



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



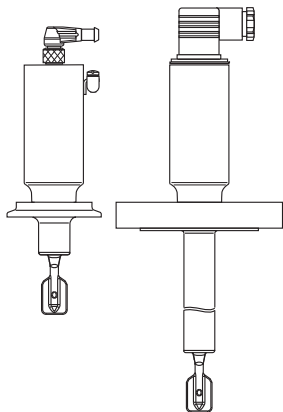
Services



Solutions

简明操作指南

Liquiphant M FTL5x(H)-# ### ## # #3



限位开关，带一体式外壳

KA00220F/00/ZH/01.06
71222393

Endress+Hauser 
People for Process Automation

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小心！

= 禁止；

导致不正确操作或损坏。

安全指南

Liquiphant M FTL50、FTL51、
FTL50H、FTL51H 带一体式外壳，
设计用于液体的限位检测。

使用不当可能会导致应用危险。

仅允许经授权的合格专业人员进行
设备的安装、电气连接、调试、操
作和维护，必须严格遵守《操作手
册》、相关标准、法律要求和证书
(取决于实际应用) 中的要求。在设
备附近安装易于操作的电源开关。
标识电源开关方便设备通断。



ENDRESS+HAUSER
LIQUIPHANT M

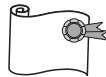
订货号

FTL5#-#####



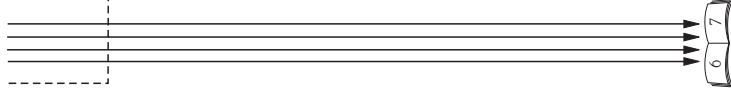
A D C F G H J M P R S U Y

^{*1}
^{*}1, WHG
 ATEX II 3 G EEx nA II T6, WHG
 ATEX II 3 D T85°C,³
 F ATEX II 1/2 G EEx IIC T6, WHG
 ATEX II 1/2 D T80°C,³
 G ATEX II 1/2 G EEx ia IIC T6
 ATEX II 1/2 D T80°C,³
 H ATEX II 1 G EEx ia IIC T6
 J ATEX II 1 G EEx ia IIC T6, WHG
 M NEPSI Ex ia IIC T6
 P FM, IS, CL I, II, III, Div. 1, Gr. A-G
 R FM, NI, CL I, Div. 2, Gr. A-D
 S CSA, IS, CL I, II, III, Div. 1, Gr. A-G
 U CSA通用型
 Y^{*2}

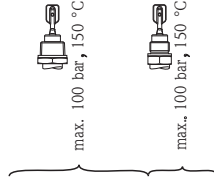


A#
 B#
 C#
 D#
 F#
 K#
 N#

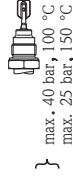




GE2 R ¾, DIN 2999, 316L
 GE5 R ¾, DIN 2999, AlloyC 4
 GF2 R 1, DIN 2999, 316L
 GF5 R 1, DIN 2999, AlloyC 4
 GM2 NPT ¾, ANSI, 316L
 GM5 NPT ¾, ANSI, AlloyC 4
 GN2 NPT 1, ANSI, 316L
 GN5 NPT 1, ANSI, AlloyC 4
 GQ2 G ¾, ISO 228, 316L
 GQ5 G ¾, ISO 228, AlloyC 4
 GR2 G 1, ISO 228, 316L
 GR5 G 1, ISO 228, AlloyC 4



GW2 G 1, ISO 228, 316L



TC2 DN 25-38 (1...1½"), ISO 2852, 316L

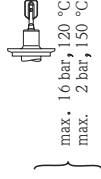
TE2 Tri-Clamp

DN 40-51 (2"),

ISO 2852, 316L

Tri-Clamp

YY9 *



*¹

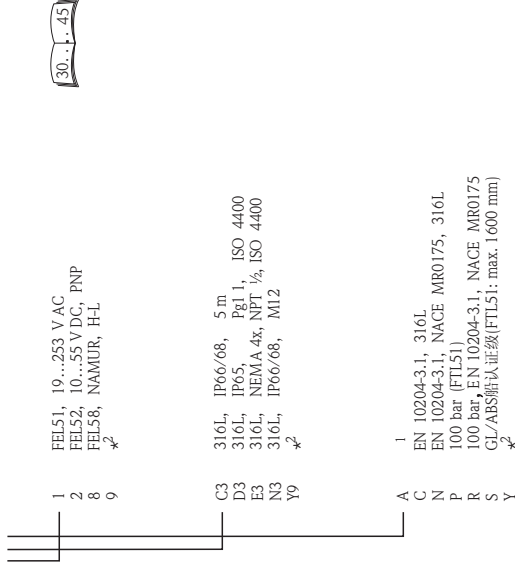
无

*²

其他

*³

不适用于PBT认证

 1^* 无

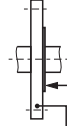
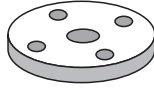
其他
2

“LI” 开关点

Liquiphant II FTL360/365, FDI30/35

“T” 温度管

“D” 压力密封垫圈



ANSI B 16.5

AA2 1 1/4", 150 lbs,	316/316L
AB2 1 1/4", 300 lbs,	RF, 316/316L (FTL51)
AC2 1 1/2", 150 lbs,	RF, 316/316L
AD2 1 1/2", 300 lbs,	RF, 316/316L (FTL51)
AE2 2", 150 lbs,	RF, 316/316L
AE5 2", 150 lbs,	Alloy C4 > 316/316L
AF2 2", 300 lbs,	RF, 316/316L
AG2 2", 600 lbs,	RF, 316/316L (FTL51)
AI2 2 1/2", 300 lbs,	RF, 316/316L (FTL51)
AL2 3", 150 lbs,	RF, 316/316L
AM2 3", 300 lbs,	RF, 316/316L (FTL51)
AN2 3", 600 lbs,	RF, 316/316L (FTL51)
AP2 4", 150 lbs,	RF, 316/316L
AQ2 4", 300 lbs,	RF, 316/316L (FTL51)
AR2 4", 600 lbs,	RF, 316/316L (FTL51)
AS2 1", 150 lbs,	RF, 316/316L

EN 1092-1

BA2 DN32,	PN6 A,	316L
BB2 DN32,	PN25/40 A,	316L
BC2 DN40,	PN6 A,	316L
BD2 DN40,	PN25/40 A,	316L
BE2 DN50,	PN6 A,	316L
BG2 DN50,	PN25/40 A,	316L
BH2 DN65,	PN6 A,	316L
BI2 DN50,	PN100 A,	316L (FTL51)
BK2 DN65,	PN25/40 A,	316L
BM2 DN80,	PN10/16 A,	316L
BN2 DN80,	PN25/40 A,	316L
BO2 DN100,	PN10/16 A,	316L
BR2 DN100,	PN25/40 A,	316L
BI2 DN80,	PN100 A,	316L (FTL51)
BS2 DN25,	PN25/40 A,	316L

