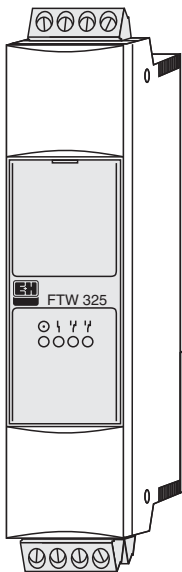


nivotester FTW 325



- d** Füllstandgrenzschalter
mit eigensicherem Signalstromkreis
- e** Level Limit Switch
with intrinsically safe signal circuit
- f** Détecteur de niveau
avec circuit signal à sécurité intrinsèque
- es** Detector de nivel
con circuito de señal intrínsecamente seguro
- i** Interruttore di livello
con circuito a sicurezza intrinseca
- sv** Nivålägesbrytare
med egensäker signalkrets

d Inhalt

Sicherheitshinweise	4
Geräte-Identifikation	6
Messeinrichtung	8
Einbau	9
Anschluss	12
Einstellungen	15
Master-Slave Funktion	25
Abgleich	26
Funktionstest	29
Projektierungsbeispiele und deren Konfiguration	30
Fehlersuche	42
Ergänzende Dokumentation	48

e Contents

Notes on Safety	4
Device Identification	6
Measuring system	8
Installation	9
Connection	12
Setting-up	15
Master-slave function	25
Calibration	26
Function test	29
Examples for installation and configuration	30
Trouble-shooting	43
Supplementary Documentation	48

f Sommaire

Conseils de sécurité	4
Désignation de l'appareil	6
Ensemble de mesure	8
Montage	9
Raccordement	12
Réglages	15
Fonction maître-esclave	25
Etalonnage	26
Test de fonction	29
Exemples d'installation et de configuration	30
Recherche de défauts	44
Documentation complémentaire	48

es Índice		i Índice		sv Innehåll	
Notas sobre seguridad	5	Note sulla sicurezza	5	Om säkerhet	4
Identificación del equipo	6	Identificazione dello strumento	6	Enhetsidentifiering	6
Sistema de medida	8	Sistema di misura	8	Mätssystem	8
Montaje	9	Montaggio	9	Installation	9
Conexiones	12	Collegamenti	12	Anslutning	12
Ajuste	15	Messa in marcia	15	Inställningar	15
Función maestro-esclavo	25	Master-funzione Slave	25	Master-slav-funktion	25
Calibración	26	Calibrazione	26	Kalibrering	26
Prueba de funcionamiento	29	Test Funzione	29	Funktionstest	29
Ejemplos de instalación y configuración	30	Esempio di installazione e configurazione	30	Exempel för installation och konfigurering	30
Identificación de fallos	45	Individuazione e eliminazione delle anomalie	46	Felsökning	47
Documentación adicional	48	Documentazione supplementare	48	Ytterligare dokumentation	48

d Sicherheitshinweise

Der Nivotester FTW 325 darf nur als konduktiver Grenzschalter verwendet werden.

Bei unsachgemäßem Einsatz können Gefahren von ihm ausgehen.

Das Gerät **darf nur von qualifiziertem und**

autorisiertem Fachpersonal

unter strenger Beachtung dieser Betriebsanleitung, der einschlägigen Normen, der gesetzlichen Vorschriften und der Zertifikate (je nach Anwendung) eingebaut, angeschlossen, in Betrieb genommen und gewartet werden.

e Notes on Safety

The Nivotester FTW 325 may only be used as a conductive measuring transmitter.

If used incorrectly it is possible that application-related dangers may arise.

The level limit device may be installed, connected, commissioned, operated and maintained **by qualified and authorised personnel only**, under strict observance of these operating instructions, any relevant standards, legal requirements, and, where appropriate, the certificate.

f Conseils de sécurité

Le Nivotester FTW 325 est uniquement destiné à être utilisé comme détecteur de niveau conductif.

Il peut être source de danger en cas d'utilisation non conforme aux prescriptions. L'appareil ne doit être installé, raccordé, mis en service et maintenu **que par un personnel qualifié et autorisé**, qui tiendra compte des indications contenues dans la présente mise en service, des normes en vigueur et des certificats disponibles (selon l'application).



Achtung!

= verboten; führt zu fehlerhaftem Betrieb oder Zerstörung.



Caution!

= forbidden; leads to incorrect operation or destruction.



Attention!

= interdit; peut provoquer des dysfonctionnements ou la destruction.

es Notas sobre seguridad

El Nivotester FTW 325 únicamente puede ser utilizado como transmisor conductivo de medida. Su empleo inapropiado puede resultar peligroso. El equipo deberá ser montado, conectado, instalado y mantenido única y **exclusivamente por personal cualificado y autorizado**, bajo rigurosa observación de las presentes instrucciones de servicio, de las normativas y legislaciones vigentes, así como de los certificados (dependiendo de la aplicación).



Atención!

= Prohibido; peligro de mal funcionamiento o de destrucción.

i Note sulla sicurezza

Il Nivotester FTW 325 può essere utilizzato solo come sistema conduttivo. Un'installazione non corretta può determinare pericolo. Lo strumento FTW 325 deve essere montato, connesso, messo in funzione ed operato **solamente da personale qualificato ed autorizzato**, sotto la stretta osservazione delle presenti norme di installazione e manutenzione e delle ulteriori norme, regolamenti, disposizioni legali e, dove richiesto, dei certificati appropriati.



Attenzione!

