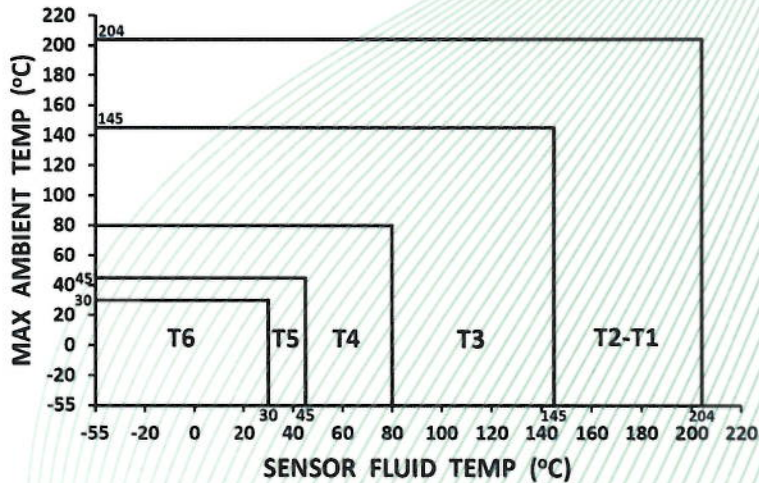
Ambient temperature range

T_a

see graph

15.3.1.4.3

			
Sensor type			
CMF200*****(R,H,S,T)*Z****	(IIB)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series	
CMF300*****(R,H,S,T)*Z****	(IIB)		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C.



Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

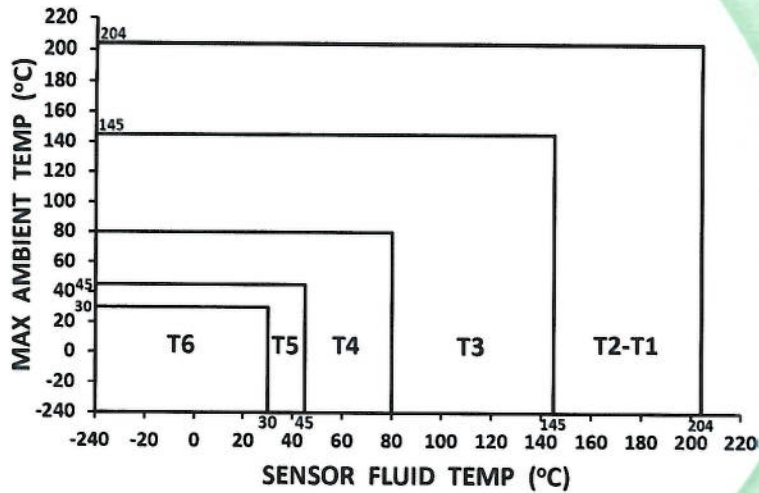
Ambient temperature range

T_a

see graph

15.3.1.4.4

			
Sensor type		Sensor type	
CMF100*****(R,H,S,T)*6****	(IIC)	CMF200*****(R,H,S,T)*7****	(IIC)
		CMF300*****(R,H,S,T)*7****	(IIC)
Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series			



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

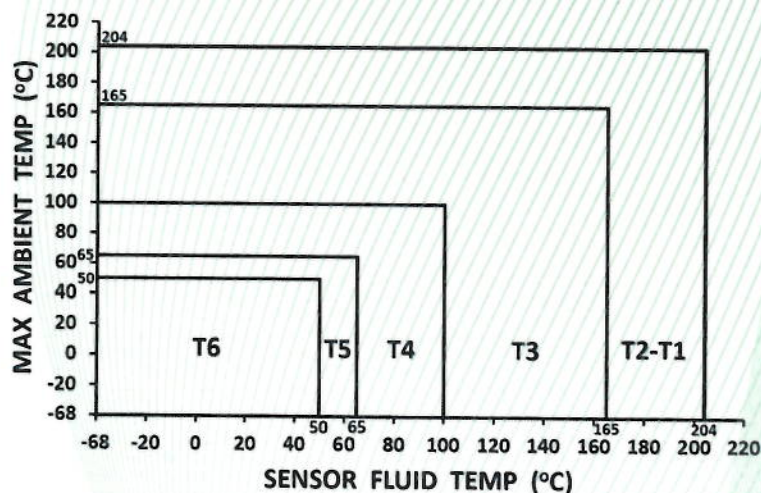
Ambient temperature range

T_a

see graph

15.3.1.4.5

Sensor type			
CMF350****(R,H,S,T)*Z****	(IIB)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series	
CMF350****(R,H,S,T)*6****	(IIC)		
CMF400****(R,H,S,T)*Z****	(IIB)		
CMF400****(R,H,S,T)*6****	(IIC)		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: to T1:T 234 °C.


Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

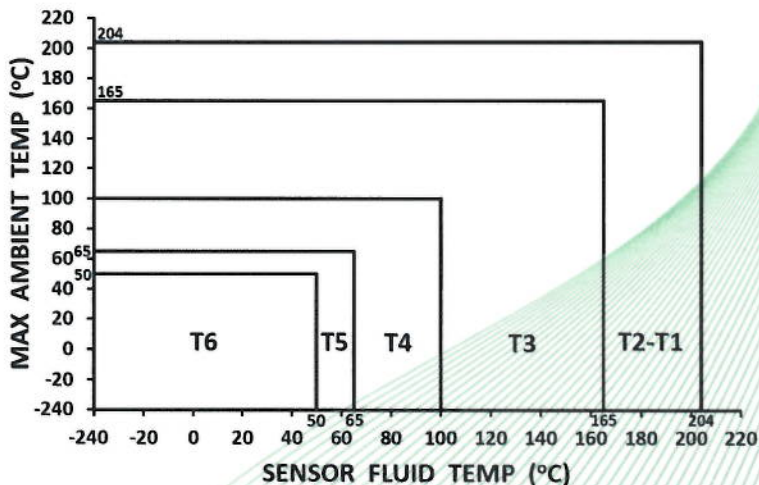
Ambient temperature range

T_a

see graph

15.3.1.4.6

			
Sensor type			
CMF350*****(R,H,S,T)*7****	(IIC)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series	
CMF400*****(R,H,S,T)*7****	(IIC)		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: to T1:T 234 °C.



Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

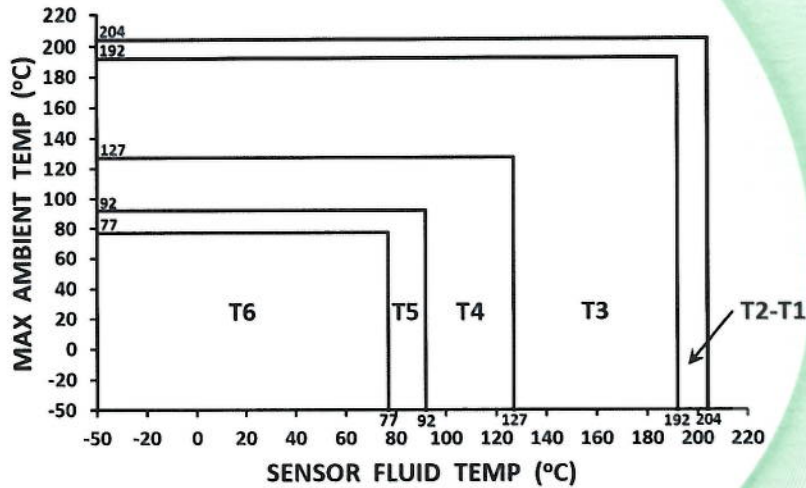
Ambient temperature range

T_a

see graph

15.3.1.4.7

			
Sensor type			
CMFHC2*****(R,H,S,T)*Z****	(IIB)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series	
CMFHC3*****(R,H,S,T)*Z****	(IIB)		
CMFHC4*****(R,H,S,T)*Z****	(IIB)		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

