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Safety Instructions
Levelflex
FMP50/51/52/53/54/55/56/57

4-20 mA HART

Control Drawing XP/DIP

C US

Document: XA00529F-F
Safety instructions for electrical apparatus for explosion-hazardous areas → 3

Document: XA00529F-F
Temperature tables → 13

Endress+Hauser
People for Process Automation

Levelflex FMP50/51/52/53/54/55/56/57

4-20 mA HART

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Associated documentation

This document is an integral part of the following Operating Instructions:

- BA01000F/00 (FMP50)
- BA01001F/00 (FMP51, FMP52, FMP54)
- BA01002F/00 (FMP53)
- BA01003F/00 (FMP55)
- BA01004F/00 (FMP56, FMP57)

Manufacturer's certificates

CSA C/US certificate

Certificate number:

CSA10.2225610

Manufacturer address

Endress+Hauser SE+Co. KG
Hauptstraße 1
79689 Maulburg, Germany

Address of the manufacturing plant: See nameplate.

Extended order code

The extended order code is indicated on the nameplate, which is affixed to the device in such a way that it is clearly visible. Additional information about the nameplate is provided in the associated Operating Instructions.

Structure of the extended order code

FMP5x	–	**********	+	A*B*C*D*E*F*G*..
(Device type)		*(Basic specifications)*		*(Optional specifications)*

* = Placeholder
At this position, an option (number or letter) selected from the specification is displayed instead of the placeholders.

Basic specifications

The features that are absolutely essential for the device (mandatory features) are specified in the basic specifications. The number of positions depends on the number of features available.
The selected option of a feature can consist of several positions.

Optional specifications

The optional specifications describe additional features for the device (optional features).
The number of positions depends on the number of features available. The features have a 2-digit structure to aid identification (e.g. JA). The first digit (ID) stands for the feature group and consists of a number or a letter (e.g. J = Test, Certificate). The second digit constitutes the value that stands for the feature within the group (e.g. A = 3.1 material (wetted parts), inspection certificate).

More detailed information about the device is provided in the following tables. These tables describe the individual positions and IDs in the extended order code which are relevant to hazardous locations.

Extended order code: Levelflex

The following specifications reproduce an extract from the product structure and are used to assign:
- This documentation to the device (using the extended order code on the nameplate).
- The device options cited in the document.

Device type

FMP50, FMP51, FMP52, FMP53, FMP54, FMP55, FMP56, FMP57

Basic specifications

Position 1, 2 (Approval)		
Selected option		**Description**
FMP5x	CC	CSA C/US XP Cl. I, Div. 1, Groups A-D
	C3	CSA C/US XP Cl. I, II, III, Div. 1, Groups A-G; Cl. I Zn0/1 AEx/Ex ia/db [ia Ga] IIC T6; Cl. I, Div. 2, Groups A-D
	8A	FM/CSA IS+XP-IS Cl. I, II, III, Div. 1, Groups A-G
FMP54 FMP56 FMP57	CD	CSA C/US Cl. II, III, Div. 1, Groups E-G

Position 3 (Power Supply, Output)		
Selected option		**Description**
FMP5x	A	2-wire, 4-20 mA HART
	B	2-wire, 4-20 mA HART, switch output (PFS)
	C	2-wire, 4-20 mA HART, 4...20 mA
	K	4-wire, 90-253 VAC; 4-20 mA HART
	L	4-wire, 10,4-48 VDC; 4-20 mA HART

Position 4 (Display, Operation)		
Selected option		**Description**
FMP5x	A	Without, via communication
	C	SD02, 4-line, push buttons + data backup function
	E	SD03, 4-line, illum., touch control + data backup function
	L	Prepared for display FHX50 + M12 connection
	M	Prepared for display FHX50 + custom connection
	N	Prepared for display FHX50 + NPT1/2"

Position 5 (Housing)		
Selected option		**Description**
FMP51 FMP52 FMP54-57	B	GT18 dual compartment, 316L
FMP5x	C	GT20 dual compartment, Alu coated

Position 9, 10 (Seal)		
Selected option		**Description**
FMP50	A1	Viton, −20…80 °C
FMP51	A4	Viton, −30…150 °C
	B3	EPDM, −40…120 °C
	C3	Kalrez, −20…200 °C
	E1	FVMQ, −50…150 °C
FMP53	AD	FKM, FDA, USP Cl. VI, −10…150 °C
	B5	EPDM, FDA, USP Cl. VI, −20…130 °C
	C4	Kalrez, FDA, USP Cl. VI, −20…150 °C
FMP54	D1	Graphite, −196…280 °C (XT)
	D2	Graphite, −196…450 °C (HT)
FMP56	AB	Viton, −30…120 °C
	B3	EPDM, −40…120 °C
FMP57	A4	Viton, −30…150 °C
	B3	EPDM, −40…120 °C
	C5	Kalrez, −5…185 °C

Optional specifications

ID Jx (Test, Certificate)		
Selected option		**Description**
FMP51 [1)] FMP54	JN [2)]	Ambient temperature transmitter −50 °C

1) Only in connection with Position 9, 10 (Seal) = E1
2) Only in connection with Position 3 (Power Supply, Output) = A, B, C

ID Mx (Probe Design)		
Selected option		**Description**
FMP5x	MB	Sensor remote, 3 m/9 ft cable, detachable + mounting bracket
FMP53	MA	Sensor compact, detachable
FMP50-54 FMP56 FMP57	MC	Sensor remote, 6 m/18 ft cable, detachable + mounting bracket
	MD	Sensor remote, 9 m/27 ft cable, detachable + mounting bracket

ID Nx (Accessory Mounted)		
Selected option		**Description**
FMP51 FMP52 FMP55	NC	Gas-tight feed through
FMP5x	NF [1)]	Bluetooth

1) Only in connection with Position 4 (Display, Operation) = C, E

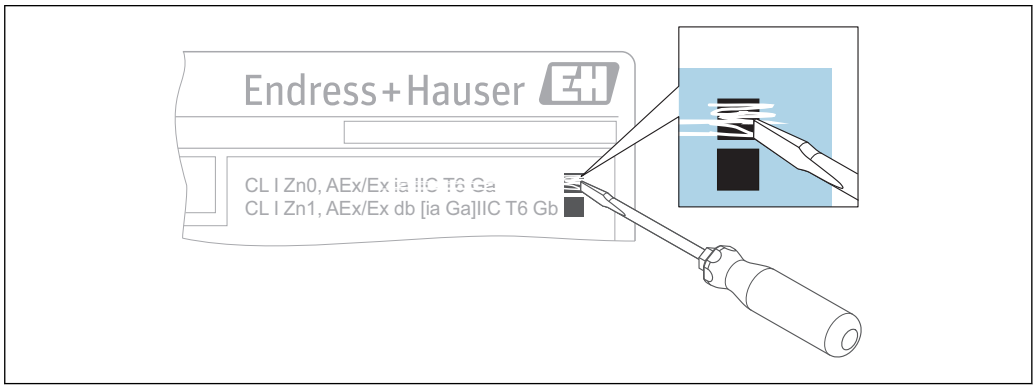
Combined type of protection (Approval code, 8A)

Devices with approval code "8A" are suitable for installation with explosion protection type of Intrinsic Safety or Explosionproof.

- Before initial commissioning, specify the type of protection.
- It is not permitted to change the type of protection after initial commissioning as this can jeopardize the explosion protection.

For aluminum housings:
Void out the explosion protection that is not used on the nameplate.

For stainless steel housings:
Using a striking tool, mark the explosion protection used, or void out the explosion protection that is not used.



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It is critical to observe and follow the correct instructions for installation depending on the type of protection used. Refer to the following table for reference to the correct installation instructions.