CA2	DN32,	PN6 B1,	316L
CA5	DN32,	PN6,	AlloyC4 >316L
CE2	DN50,	PN6 B1,	316L
CE5	DN50,	PN6,	AlloyC4 >316L
CG2	DN50,	PN25/40 B1,	316L
CG5	DN50,	PN25/40,	AlloyC4 >316L
CJ2	DN50,	PN100 B2,	316L (FTL51)
CN2	DN80,	PN25/40 B1,	316L
CN5	DN80,	PN25/40,	AlloyC4 >316L
CQ2	DN100,	PN10/16 B1,	316L
CO5	DN100,	PN10/16,	AlloyC4 >316L
C12	DN80,	PN100 B2,	316L (FTL51)
C82	DN25,	PN25/40 B1,	316L
C85	DN25,	PN25/40,	AlloyC4 >316L
DG2	DN50,	PN40 B1,	316L
DN2	DN80,	PN40 B1,	316L
D82	DN25,	PN40 B1,	316L
FG2	DN50,	PN40 C,	316L
NG2	DN50,	PN40 D,	316L

JIS B2220

KA2	10K 25,	RF,	316L
KC2	10K 40,	RF,	316L
KE2	10K 50,	RF,	316L
KE5	10K 50,		AlloyC4 >316L
KL2	10K 80,	RF,	316L
KP2	10K 100,	RF,	316L



ENDRESS+HAUSER
LIQUIPHANT M

订货号

FTL5#H-#####



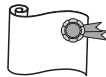
A
D
C

F

G

H
J
M
P
R
S
U
Y

*¹, WHG
ATEX II 3 G EEx nA II T6, WHG
ATEX II 3 D T85°C, *³
ATEX II 1/2 G EEx ia IIC T6, WHG
ATEX II 1/2 D T80°C, *³
ATEX II 1/2 G EEx ia IIC T6
ATEX II 1/2 D T80°C, *³
ATEX II 1 G EEx ia IIC T6
ATEX II 1 G EEx ia IIC T6, WHG
NEPSI Ex ia IIC T6
FM, IS, Cl. I, II, III, Div. 1, Gr. A-G
FM, NI, Cl. I, Div. 2, Gr. A-D
CSA, IS, Cl. I, II, III, **V** 1, Gr. A-G
CSA通用型
*²



A##
B##
C##
K##



EE2	1", 316L		max. 40 bar, 100 °C max. 25 bar, 150 °C
GQ2	G ¾, ISO 228, 316L (FTL50H)		max. 100 bar, 150 °C
GW2	G 1, ISO 228, 316L		max. 40 bar, 100 °C max. 25 bar, 150 °C
HE2	DIN 11864-1 A, DN50, 316L		max. 25 bar, 140 °C
MA2	DIN 11851, DN32 PN25, 316L		DN32/40:
MC2	DIN 11851, DN40 PN25, 316L		max. 40 bar, 100 °C
ME2	DIN 11851, DN50 PN25, 316L		DN32/40, DN50: max. 25 bar, 140 °C
PE2	DRD, 65 mm, 316L		max. 40 bar, 100 °C max. 25 bar, 150 °C
TC2	DN25-38 (1...1½"), ISO 2852, 316L Tri-Clamp		max. 16 bar, 120 °C max. 2 bar, 150 °C
TE2	DN40-51 (2"), ISO 2852, 316L Tri-Clamp p		
UE2	SMS 2", PN25, 316L		max. 25 bar, 140 °C
WE2	Varivent®, DN65-162 PN10, 316L		max. 64 bar, 150 °C

YY9 *²

12 13

*¹ 无

*² 其他

*³ 不适用于PBT认证

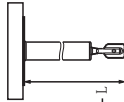


ENDRESS+HAUSER
LIQUIPHANT M

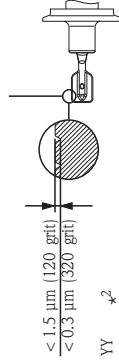
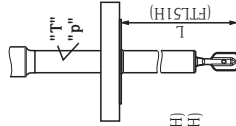
订货号

FTL5#H-##### mm
in

FTL51H



AC	*2	Ra < 1.5 µm/120 grit	(FTL50H)
AD	*2	Ra < 0.3 µm/320 grit 3A	(FTL50H)
BC	 mm,	Ra < 1.5 µm/120 grit	
BD	 mm,	Ra < 0.3 µm/320 grit 3A	
CC	 in,	Ra < 1.5 µm/120 grit	
CD	 in,	Ra < 0.3 µm/320 grit 3A	
DC	"L II",	Ra < 1.5 µm/120 grit	
DD	"L II",	Ra < 0.3 µm/320 grit 3A	
IC	*2	Ra < 1.5 µm/120 grit	+ "T" (FTL50H)
ID	*2	Ra < 0.3 µm/320 grit 3A	+ "T" (FTL50H)
JC	 mm,	Ra < 1.5 µm/120 grit	+ "T"
JD	 mm,	Ra < 0.3 µm/320 grit	+ "T"
KC	 in,	Ra < 1.5 µm/120 grit	+ "T"
KD	 in,	Ra < 0.3 µm/320 grit	+ "T"
LC	"L II",	Ra < 1.5 µm/120 grit	+ "T"
LD	"L II",	Ra < 0.3 µm/320 grit	+ "T"
OC	*2	Ra < 1.5 µm/120 grit	+ "p" (FTL50H)
OD	*2	Ra < 0.3 µm/320 grit 3A	+ "p" (FTL50H)
RC	 mm,	Ra < 1.5 µm/120 grit	+ "p"
RD	 mm,	Ra < 0.3 µm/320 grit	+ "p"
SC	 in,	Ra < 1.5 µm/120 grit	+ "p"
SD	 in,	Ra < 0.3 µm/320 grit	+ "p"
TC	L II",	Ra < 1.5 µm/120 grit	+ "p"
TD	"L II",	Ra < 0.3 µm/320 grit	+ "p"



< 1.5 µm (120 grit)
< 0.3 µm (320 grit)