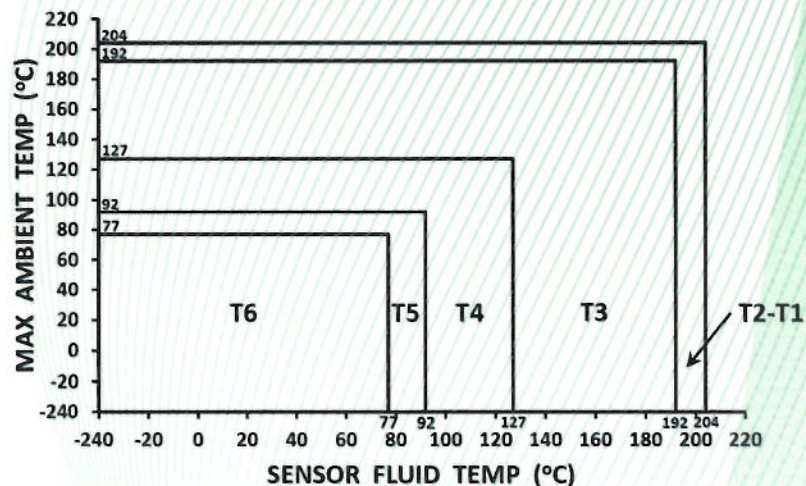
Ambient temperature range

T_a

see graph

15.3.1.4.8

Sensor type	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series
CMFHC2*****(R,H,S,T)*G****	(IIC)
CMFHC3*****(R,H,S,T)*G****	(IIC)
CMFHC4*****(R,H,S,T)*G****	(IIC)



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6: T 80 °C, T5: T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient and process fluid temperature allowed for dust is -50 °C.

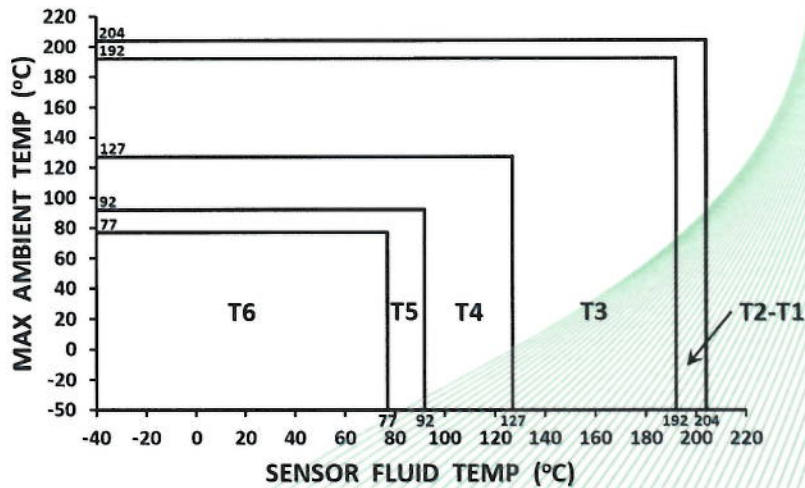
Ambient temperature range

T_a

see graph

15.3.1.4.9

		
Sensor type	(IIB)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series
CMFHC*Y****(R,H,S,T)*Z****		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

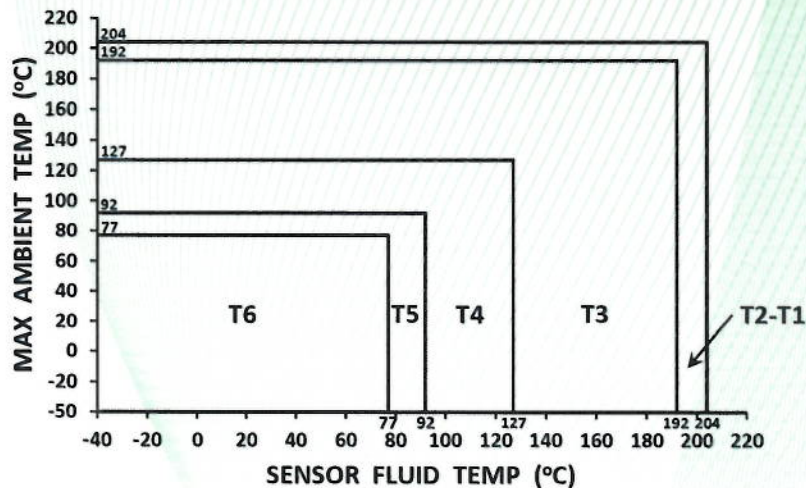
Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Note 3: The minimum ambient temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient temperature allowed for dust is -50 °C.

Ambient temperature range T_a see graph

15.3.1.4.10

		
Sensor type	(IIC)	Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series
CMFHC*Y****(R,H,S,T)*6****		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6: T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.


Note 3: The minimum ambient temperature allowed for dust is -40 °C. When marked with ETO 18748 the minimum ambient temperature allowed for dust is -50 °C.

Ambient temperature range T_a see graph

15.3.2 Type CMF*** (A, B, C or E)**** (R or S)***** with J-box


15.3.2.1 Drive circuit (connections 1 - 2 or wires red and brown)

Voltage	U_i	DC	11.4	V
Current	I_i		2.45	A
Power	P_i		2.54	W
Effective internal capacitance	C_i		Negligible	
Effective internal inductance	L_i		Per following table	

Sensor type		Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient / Fluid Temp ($^{\circ}\text{C}$)
CMF200(A,B,C,E)**** (R,S)*Z****	(IIB)	4.0	32.3	19.8	-50
CMF200(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	4.0	32.3	88.9	-50
CMF300(A,B,C,E)**** (R,S)*Z****	(IIB)	4.0	32.3	19.8	-50
CMF300(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	4.0	32.3	88.9	-50
CMF350(A,B,C,E)**** (R,S)*Z****	(IIB)	7.75	54.3	19.8	-50
CMF350(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	7.75	54.3	106.7	-50
CMF400(A,B,C,E)**** (R,S)*Z****	(IIB)	7.75	54.3	19.8	-50
CMF400(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	7.75	54.3	106.7	-50
CMFHC2(A,B,C,E)**** (R,S)*Z****	(IIB)	7.75	54.3	24.7	-50
CMFHC2(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	7.75	54.3	106.7	-50
CMFHC3(A,B,C,E)**** (R,S)*Z****	(IIB)	7.75	54.3	24.7	-50
CMFHC3(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	7.75	54.3	106.7	-50
CMFHC4(A,B,C,E)**** (R,S)*Z****	(IIB)	5.95	51.3	12.8	-50
CMFHC4(A,B,C,E)**** (R,S)*Z**** CIC A4	(IIC)	5.95	51.3	88.9	-50