Type of protection	Agency approval	Control Drawing no. / Document no.
Intrinsic Safety	CSA	XA00530F
	FM	XA00531F
Explosionproof	CSA	XA00529F
	FM	XA00532F

Class I, Division 2 installation:
References in this manual to Class I, Division 2 installation are not applicable for devices with the combined type of protection. For installation in Class I, Division 2, these devices must be installed per the applicable Division 1 intrinsic safety or explosionproof requirements.

Safety instructions: General

- Staff must meet the following conditions for mounting, electrical installation, commissioning and maintenance of the device:
  - Be suitably qualified for their role and the tasks they perform
  - Be trained in explosion protection
  - Be familiar with national regulations
- Install the device according to the manufacturer's instructions and national regulations.
- Do not operate the device outside the specified electrical, thermal and mechanical parameters.
- Only use the device in media to which the wetted materials have sufficient durability.
- Avoid electrostatic charging:
  - Of plastic surfaces (e.g. housing, sensor element, special varnishing, attached additional plates, ..)
  - Of isolated capacities (e.g. isolated metallic plates)

- Modifications to the device can affect the explosion protection and must be carried out by staff authorized to perform such work by Endress+Hauser.
- Refer to the temperature tables for the relationship between the permitted ambient temperature for the sensor and/or transmitter, depending on the range of application and the temperature class.
- When replacing the probe electronics or opening the connection between the remote cable and the probe, a jumper plug must be used or a short-circuit must be established between the probe contact and the potential equalization conductor to avoid electrostatically charging the probe.

Safety instructions: Special conditions

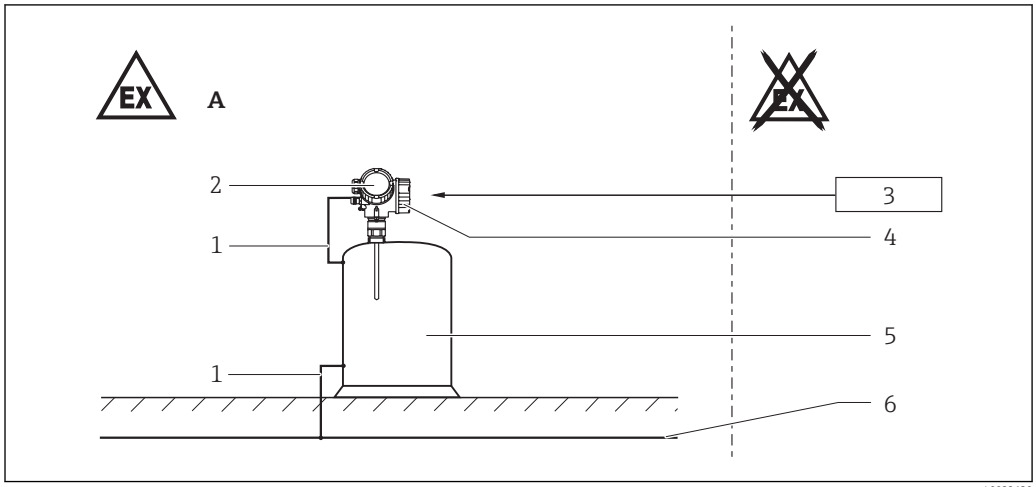
Permitted ambient temperature range at the electronics housing:
$-40\ °C \leq T_a \leq +80\ °C$

Optional specification, ID Jx (Test, Certificate) = JN
Permitted ambient temperature range at the electronics housing:
$-50\ °C \leq T_a \leq +80\ °C$

- Observe the information in the temperature tables.
- Use supply wires suitable for 20 K above the ambient temperature.
- In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
- To avoid electrostatic charging: Do not rub surfaces with a dry cloth.
- In the event of additional or alternative special varnishing on the housing or other metal parts or for adhesive plates:
  - Observe the danger of electrostatic charging and discharge.
  - Do not install in the vicinity of processes (≤0.5 m) generating strong electrostatic charges.

Device type FMP52, FMP55, FMP56, FMP57
A probe coated with non-conductive material can be used if avoiding electrostatic charging (e.g. through friction, cleaning, maintenance, strong medium flow).

Safety instructions: Installation



2

A Class I, Div. 1 or 2, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Zone 1
1 Potential equalization line
2 Electronics compartment Ex ia; Electronic insert
3 Power supply
4 Connection compartment XP / Ex d
5 Tank; Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Zone 0, Zone 1
6 Potential equalization

- After aligning (rotating) the housing, retighten the fixing screw (see Operating Instructions).
- Install the device to exclude any mechanical damage or friction during the application. Pay particular attention to flow conditions and tank fittings.
- Before operation:
  - Screw in the cover all the way.
  - Tighten the securing clamp on the cover.
- The device can be equipped with the Bluetooth® module: refer to the Operating Instructions and specifications in the "Bluetooth® module" chapter.
- Continuous service temperature of the connecting cable: −40 °C to ≥ +85 °C; in accordance with the range of service temperature taking into account additional influences of the process conditions ($T_{a,min}$), ($T_{a,max}$ +20 K).

Optional specification, ID Jx (Test, Certificate) = JN
Continuous service temperature of the connecting cable: −50 °C to ≥ +85 °C; in accordance with the range of service temperature taking into account additional influences of the process conditions ($T_{a,min}$), ($T_{a,max}$ +20 K).

Basic specification, Position 3 (Power Supply, Output) = K
Connect the protective ground to the device.

Bluetooth® module

Optional specification, ID Nx (Accessory Mounted) = NF
- With Bluetooth® module installed: Use of external hardware not allowed (e.g. external display, service interface).
- The intrinsically safe input power circuit of the Bluetooth® module is isolated from ground.

Explosionproof / Flameproof

Class I, Div. 1, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III
Class I, Zone 0/1, AEx/Ex ia/db [ia Ga] IIC T6 Ga/Gb

- Install as per National Electrical Code (NFPA70) or Canadian Electrical Code, Part I (C22.1), as applicable.
- For the maximum supply voltage: See "Connection data" section.
- Control room equipment may not use or generate over 250 V_{rms}.
- Seal unused entries with approved plugs that correspond to the type of protection. The plastic transport sealing plug does not meet this requirement and must therefore be replaced during installation.
- Probe is intrinsically safe, AEx ia/Ex ia, and suitable for installation in Class I, II, III, Division 1 or Class I, Zone 0/1.
- When prepared for use with an approved remote display FHX50, remote display is intrinsically safe suitable for Class I, Division 1/Zone 0 locations and connection between transmitter housing and remote display is intrinsically safe field wiring.
- WARNINGS: Substitution of components may impair intrinsic safety.

Factory sealed
Explosionproof conduit seal not required for terminal compartment when installed in Division 1 locations.

Terminal compartment
Do not open when explosive atmosphere is present.

For Class II and III
- Keep covers tight unless power has been switched off.
- Use a dust-tight seal at the conduit entry in a Class II and III location.

Class I, Div. 2, Groups A-D

The following instructions apply only for *Device type FMP5x, Basic specification, Position 1, 2 (Approval) = C3*

Device type FMP5x, Basic specification, Position 1, 2 (Approval) = CC and 8A are not marked for use in Class I, Division 2; however, these devices are suitable for this application when installed using the explosionproof instructions for Class I, Division 1.

Standard Wiring installation (only for NPT conduit entries)

- Install as per National Electrical Code (NFPA70) or Canadian Electrical Code, Part I (C22.1), as applicable.
- Using wiring methods appropriate for the location.
- Associated apparatus not required.
- For the maximum supply voltage: See "Connection data" section.
- Probe is intrinsically safe, AEx ia/Ex ia, and suitable for installation in Class I, II, III, Division 1 or Class I, Zone 0/1.
- When prepared for use with an approved remote display FHX50, remote display is intrinsically safe suitable for Class I, Division 1/Zone 0 locations and connection between transmitter housing and remote display is intrinsically safe field wiring.
- WARNINGS: Explosion hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
- WARNINGS: Substitution of components may impair suitability for Class I, Div. 2.

