

Safety Instructions

Liquiphant M, Liquiphant S

FTL50(H)/51(H)/51C, FTL70/71

Ex nC IIC T6 Gc
Ex nA IIC T6 Gc
Ex ic IIC T6 Gc



Document: XA01093F-H
Safety instructions for electrical apparatus for explosion-hazardous areas → 3

Liquiphant M, Liquiphant S FTL50(H)/51(H)/51C, FTL70/71

Table of contents

Associated documentation	4
Supplementary documentation	4
Manufacturer's certificates	4
Manufacturer address	4
Extended order code	4
Safety instructions: General	8
Safety instructions: Special conditions	8
Safety instructions: Installation	9
Explosion protection with heat insulation	10
Temperature tables	11
Connection data	14

Associated documentation	<p>This document is an integral part of the following Operating Instructions:</p> <ul style="list-style-type: none"> ■ KA00143F/00, KA00163F/00 (FTL50, FTL51) ■ KA00144F/00, KA00164F/00 (FTL50H, FTL51H) ■ KA00162F/00, KA00165F/00 (FTL51C) ■ KA00172F/00, KA00173F/00 (FTL70, FTL71) 										
Supplementary documentation	<p>Explosion-protection brochure: CP00021Z/11</p> <p>The Explosion-protection brochure is available:</p> <ul style="list-style-type: none"> ■ In the download area of the Endress+Hauser website: www.endress.com -> Downloads -> Media Type: Documentation -> Documentation Type: Brochures and catalogs -> Text Search: CP00021Z ■ On the CD for devices with CD-based documentation 										
Manufacturer's certificates	<p>NEPSI Declaration of Conformity</p> <p>Certificate number: GYJ19.1402, GYJ17.1360 (FTL50, FTL51, FTL50H, FTL51H, FTL51C) GYJ19.1356, GYJ17.1361 (FTL70, FTL71)</p> <p>Affixing the certificate number certifies conformity with the following standards (depending on the device version):</p> <ul style="list-style-type: none"> ■ GB3836.1-2010 ■ GB3836.4-2010 ■ GB3836.8-2014 										
Manufacturer address	<p>Endress+Hauser SE+Co. KG Hauptstraße 1 79689 Maulburg, Germany</p> <p>Address of the manufacturing plant: See nameplate.</p>										
Extended order code	<p>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.</p> <p>Structure of the extended order code</p> <table border="0" style="margin-left: 40px;"> <tr> <td style="text-align: center;">FTL5x(x), FTL7x</td> <td style="text-align: center;">-</td> <td style="text-align: center;">*****</td> <td style="text-align: center;">+</td> <td style="text-align: center;">A*B*C*D*E*F*G*..</td> </tr> <tr> <td style="text-align: center;"><i>(Device type)</i></td> <td></td> <td style="text-align: center;"><i>(Basic specifications)</i></td> <td></td> <td style="text-align: center;"><i>(Optional specifications)</i></td> </tr> </table> <p>* = Placeholder At this position, an option (number or letter) selected from the specification is displayed instead of the placeholders.</p> <p><i>Basic specifications</i></p> <p>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.</p> <p><i>Optional specifications</i></p> <p>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</p>	FTL5x(x), FTL7x	-	*****	+	A*B*C*D*E*F*G*..	<i>(Device type)</i>		<i>(Basic specifications)</i>		<i>(Optional specifications)</i>
FTL5x(x), FTL7x	-	*****	+	A*B*C*D*E*F*G*..							
<i>(Device type)</i>		<i>(Basic specifications)</i>		<i>(Optional specifications)</i>							

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: Liquiphant M



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

FTL50, FTL50H, FTL51, FTL51H, FTL51C

Basic specifications

Position 1 (Approval)		
Selected option		Description
FTL5x	B ¹⁾	NEPSI Ex nC IIC T3...T6 Gc
	C ²⁾	NEPSI Ex nA IIC T3...T6 Gc NEPSI Ex ic IIC T3...T6 Gc