= Vietato; pericolo di malfunzionamento o di distruzione.

sv Säkerhetsmeddelande

Nivotester FTW 325 får endast användas som konduktiv mätsändare. Om den används felaktigt kan fara uppstå. Nivålägesenheten får endast installeras, anslutas, driftsättas, användas och underhållas **av kvalificerad och behörig personal**, och denna bruksanvisning, relevanta standarder, juridiska krav och, om tillämpligt, certifikatet, måste iakttagas noga.



Var försiktig!!

= förbjudet. Leder till felaktig funktion eller destruktions.

d Geräte-Identifikation

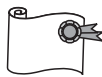
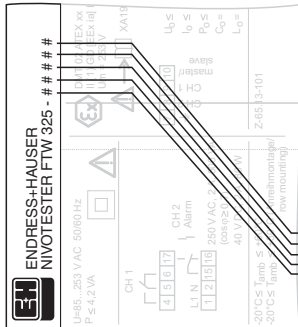
e Device Identification

f Désignation de l'appareil

es Identificación del equipo

i Identificazione dello strumento

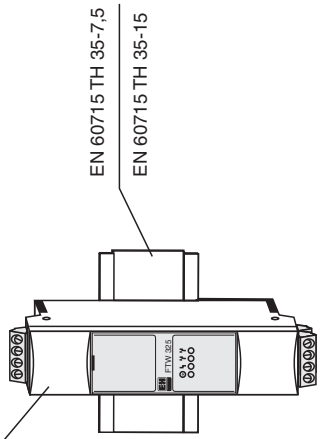
sv Enhetsidentifiering

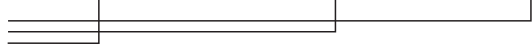


- A = *1 , WHG
- B = *1 , WHG
- C = ATEX II (1) GD, [EEEx ia] IIC, WHG
- D = FM IS, Cl. I, II, III, Div. 1, Gp. A-G
- E = CSA IS, Cl. I, II, III, Div. 1, Gp. A-G
- Y = *2

2 = 22,5mm

9 = *2





A = U ~ 85 V ... 253 V (AC), 50/60 Hz

B = U ~ 20 V ... 60 V (DC)