Factory sealed
Explosionproof conduit seal not required for terminal compartment.

Process seals

The following device types are Dual Seal devices per ANSI/ISA 12.27.01 and do not require the use of an external secondary process seal.

Device type	Basic specification, Position 1, 2 (Approval)	MWP [1]	Method of annunciation [2]
FMP50 FMP53 FMP56 FMP57	CC, C3, 8A	6 bar	Process fluid leakage through vent located in electronics compartment. When using the remote display FHX50: Leakage may also occur from the vent located in the remote display housing.
FMP51 FMP52 FMP55	C3, 8A	40 bar	Electronic firmware is incorporated to detect and signal any significant increases or decreases of measurement signal reflection caused by combustible or flammable process fluid between the primary and secondary seal.
FMP54	C3, 8A	370 bar	

1) Maximum Working Pressure for the Dual Seal rating. This value may be a value less than the MWP for the device.
2) No maintenance of annunciator necessary.

Verify the chemical compatibility of the process seal specified on the nameplate in first position with the process fluid (see field "Mat." on the nameplate).

Basic specification, Position 4 (Display, Operation) = L M, N and a cable provided by customer, gland M16 or thread NPT1/2
To prevent possible leakage of process fluids in an area classified as non-hazardous, the FHX50 must be installed in the hazardous location when used with a device with a Dual Seal rating.

Temperature tables

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Connection data

Optional specification, ID Nx (Accessory Mounted) = NF
When using the Bluetooth® module: No changes to the connection values.

Connection compartment AEx d/Ex d

Basic specification, Position 3 (Power Supply, Output) = A

Terminal 1 (+), 2 (–)
Power supply: U_N = 35 V_{DC} U_m = 250 V I_{max} = 22 mA

Basic specification, Position 3 (Power Supply, Output) = B

Terminal 1 (+), 2 (–)	Terminal 3 (+), 4 (–)
Power supply: U_N = 35 V_{DC} U_m = 250 V I_{max} = 22 mA	Switch output (PFS): U_N = 35 V_{DC} U_m = 250 V

The power consumption of I/O modules with passive PFS output can be limited for certain applications.

- Recommended: Power consumption = 1 W. This is obtained for a supply voltage at the terminals of 27 V_{DC}.
- For higher supply voltages (U_{max}): Insert a serial resistance (R_V) in order to limit the power consumption, see table below.

Table for the PFS serial resitance (R_V):

Power consumption	1.0 W
Total power consumption	1.88 W
Internal resistance R_I	760 Ω

U_{max} [V]	R_V min
35	205 Ω
34	177 Ω
33	150 Ω
32	122 Ω
31	95 Ω
30	67 Ω
29	39 Ω
28	12 Ω
27	0 Ω

For values associated with a higher or lower internal power consumption please contact Endress+Hauser.

Basic specification, Position 3 (Power Supply, Output) = C

Terminal 1 (+), 2 (–)	Terminal 3 (+), 4 (–)
Power supply: U_N = 28 V_{DC} U_m = 250 V I_{max} = 22 mA	Output 4 to 20 mA: U_N = 28 V_{DC} U_m = 250 V I_{max} = 22 mA

Basic specification, Position 3 (Power Supply, Output) = K

Terminal 1 (+), 2 (–)	Terminal 3 (+), 4 (–)
Power supply: U_N = 253 V_{AC}; 50/60 Hz U_m = 250 V I_N = 25 mA I_{max} = 160 mA	Output 4 to 20 mA: U_N = 22 V_{DC} U_m = 250 V I_{max} = 22 mA

Basic specification, Position 3 (Power Supply, Output) = L

Terminal 1 (+), 2 (–)	Terminal 3 (+), 4 (–)
Power supply: U_N = 48 V_{DC} U_m = 250 V I_N = 112 mA I_{max} = 300 mA	Output 4 to 20 mA: U_N = 22 V_{DC} U_m = 250 V I_{max} = 22 mA

Electronics compartment, intrinsically safe (AEx ia/Ex ia)

Service interface (CDI)

Taking the following values into consideration, the device can be connected to the certified Endress+Hauser FXA291 service tool or a similar interface:

Service interface												
U_i = 7.3 V effective inner inductance L_i = negligible effective inner capacitance C_i = negligible												
U_o = 7.3 V I_o = 100 mA P_o = 160 mW												
L_o (mH) =	5.00	2.00	1.00	0.50	0.20	0.10	0.05	0.02	0.01	0.005	0.002	0.001
C_o (µF) =	0.73	1.20	1.60	2.00	2.60	3.20	4.00	5.50	7.30	10.00	12.70	12.70

Remote display interface

- Devices with *Basic specification, Position 4 (Display, Operation) = L, M or N* can be connected to the approved Endress+Hauser remote display FHX50.
- Refer to Safety Instructions XA01095F for additional installation instructions.

Levelflex FMP50/51/52/53/54/55/56/57

4-20 mA HART

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Notes on the structure

Extract from the extended order code

Device type

FMP50, FMP51, FMP52, FMP53, FMP54, FMP55, FMP56, FMP57

Basic specifications

Position 1, 2 (Approval)		
Selected option		**Description**
FMP5x	CC	CSA C/US XP Cl. I, Div. 1, Groups A-D
	C3	CSA C/US XP Cl. I, II, III, Div. 1, Groups A-G; Cl. I Zn0/1 AEx/Ex ia/db [ia Ga] IIC T6; Cl. I, Div. 2, Groups A-D
	8A	FM/CSA IS+XP-IS Cl. I, II, III, Div. 1, Groups A-G
FMP54 FMP56 FMP57	CD	CSA C/US Cl. II, III, Div. 1, Groups E-G

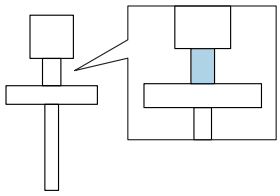
Position 3 (Power Supply, Output)		
Selected option		**Description**
FMP5x	A	2-wire, 4-20 mA HART
	B	2-wire, 4-20 mA HART, switch output (PFS)
	C	2-wire, 4-20 mA HART, 4...20 mA
	K	4-wire, 90-253 VAC; 4-20 mA HART
	L	4-wire, 10,4-48 VDC; 4-20 mA HART

Position 5 (Housing)		
Selected option		**Description**
FMP51 FMP52 FMP54-57	B	GT18 dual compartment, 316L
FMP5x	C	GT20 dual compartment, Alu coated

Position 9, 10 (Seal)		
Selected option		**Description**
FMP50	A1	Viton, −20...80 °C
FMP51	A4	Viton, −30...150 °C
	B3	EPDM, −40...120 °C
	C3	Kalrez, −20...200 °C
	E1	FVMQ, −50...150 °C
FMP53	AD	FKM, FDA, USP Cl. VI, −10...150 °C
	B5	EPDM, FDA, USP Cl. VI, −20...130 °C
	C4	Kalrez, FDA, USP Cl. VI, −20...150 °C
FMP54	D1	Graphite, −196...280 °C (XT)
	D2	Graphite, −196...450 °C (HT)
FMP56	AB	Viton, −30...120 °C
	B3	EPDM, −40...120 °C

Position 9, 10 (Seal)		
Selected option		**Description**
FMP57	A4	Viton, −30…150 °C
	B3	EPDM, −40…120 °C
	C5	Kalrez, −5…185 °C

Shown in the temperature tables exemplary as follows:



Optional specifications

ID Jx (Test, Certificate)		
Selected option		**Description**
FMP51 [1)] FMP54	JN [2)]	Ambient temperature transmitter −50 °C

1) Only in connection with Position 9, 10 (Seal) = E1
2) Only in connection with Position 3 (Power Supply, Output) = A, B, C

ID Mx (Probe Design)		
Selected option		**Description**
FMP5x	MB	Sensor remote, 3 m/9 ft cable, detachable + mounting bracket
FMP53	MA	Sensor compact, detachable
FMP50-54 FMP56 FMP57	MC	Sensor remote, 6 m/18 ft cable, detachable + mounting bracket
	MD	Sensor remote, 9 m/27 ft cable, detachable + mounting bracket

General notes

Observe the permitted temperature range at the probe.