YY *2



FEL51, 19...253 V AC
FEL52, 10...55 VDC, PNP
FEL58, NAMUR, H-L
★

C3 316L, IP66/68, 5 m
D3 316L, IP65, Pg11, ISO 4400
E3 316L, NEMA 4x, NPT 1/2, ISO 4400
N3 316L, IP66/68, M12
Y9 ★

A ★
B EN 10204-3.1, CoC
C EN 10204-3.1, 316L
S GL/ABS船级认证(FTL51H: max. 1600 mm)
Y ★

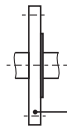
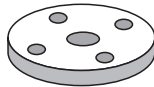
★¹ 无
★² 其他

“L II” 开关点 /

Liquiphant II FTL360/365, FDL30/35

“T” 隔温管

“p” 压力密封垫圈



ANSI B 16.5

AA2	1 1/4", 150 lbs, RF, 316/316L
AC2	1 1/2", 150 lbs, RF, 316/316L
AE2	2", 150 lbs, RF, 316/316L
AF2	2", 300 lbs, RF, 316/316L
AL2	2 1/2", 300 lbs, RF, 316/316L (FTL5 1H)
AL2	3", 150 lbs, RF, 316/316L
AM2	3", 300 lbs, RF, 316/316L (FTL5 1H)
AP2	4", 150 lbs, RF, 316/316L
AO2	4", 300 lbs, RF, 316/316L (FTL5 1H)
A82	1", 150 lbs, RF, 316/316L

EN 1092-1

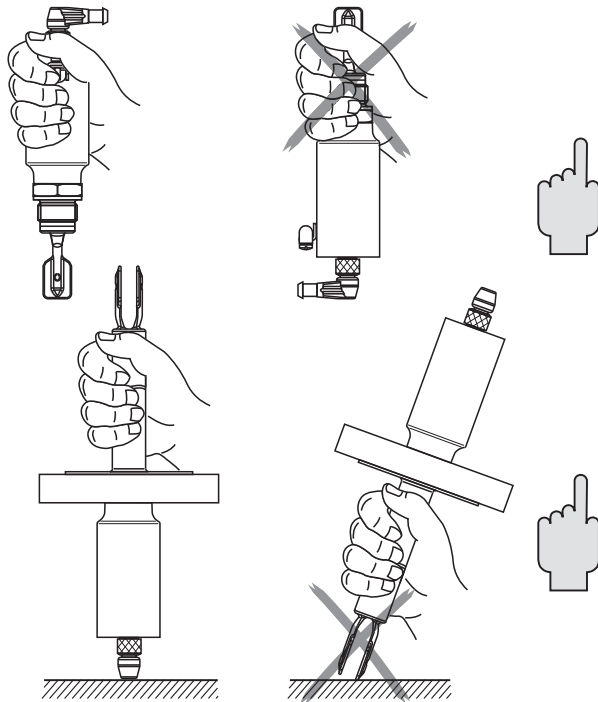
BA2	DN32, PN6 A, 316L
BB2	DN32, PN25/40 A, 316L
BC2	DN40, PN6 A, 316L
BD2	DN40, PN25/40 A, 316L
BE2	DN50, PN6 A, 316L
BG2	DN50, PN25/40 A, 316L
BH2	DN65, PN6 A, 316L
BK2	DN65, PN25/40 A, 316L
BM2	DN80, PN10/16 A, 316L
BN2	DN80, PN25/40 A, 316L
BQ2	DN100, PN10/16 A, 316L
BR2	DN100, PN25/40 A, 316L
B82	DN25, PN25/40 A, 316L
CG2	DN50, PN25/40 B1, 316L
CN2	DN80, PN25/40 B1, 316L
CO2	DN100, PN10/16 B1, 316L

JIS B2220

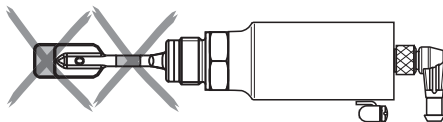
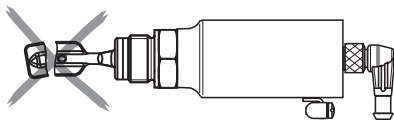
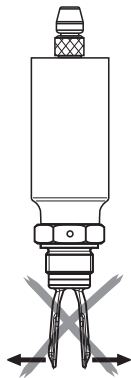
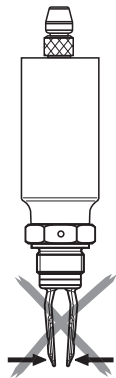
KA2	10K 25,	RF,	316L
KC2	10K 40,	RF,	316L
KE2	10K 50,	RF,	316L
KL2	10K 80,	RF,	316L
KP2	10K 100,	RF,	316L

操作

握住外壳、法兰或延伸管

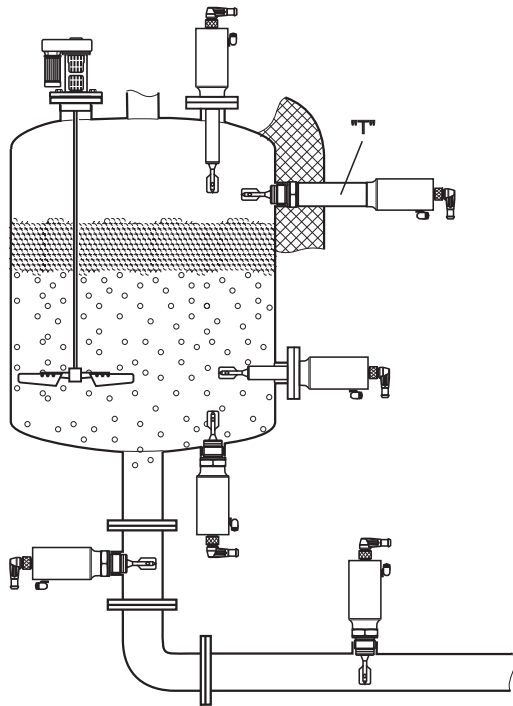


禁止弯曲
禁止截短
禁止拉伸

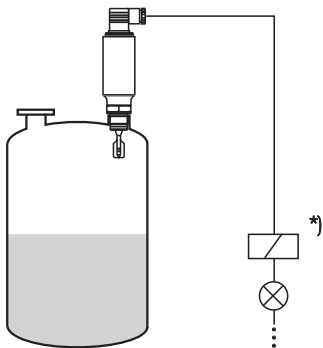
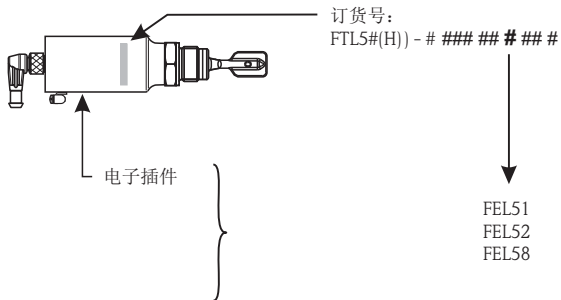