U ~ 20 V ... 30 V (AC), 50/60 Hz

Y = *2

Y = *2

1 = 

 CH1

 CH2

V 

A = *1

Y = *2

*1 = ohne / without / sans / sin / senza / utan

*2 = andere / others / autres / otros / altri / övriga

V = oder / or / ou / o / o / eller

 = Ausgang / Output / Sortie / Salida / Uscita / Utgång

 = Grenzsignal / Limit signal / Signal de seuil /

Soglia d'intervento / Señal de límite / Gränssignal

 = Störung / Fault / Défaüt / Fallo / Guasto / Fel

CH = Kanal / Channel / Voie / Canal / Canale / Kanal

d Messeinrichtung

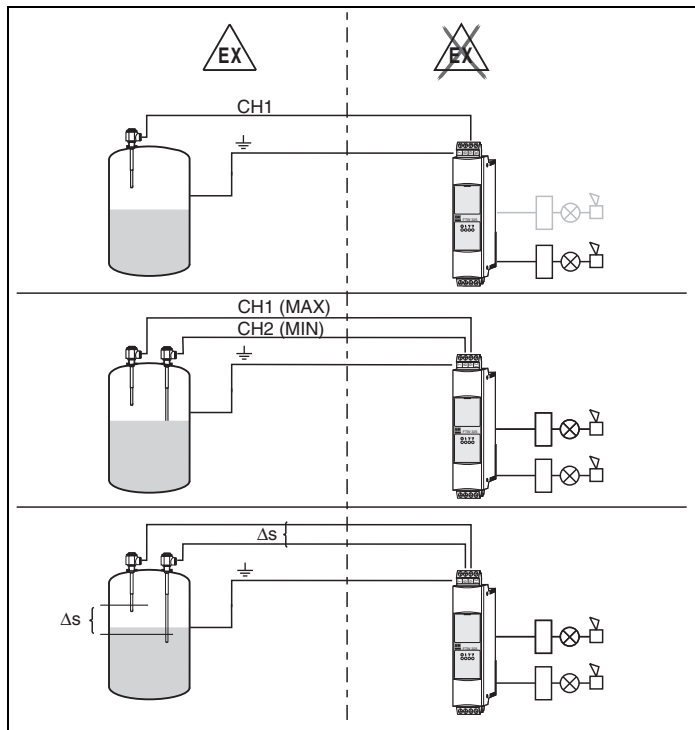
e Measuring system

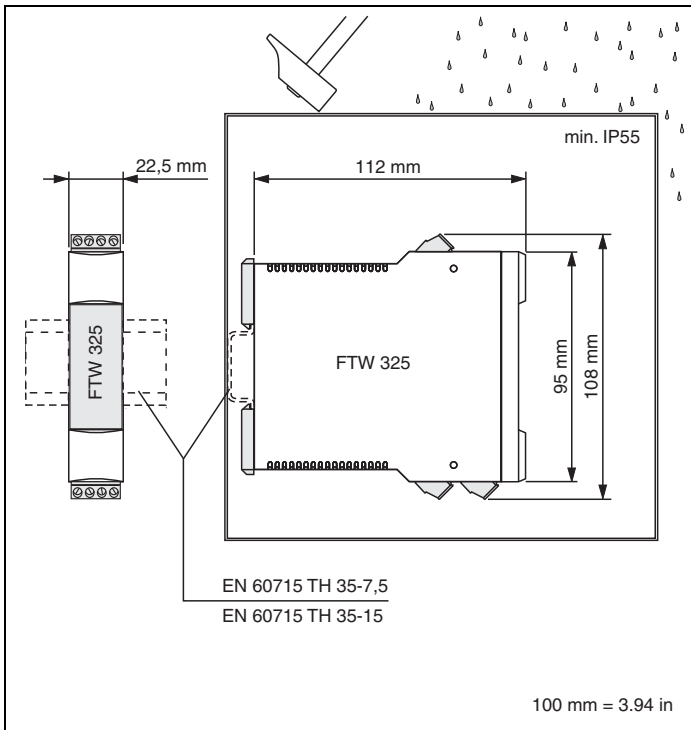
f Ensemble de mesure

es Sistema de medida

i Sistema di misura

sv Mätssystem





d Einbau

Vor Beschädigung und Witterung geschützt

e Installation

Protected against damage and weather

f Montage

Protéger contre les chocs et les intempéries

es Montaje

Protegido contra daños e intemperie

i Montaggio

Proteggere contro urti e intemperie

sv Installation

Skyddad mot skador och väder

d Mindestabstände

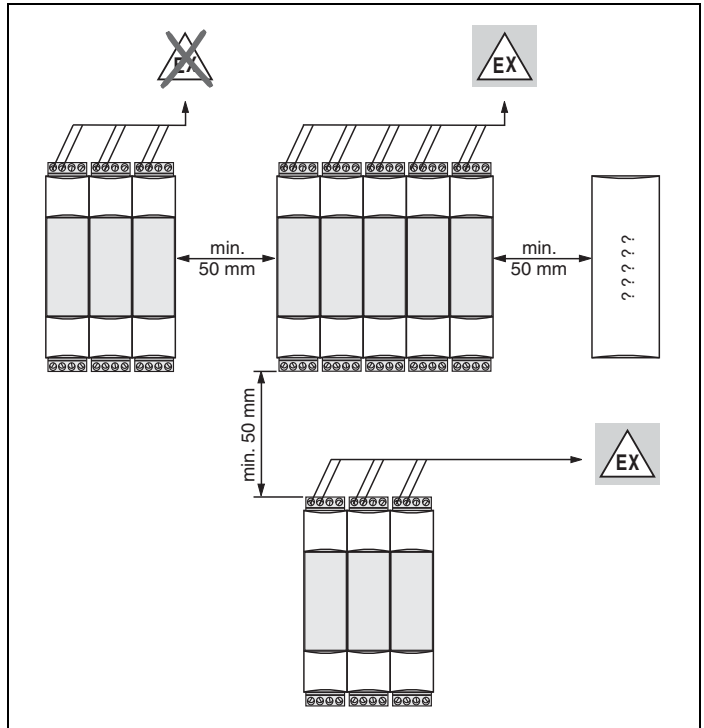
e Minimum separation

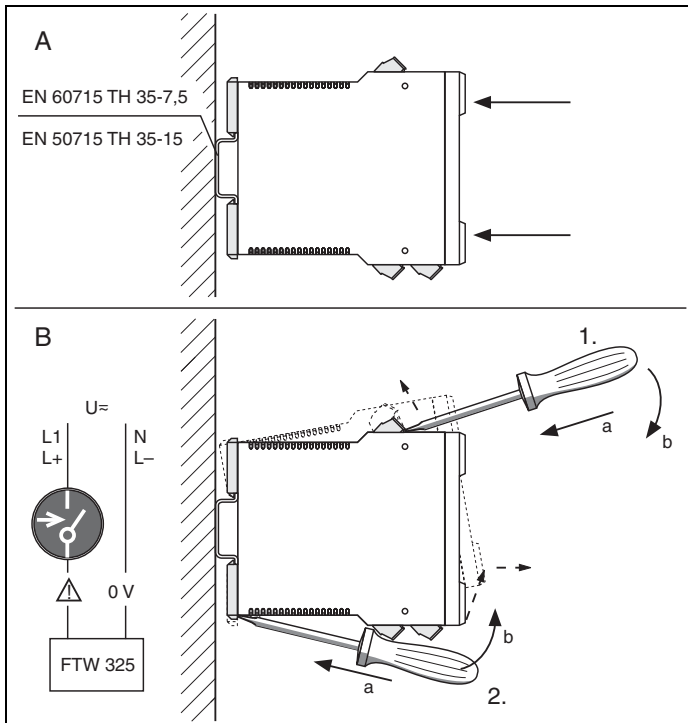
f Intervalles min. entre deux appareils

es Distancia mínima

i Distanze minime

sv Minimiavstånd





- d** A Montage auf Hutschiene
B Demontage
1. Klemmenblöcke entfernen
2. Gerät abnehmen

- e** A Rail mounting
B Dismantling
1. Remove the terminal blocks
2. Remove the unit

- f** A Montage sur rail profilé
B Démontage
1. Déconnecter les borniers
2. Oter l'appareil

- es** A Montaje en rail
B Desmontaje
1. Quitar los bornes de conexión
2. Quitar el instrumento

- i** A Montaggio su rotaia
B Smontaggio
1. Togliere il blocchetto morsetti
2. Togliere lo strumento

- sv** A Montering på skenor
B Demontering
1. Ta bort plintarna
2. Ta bort enheten

d Anschluss

Anordnung der Klemmen
Hilfsenergie

e Connection

Terminal arrangement
Power supply

f Raccordement

Agencement des bornes
Alimentation

es Conexiones

Asignación de terminales
Alimentación

i Collegamenti

Ordinamento dei terminali
Alimentazione

sv Anslutning

Plintarnas placering
Kraftkälla

Typenschild beachten!

Note name plate!

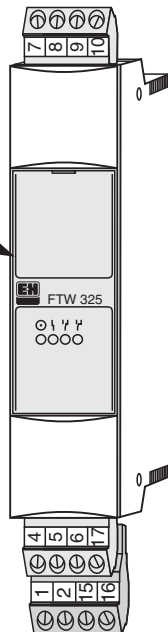
Tenir compte
de la plaque signalétique!