- 1) Basic specification, Position 1 (Approval) = B: only in combination with Position 7 (Electronics; Output) = 4
- 2) Basic specification, Position 1 (Approval) = C: Ex ic IIC T3...T6 Gc only in combination with Position 7 (Electronics; Output) = A, D, 5, 6, 7, 8

Position 5, 6 (Probe Length; Type)		
Selected option		Description
FTL50	AA	Compact
	IA	Compact; temp. separator
	QA	Compact; press.tight feed through
FTL50H	AC, AD	Compact
	IC, ID	Compact; temp. separator
	QC, QD	Compact; press.tight feed through
FTL51	BB, CB, DB	Length mm/in; 316L
	BE, CE, DE	Length mm/in; Alloy
	JB, KB, LB	Length mm/in; 316L + temp. separator
	JE, KE, LE	Length mm/in; Alloy + temp. separator
	RB, SB, TB	Length mm/in; 316L + press.tight feed through
	RE, SE, TE	Length mm/in; Alloy + press.tight feed through
FTL51H	BC, BD, CC, CD, DC, DD	Length mm/in
	JC, JD, KC, KD, LC, LD	Length mm/in; temp. separator
	RC, RD, SC, SD, TC, TD	Length mm/in; press.tight feed through

Position 5, 6 (Probe Length; Type)		
Selected option		Description
FTL51C	xK	ECTFE
	xL	PFA (Edlon)
	xM	PFA (RubyRed)
	xN	PFA (conductive)
	xS	Enamel

Position 7 (Electronics; Output)		
Selected option		Description
FTL50(H)	A	FEL50A; PROFIBUS PA
FTL51(H) FTL51C	D	FEL50D; Density, Concentration
	1	FEL51; 2-wire 19-253 VAC
	2	FEL52; 3-wire PNP 10-55 VDC
	4	FEL54; relay DPDT 19-253 VAC, 19-55 VDC
	5	FEL55; 8/16 mA, 11-36 VDC
	6	FEL56; NAMUR
	7	FEL57; 2-wire PFM
	8	FEL58; NAMUR + test button

Position 8, 9 (Housing; Cable Entry)		
Selected option		Description
FTL50 FTL51	C3	Compact; IP66/68, 316L Hygiene; 5 m cable
	N3	Compact; IP66/68, 316L Hygiene; M12 plug
	x1	F27; 316L
	x5	F13; Alu
	x6	F15; 316L Hygiene
	x7	T13; Alu
FTL50H FTL51H	C3	Compact; IP66/68, 316L Hygiene; 5 m cable
	N3	Compact; IP66/68, 316L Hygiene; M12 plug
	x5	F13; Alu
	x6	F15; 316L Hygiene
	x7	T13; Alu
FTL51C	x1	F27; 316L
	x5	F13; Alu
	x6	F15; 316L Hygiene
	x7	T13; Alu

Optional specifications

No options specific to hazardous locations are available.

Extended order code: Liquiphant S

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

FTL70, FTL71

Basic specifications

Position 1 (Approval)		
Selected option		Description
FTL7x	B ¹⁾	NEPSI Ex nC IIC T2...T6 Gc
	C ²⁾	NEPSI Ex nA IIC T2...T6 Gc NEPSI Ex ic IIC T2...T6 Gc

- 1) Basic specification, Position 1 (Approval) = B: only in combination with Position 7 (Electronics; Output) = 4
 2) Basic specification, Position 1 (Approval) = C: Ex ic IIC T2...T6 Gc only in combination with Position 7 (Electronics; Output) = A, 5, 6, 7, 8

Position 5, 6 (Probe Length; Type)		
Selected option		Description
FTL70	AB	Compact; 316L
	AE	Compact; Alloy
FTL71	BB, CB	Length mm/in; 316L
	BE, CE	Length mm/in; Alloy