应用

液体的限位检测

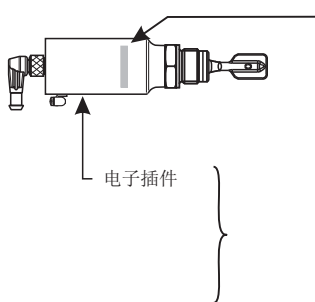


测量系统 直接连接



测量系统

通过开关单元连接

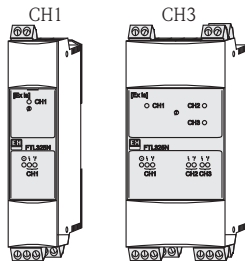


订货号:
FTL5#(H)) - # ### # # ## #

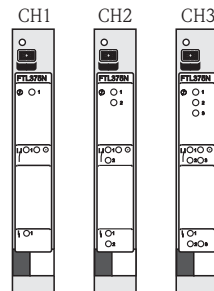
FEL58

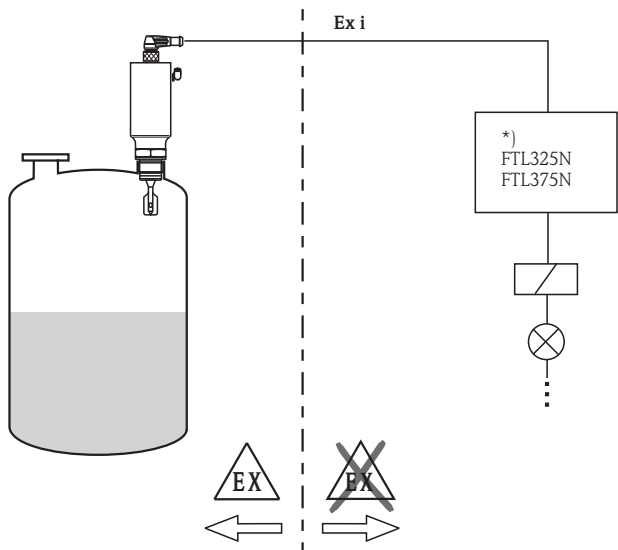


FTL325N



FTL375N



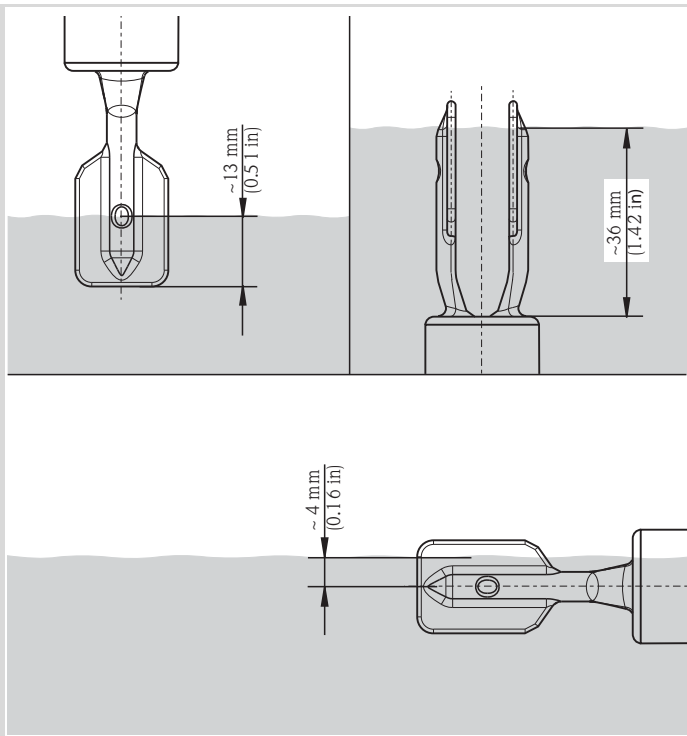


*) 开关单元、PLC、隔离放大器

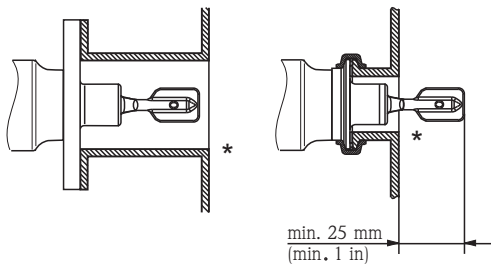
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安装

开关点取决于安装位置

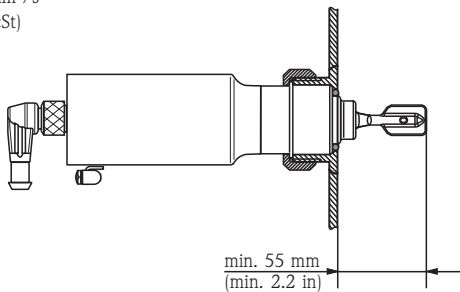


$v = 0 \dots 2000 \text{ mm}^2/\text{s}$
 $(v = 0 \dots 2000 \text{ cSt})$



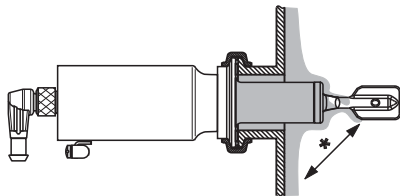
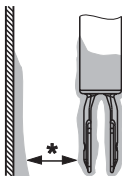
* 去毛刺

$v = 0 \dots 10000 \text{ mm}^2/\text{s}$
 $(v = 0 \dots 10000 \text{ cSt})$

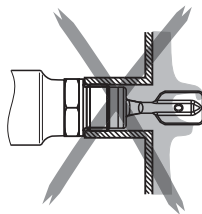
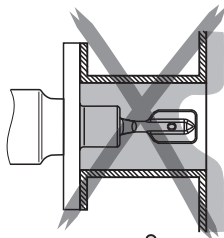
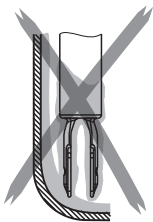