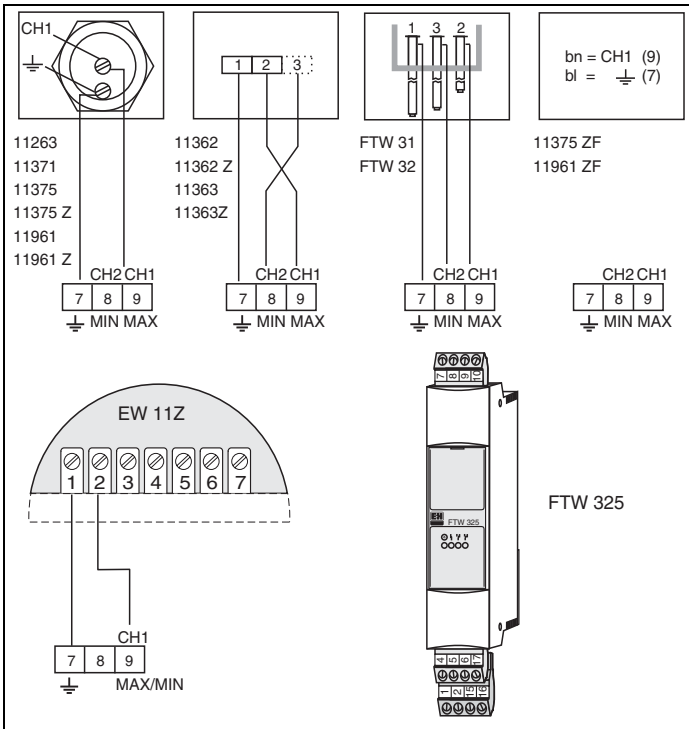
Ver identificación!

Targhetta note!

Observera märkskylten!

N	L1	U~ 85...253 V (AC)
		50/60 Hz
L-	L+	U~ 20... 60 V (DC)
N	L1	U~ 20... 30 V (AC)
		50/60 Hz





- d** Anschluss der Messaufnehmer
- e** Sensor connection
- f** Raccordement des capteurs
- es** Conexión de sensor
- i** Connessione sensore
- sv** Sensoranslutning

d Anschluss der Ausgänge

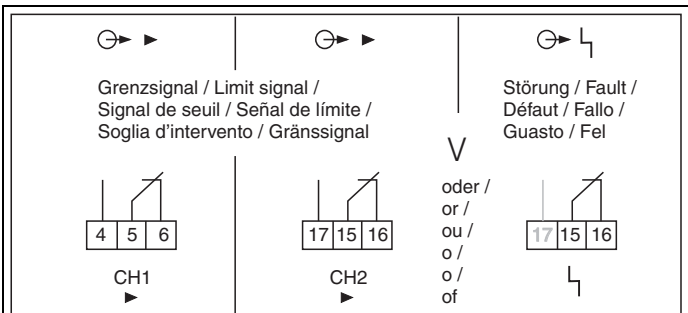
e Output connection

f Raccordement des sorties

es Conexión de la salida

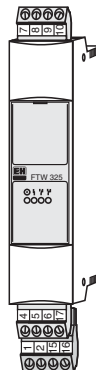
i Connessione d'uscita

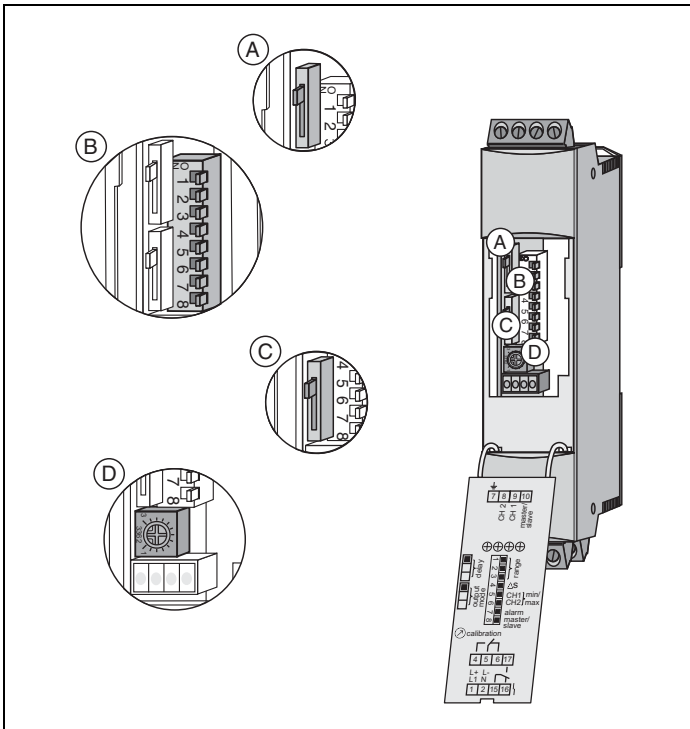
sv Utgånganslutning



Nivotester FTW 325

U~ max. 253 V (AC)
I~ max. 2 A (AC)
P~ max. 500 VA / $\cos \varphi \geq 0,7$
U... max. 40 V (DC)
I... max. 2 A (DC)
P... max. 80 W





d Einstellungen

e Setting-up

f Réglages

es Ajuste

i Messa in marcia

sv Inställningar

Lichtsignale:

Light signals:

Signaux lumineux :

Señales luminosas:

Segnali luminosi:

Lichtsignalen:

☀ leuchtet / on / allumée /
iluminado / on / till

● aus / off / éteinte /
apagado / off / från

d Schaltverzögerung einstellen

1. 6,0 s (oben)
2. 2,0 s (mitte)
3. 0,5 s (unten)

e Setting switching delay

1. 6.0 s (top)
2. 2.0 s (centre)
3. 0.5 s (bottom)

f Réglage de la temporisation

1. 6,0 s (en haut)
2. 2,0 s (milieu)
3. 0,5 s (en bas)

es Ajuste del temporizador

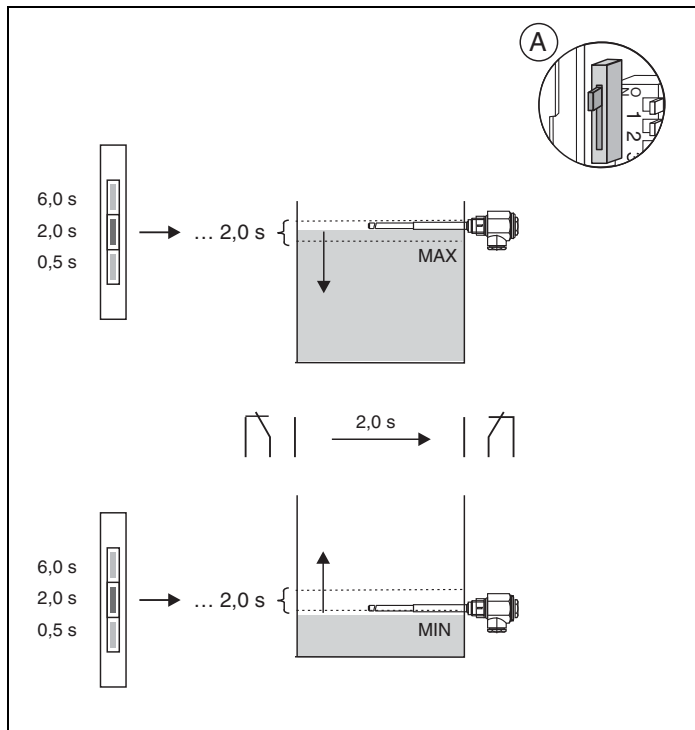
1. 6,0 s (en alto)
2. 2,0 s (en medio)
3. 0,5 s (abajo)

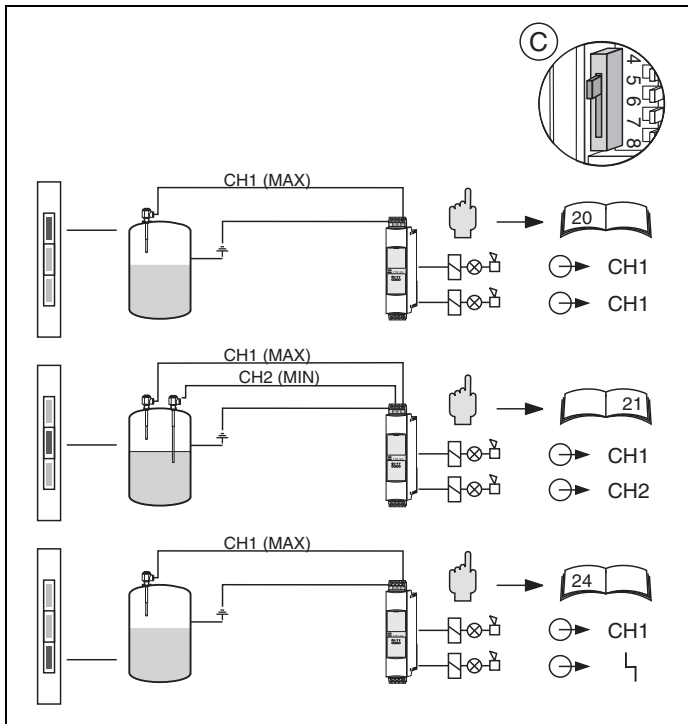
i Ritardo di commutazione

1. 6,0 s (alto)
2. 2,0 s (centro)
3. 0,5 s (basso)

sv Inställning av kopplingsfördröjning

1. 6,0 s (övre)
2. 2,0 s (mitten)
3. 0,5 s (nedre)





- d** Betriebsart des zweiten Ausgangsrelais
Füllstand oder Alarm
- e** Mode of operation of second output relay
Level or alarm
- f** Mode de fonctionnement du second relais de sortie
Niveau ou alarme
- es** Modo de funcionamiento del segundo relé de salida
Nivel o alarma
- i** Modalità operativa della seconda uscita relè
Soglia di livello o allarme
- sv** Andra utgångsreläets driftläge
Nivå eller larm
DIL-kontakt:

d DIL-Schalter:
Widerstandsbereich einstellen
und Feinabgleich vornehmen

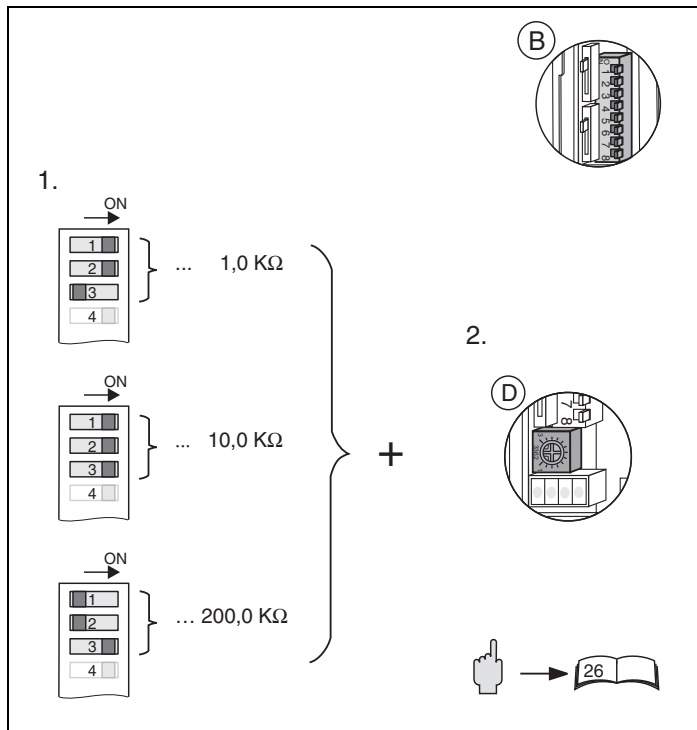
e DIL switch:
Setting resistance range and
performing fine calibration

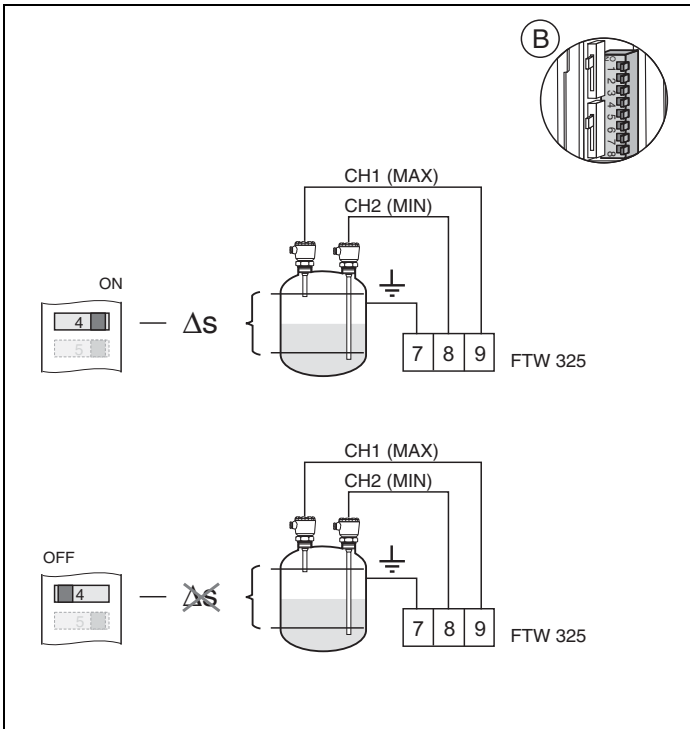
f Commutateur DIL:
Régler la gamme de
résistance et procéder à
l'étalonnage fin

es Interruptor DIL:
Selección del rango de
resistencia y ajuste de
calibración fina

i Commutatore DIL:
Impostazione del campo di
resistenza e calibrazione fine

sv DIP-kontakt:
Inställning av motstånds-
intervall och finkalibrering





- d** DIL-Schalter:
 ΔS -Funktion
 Zweipunktsteuerung
- e** DIL switch:
 ΔS function
 Two-point control
- f** Commutateur DIL:
 Fonction ΔS
 Régulation entre deux points
- es** Interruptor DIL:
 Función ΔS
 Control entre dos puntos
- i** Commutatore DIL:
 Funzione ΔS
 Per il controllo su due punti
- sv** DIP-kontakt:
 ΔS -funktion
 Tvåpunktsstyrning

d DIL-Schalter:
Min/Max-Sicherheit
2 x CH1
Leitungsüberwachung (AUS)

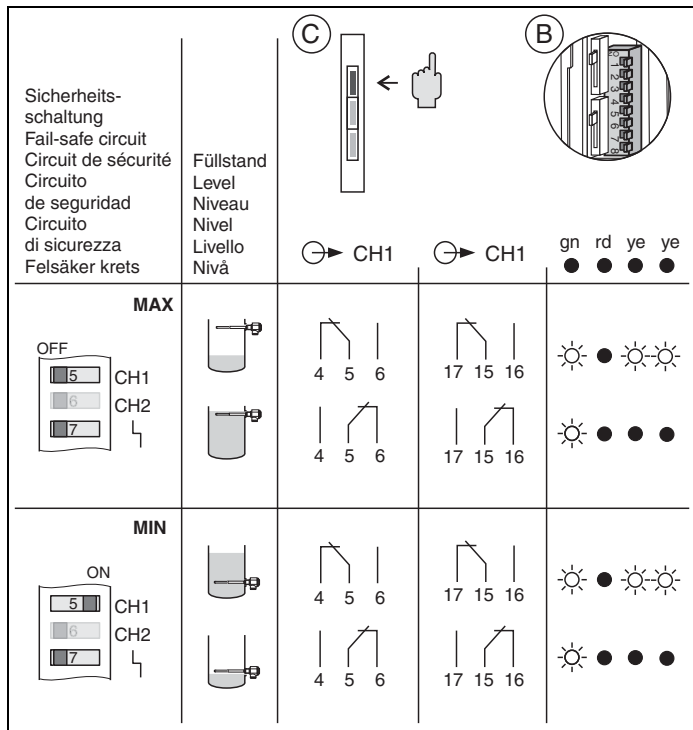
e DIL switch:
Min/Max safety
2 x CH1
Line monitoring (OFF)

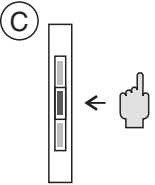
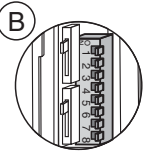
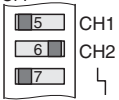