Basic specification, Position 3 (Power Supply, Output) = B
Deratings are based on a power consumption of 1 W (PFS); → 11.

Description notes

Unless otherwise indicated, the positions always refer to the basic specification.

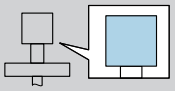
1st column: Position 5 (Housing) = A, B, ...

2nd column: Position 3 (Power Supply, Output) = A, B, ..
- (1): 1 channel used
- (2): 2 channels used

3rd column: Temperature classes T6 (85 °C) to T1 (450 °C)

Column P1 to P6: Position (temperature value) on the axes of the derating
- T_a: Ambient temperature in °C
- T_p: Process temperature in °C

Column P6 is only relevant for version B of the derating.
→ 16

 = C	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	-40	60	60	60	85	53	85	-40	-40	-40	-	-
		T5	-40	75	75	75	100	68	100	-40	-40	-40	-	-
		T4	-40	80	80	80	135	67	135	-40	-40	-40	-	-
		T3	-40	80	80	80	200	51	200	-40	-40	-40	-	-

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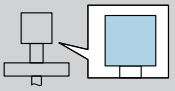
Class II, III, Division 1

1st column: Position 5 (Housing) = A, B, ...

2nd column: Position 3 (Power Supply, Output) = A, B, ..
- (1): 1 channel used
- (2): 2 channels used

3rd column: Temperature values

 = C	(1)	
	B, C	$T = T_a + 10$ K

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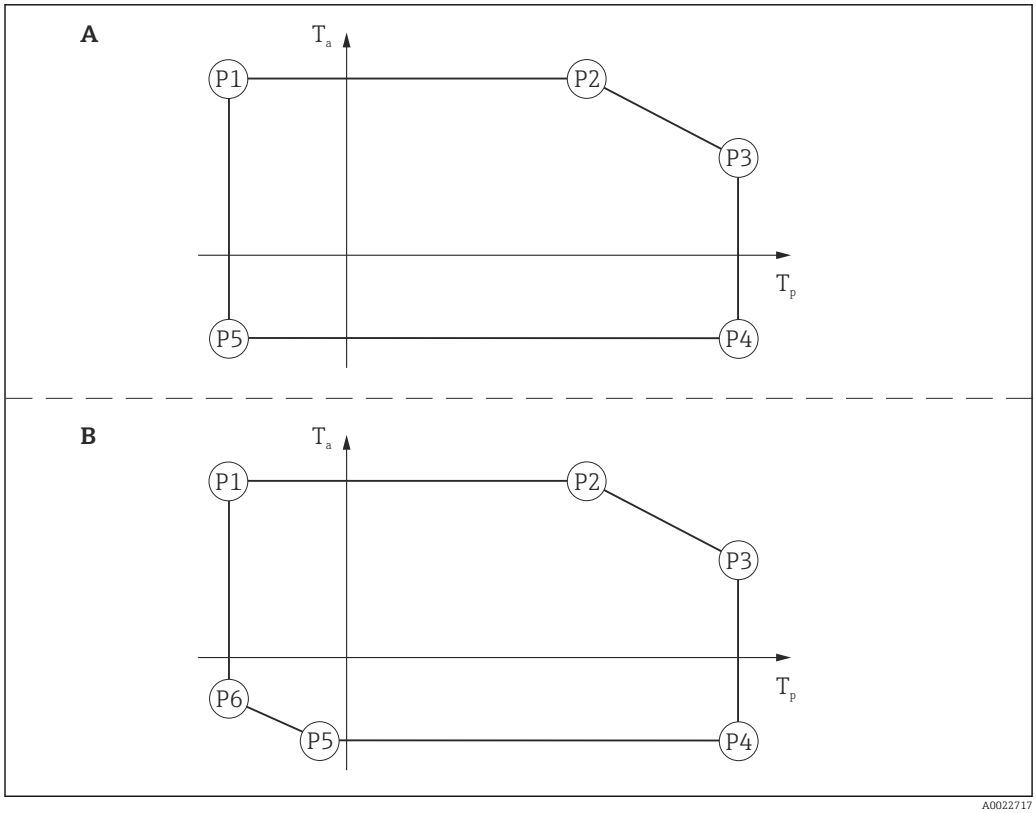
T_a: Ambient temperature in °C

Example diagrams of possible deratings



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Compact; 1 channel

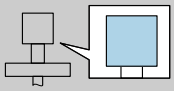
Probe design: compact

Page references to the temperature tables of the respective device types: See the following list.

- FMP50 → 17
- FMP51 → 18
- FMP52 → 19
- FMP53 → 20
- FMP54 → 21
- FMP55 → 25
- FMP56 → 26
- FMP57 → 27

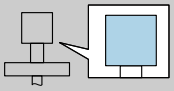
Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

FMP50

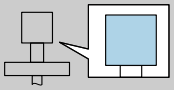
 = C	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–20	60	60	60	80	56	80	–20	–20	–20	–	–
	K, L	T6	–20	60	60	60	80	55	80	–20	–20	–20	–	–

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

FMP51

 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–40 –50 [1]	60	60	60	85	51	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
		T5	–40 –50 [1]	75	75	75	100	66	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
		T4	–40 –50 [1]	80	80	80	135	67	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
		T3	–40 –50 [1]	80	80	80	200	48	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
	K, L	T6	–40	60	60	60	85	51	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	66	100	–40	–40	–40	–	–
		T4	–40	76	76	76	135	62	135	–40	–40	–40	–	–
		T3	–40	76	76	76	200	46	200	–40	–40	–40	–	–

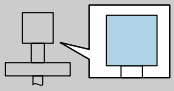
1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

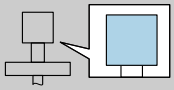
 = *C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–40 –50 [1]	60	60	60	85	53	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
		T5	–40 –50 [1]	75	75	75	100	68	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
		T4	–40 –50 [1]	80	80	80	135	69	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
		T3	–40 –50 [1]	80	80	80	200	56	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–	–
	K, L	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	76	76	76	135	64	135	–40	–40	–40	–	–
		T3	–40	76	76	76	200	51	200	–40	–40	–40	–	–

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

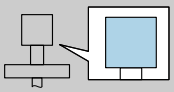
FMP52

 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	80	80	80	135	68	135	–40	–40	–40	–50	–37
		T3	–50	80	80	80	200	52	200	–40	–40	–40	–50	–37
	K, L	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	76	76	76	135	63	135	–40	–40	–40	–50	–37
		T3	–50	76	76	76	200	48	200	–40	–40	–40	–50	–37

 = *C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	80	80	80	135	70	135	–40	–40	–40	–50	–37
		T3	–50	80	80	80	200	58	200	–40	–40	–40	–50	–37
	K, L	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	76	76	76	135	65	135	–40	–40	–40	–50	–37
		T3	–50	76	76	76	200	53	200	–40	–40	–40	–50	–37

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

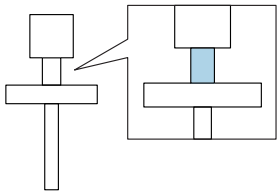
FMP53

 = *C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–20	60	60	60	85	54	85	–20	–20	–20	–	–
		T5	–20	75	75	75	100	69	100	–20	–20	–20	–	–
		T4	–20	80	80	80	135	69	135	–20	–20	–20	–	–
		T3 [1]	–20	80	80	80	150	66	150	–20	–20	–20	–	–
	K, L	T6	–20	60	60	60	85	54	85	–20	–20	–20	–	–
		T5	–20	75	75	75	100	69	100	–20	–20	–20	–	–
		T4	–20	76	76	76	135	64	135	–20	–20	–20	–	–
		T3 [1]	–20	76	76	76	150	61	150	–20	–20	–20	–	–