安装实例
 取决于液体粘度 v

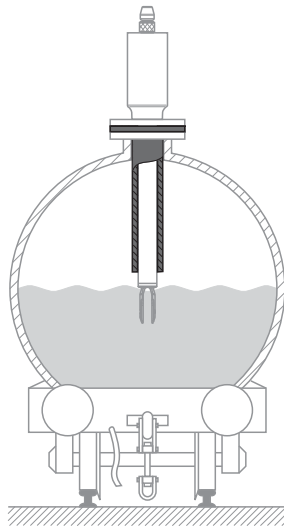
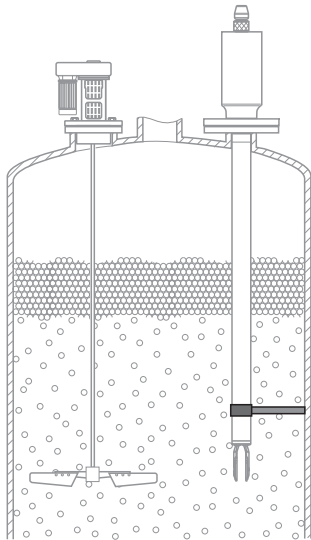
考虑粘附
保持距离，叉体不接触粘附



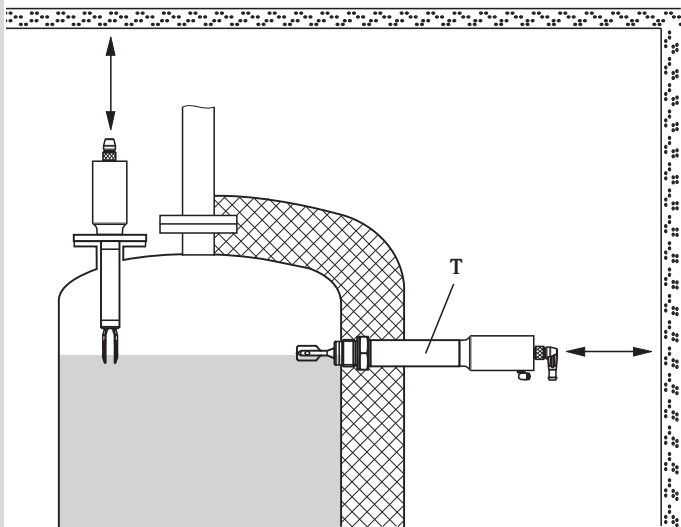
* 安装间距

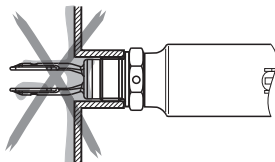
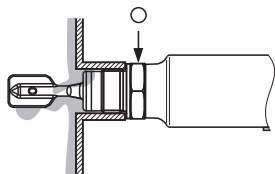


振动场合应加装支撑

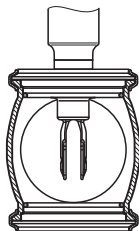
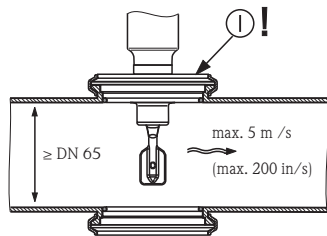
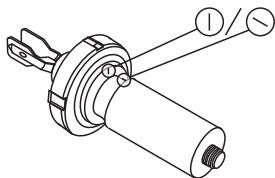
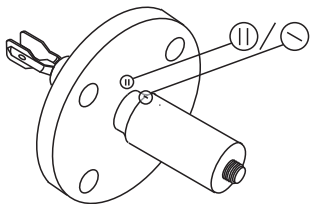


T = 绝缘罐体带保温层



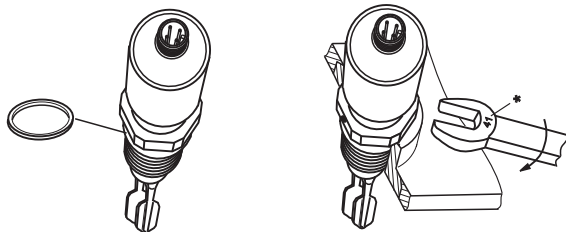


叉体的安装方向：
标记朝上或朝下
在管道中安装：
标记与流向一致

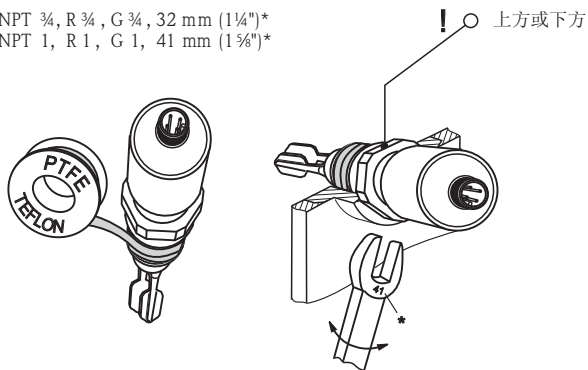


将 Liquiphant 拧入至过程连接中。
禁止通过外壳旋转拧紧。

G $\frac{3}{4}$, 32 mm (1 $\frac{1}{4}$ "*)
 G 1, 41 mm (1 $\frac{5}{8}$ "*)

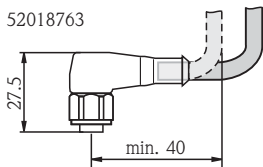


NPT $\frac{3}{4}$, R $\frac{3}{4}$, G $\frac{3}{4}$, 32 mm (1 $\frac{1}{4}$ "*)
 NPT 1, R 1, G 1, 41 mm (1 $\frac{5}{8}$ "*)



序号 = 颜色

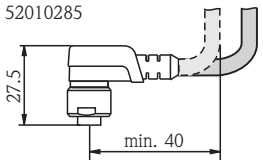
52018763



- 1 = BN (棕)
- 2 = WT (白)
- 3 = BU (蓝)
- 4 = BK (黑)

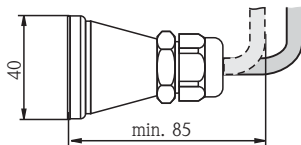
FTL5#(H) #####N3# (M12x1)

52010285



- 1 = BN (棕)
- 2 = WT (白)
- 3 = BU (蓝)
- 4 = BK (黑)

FTL5#(H) - #####C3#



- 1 = BU (蓝)
- 2 = BK (黑)
- 3 = BN (棕)
- 4 = GNYE (绿黄相间)

电气连接

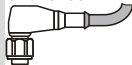
外形尺寸: mm

100 mm = 3.94 in

M12x1 插头连接型

FEL52: 直流 (DC) PNP 连接

52018763



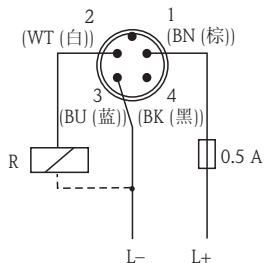
FTL5#(H)-#####N3# (M12x1)