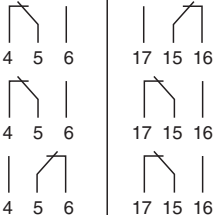
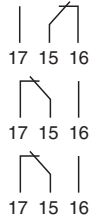


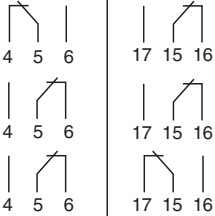

f Commutateur DIL:
Sécurité Min/Max
2 x CH1
Surveillance de ligne (OFF)

es Interruptor DIL:
Seguridad Min/Max
2 x CH1
Monitorización de línea (OFF)

i Commutatore DIL:
Sicurezza di Min/Max
2 x CH1
Monitoraggio della linea (OFF)

sv IL-kontakt:
Min/Max säkerhet
2 x CH1
Ledningsövervakning (FRÅN)



<p>Sicherheits- schaltung Fail-safe circuit Circuit de sécurité Circuito de seguridad Circuito di sicurezza Felsäker krets</p>	<p>Füllstand Level Niveau Nivel Livello Nivå</p>	<p>C</p> 	<p>B</p> 	<p>gn rd ye ye</p> <p>● ● ● ●</p>
<p>MAX - MIN</p> <p>OFF</p> 		<p>CH1</p> <p>CH2</p> 		<p>gn rd ye ye</p> <p>☀ ● ☀ ●</p> <p>☀ ● ☀ ☀</p> <p>☀ ● ● ☀</p>
<p>MIN - MAX</p> <p>ON</p> 				<p>gn rd ye ye</p> <p>☀ ● ☀ ●</p> <p>☀ ● ● ●</p> <p>☀ ● ● ☀</p>

d DIL-Schalter:
Min/Max-Sicherheit
CH1 und CH2
Leitungsüberwachung (AUS)

e DIL switch:
Min/Max safety
CH1 and CH2
Line monitoring (OFF)

f Commutateur DIL:
Sécurité Min/Max
CH1 et CH2
Surveillance de ligne (OFF)

es Interruptor DIL:
Seguridad Min/Max
CH 1 y CH 2
Monitorización de línea (OFF)

i Commutatore DIL:
Sicurezza di Min/Max
CH1 e CH2
Monitoraggio della linea (OFF)

sv DIL-kontakt:
Min/Max säkerhet
CH1 och CH2
Ledningsövervakning (FRÅN)

d DIL-Schalter:
MAX-Sicherheit
Ds (CH1 + CH2)
Leitungsüberwachung (AUS)

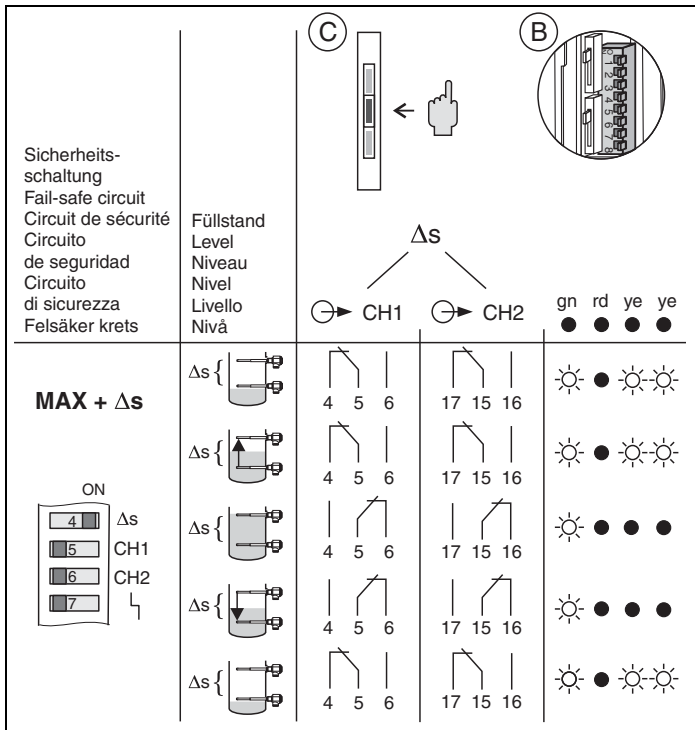
e DIL switch:
MAX safety
Ds (CH1 + CH2)
Line monitoring (OFF)

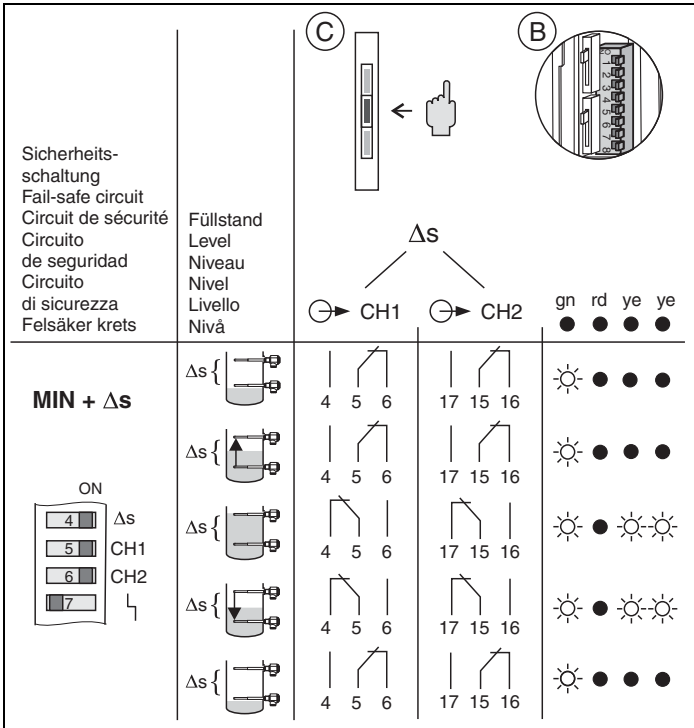
f Commutateur DIL:
Sécurité MAX
Ds (CH1 + CH2)
Surveillance de ligne (OFF)

es Interruptor DIL:
Seguridad MAX
Ds (CH1 + CH2)
Monitorización de línea (OFF)

i Commutatore DIL:
Sicurezza di massimo
Ds (CH1 + CH2)
Monitoraggio della linea (OFF)