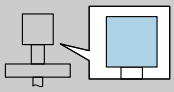
1) Functional: Maximum permissible process temperature

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

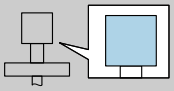
FMP54



= D1

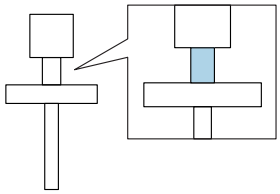
 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–196	60	60	60	85	56	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–16 –27[1]
		T5	–196	75	75	75	100	71	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–16 –27[1]
		T4	–196	80	80	80	135	73	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–16 –27[1]
		T3	–196	80	80	80	200	64	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–16 –27[1]
		T2 [2]	–196	80	80	80	280	53	280	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–16 –27[1]
	K, L	T6	–196	60	60	60	85	56	85	–40	–40	–40	–196	–16
		T5	–196	75	75	75	100	71	100	–40	–40	–40	–196	–16
		T4	–196	76	76	76	135	68	135	–40	–40	–40	–196	–16
		T3	–196	76	76	76	200	60	200	–40	–40	–40	–196	–16
		T2 [2]	–196	76	76	76	280	49	280	–40	–40	–40	–196	–16

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN
2) Functional: Maximum permissible process temperature

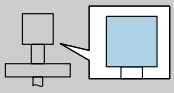
 = C	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–196	60	60	60	85	57	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T5	–196	75	75	75	100	72	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T4	–196	80	80	80	135	75	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T3	–196	80	80	80	200	68	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T2 [2]	–196	80	80	80	280	60	280	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
	K, L	T6	–196	60	60	60	85	57	85	–40	–40	–40	–196	–23
		T5	–196	75	75	75	100	72	100	–40	–40	–40	–196	–23
		T4	–196	76	76	76	135	70	135	–40	–40	–40	–196	–23
		T3	–196	76	76	76	200	64	200	–40	–40	–40	–196	–23
		T2 [2]	–196	76	76	76	280	56	280	–40	–40	–40	–196	–23

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN
2) Functional: Maximum permissible process temperature

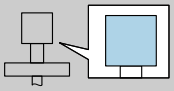
FMP54



= D2

 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–196	60	60	60	85	57	85	–40 –50 [1)]	–40 –50 [1)]	–40 –50 [1)]	–196	–26 –37[1)]
		T5	–196	75	75	75	100	72	100	–40 –50 [1)]	–40 –50 [1)]	–40 –50 [1)]	–196	–26 –37[1)]
		T4	–196	80	80	80	135	76	135	–40 –50 [1)]	–40 –50 [1)]	–40 –50 [1)]	–196	–26 –37[1)]
		T3	–196	80	80	80	200	71	200	–40 –50 [1)]	–40 –50 [1)]	–40 –50 [1)]	–196	–26 –37[1)]
		T2	–196	80	80	80	300	63	300	–40 –50 [1)]	–40 –50 [1)]	–40 –50 [1)]	–196	–26 –37[1)]
		T1	–196	80	80	80	450	52	450	–40 –50 [1)]	–40 –50 [1)]	–40 –50 [1)]	–196	–26 –37[1)]
	K, L	T6	–196	60	60	60	85	57	85	–40	–40	–40	–196	–26
		T5	–196	75	75	75	100	72	100	–40	–40	–40	–196	–26
		T4	–196	76	76	76	135	72	135	–40	–40	–40	–196	–26
		T3	–196	76	76	76	200	67	200	–40	–40	–40	–196	–26
		T2	–196	76	76	76	300	59	300	–40	–40	–40	–196	–26
		T1	–196	76	76	76	450	48	450	–40	–40	–40	–196	–26

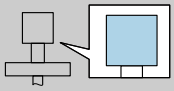
1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

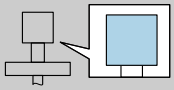
 = C	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–196	60	60	60	85	58	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–27 –37[1]
		T5	–196	75	75	75	100	73	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–27 –37[1]
		T4	–196	80	80	80	135	76	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–27 –37[1]
		T3	–196	80	80	80	200	72	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–27 –37[1]
		T2	–196	80	80	80	300	65	300	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–27 –37[1]
		T1	–196	80	80	80	450	54	450	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–27 –37[1]
	K, L	T6	–196	60	60	60	85	58	85	–40	–40	–40	–196	–27
		T5	–196	75	75	75	100	73	100	–40	–40	–40	–196	–27
		T4	–196	76	76	76	135	72	135	–40	–40	–40	–196	–27
		T3	–196	76	76	76	200	67	200	–40	–40	–40	–196	–27
		T2	–196	76	76	76	300	60	300	–40	–40	–40	–196	–27
		T1	–196	76	76	76	450	50	450	–40	–40	–40	–196	–27

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

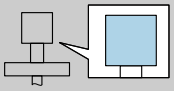
FMP55

 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	80	80	80	135	68	135	–40	–40	–40	–50	–37
		T3	–50	80	80	80	200	52	200	–40	–40	–40	–50	–37
	K, L	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	76	76	76	135	63	135	–40	–40	–40	–50	–37
		T3	–50	76	76	76	200	48	200	–40	–40	–40	–50	–37

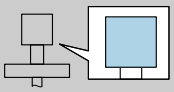
 = *C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	80	80	80	135	69	135	–40	–40	–40	–50	–37
		T3	–50	80	80	80	200	56	200	–40	–40	–40	–50	–37
	K, L	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	76	76	76	135	64	135	–40	–40	–40	–50	–37
		T3	–50	76	76	76	200	52	200	–40	–40	–40	–50	–37

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

FMP56

 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–40	60	60	60	85	51	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	66	100	–40	–40	–40	–	–
		T4 [1)]	–40	80	80	80	120	71	120	–40	–40	–40	–	–
	K, L	T6	–40	60	60	60	85	51	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	66	100	–40	–40	–40	–	–
		T4 [1)]	–40	76	76	76	120	66	120	–40	–40	–40	–	–

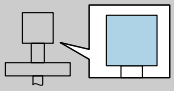
1) Functional: Maximum permissible process temperature

 = *C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–40	60	60	60	85	54	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	69	100	–40	–40	–40	–	–
		T4 [1)]	–40	80	80	80	120	72	120	–40	–40	–40	–	–
	K, L	T6	–40	60	60	60	85	54	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	69	100	–40	–40	–40	–	–
		T4 [1)]	–40	76	76	76	120	67	120	–40	–40	–40	–	–

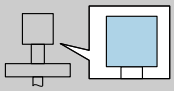
1) Functional: Maximum permissible process temperature

Explosion protection: XP / AEx d [ia]/Ex d [ia] or Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1 or Division 2

FMP57

 = *B*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	80	80	80	135	69	135	–40	–40	–40	–	–
		T3 [1]	–40	80	80	80	185	59	185	–40	–40	–40	–	–
	K, L	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	76	76	76	135	64	135	–40	–40	–40	–	–
		T3 [1]	–40	76	76	76	185	55	185	–40	–40	–40	–	–

1) Functional: Maximum permissible process temperature

 = *C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	A, B, C	T6	–40	60	60	60	85	55	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	70	100	–40	–40	–40	–	–
		T4	–40	80	80	80	135	71	135	–40	–40	–40	–	–
		T3 [1]	–40	80	80	80	185	63	185	–40	–40	–40	–	–
	K, L	T6	–40	60	60	60	85	55	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	70	100	–40	–40	–40	–	–
		T4	–40	76	76	76	135	66	135	–40	–40	–40	–	–
		T3 [1]	–40	76	76	76	185	59	185	–40	–40	–40	–	–

1) Functional: Maximum permissible process temperature

Compact; 2 channels

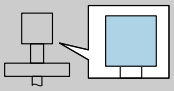
Probe design: compact

Page references to the temperature tables of the respective device types: See the following list.