15.3.2.2 Pick-off circuit (Terminals 5/9 and 6/8 or wires green/white and blue/grey)


Voltage	U_i	DC	21.13	V
Current	I_i		18.05	mA
Power	P_i		45	mW
Effective internal capacitance	C_i		Negligible	
Effective internal inductance	L_i		Per following table	

Sensor type:			Inductance (mH)	Coil Resistance (Ω)	Series Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF200(A,B,C,E)****(R,S)*Z****		(IIB)	1.25	15.4	569.2	-50
CMF200(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	1.25	15.4	569.2	-50
CMF300(A,B,C,E)****(R,S)*Z****		(IIB)	1.25	15.4	569.2	-50
CMF300(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	1.25	15.4	569.2	-50
CMF350(A,B,C,E)****(R,S)*Z****		(IIB)	6.50	41.1	569.2	-50
CMF350(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	6.50	41.1	569.2	-50
CMF400(A,B,C,E)****(R,S)*Z****		(IIB)	6.50	41.1	569.2	-50
CMF400(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	6.50	41.1	569.2	-50
CMFHC2(A,B,C,E)****(R,S)*Z****		(IIB)	0.85	9.1	42.6	-50
CMFHC2(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	0.85	9.1	42.6	-50
CMFHC3(A,B,C,E)****(R,S)*Z****		(IIB)	0.85	9.1	42.6	-50
CMFHC3(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	0.85	9.1	42.6	-50
CMFHC4(A,B,C,E)****(R,S)*Z****		(IIB)	0.85	9.1	42.6	-50
CMFHC4(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	0.85	9.1	42.6	-50

15.3.2.3 Temperature circuit (terminals 3, 4 and 7 or wires orange, yellow and violet)

Voltage	U _i	DC	21.13	V
Current	I _i		26	mA
Power	P _i		112	mW
Effective internal capacitance	C _i		Negligible	
Effective internal inductance	L _i		Negligible	
Effective internal inductance	L _i		Per following table	

Identification resistor circuit (terminals 3 and 4 or wires orange and yellow)

Sensor type			Inductance (mH)	Coil Resistance (Ω)	Serial Resistor (Ω)	Minimum Ambient/Fluid Temp ($^{\circ}\text{C}$)
CMF350(A,B,C,E)****(R,S)*Z****		(IIB)	N/A	N/A	39.7 to 42.2	-50
CMF350(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	N/A	N/A	39.7 to 42.2	-50
CMF400(A,B,C,E)****(R,S)*Z****		(IIB)	N/A	N/A	39.7 to 42.2	-50
CMF400(A,B,C,E)****(R,S)*Z**** CIC A4		(IIC)	N/A	N/A	39.7 to 42.2	-50

15.3.2.4 Temperature class/ maximum surface temperature T

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and is shown in the following graphs:

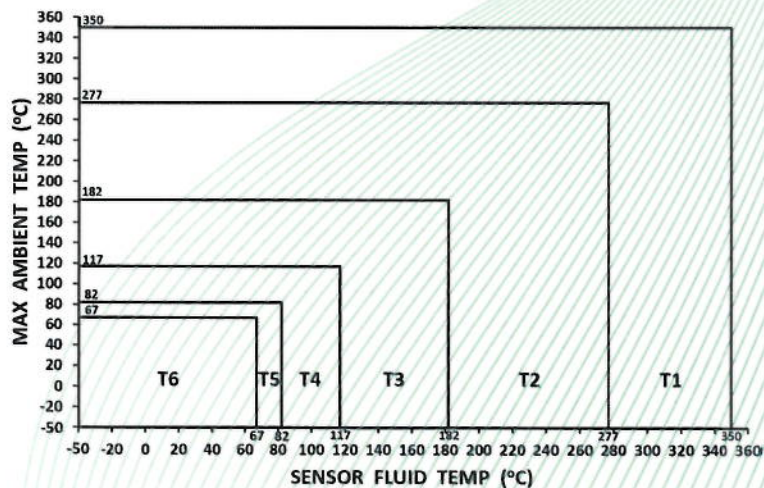
15.3.2.4.1



Sensor type

CMF200(A,B)****(R,S)*Z****	(IIB)
CMF200(A,B)****(R,S)*Z**** CIC A4	(IIC)
CMF300(A,B)****(R,S)*Z****	(IIB)
CMF300(A,B)****(R,S)*Z**** CIC A4	(IIC)
CMF350(A,B)****(R,S)*Z****	(IIB)
CMF350(A,B)****(R,S)*Z**** CIC A4	(IIC)
CMF400(A,B)****(R,S)*Z****	(IIB)
CMF400(A,B)****(R,S)*Z**** CIC A4	(IIC)
CMFHC2(A,B)****(R,S)*Z****	(IIB)
CMFHC2(A,B)****(R,S)*Z**** CIC A4	(IIC)
CMFHC3(A,B)****(R,S)*Z****	(IIB)
CMFHC3(A,B)****(R,S)*Z**** CIC A4	(IIC)
CMFHC4(A,B)****(R,S)*Z****	(IIB)
CMFHC4(A,B)****(R,S)*Z**** CIC A4	(IIC)

Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2:T 290 °C, T1:T 363 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.



Note 4: The Junction Box is 1 meter away from the sensor by means of flexible stainless steel hose.

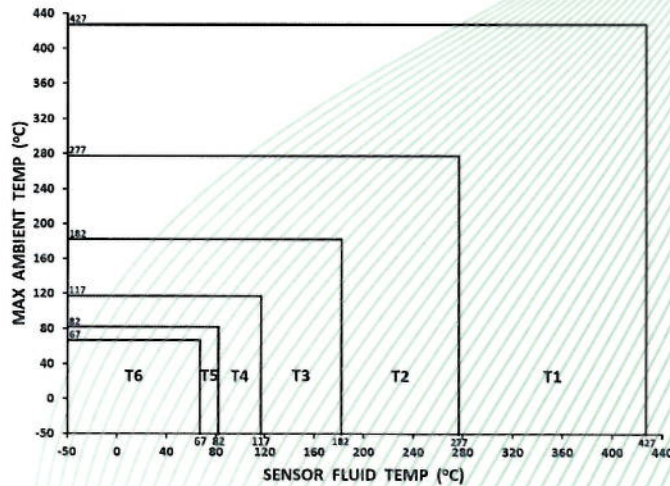
Ambient temperature range

T_a

see graph

15.3.2.4.2

			
Sensor type		Connected to 9739MVD and MVD transmitters, e.g. 1000/2000/3000MVD series and 4000/5000 series	
CMF200(C,E)****(R,S)*Z****	(IIB)		
CMF200(C, E)****(R,S)*Z**** CIC A4	(IIC)		
CMF300(C,E)****(R,S)*Z****	(IIB)		
CMF300(C,E)****(R,S)*Z**** CIC A4	(IIC)		
CMF350(C,E)****(R,S)*Z****	(IIB)		
CMF350(C,E)****(R,S)*Z**** CIC A4	(IIC)		
CMF400(C,E)****(R,S)*Z****	(IIB)		
CMF400(C,E)****(R,S)*Z**** CIC A4	(IIC)		
CMFHC2(C,E)****(R,S)*Z****	(IIB)		
CMFHC2(C,E)****(R,S)*Z**** CIC A4	(IIC)		
CMFHC3(C,E)****(R,S)*Z****	(IIB)		
CMFHC3(C,E)****(R,S)*Z**** CIC A4	(IIC)		
CMFHC4(C,E)****(R,S)*Z****	(IIB)		
CMFHC4(C,E)****(R,S)*Z**** CIC A4	(IIC)		



- Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.
- Note 2: The maximum surface temperature T for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2:T 290 °C, T1:T 440 °C.
- Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.
- Note 4: The Junction Box is 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

15.3.3 Type CMF***** (2-9, A, B, D, E, Q, V, W or Y)***** with integral core-processor, except type CMF*** (A,B,C,E)**** (2, 3, 6, 7, A, D, Q or W)*****







15.3.3.1 Input circuits (terminals 1-4)

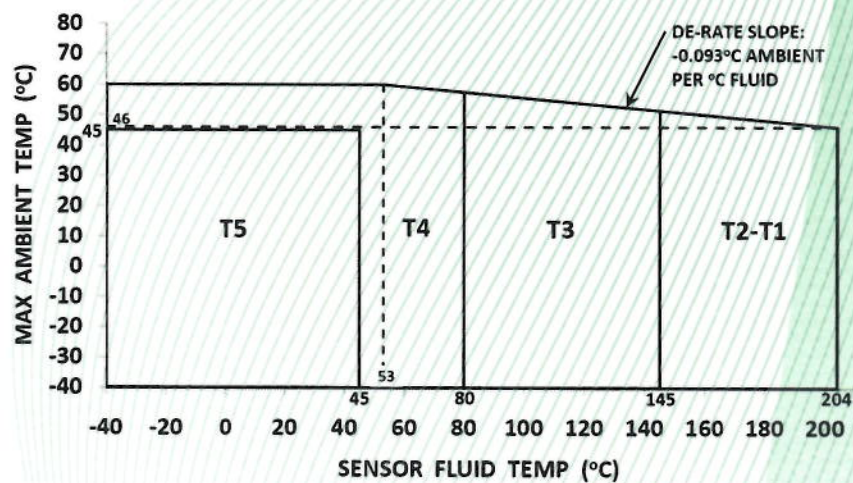
Voltage	U_i	DC	17.3	V
Current	I_i		484	mA
Power	P_i		2.1	W
Effective internal capacitance	C_i		2200	pF
Effective internal inductance	L_i		30	μ H

15.3.3.2 Temperature class/ maximum surface temperature T

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and are shown in the following graph:

15.3.3.2.1

				
Sensor type	CMF010	CMF100	CMF200/300	
CMF010*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****			(IIC)	With integral core processor
CMF025*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****			(IIC)	
CMF050*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****			(IIC)	
CMF100*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****			(IIC)	
CMF200*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****			(IIB)	
CMF200*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****			(IIC)	
CMF300*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****			(IIB)	
CMF300*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****			(IIC)	





Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

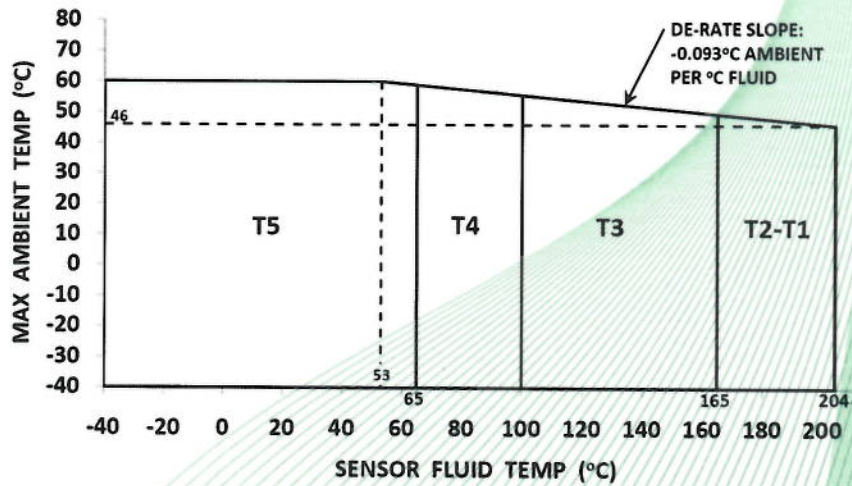
Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Ambient temperature range T_a -40 °C to +60 °C

15.3.3.2.2

		
Sensor type		
CMF350*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****	(IIB)	With integral core processor
CMF350*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****	(IIC)	
CMF400*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****	(IIB)	
CMF400*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****	(IIC)	





Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

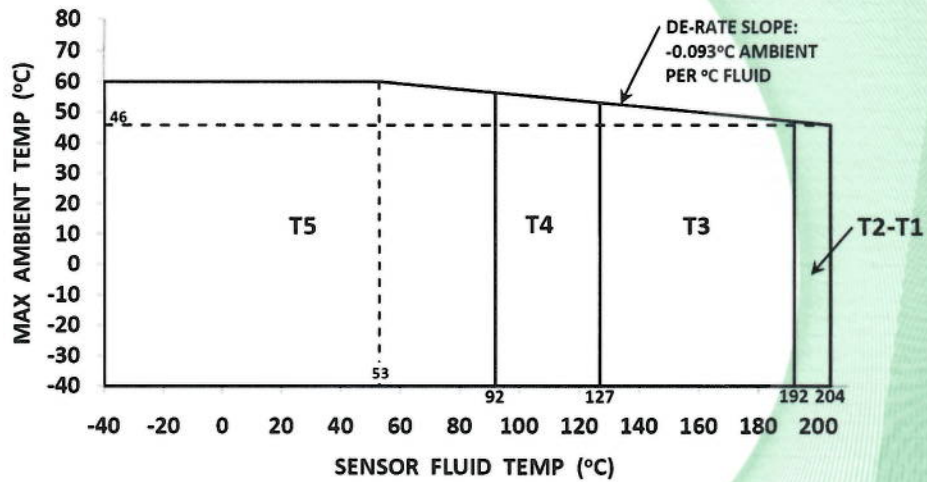
Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 234 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Ambient temperature range T_a -40 °C to +60 °C

15.3.3.2.3

		
Sensor type		
CMFHC2*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****	(IIB)	With integral core processor
CMFHC2*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****	(IIC)	
CMFHC3*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****	(IIB)	
CMFHC3*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****	(IIC)	
CMFHC4*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****	(IIB)	
CMFHC4*****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****	(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

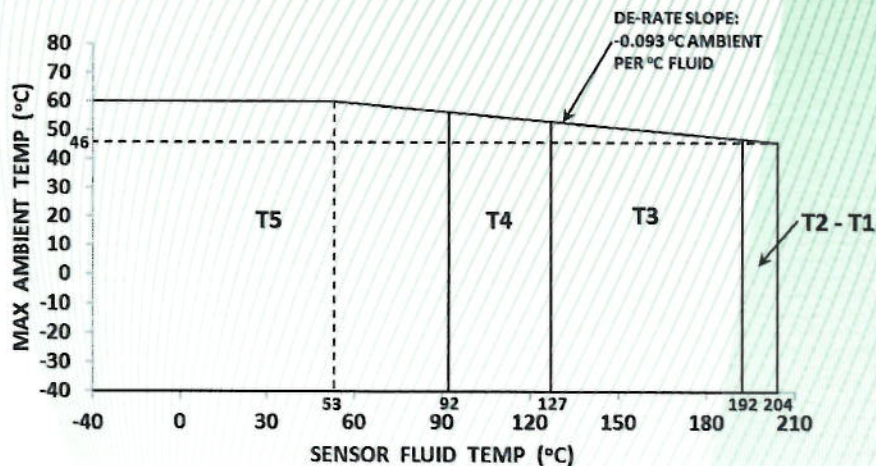
Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Ambient temperature range T_a -40 °C to +60 °C