Position 7 (Electronics; Output)		
Selected option		Description
FTL7x	A	FEL50A; PROFIBUS PA
	1	FEL51; 2-wire 19-253 VAC
	2	FEL52; 3-wire PNP 10-55 VDC
	4	FEL54; relay DPDT 19-253 VAC, 19-55 VDC
	5	FEL55; 8/16 mA, 11-36 VDC
	6	FEL56; NAMUR
	7	FEL57; 2-wire PFM
	8	FEL58; NAMUR + test button
	9	FEL50D, special version

Position 8, 9 (Housing; Cable Entry)		
Selected option		Description
FTL7x	x1	F27; 316L
	x5	F13; Alu
	x6	F15; 316L Hygiene
	x7	T13; Alu

Position 11 (Application)		
Selected option		Description
FTL7x	L	230 °C, gas-tight feed through
	N	280 °C, gas-tight feed through
	Y	300 °C, special version

Optional specifications

No options specific to hazardous locations are available.

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.
- 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.
- 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.

Certificate number: GYJ19.1402, GYJ19.1356

For installation, use and maintenance of the device, users must also observe the requirements stated in the Operating Instructions and the standards:

- GB50257-2014: "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".
- GB3836.13-2013: "Explosive atmospheres, Part 13: Equipment repair, overhaul and reclamation".
- GB/T 3836.15-2017: "Explosive atmospheres, Part 15: Electrical installations design, selection and erection".
- GB/T 3836.16-2017: "Explosive atmospheres, Part 16: Electrical installations inspection and maintenance".

Certificate number: GYJ17.1360, GYJ17.1361

For installation, use and maintenance of the device, users must also observe the requirements stated in the Operating Instructions and the standards:

- GB50257-2014: "Code for construction and acceptance of electric device for explosion atmospheres and fire hazard electrical equipment installation engineering".
- GB3836.13-2013: "Explosive atmospheres, Part 13: Equipment repair, overhaul and reclamation".
- GB3836.15-2000: "Electrical apparatus for explosive gas atmospheres, Part 15: Electrical installations in hazardous area (other than mines)".
- GB3836.16-2006: "Electrical apparatus for explosive gas atmospheres, Part 16: Inspection and maintenance of electrical installation (other than mines)".
- GB3836.18-2010: "Explosive atmospheres, Part 18: Intrinsically safe system".

Safety instructions: Special conditions

Permitted ambient temperature range at the electronics housing:

→  11, "Temperature tables".

- In the case of process connections made of polymeric material or with polymeric coatings, avoid electrostatic charging of the plastic surfaces.
- In the event of additional or alternative special varnishing on the housing or other metal parts:
 - Observe the danger of electrostatic charging and discharge.
 - Do not rub surfaces with a dry cloth.

Basic specification, Position 8, 9 (Housing; Cable Entry) = x5, x6, x7

Avoid sparks caused by impact and friction.

Device type FTL50(H), FTL51(H), Basic specification, Position 8, 9 (Housing; Cable Entry) = C3
The cable glands were tested with a low risk of mechanical danger (drop height 0.4 m with 1 kg mass) and must be mounted in a protected position if larger impact energy levels are expected.

Device type FTL50(H), FTL51(H), Basic specification, Position 8, 9 (Housing; Cable Entry) = C3, N3
The housings don't have any external potential equalization terminal. Therefore, the safe bonding of the devices must be ensured via the yellow-green bonding (C3) wire of the cable or via the metallic process connection (C3 or N3) of the device.

Device type FTL51C, Basic specification, Position 5, 6 (Probe Length; Type) = xK, xL, xM (isolating plastic coating)

The device is only permitted for gas.