- FMP50 → 28
- FMP51 → 29
- FMP52 → 31
- FMP53 → 33
- FMP54 → 34
- FMP55 → 40
- FMP56 → 42
- FMP57 → 44

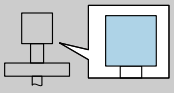
Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

FMP50

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B, C	T6	–20	60	60	60	80	56	80	–20	–20	–20	–	–

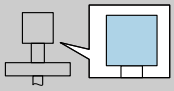
Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

FMP50

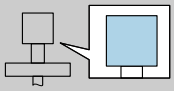
 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–20	51	51	51	80	49	80	–20	–20	–20	–	–
	C	T6	–20	60	60	60	80	56	80	–20	–20	–20	–	–

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

FMP51

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	−40 −50 [1]	60	60	60	85	52	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T5	−40 −50 [1]	75	75	75	100	67	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T4	−40 −50 [1]	75	75	75	135	60	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T3	−40 −50 [1]	75	75	75	200	45	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
	C	T6	−40 −50 [1]	60	60	60	85	51	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T5	−40 −50 [1]	75	75	75	100	66	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T4	−40 −50 [1]	78	78	78	135	64	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T3	−40 −50 [1]	78	78	78	200	48	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–

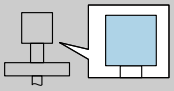
1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

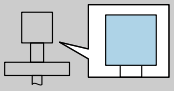
 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	−40 −50 [1]	60	60	60	85	54	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T5	−40 −50 [1]	75	75	75	100	69	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T4	−40 −50 [1]	75	75	75	135	63	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T3	−40 −50 [1]	75	75	75	200	50	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
	C	T6	−40 −50 [1]	60	60	60	85	53	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T5	−40 −50 [1]	75	75	75	100	68	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T4	−40 −50 [1]	78	78	78	135	66	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–
		T3	−40 −50 [1]	78	78	78	200	53	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	–	–

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

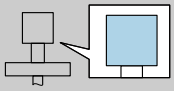
FMP51

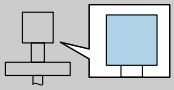
 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	51	51	51	85	43	85	–40	–40	–40	–	–
		T5	–40	66	66	66	100	58	100	–40	–40	–40	–	–
		T4	–40	75	75	75	135	60	135	–40	–40	–40	–	–
		T3	–40	75	75	75	200	45	200	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	51	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	66	100	–40	–40	–40	–	–
		T4	–40	78	78	78	135	64	135	–40	–40	–40	–	–
		T3	–40	78	78	78	200	48	200	–40	–40	–40	–	–

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	51	51	51	85	44	85	–40	–40	–40	–	–
		T5	–40	66	66	66	100	59	100	–40	–40	–40	–	–
		T4	–40	75	75	75	135	63	135	–40	–40	–40	–	–
		T3	–40	75	75	75	200	50	200	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	78	78	78	135	66	135	–40	–40	–40	–	–
		T3	–40	78	78	78	200	53	200	–40	–40	–40	–	–

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

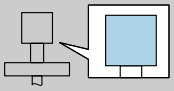
FMP52

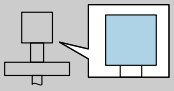
 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	60	60	60	85	53	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	68	100	–40	–40	–40	–50	–37
		T4	–50	75	75	75	135	61	135	–40	–40	–40	–50	–37
		T3	–50	75	75	75	200	47	200	–40	–40	–40	–50	–37
	C	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	65	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	50	200	–40	–40	–40	–50	–37

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	60	60	60	85	55	85	–40	–40	–40	–50	–38
		T5	–50	75	75	75	100	70	100	–40	–40	–40	–50	–38
		T4	–50	75	75	75	135	64	135	–40	–40	–40	–50	–38
		T3	–50	75	75	75	200	52	200	–40	–40	–40	–50	–38
	C	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	67	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	55	200	–40	–40	–40	–50	–37

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

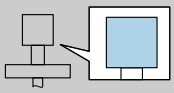
FMP52

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	51	51	51	85	44	85	–40	–40	–40	–50	–37
		T5	–50	66	66	66	100	59	100	–40	–40	–40	–50	–37
		T4	–50	75	75	75	135	61	135	–40	–40	–40	–50	–37
		T3	–50	75	75	75	200	47	200	–40	–40	–40	–50	–37
	C	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	65	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	50	200	–40	–40	–40	–50	–37

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	51	51	51	85	45	85	–40	–40	–40	–50	–38
		T5	–50	66	66	66	100	60	100	–40	–40	–40	–50	–38
		T4	–50	75	75	75	135	64	135	–40	–40	–40	–50	–38
		T3	–50	75	75	75	200	52	200	–40	–40	–40	–50	–38
	C	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	67	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	55	200	–40	–40	–40	–50	–37

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

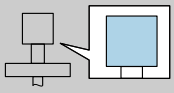
FMP53

 = C	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–20	60	60	60	85	54	85	–20	–20	–20	–	–
		T5	–20	75	75	75	100	69	100	–20	–20	–20	–	–
		T4	–20	75	75	75	135	63	135	–20	–20	–20	–	–
		T3 [1]	–20	75	75	75	150	59	150	–20	–20	–20	–	–
	C	T6	–20	60	60	60	85	54	85	–20	–20	–20	–	–
		T5	–20	75	75	75	100	69	100	–20	–20	–20	–	–
		T4	–20	78	78	78	135	66	135	–20	–20	–20	–	–
		T3 [1]	–20	78	78	78	150	63	150	–20	–20	–20	–	–

1) Functional: Maximum permissible process temperature

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

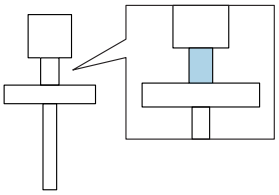
FMP53

 = C	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–20	51	51	51	85	44	85	–20	–20	–20	–	–
		T5	–20	66	66	66	100	59	100	–20	–20	–20	–	–
		T4	–20	75	75	75	135	63	135	–20	–20	–20	–	–
		T3 [1]	–20	75	75	75	150	59	150	–20	–20	–20	–	–
	C	T6	–20	60	60	60	85	54	85	–20	–20	–20	–	–
		T5	–20	75	75	75	100	69	100	–20	–20	–20	–	–
		T4	–20	78	78	78	135	66	135	–20	–20	–20	–	–
		T3 [1]	–20	78	78	78	150	63	150	–20	–20	–20	–	–

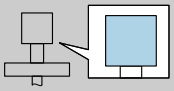
1) Functional: Maximum permissible process temperature

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

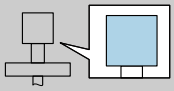
FMP54



= D1

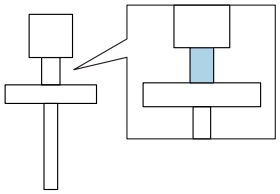
 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	−196	60	60	60	85	56	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T5	−196	75	75	75	100	71	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T4	−196	75	75	75	135	67	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T3	−196	75	75	75	200	58	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T2 [2]	−196	75	75	75	280	48	280	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
	C	T6	−196	60	60	60	85	56	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T5	−196	75	75	75	100	71	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T4	−196	78	78	78	135	70	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T3	−196	78	78	78	200	61	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]
		T2 [2]	−196	78	78	78	280	51	280	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−16 −27 [1]

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN
2) Functional: Maximum permissible process temperature

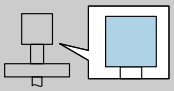
 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–196	60	60	60	85	57	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T5	–196	75	75	75	100	72	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T4	–196	75	75	75	135	69	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T3	–196	75	75	75	200	63	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T2 [2]	–196	75	75	75	280	55	280	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
	C	T6	–196	60	60	60	85	57	85	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T5	–196	75	75	75	100	72	100	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T4	–196	78	78	78	135	72	135	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T3	–196	78	78	78	200	65	200	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]
		T2 [2]	–196	78	78	78	280	57	280	–40 –50 [1]	–40 –50 [1]	–40 –50 [1]	–196	–23 –34 [1]