15.3.3.2.4

Sensor type	
CMFHC*Y****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*Z****	(IIB) With integral core processor
CMFHC*Y****(2,3,4,5,6,7,8,9,A,B,D,E,Q,V,W,Y)*6****	(IIC) With integral core processor



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Ambient temperature range T_a -40 °C to +60 °C

15.3.4 Type CMF***(A, B, C or E)****(2, 3, 6, 7, A, D, Q or W)***** with integral core processor.





15.3.4.1 Input circuits (terminals 1-4)

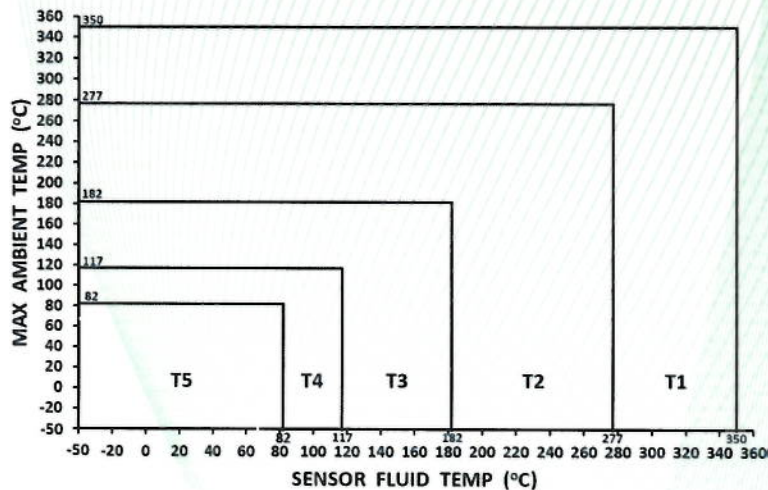
Voltage	U_i	DC	17.3	V
Current	I_i		484	mA
Power	P_i		2.1	W
Effective internal capacitance	C_i		2200	pF
Effective internal inductance	L_i		30	μ H

15.3.4.2 Temperature class/ maximum surface temperature T

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and is shown in the following graph:

15.3.4.2.1

		
Sensor type		
CMF200(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	With integral core processor
CMF200(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMF300(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMF300(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMF350(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMF350(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMF400(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMF400(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMFHC2(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMFHC2(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMFHC3(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMFHC3(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMFHC4(A,B)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMFHC4(A,B)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 363 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.



Note 4: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

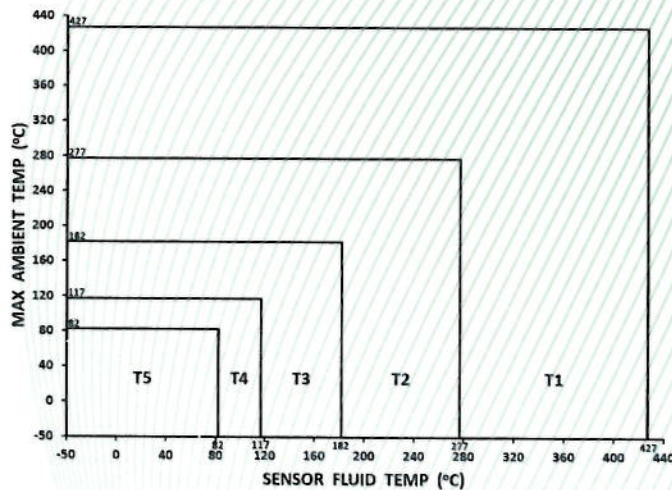
Ambient temperature range

T_a

see graph

15.3.4.2.2

		
Sensor type		
CMF200(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	With integral core processor
CMF200(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMF300(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMF300(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMF350(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMF350(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMF400(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMF400(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMFHC2(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMFHC2(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMFHC3(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMFHC3(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	
CMFHC4(C,E)****(2,3,6,7,A,D,Q,W)*I****	(IIB)	
CMFHC4(C,E)****(2,3,6,7,A,D,Q,W)*I**** CIC A4	(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 440 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Note 4: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range

T_a

see graph

15.3.5 Type CMF^{***}(A, B, C or E)^{****}C*^{1****} High-temperature sensor with integral 1700/2700 transmitter



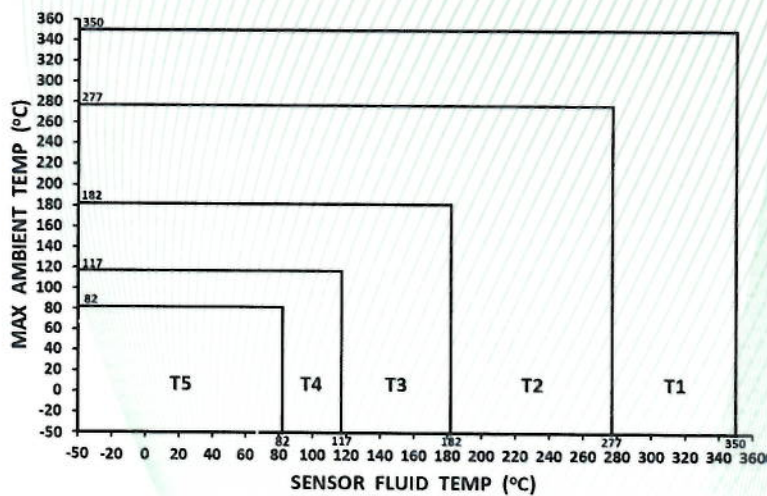
15.3.5.1 Electrical parameters see BVS PP 01.2061 EG for the transmitter type *700*****

15.3.5.2 Temperature class/maximum surface temperature T

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and is shown in the following graph:

15.3.5.2.1

Sensor type		
CMF200(A,B) ^{****} C* ^{Z****}	(IIB)	With Integral 1700/2700 Transmitter
CMF200(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	
CMF300(A,B) ^{****} C* ^{Z****}	(IIB)	
CMF300(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	
CMF350(A,B) ^{****} C* ^{Z****}	(IIB)	
CMF350(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	
CMF400(A,B) ^{****} C* ^{Z****}	(IIB)	
CMF400(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	
CMFHC2(A,B) ^{****} C* ^{Z****}	(IIB)	
CMFHC2(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	
CMFHC3(A,B) ^{****} C* ^{Z****}	(IIB)	
CMFHC3(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	
CMFHC4(A,B) ^{****} C* ^{Z****}	(IIB)	
CMFHC4(A,B) ^{****} C* ^{Z****} CIC A4	(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