52010285



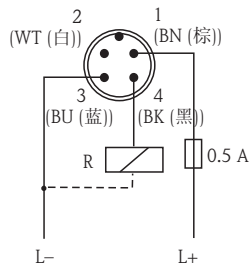
FTL5#(H)-#####N3# (M12x1)

高限(MAX)



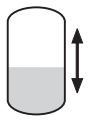
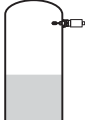
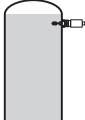
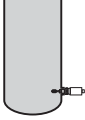
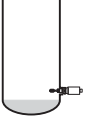
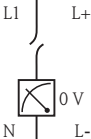
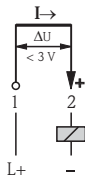
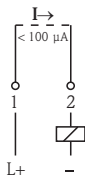
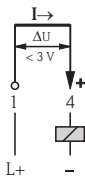
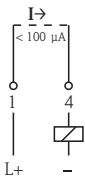
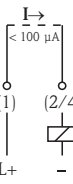
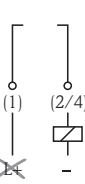
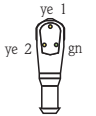
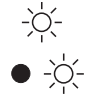
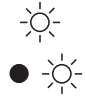
R = 外部负载

低限(MIN)



Imax. 350 mA
U = 10...55 V

电源, 电气隔离, 例如: 符合EN 61558-1标准

	高限(MAX)		低限(MIN)			
					故障	
$U_{\dots}$ (DC)						
 (PNP)						
						
						

功能

FEL52: 直流 (DC) PNP 连接

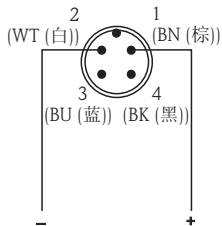
 亮起

 闪烁

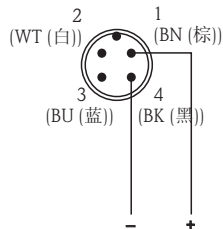
 熄灭

M12x1 插头连接型
FEL58: NAMUR 连接

高限(MAX)



低限(MIN)



H 2.2...3.5 mA



L 0.6...1.0 mA



隔离放大器
符合NAMUR (IEC 60947-5-6)标准

例如:

FXN421、FXN422、SIN100、SIN110、
FTL325N、FTL375N

复用器: 工作脉冲周期min. 3 s

52018763



FTL5#(H)-#####N3# (M12x1)

52010285



FTL5#(H)-#####N3# (M12x1)

功能
FEL58: NAMUR 连接

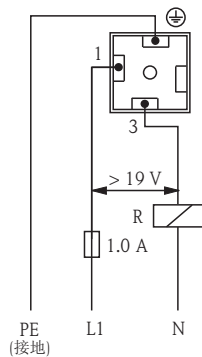
	高限(MAX)		低限(MIN)		故障	
NAMUR	H 2.2...3.5		H 2.2...3.5			
		0.6...1.0 L		0.6...1.0 L	< 1.0	
	1.0 Hz	1.0 Hz	1.0 Hz	1.0 Hz	0.3 Hz	
	= 亮起 = 闪烁 = 熄灭					

转接头连接型 FEL51: 交流 (AC) 连接

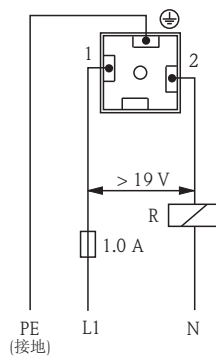
FTL5#(H)-#####D3# (PG11)
FTL5#(H)-#####E3# (NPT1/2")



高限(MAX)



低限(MIN)



R = 外部负载

min. 2.5 VA / 253 V (10 mA)
min. 0.5 VA / 24 V (20 mA)

I max. 350 mA
 $U \approx 19 \dots 253$ V AC

	高限(MAX)		低限(MIN)		故障	
					故障	
U~ (AC)						
= 亮起 = 闪烁 = 熄灭						

功能

FEL51: 交流 (AC) 连接

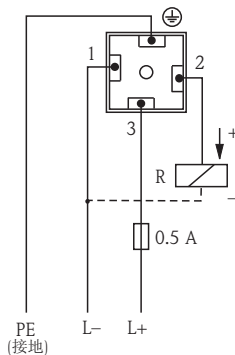
转接头连接型

FEL52: 直流 (DC) PNP 连接

FTL5#(H)-#####D3# (PG11)
FTL5#(H)-#####E3# (NPT1/2")

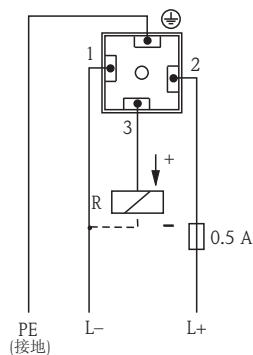


高限(MAX)



R = 外部负载

低限(MIN)



$I_{max.} 350 \text{ mA}$
 $U = 10...55 \text{ V}$

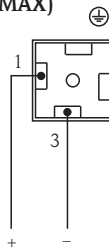
功能
FEL52: 直流 (DC) PNP 连接

	高限(MAX)		低限(MIN)			
					故障	
$U_{\dots}$ (DC)						
 (PNP)						

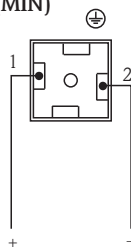
= 亮起
 = 闪烁
 = 熄灭

转接头连接型 FEL58: NAMUR 连接

高限(MAX)



低限(MIN)



H 2.2...3.5 mA



L 0.6...1.0 mA



隔离放大器
符合NAMUR (IEC 60947-5-6)标准

例如:

FXN421、FXN422、SIN100、SIN110、
FTL325N、FTL375N

复用器: 工作脉冲周期min. 3 s

FTL5#(H)-#####D3# (PG11)
FTL5#(H)-#####E3# (NPT1/2")

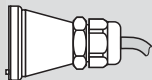


功能
FEL58: NAMUR 连接

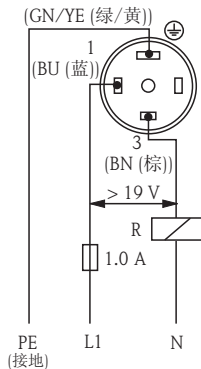
	高限(MAX)		低限(MIN)		故障	
					故障	
NAMUR	H 2.2...3.5		H 2.2...3.5			
		0.6...1.0 L		0.6...1.0 L	< 1.0	
	1.0 Hz	1.0 Hz	1.0 Hz	1.0 Hz	0.3 Hz	
	= 亮起 = 闪烁 = 熄灭					