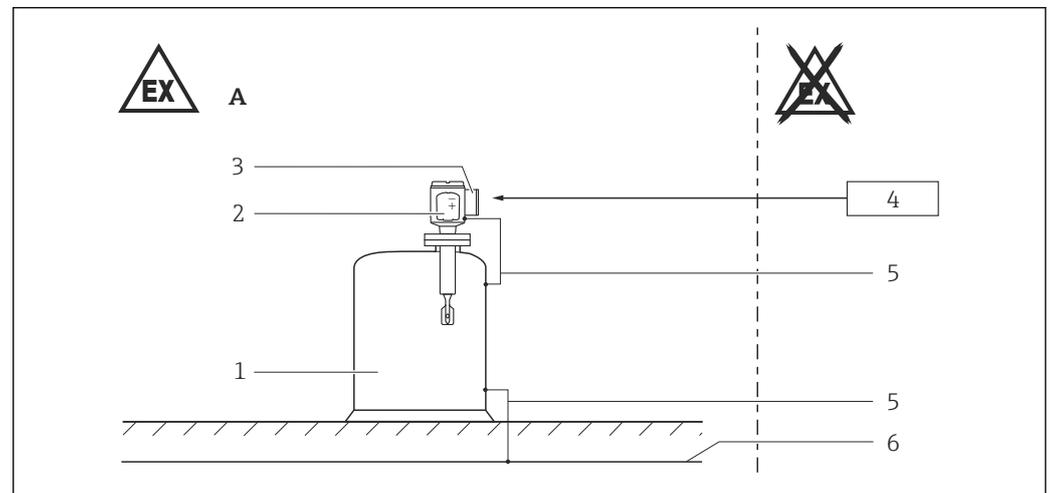
Gas group IIC

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

Gas group IIB

A probe coated with non-conductive material can be used.

Safety instructions: Installation



1

A Zone 2

1 Tank; Zone 2

2 Electronic insert; Electronics compartment

3 Connection compartment Ex nA (only Basic specification, Position 8, 9 (Housing; Cable Entry) = x7)

4 Power supply or power supply unit

5 Potential equalization line

6 Potential equalization

- Perform the following to achieve the degree of protection IP66/67 or IP66/68:
 - Screw the cover tight.
 - Mount the cable entry correctly.
- Observe the maximum process conditions according to the manufacturer's Operating Instructions.
- At high medium temperatures, note flange pressure load capacity as a factor of temperature.
- Install the device to exclude any mechanical damage or friction during the application. Pay particular attention to flow conditions and tank fittings.
- Support extension tube of the device if a dynamic load is expected.
- Only use certified cable entries suitable for the application. Observe national regulations and standards.
- When operating the transmitter housing at an ambient temperature under $-20\text{ }^{\circ}\text{C}$, use appropriate cables and cable entries permitted for this application.
- Seal unused entry glands with approved sealing 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.
- Before operation:
 - Screw in the cover all the way.
 - Tighten the securing clamp on the cover.

Basic specification, Position 1 (Approval) = B

Continuous service temperature of the connecting cable: -50 °C to $\geq +115\text{ °C}$; in accordance with the range of service temperature taking into account additional influences of the process conditions ($T_{a,\min}$), ($T_{a,\max} +45\text{ K}$).

Basic specification, Position 1 (Approval) = C

Continuous service temperature of the connecting cable: -50 °C to $\geq +85\text{ °C}$; in accordance with the range of service temperature taking into account additional influences of the process conditions ($T_{a,\min}$), ($T_{a,\max} +15\text{ K}$).

Ex nA, Ex nC

In potentially explosive atmospheres:

- Do not disconnect the electrical connection of the power supply circuit when energized.
- Do not open the connection compartment cover and the electronics compartment cover when energized.

Accessory high pressure sliding sleeve

The high pressure sliding sleeve can be used for a continuous setting of the switch point (see Operating Instructions).