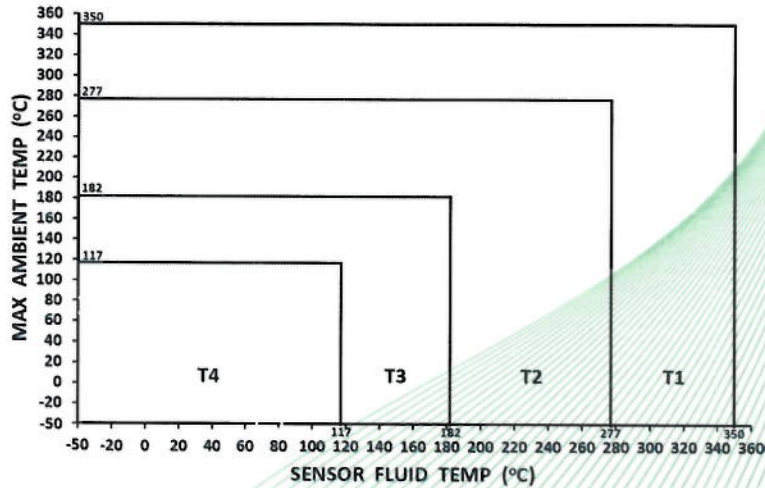
Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 363 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Note 4: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

When used with 1700/2700 Transmitter with Wireless HART Output Option Code "4" (*700*1*4*****):



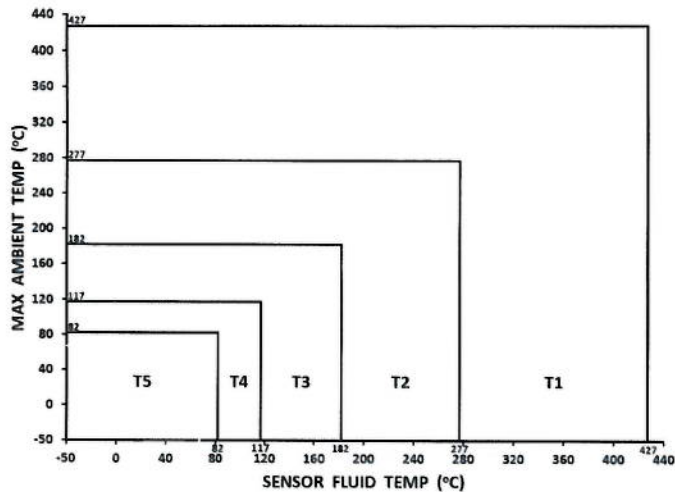
Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

15.3.5.2.2

Sensor type		
CMF200(C,E)****C*Z****	(IIB)	With Integral 1700/2700 Transmitter
CMF200(C,E)****C*Z**** CIC A4	(IIC)	
CMF300(C,E)****C*Z****	(IIB)	
CMF300(C,E)****C*Z**** CIC A4	(IIC)	
CMF350(C,E)****C*Z****	(IIB)	
CMF350(C,E)****C*Z**** CIC A4	(IIC)	
CMF400(C,E)****C*Z****	(IIB)	
CMF400(C,E)****C*Z**** CIC A4	(IIC)	
CMFHC2(C,E)****C*Z****	(IIB)	
CMFHC2(C,E)****C*Z**** CIC A4	(IIC)	
CMFHC3(C,E)****C*Z****	(IIB)	
CMFHC3(C,E)****C*Z**** CIC A4	(IIC)	
CMFHC4(C,E)****C*Z****	(IIB)	
CMFHC4(C,E)****C*Z**** CIC A4	(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

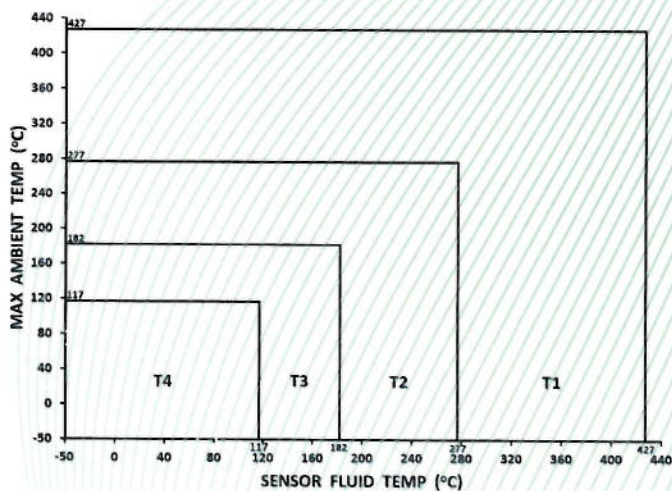
Note 2: The maximum surface temperature T for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 440 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Note 4: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

When used with 1700/2700 Transmitter with Wireless HART Output Option Code "4" (*700*1*4*****):



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

15.3.6 Type CMF***** (J or U)***** with 2200S transmitter except type CMF*** (A, B, C or E)*** J*****.





15.3.6.1 Input circuits (terminals 1-2)

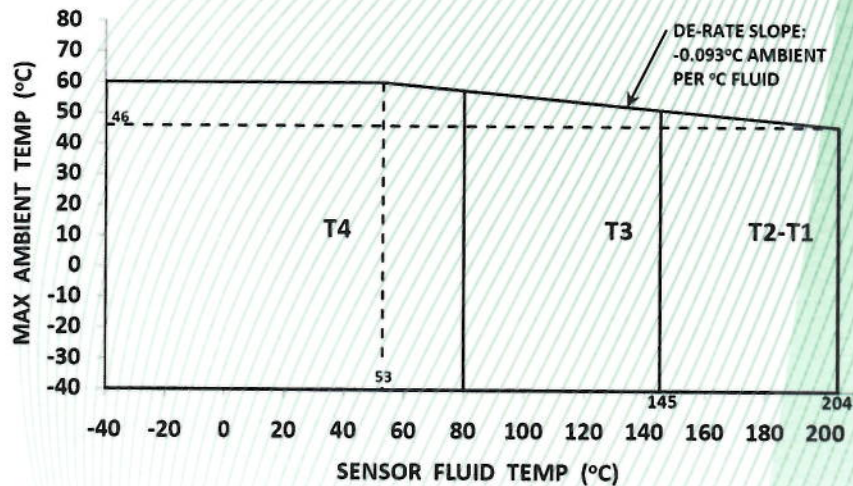
Voltage	U_i	DC	28	V
Current	I_i		120	mA
Power	P_i		0.84	W
Effective internal capacitance	C_i		2200	pF
Effective internal inductance	L_i		45	μ H

15.3.6.2 Temperature class/ maximum surface temperature T

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and are shown in the following graphs:

15.3.6.2.1

Sensor type				
	CMF010	CMF100	CMF200/300	
CMF010*****(J,U)*Z****			(IIC)	With integral 2200S
CMF025*****(J,U)*Z****			(IIC)	
CMF050*****(J,U)*Z****			(IIC)	
CMF100*****(J,U)*Z****			(IIC)	
CMF200*****(J,U)*Z****			(IIB)	
CMF200*****(J,U)*6****			(IIC)	
CMF300*****(J,U)*Z****			(IIB)	
CMF300*****(J,U)*6****			(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.



Note 2: The maximum surface temperature T for dust is as follows: T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C.