1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN
2) Functional: Maximum permissible process temperature

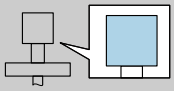
FMP54



= D2

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	−196	60	60	60	85	58	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T5	−196	75	75	75	100	73	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T4	−196	75	75	75	135	70	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T3	−196	75	75	75	200	66	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T2	−196	75	75	75	300	58	300	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T1	−196	75	75	75	450	47	450	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
	C	T6	−196	60	60	60	85	57	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−26 −37 [1]
		T5	−196	75	75	75	100	72	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−26 −37 [1]
		T4	−196	78	78	78	135	73	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−26 −37 [1]
		T3	−196	78	78	78	200	68	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−26 −37 [1]
		T2	−196	78	78	78	300	61	300	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−26 −37 [1]
		T1	−196	78	78	78	450	49	450	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−26 −37 [1]

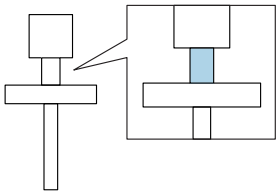
1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

 = C	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	−196	60	60	60	85	58	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−28 −37 [1]
		T5	−196	75	75	75	100	73	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−28 −37 [1]
		T4	−196	75	75	75	135	71	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−28 −37 [1]
		T3	−196	75	75	75	200	66	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−28 −37 [1]
		T2	−196	75	75	75	300	59	300	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−28 −37 [1]
		T1	−196	75	75	75	450	49	450	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−28 −37 [1]
	C	T6	−196	60	60	60	85	58	85	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T5	−196	75	75	75	100	73	100	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T4	−196	78	78	78	135	74	135	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T3	−196	78	78	78	200	69	200	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T2	−196	78	78	78	300	62	300	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]
		T1	−196	78	78	78	450	51	450	−40 −50 [1]	−40 −50 [1]	−40 −50 [1]	−196	−27 −37 [1]

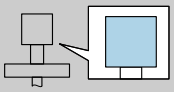
1) Only in connection with Optional specification, ID Jx (Test, Certificate) = JN

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

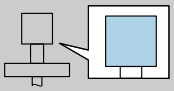
FMP54



= D1

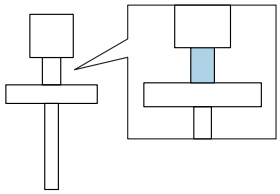
 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–196	51	51	51	85	47	85	–40	–40	–40	–196	–16
		T5	–196	66	66	66	100	62	100	–40	–40	–40	–196	–16
		T4	–196	75	75	75	135	67	135	–40	–40	–40	–196	–16
		T3	–196	75	75	75	200	58	200	–40	–40	–40	–196	–16
		T2 [1]	–196	75	75	75	280	48	280	–40	–40	–40	–196	–16
	C	T6	–196	60	60	60	85	56	85	–40	–40	–40	–196	–16
		T5	–196	75	75	75	100	71	100	–40	–40	–40	–196	–16
		T4	–196	78	78	78	135	70	135	–40	–40	–40	–196	–16
		T3	–196	78	78	78	200	61	200	–40	–40	–40	–196	–16
		T2 [1]	–196	78	78	78	280	51	280	–40	–40	–40	–196	–16

1) Functional: Maximum permissible process temperature

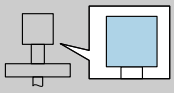
 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–196	51	51	51	85	48	85	–40	–40	–40	–196	–23
		T5	–196	66	66	66	100	63	100	–40	–40	–40	–196	–23
		T4	–196	75	75	75	135	69	135	–40	–40	–40	–196	–23
		T3	–196	75	75	75	200	63	200	–40	–40	–40	–196	–23
		T2 [1]	–196	75	75	75	280	55	280	–40	–40	–40	–196	–23
	C	T6	–196	60	60	60	85	57	85	–40	–40	–40	–196	–23
		T5	–196	75	75	75	100	72	100	–40	–40	–40	–196	–23
		T4	–196	78	78	78	135	72	135	–40	–40	–40	–196	–23
		T3	–196	78	78	78	200	65	200	–40	–40	–40	–196	–23
		T2 [1]	–196	78	78	78	280	57	280	–40	–40	–40	–196	–23

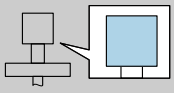
1) Functional: Maximum permissible process temperature

FMP54



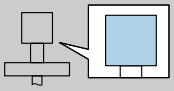
= D2

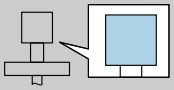
 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–196	51	51	51	85	49	85	–40	–40	–40	–196	–27
		T5	–196	66	66	66	100	64	100	–40	–40	–40	–196	–27
		T4	–196	75	75	75	135	70	135	–40	–40	–40	–196	–27
		T3	–196	75	75	75	200	66	200	–40	–40	–40	–196	–27
		T2	–196	75	75	75	300	58	300	–40	–40	–40	–196	–27
		T1	–196	75	75	75	450	47	450	–40	–40	–40	–196	–27
	C	T6	–196	60	60	60	85	57	85	–40	–40	–40	–196	–26
		T5	–196	75	75	75	100	72	100	–40	–40	–40	–196	–26
		T4	–196	78	78	78	135	73	135	–40	–40	–40	–196	–26
		T3	–196	78	78	78	200	68	200	–40	–40	–40	–196	–26
		T2	–196	78	78	78	300	61	300	–40	–40	–40	–196	–26
		T1	–196	78	78	78	450	49	450	–40	–40	–40	–196	–26

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–196	51	51	51	85	49	85	–40	–40	–40	–196	–28
		T5	–196	66	66	66	100	64	100	–40	–40	–40	–196	–28
		T4	–196	75	75	75	135	71	135	–40	–40	–40	–196	–28
		T3	–196	75	75	75	200	66	200	–40	–40	–40	–196	–28
		T2	–196	75	75	75	300	59	300	–40	–40	–40	–196	–28
		T1	–196	75	75	75	450	49	450	–40	–40	–40	–196	–28
	C	T6	–196	60	60	60	85	58	85	–40	–40	–40	–196	–27
		T5	–196	75	75	75	100	73	100	–40	–40	–40	–196	–27
		T4	–196	78	78	78	135	74	135	–40	–40	–40	–196	–27
		T3	–196	78	78	78	200	69	200	–40	–40	–40	–196	–27
		T2	–196	78	78	78	300	62	300	–40	–40	–40	–196	–27
		T1	–196	78	78	78	450	51	450	–40	–40	–40	–196	–27

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

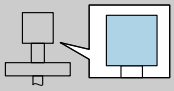
FMP55

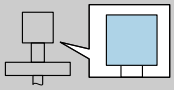
 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	75	75	75	135	62	135	–40	–40	–40	–50	–37
		T3	–50	75	75	75	200	48	200	–40	–40	–40	–50	–37
	C	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	65	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	50	200	–40	–40	–40	–50	–37

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	60	60	60	85	55	85	–40	–40	–40	–50	–38
		T5	–50	75	75	75	100	70	100	–40	–40	–40	–50	–38
		T4	–50	75	75	75	135	63	135	–40	–40	–40	–50	–38
		T3	–50	75	75	75	200	50	200	–40	–40	–40	–50	–38
	C	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	66	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	54	200	–40	–40	–40	–50	–37

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

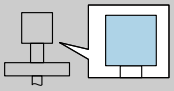
FMP55

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	51	51	51	85	44	85	–40	–40	–40	–50	–37
		T5	–50	66	66	66	100	59	100	–40	–40	–40	–50	–37
		T4	–50	75	75	75	135	62	135	–40	–40	–40	–50	–37
		T3	–50	75	75	75	200	48	200	–40	–40	–40	–50	–37
	C	T6	–50	60	60	60	85	52	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	67	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	65	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	50	200	–40	–40	–40	–50	–37