Non-sparking*Ex nA, Ex nC*

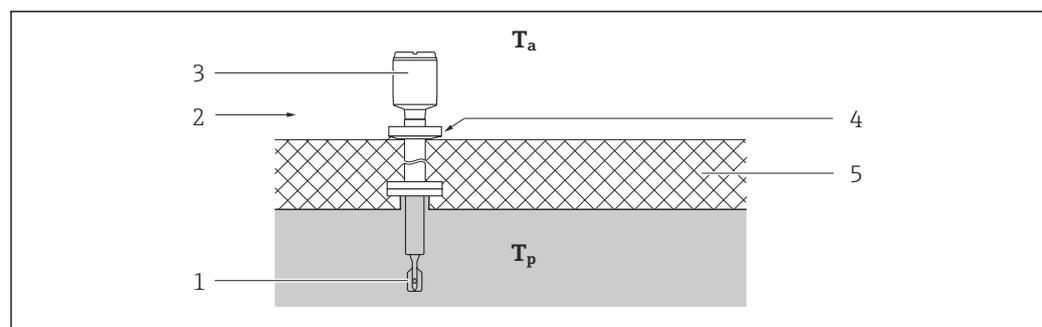
In potentially explosive atmospheres: Do not disconnect electrical connections when energized.

Potential equalization

Integrate the device into the local potential equalization.

Explosion protection with heat insulation*Device type FTL70, FTL71*

- While observing the "temperature derating", the device is suitable for process temperatures up to 300 °C .
- When operating, ensure that you rule out contact between hot component surfaces and potentially explosive atmospheres beyond the limits of the corresponding temperature class.
Suitable measures: e.g. thermal insulation at container and/or pipes.
- The temperature of 85 °C specified at the reference point may not be exceeded.
- To protect the electronics, observe the specified ambient temperature at the electronics housing.



A0025541

2

- T_a Ambient temperature
 T_p Process temperature
 1 Sensor
 2 Temperature class, e.g. T6
 3 Housing
 4 Reference point: max. $+85\text{ °C}$
 5 E.g. thermal insulation

Temperature tables

Ambient temperature electronics

Temperature class	Basic specification, Position 7 (Electronics; Output)	Ambient temperature T_a (ambient)
T6	1, 2	$-50\text{ °C} \leq T_a \leq +60\text{ °C}$
T5-T2		$-50\text{ °C} \leq T_a \leq +70\text{ °C}$
T6	4	$-50\text{ °C} \leq T_a \leq +40\text{ °C}$
T5		$-50\text{ °C} \leq T_a \leq +55\text{ °C}$
T4-T2		$-50\text{ °C} \leq T_a \leq +70\text{ °C}$
T6-T2	5, 6, 7, 8	$-50\text{ °C} \leq T_a \leq +70\text{ °C}$
T6	A, D, 9	$-50\text{ °C} \leq T_a \leq +60\text{ °C}$
T5-T2		$-50\text{ °C} \leq T_a \leq +70\text{ °C}$

Process temperature sensor

Device type FTL50(H), FTL51(H)

Used in Zone 2
$-50\text{ to }+150\text{ °C}$

Device type FTL51C, Basic specification, Position 5, 6 (Probe Length; Type) = xK, xL, xM, xN, xS

Used in Zone 2
$-50\text{ to }+120\text{ °C}$ (xK)
$-50\text{ to }+150\text{ °C}$ (xL, xM, xN, xS)

Device type FTL70, FTL71, Basic specification, Position 11 (Application) = L, N, Y

Used in Zone 2
$-60\text{ to }+230\text{ °C}$ (L)
$-60\text{ to }+280\text{ °C}$ (N)
$-60\text{ to }+300\text{ °C}$ (Y)

The dependency of the ambient and process temperatures upon the temperature class:

Device type FTL50(H), FTL51(H)

Temperature class	Basic specification, Position 7 (Electronics; Output)	Ambient temperature T_a (ambient): electronics	Process temperature T_p (process): sensor
T6	4	$-50\text{ to }+40\text{ °C}$	$-50\text{ to }+85\text{ °C}$
	A, D, 1, 2, 5, 6, 7, 8	$-50\text{ to }+60\text{ °C}$	
T5	4	$-50\text{ to }+55\text{ °C}$	$-50\text{ to }+100\text{ °C}$
	A, D, 1, 2, 5, 6, 7, 8 ¹⁾	$-50\text{ to }+70\text{ °C}$	
T4	all ¹⁾	$-50\text{ to }+70\text{ °C}$	$-50\text{ to }+135\text{ °C}$
T3	all ¹⁾	$-50\text{ to }+70\text{ °C}$	$-50\text{ to }+150\text{ °C}$