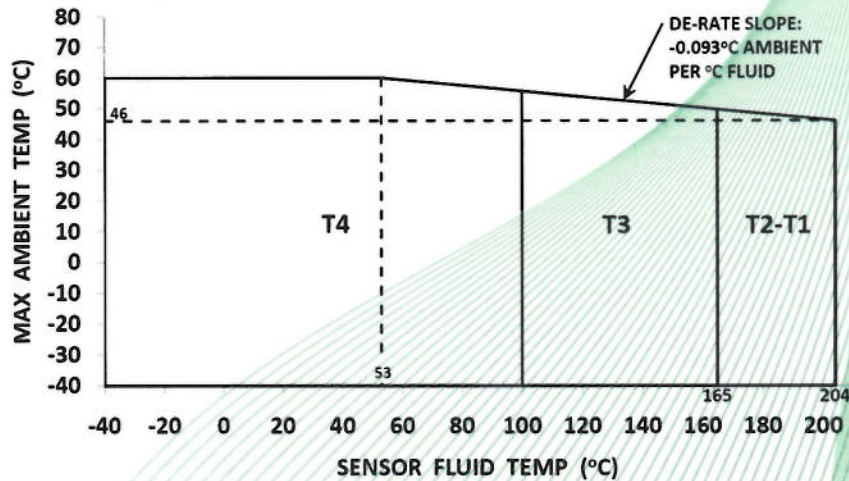
Ambient temperature range

T_a

-40°C to +60°C

15.3.6.2.2

		
Sensor type		With integral 2200S
CMF350*****(J,U)*Z****	(IIB)	
CMF350*****(J,U)*6****	(IIC)	
CMF400*****(J,U)*Z****	(IIB)	
CMF400*****(J,U)*6****	(IIC)	





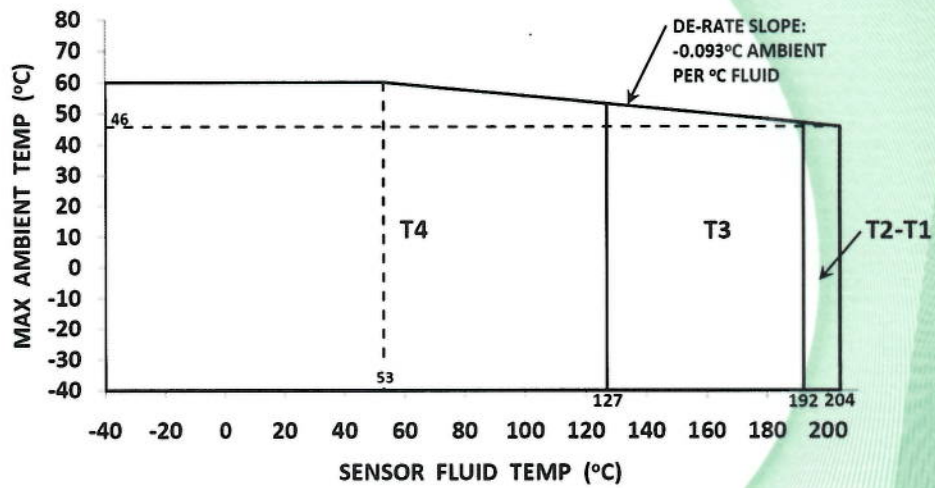
Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T4:T 130 °C, T3:T 195 °C, T2 to T1:T 234 °C.

Ambient temperature range T_a -40 °C to +60 °C

15.3.6.2.3

		
Sensor type		With integral 2200S
CMFHC2*****(J,U)*Z****	(IIB)	
CMFHC2*****(J,U)*6****	(IIC)	
CMFHC3*****(J,U)*Z****	(IIB)	
CMFHC3*****(J,U)*6****	(IIC)	
CMFHC4*****(J,U)*Z****	(IIB)	
CMFHC4*****(J,U)*6****	(IIC)	





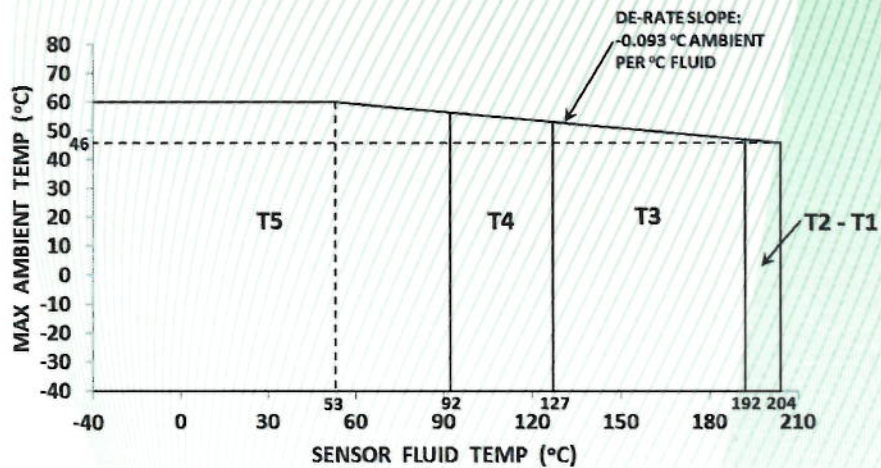
Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Ambient temperature range T_a $-40\text{ °C to }+60\text{ °C}$

15.3.6.2.4

	
Sensor type	
CMFHC*Y****(J,U)*I****	(IIB)
CMFHC*Y****(J,U)*7****	(IIC)
With integral 2200S	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T4:T 130 °C, T3:T 195 °C, T2 to T1:T 207 °C.

Ambient temperature range T_a $-40\text{ °C to }+60\text{ °C}$

15.3.7 Type CMF***(A, B, C or E)****J***** with integral 2200S transmitter



15.3.7.1 Input circuits (terminals 1-2)

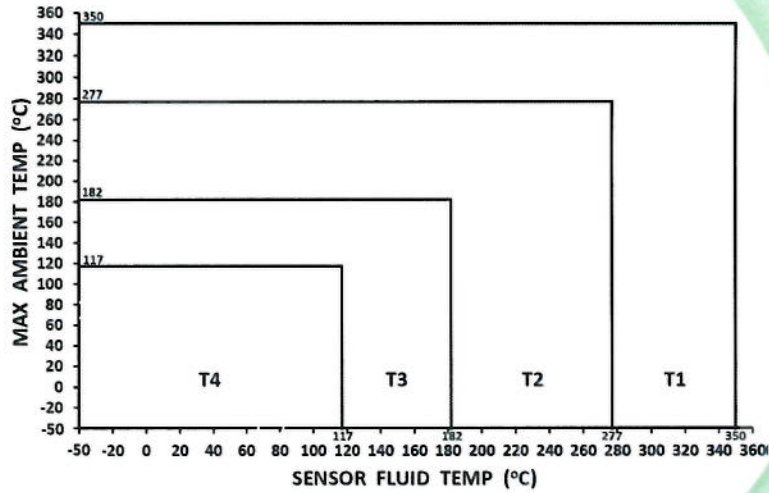
Voltage	U_i	DC	28	V
Current	I_i		120	mA
Power	P_i		0.84	W
Effective internal capacitance	C_i		2200	pF
Effective internal inductance	L_i		45	μ H

15.3.7.2 Temperature class/ maximum surface temperature T.

The classification into a temperature class/determination of the maximum surface temperature T depends on the temperature of the medium taking into account the maximum operating temperature of the sensor and is shown in the following graph:

15.3.7.2.1

Sensor type		With integral 2200S
CMF200(A,B)****J* ****	(IIB)	
CMF200(A,B)****J* **** CIC A4	(IIC)	
CMF300(A,B)****J* ****	(IIB)	
CMF300(A,B)****J* **** CIC A4	(IIC)	
CMF350(A,B)****J* ****	(IIB)	
CMF350(A,B)****J* **** CIC A4	(IIC)	
CMF400(A,B)****J* ****	(IIB)	
CMF400(A,B)****J* **** CIC A4	(IIC)	
CMFH2(A,B)****J* ****	(IIB)	
CMFH2(A,B)****J* **** CIC A4	(IIC)	
CMFH3(A,B)****J* ****	(IIB)	
CMFH3(A,B)****J* **** CIC A4	(IIC)	
CMFH4(A,B)****J* ****	(IIB)	
CMFH4(A,B)****J* **** CIC A4	(IIC)	



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.