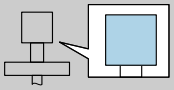
 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–50	51	51	51	85	45	85	–40	–40	–40	–50	–38
		T5	–50	66	66	66	100	60	100	–40	–40	–40	–50	–38
		T4	–50	75	75	75	135	63	135	–40	–40	–40	–50	–38
		T3	–50	75	75	75	200	50	200	–40	–40	–40	–50	–38
	C	T6	–50	60	60	60	85	54	85	–40	–40	–40	–50	–37
		T5	–50	75	75	75	100	69	100	–40	–40	–40	–50	–37
		T4	–50	78	78	78	135	66	135	–40	–40	–40	–50	–37
		T3	–50	78	78	78	200	54	200	–40	–40	–40	–50	–37

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

FMP56

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	60	60	60	85	52	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	67	100	–40	–40	–40	–	–
		T4 [1)]	–40	75	75	75	120	64	120	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	51	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	66	100	–40	–40	–40	–	–
		T4 [1)]	–40	78	78	78	120	68	120	–40	–40	–40	–	–

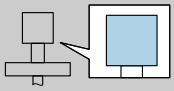
1) Functional: Maximum permissible process temperature

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	60	60	60	85	54	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	69	100	–40	–40	–40	–	–
		T4 [1)]	–40	75	75	75	120	66	120	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	54	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	69	100	–40	–40	–40	–	–
		T4 [1)]	–40	78	78	78	120	69	120	–40	–40	–40	–	–

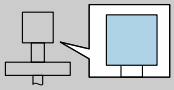
1) Functional: Maximum permissible process temperature

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

FMP56

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	51	51	51	85	43	85	–40	–40	–40	–	–
		T5	–40	66	66	66	100	58	100	–40	–40	–40	–	–
		T4 [1]	–40	75	75	75	120	64	120	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	51	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	66	100	–40	–40	–40	–	–
		T4 [1]	–40	78	78	78	120	68	120	–40	–40	–40	–	–

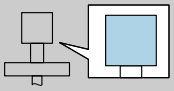
1) Functional: Maximum permissible process temperature

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	51	51	51	85	44	85	–40	–40	–40	–	–
		T5	–40	66	66	66	100	59	100	–40	–40	–40	–	–
		T4 [1]	–40	75	75	75	120	66	120	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	54	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	69	100	–40	–40	–40	–	–
		T4 [1]	–40	78	78	78	120	69	120	–40	–40	–40	–	–

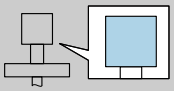
1) Functional: Maximum permissible process temperature

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

FMP57

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	75	75	75	135	63	135	–40	–40	–40	–	–
		T3 [1)]	–40	75	75	75	185	53	185	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	78	78	78	135	66	135	–40	–40	–40	–	–
		T3 [1)]	–40	78	78	78	185	57	185	–40	–40	–40	–	–

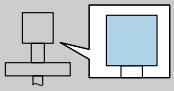
1) Functional: Maximum permissible process temperature

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	60	60	60	85	55	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	70	100	–40	–40	–40	–	–
		T4	–40	75	75	75	135	65	135	–40	–40	–40	–	–
		T3 [1)]	–40	75	75	75	185	57	185	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	55	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	70	100	–40	–40	–40	–	–
		T4	–40	78	78	78	135	68	135	–40	–40	–40	–	–
		T3 [1)]	–40	78	78	78	185	61	185	–40	–40	–40	–	–

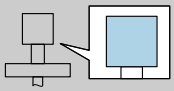
1) Functional: Maximum permissible process temperature

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

FMP57

 = *B*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	51	51	51	85	45	85	–40	–40	–40	–	–
		T5	–40	66	66	66	100	60	100	–40	–40	–40	–	–
		T4	–40	75	75	75	135	63	135	–40	–40	–40	–	–
		T3 [1]	–40	75	75	75	185	53	185	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	53	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	68	100	–40	–40	–40	–	–
		T4	–40	78	78	78	135	66	135	–40	–40	–40	–	–
		T3 [1]	–40	78	78	78	185	57	185	–40	–40	–40	–	–

1) Functional: Maximum permissible process temperature

 = *C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a	T_p	T_a
	B	T6	–40	51	51	51	85	46	85	–40	–40	–40	–	–
		T5	–40	66	66	66	100	61	100	–40	–40	–40	–	–
		T4	–40	75	75	75	135	65	135	–40	–40	–40	–	–
		T3 [1]	–40	75	75	75	185	57	185	–40	–40	–40	–	–
	C	T6	–40	60	60	60	85	55	85	–40	–40	–40	–	–
		T5	–40	75	75	75	100	70	100	–40	–40	–40	–	–
		T4	–40	78	78	78	135	68	135	–40	–40	–40	–	–
		T3 [1]	–40	78	78	78	185	61	185	–40	–40	–40	–	–

1) Functional: Maximum permissible process temperature

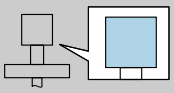
Remote; 1 channel

Probe design: remote

Optional specification, ID Mx (Probe Design) = MB, MC, MD

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

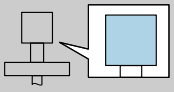
FMP5x

 = *B, C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a
	A, B, C	T6	–	60	–	60	–	60	–	–40	–	–40	–	–
	K, L	T6	–	60	–	60	–	60	–	–40	–	–40	–	–

1) T_p = dependent on the sensor

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

FMP5x

 = *B, C*	(1)		P1		P2		P3		P4		P5		P6	
			T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a
	A, B	T6	–	60	–	60	–	60	–	–40	–	–40	–	–
		T5	–	75	–	75	–	75	–	–40	–	–40	–	–
	C	T6	–	60	–	60	–	60	–	–40	–	–40	–	–
		T5	–	80	–	80	–	80	–	–40	–	–40	–	–
	K, L	T6	–	37	–	37	–	37	–	–40	–	–40	–	–

1) T_p = dependent on the sensor

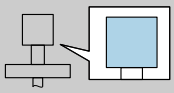
Remote; 2 channels

Probe design: remote

Optional specification, ID Mx (Probe Design) = MB, MC, MD

Explosion protection: XP / AEx d [ia]/Ex d [ia]
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Zone 1 / Class I, Division 1

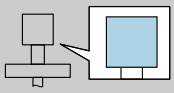
FMP5x

 = *B, C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a
	B, C	T6	–	60	–	60	–	60	–	–40	–	–40	–	–

1) T_p = dependent on the sensor

Explosion protection: Division 2
Probe: Class I, Zone 0 / Class I, Division 1
Electronics housing: Class I, Division 2

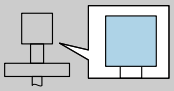
FMP5x

 = *B, C*	(2)		P1		P2		P3		P4		P5		P6	
			T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a	T_p 1)	T_a
	B	T6	–	51	–	51	–	51	–	–40	–	–40	–	–
		T5	–	66	–	66	–	66	–	–40	–	–40	–	–
	C	T6	–	60	–	60	–	60	–	–40	–	–40	–	–
		T5	–	78	–	78	–	78	–	–40	–	–40	–	–

1) T_p = dependent on the sensor

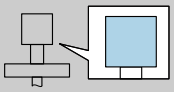
Class II, III, Division 1;
1 channel

FMP5x

 = *B, C*	**(1)**	
	A, B, C	$T = T_a + 5$ K
	K	$T = T_a + 9$ K
	L	$T = T_a + 8$ K

Class II, III, Division 1;
2 channels

FMP5x

 = *B, C*	**(2)**	
	B, C	$T = T_a + 10$ K

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