1) Additional temperature range for sensors with Basic specification, Position 5, 6 (Probe Length; Type) FTL50(H) = Ix, Qx and FTL51(H) = Jx, Kx, Lx, Rx, Sx, Tx

Device type FTL51C, Basic specification, Position 5, 6 (Probe Length; Type) = xK, xL, xM, xN, xS

Temperature class	Basic specification, Position 7 (Electronics; Output)	Ambient temperature T _a (ambient): electronics	Process temperature T _p (process): sensor
T6	4	-50 to +40 °C	-50 to +85 °C
	A, D, 1, 2, 5, 6, 7, 8	-50 to +60 °C	
T5	4	-50 to +55 °C	-50 to +100 °C
	A, D, 1, 2, 5, 6, 7, 8	-50 to +70 °C	
T4	all	-50 to +70 °C	-50 to +120 °C (xK)
	all	-50 to +70 °C	-50 to +135 °C (xL, xM, xN, xS)
T3	all	-50 to +70 °C	-50 to +150 °C (xL, xM, xN, xS)

Device type FTL70, FTL71, Basic specification, Position 11 (Application) = L, N, Y

Temperature class	Basic specification, Position 7 (Electronics; Output)	Ambient temperature T _a (ambient): electronics	Process temperature T _p (process): sensor
T6	4	-50 to +40 °C	-60 to +85 °C
	A, 1, 2, 5, 6, 7, 8, 9	-50 to +60 °C	
T5	4 ¹⁾	-50 to +55 °C	-60 to +100 °C
	A, 1, 2, 5, 6, 7, 8, 9 ¹⁾	-50 to +70 °C	
T4	all ¹⁾	-50 to +70 °C	-60 to +135 °C
T3	all ¹⁾	-50 to +70 °C	-60 to +200 °C
T2	all ¹⁾	-50 to +70 °C	-60 to +230 °C (L)
	all ¹⁾	-50 to +70 °C	-60 to +280 °C (N)
	all ¹⁾	-50 to +70 °C	-60 to +300 °C (Y)

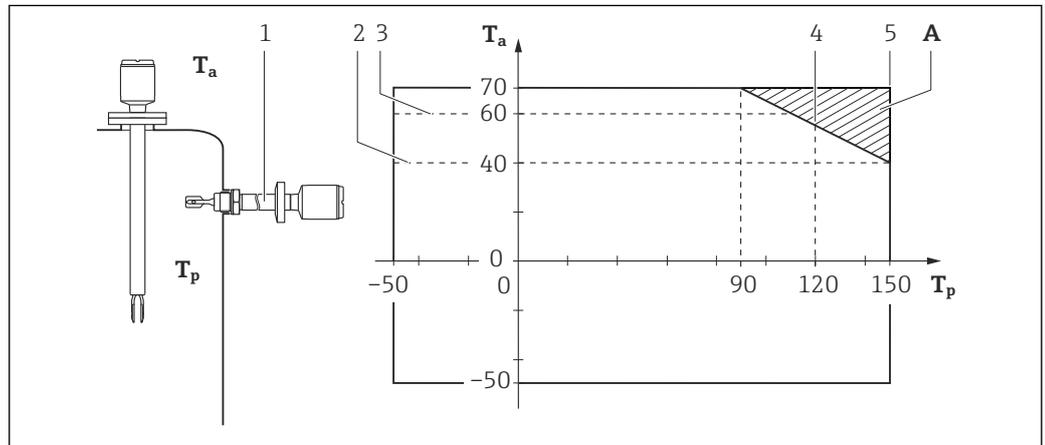
1) For restrictions → 4, 14

Device type FTL50(H)/51(H),

Basic specification, Position 5, 6 (Probe Length; Type) = Ix, Qx, Jx, Kx, Lx, Rx, Sx, Tx