Note 2: The maximum surface temperature T for dust is as follows: T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 363 °C.

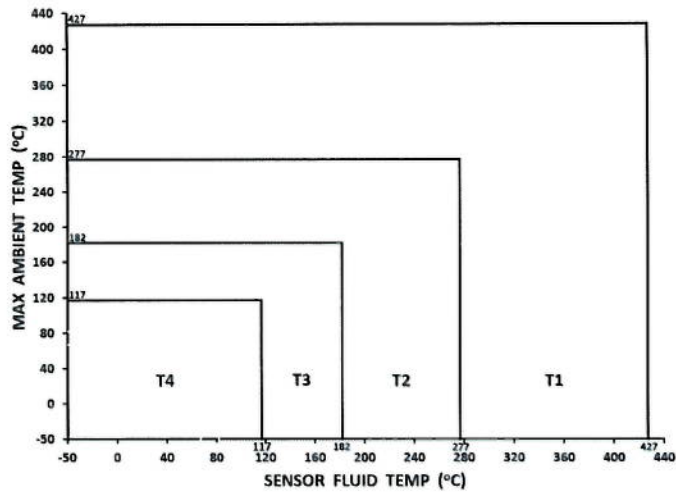
Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Note 4: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

15.3.7.2.2

			
Sensor type			
CMF200(C,E)****J* ****	(IIB)	With integral 2200S	
CMF200(C,E)****J* **** CIC A4	(IIC)		
CMF300(C,E)****J* ****	(IIB)		
CMF300(C,E)****J* **** CIC A4	(IIC)		
CMF350(C,E)****J* ****	(IIB)		
CMF350(C,E)****J* **** CIC A4	(IIC)		
CMF400(C,E)****J* ****	(IIB)		
CMF400(C,E)****J* **** CIC A4	(IIC)		
CMFH2(C,E)****J* ****	(IIB)		
CMFH2(C,E)****J* **** CIC A4	(IIC)		
CMFH3(C,E)****J* ****	(IIB)		
CMFH3(C,E)****J* **** CIC A4	(IIC)		
CMFH4(C,E)****J* ****	(IIB)		
CMFH4(C,E)****J* **** CIC A4	(IIC)		



Note 1: Use the above graph to determine the temperature class for a given fluid and ambient temperature.

Note 2: The maximum surface temperature T for dust is as follows: T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 440 °C.

Note 3: The minimum ambient and process fluid temperature allowed for dust is -40 °C.

Note 4: The electronics are 1 meter away from the sensor by means of flexible stainless steel hose.

Ambient temperature range T_a see graph

(16) Test and Assessment Report

BVS PP 15.2093 EG as of 2015-05-18

(17) Special conditions for safe use

17.1 By mounting the sensor type CMF***** (J,U)***** directly to the transmitter 22**S***** the use of the unit will be modified according to the following:



	CMF010*****(J,U)*Z**** CMF025*****(J,U)*Z**** CMF050*****(J,U)*Z**** CMF100*****(J,U)*Z**** CMF200*****(J,U)*6**** CMF300*****(J,U)*6**** CMF350*****(J,U)*6**** CMF400*****(J,U)*6**** CMFHC2*****(J,U)*6**** CMFHC3*****(J,U)*6**** CMFHC4*****(J,U)*6**** CMFHC*Y*****(J,U)*6**** CMF200(A,B,C,E)****J*Z**** CIC A4 CMF300(A,B,C,E)****J*Z**** CIC A4 CMF350(A,B,C,E)****J*Z**** CIC A4 CMF400(A,B,C,E)****J*Z**** CIC A4 CMFHC2(A,B,C,E)****J*Z**** CIC A4 CMFHC3(A,B,C,E)****J*Z**** CIC A4 CMFHC4(A,B,C,E)****J*Z**** CIC A4	CMF200*****(J,U)*Z**** CMF300*****(J,U)*Z**** CMF400*****(J,U)*Z**** CMFHC2*****(J,U)*Z**** CMFHC3*****(J,U)*Z**** CMFHC4*****(J,U)*Z**** CMFHC*Y*****(J,U)*Z**** CMF200(A,B,C,E)****J*Z**** CMF300(A,B,C,E)****J*Z**** CMF350(A,B,C,E)****J*Z**** CMF400(A,B,C,E)****J*Z**** CMFHC2(A,B,C,E)****J*Z**** CMFHC3(A,B,C,E)****J*Z**** CMFHC4(A,B,C,E)****J*Z****
Transmitter type 2200S*(H or K)*1*****	Ex ib IIC T4...T1 Ex ibD 21 T ³) °C	Ex ib IIB T4...T1 Ex ibD 21 T ³) °C
Transmitter type 2200S*(5 or 6)*1*****	Ex ib IIC T4..T1	Ex ib IIB T4..T1

3) Max. surface temperature T for dust for types CMF***** see temperature graphs and manufacturer's instructions.

17.2 By mounting the sensor type CMF*****C***** directly to the transmitter *700***** the use of the unit will be modified according to the following:

	CMF200(A,B,C,E)****C*Z**** CIC A4 CMF300(A,B,C,E)****C*Z**** CIC A4 CMF350(A,B,C,E)****C*Z**** CIC A4 CMF400(A,B,C,E)****C*Z**** CIC A4 CMFHC2(A,B,C,E)****C*Z**** CIC A4 CMFHC3(A,B,C,E)****C*Z**** CIC A4 CMFHC4(A,B,C,E)****C*Z**** CIC A4	CMF200(A,B,C,E)****C*Z**** CMF300(A,B,C,E)****C*Z**** CMF350(A,B,C,E)****C*Z**** CMF400(A,B,C,E)****C*Z**** CMFHC2(A,B,C,E)****C*Z**** CMFHC3(A,B,C,E)****C*Z**** CMFHC4(A,B,C,E)****C*Z****
Transmitter type *700*1 ¹)*****	Ex ib IIB+H ₂ T5...T1 Ex tb IIIC T ³) °C Db	Ex ib IIB T5...T1 Ex tb IIIC T ³) °C Db
Transmitter type *700*1 ²)*****	Ex ib IIC T5...T1 Ex tb IIIC T ³) °C Db	Ex ib IIB T5...T1 Ex tb IIIC T ³) °C Db
Transmitter type *700*1 ⁴)*****	Ex ib IIB+H ₂ T4...T1	Ex ib IIB T45...T1
Transmitter type *700*1 ²) ⁴)*****	Ex ib IIC T4...T1	Ex ib IIB T4...T1

- 1) At this place the numeral 1 or 2 will be inserted.
- 2) At this place the numeral 3, 4 or 5 will be inserted.
- 3) Max. surface temperature T for dust for types CMF***** see temperature graphs and manufacturer's instructions.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 2015-05-18
BVS-Schu/Ma A 20150281



Certification body



Special services unit