电缆连接型
FEL51: 交流 (AC) 连接

FTL5#(H)-#####C3#



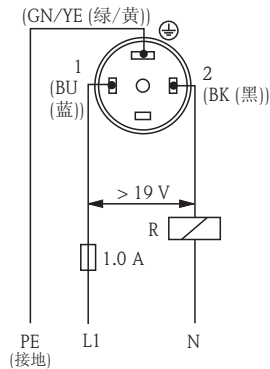
高限(MAX)



R = 外部负载

min. 2.5 VA / 253 V (10 mA)
min. 0.5 VA / 24 V (20 mA)

低限(MIN)



I max. 350 mA
 $U \approx 19 \dots 253 \text{ V AC}$

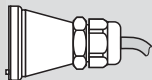
	高限(MAX)		低限(MIN)		故障	
U~ (AC)						
= 亮起 = 闪烁 = 熄灭						

功能

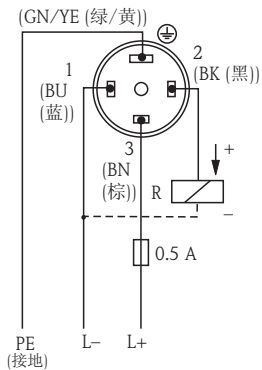
FEL51: 交流 (AC) 连接

电缆连接型
FEL52: 直流 (DC) PNP 连接

FTL5#(H)-#####C3#

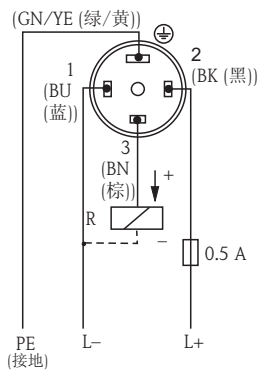


高限(MAX)



R = 外部负载

低限(MIN)



$I_{max.} 350 \text{ mA}$
 $U = 10 \dots 55 \text{ V}$

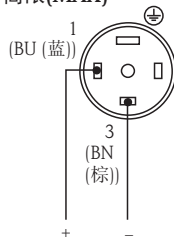
功能

FEL52: 直流 (DC) PNP 连接

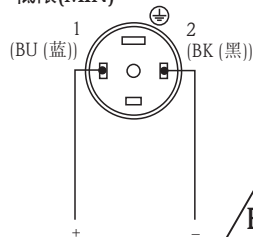
	高限(MAX)		低限(MIN)			
					故障	
$U_{\text{...}} \text{ (DC)}$						
 (PNP)						
	= 亮起 = 闪烁 = 熄灭					

电缆连接型
FEL58: NAMUR 连接

高限(MAX)



低限(MIN)



H 2.2...3.5 mA



L 0.6...1.0 mA



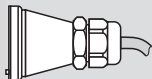
隔离放大器
符合NAMUR (IEC 60947-5-6)标准

例如:

FXN421、FXN422、SIN100、SIN110、
FTL325N、FTL375N

复用器: 工作脉冲周期min. 3 s

FTL5#(H)-#####C3#



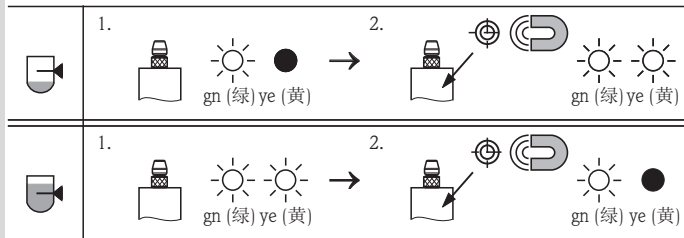
功能
FEL58: NAMUR 连接

	高限(MAX)		低限(MIN)		故障	
NAMUR	H 2.2...3.5		H 2.2...3.5			
		0.6...1.0 L		0.6...1.0 L	< 1.0	
	1.0 Hz	1.0 Hz	1.0 Hz	1.0 Hz	0.3 Hz	
= 亮起 = 闪烁 = 熄灭						

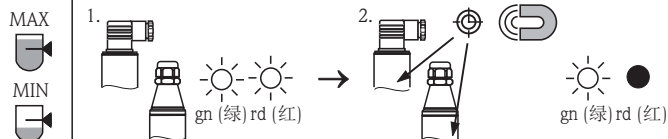
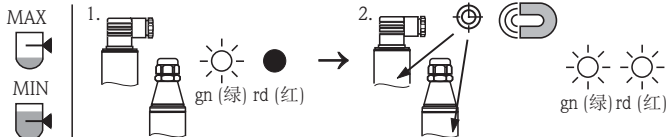


确保不会导致出现危险过程

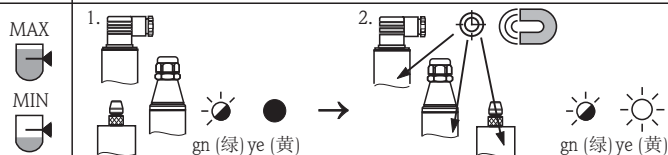
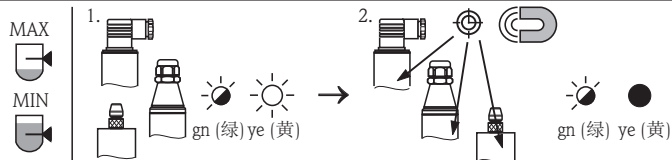
DC-PNP + M12x1

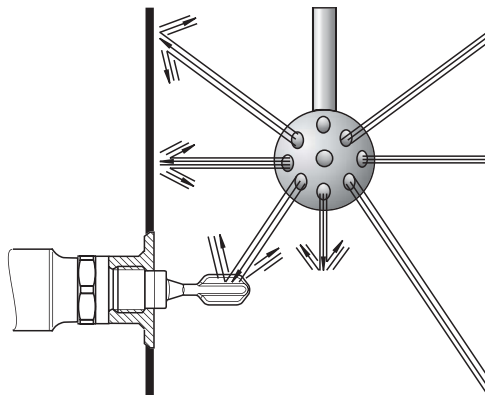
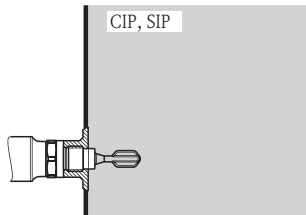
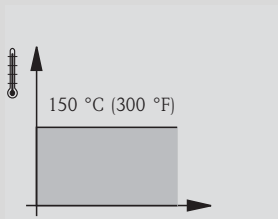