Device type FTL51C,

Basic specification, Position 5, 6 (Probe Length; Type) = xK, xL, xM, xN, xS



A0025549

3

T_a Ambient temperature in °C

T_p Process temperature in °C

A Additional temperature range for sensors with Basic specification, Position 5, 6 (Probe Length; Type)
FTL50(H) = Ix, Qx and FTL51(H) = Jx, Kx, Lx, Rx, Sx, Tx

1 Temperature separator or pressure tight feed through

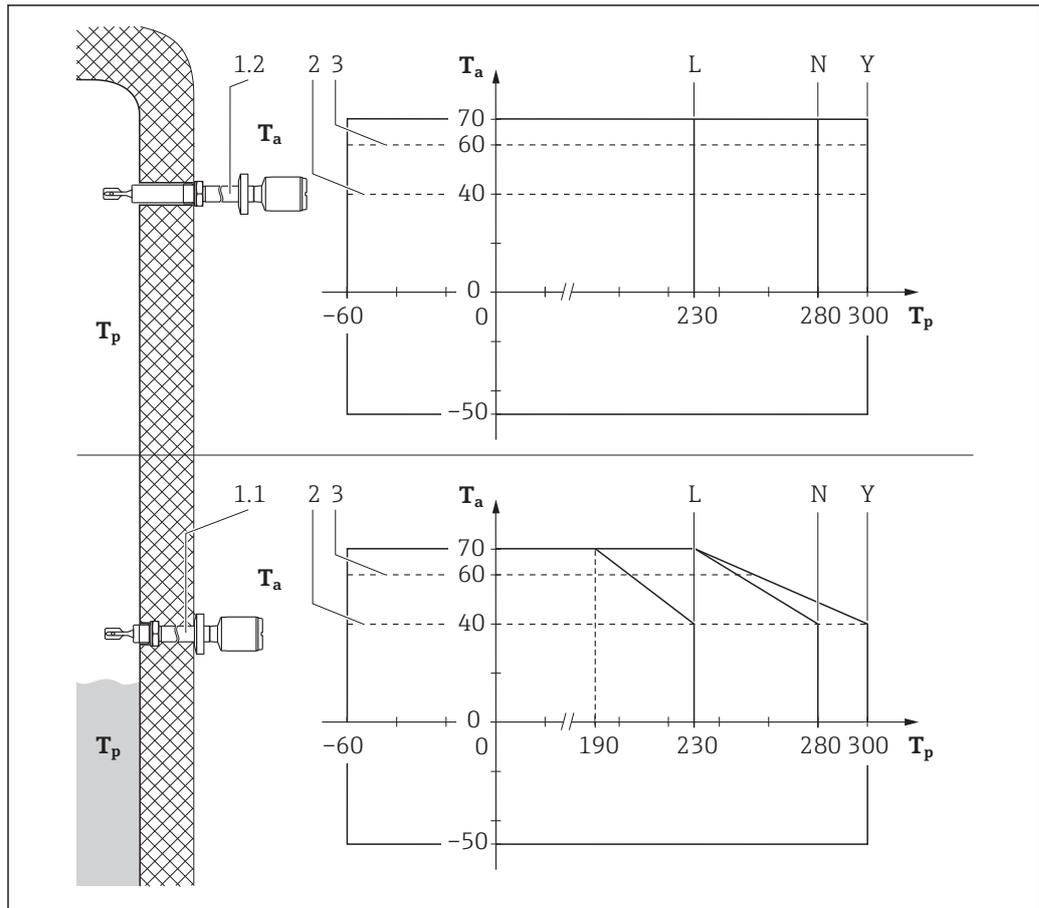
2 Basic specification, Position 7 (Electronics; Output) = 4: $-50\text{ °C} \leq T_a \leq +40\text{ °C}$ (T6)

3 Basic specification, Position 7 (Electronics; Output) = A, D: $-50\text{ °C} \leq T_a \leq +60\text{ °C}$ (T6)

4 ECTFE (xK)

5 PFA, Enamel (xL, xM, xN, xS)

Device type FTL70, FTL71, Basic specification, Position 11 (Application) = L, N, Y



A0027415

4

T_a Ambient temperature in °C

T_p Process temperature in °C

1 Temperature separator:

1.1 insulated

1.2 free-standing

2 Basic specification, Position 7 (Electronics; Output) = 4: $-50\text{ °C} \leq T_a \leq +40\text{ °C}$ (T6)

3 Basic specification, Position 7 (Electronics; Output) = A, 9: $-50\text{ °C} \leq T_a \leq +60\text{ °C}$ (T6)

Connection data

Basic specification, Position 1 (Approval) = B

Basic specification, Position 7 (Electronics; Output)	Supply
4	<p>$U = 19 \text{ to } 253 \text{ V}_{AC}, 50/60 \text{ Hz}; P_{\max} \leq 1.3 \text{ W}$</p> <p>or</p> <p>$U = 19 \text{ to } 55 \text{ V}_{DC}$</p> <p>Relay:</p> <p>$I_{\max} \sim 6.0 \text{ A} \rightarrow U_{\max} = 253 \text{ V}_{AC}; P_{\max} = 1500 \text{ VA}, \cos \varphi = 1$</p> <p>$P_{\max} = 750 \text{ VA}, \cos \varphi > 0.7$</p> <p>$I_{\max} \sim 6.0 \text{ A} \rightarrow U_{\max} = 30 \text{ V}_{DC}$</p> <p>$I_{\max} \sim 0.2 \text{ A} \rightarrow U_{\max} \leq 125 \text{ V}_{DC}$</p>

Basic specification, Position 1 (Approval) = C (only Ex nA)

<i>Basic specification, Position 7 (Electronics; Output)</i>	Supply
A	U = 9 to 32 V _{DC} ; connection only to PROFIBUS PA I _{max} ≤ 13.5 mA
D, 9	U = 21 to 26 V; connection only to FML621 I _{max} ≤ 16 mA
1	U = 19 to 253 V _{AC} , 50/60 Hz; P _{max} ≤ 0.83 W I _{max} ≤ 350 mA
2	U = 10 to 55 V _{DC} ; P _{max} ≤ 0.83 W I _{max} ≤ 350 mA
5	U = 11 to 36 V _{DC} ; P _{max} ≤ 0.6 W I _{max} ≤ 22 mA
6, 8	U = 4 to 12.5 V _{DC} ; P _{max} ≤ 23 mW I _{max} ≤ 3.5 mA
7	U = 9.5 to 12.5 V _{DC} ; P _{max} ≤ 150 mW I _{max} ≤ 13 mA

Basic specification, Position 1 (Approval) = C (only Ex ic)

<i>Basic specification, Position 7 (Electronics; Output)</i>	Supply	
A	U _i = 17.5 V P _i = 5.5 W I _i = 500 mA C _i = 2.7 nF L _i = 10 μH	Fieldbus: PROFIBUS PA
D ¹⁾	U _i = 27.6 V P _i = 640 mW I _i = 93 mA C _i = 2 nF L _i = 0.133 mH	Only associated intrinsically safe power supply unit FML621 from Endress+Hauser
5	U _i = 36 V P _i = 1 W I _i = 100 mA C _i /L _i = 0	Power supply unit with max. electrical specifications below the characteristic values of the electronic inserts
6, 8	U _i = 16 V P _i = 170 mW I _i = 52 mA C _i = 30 nF L _i = 0	Power supply unit with max. electrical specifications below the characteristic values of the electronic inserts
7	U _i = 16.7 V P _i = 1 W I _i = 150 mA C _i /L _i = 0	Power supply unit with max. electrical specifications below the characteristic values of the electronic inserts

1) only FTL50(H), FTL51(H), FTL51C



71458797

www.addresses.endress.com