AC + DC-PNP



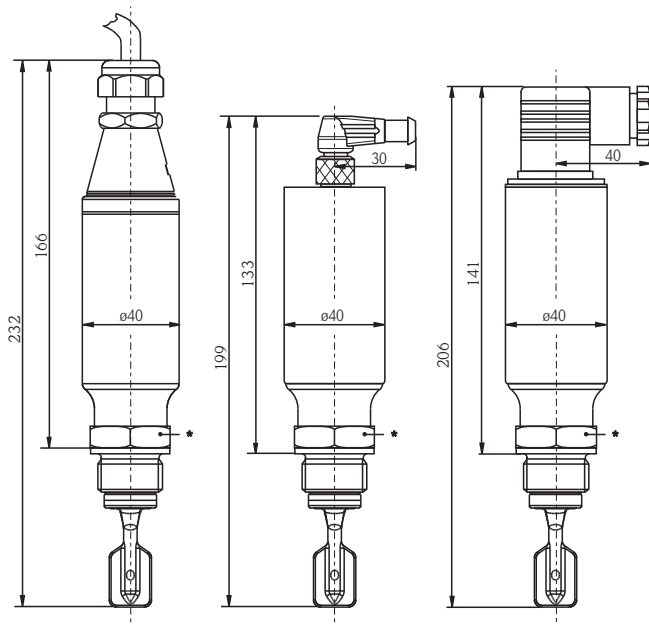
NAMUR





技术参数

外形尺寸: mm

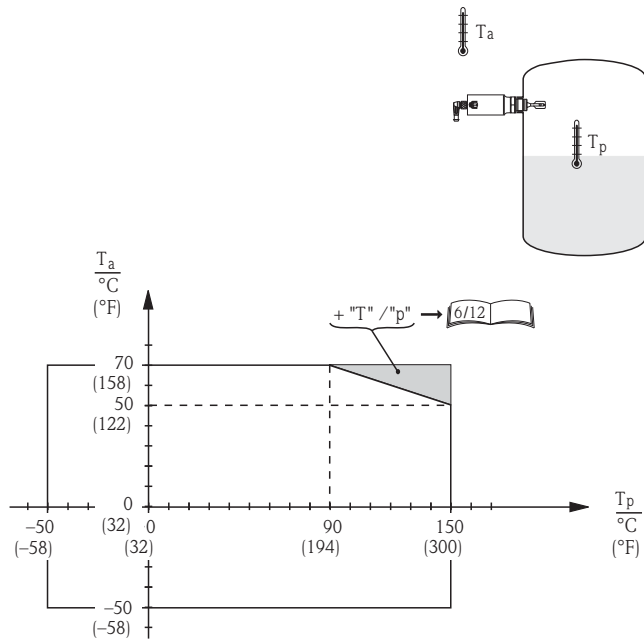


* SW 32 /32 AF

100 mm = 3.94 in

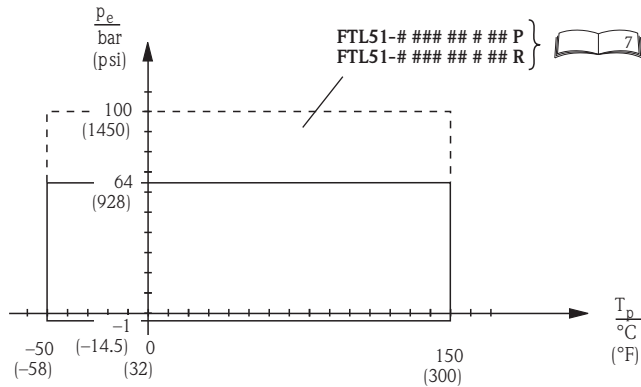
环境温度 T_a

过程温度 T_p



过程压力 p_e

过程温度 T_p



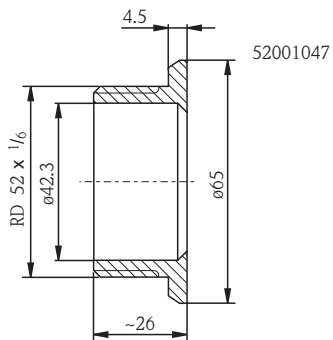
外形尺寸: mm

52



焊座





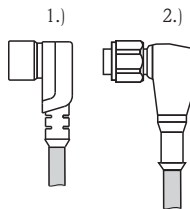
焊入式接头

外形尺寸: mm

电缆
4 x 0.34

1.) M12弯头
52010285

2.) 带M12插槽(+LED)
52018763



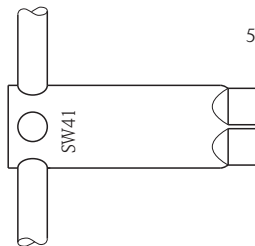
100 mm = 3.94 in

附件和备件

用于安装和测试

套筒扳手SW41，用于过程连接

52010156



52013204

开关磁铁



AC 和 DC-PNP 型，带转接头

故障	原因	补救措施
绿色指示灯熄灭	无电源	检查插头、电缆和电源
红色指示灯闪烁	负载电流回路过载或短路	修复短路 减小最大负载电流，降低至低于 350 mA
	传感器内部故障或传感器腐蚀	更换仪表

DC-PNP 型，带 M12x1 插头

故障	原因	补救措施
红色指示灯亮起 (DC-PNP)	负载电流回路过载或短路	修复短路 减小最大负载电流，降低至低于 250 mA
绿色指示灯熄灭		检查插头、电缆和电源
红色指示灯闪烁 (2 Hz)	传感器内部故障或传感器被腐蚀	更换仪表

NAMUR

故障	原因	补救措施
绿色指示灯不闪烁	隔离放大器无电源	检查插头、电缆和电源
红色指示灯闪烁 (0.3 Hz)	传感器内部故障或传感器被腐蚀	更换仪表

TI00328F Liquiphant FTL50、FTL50H、FTL51、FTL51H

《操作手册》

BA00141F FEL50A, PROFIBUS PA

《安全指南》

XA00031F	CE Ex	II 1/2 G,	EEx d	IIC/IIB
XA00063F	CE Ex	II 1/2 G,	EEx ia/ib	IIC/IIB
XA00064F	CE Ex	II 1 G,	EEx ia	IIC/IIB
XA00154F	CE Ex	II 1/2 G/D,	EEx ia/ib	IIC/IIB
XA00159F	CE Ex	II 1 G,	EEx ia	IIC/IIB

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