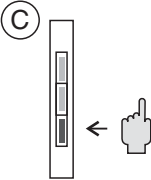
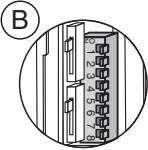
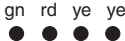
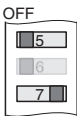




























sv DIL-kontakt:
MAX säkerhet
Ds (CH1 + CH2)
Ledningsövervakning (FRÅN)

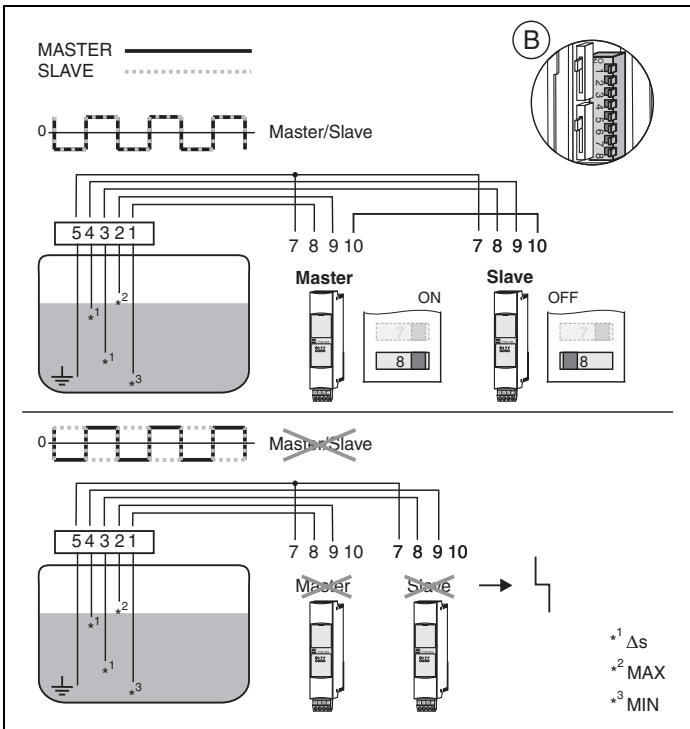




- d** DIL-Schalter:
MIN-Sicherheit
Ds (CH1 + CH2)
Leitungsüberwachung (AUS)
- e** DIL switch:
MIN safety
Ds (CH1 + CH2)
Line monitoring (OFF)
- f** Commutateur DIL:
Sécurité MIN
Ds (CH1 + CH2)
Surveillance de ligne (OFF)
- es** Interruptor DIL:
Seguridad MIN
Ds (CH1 + CH2)
Monitorización de línea (OFF)
- i** Commutatore DIL:
Sicurezza di massimo
Ds (CH1 + CH2)
Monitoraggio della linea (OFF)
- sv** DIL-kontakt:
MIN säkerhet
Ds (CH1 + CH2)
Ledningsövervakning (FRÅN)

- d** DIL-Schalter:
Min/Max-Sicherheit
CH1 + Störmeldung
Leitungsüberwachung (AN)
- e** DIL switch:
Min/Max safety
CH1 + fault message
Line monitoring (ON)
- f** Commutateur DIL:
Sécurité Min/Max
CH1 + message alarme
Surveillance de ligne (ON)
- es** Interruptor DIL:
Seguridad Min/Max
CH 1 + mensaje de alarma
Monitorización de línea (ON)
- i** Commutatore DIL:
Sicurezza Min/Max
CH1 + malfunzionamento
Monitoraggio della linea (ON)
- sv** DIL-kontakt:
Min/Max säkerhet
CH1 + felmeddelande
Ledningsövervakning (TILL)

Sicherheits- schaltung Fail-safe circuit Circuit de sécurité Circuito de seguridad Circuito di sicurezza Felsäker krets	Füllstand Level Niveau Nivel Livello Nivå			
OFF MAX  CH1 CH2 	 	 4 5 6  4 5 6	 17 15 16  17 15 16	 
ON MIN  CH1 CH2 	 	 4 5 6  4 5 6	 17 15 16  17 15 16	 
Störung / Fault / Défaut / Fallo / Guasto / Fel 		 4 5 6	 17 15 16	
		 4 5 6	 17 15 16	



- d Master-Slave Funktion**
Synchronisation der Phasen einstellen
- e Master-slave function**
Setting the synchronisation of the phases
- f Fonction maître-esclave**
Réglage de la synchronisation de phase
- es Función maestro-esclavo**
Ajuste de la sincronización de las fases
- i Master-funzione Slave**
Funzioen di sincronizzazione delle fasi
- sv Master-slav-funktion**
Ställa in fasernas synkronisering

d Abgleich

Standardeinstellung!
Für leitfähige Flüssigkeiten

e Calibration

Standard setting!
For conductive liquids

f Etalonnage

Réglage standard!
Pour liquides conducteurs

es Calibración

Ajuste estándar!
Para líquidos conductivos

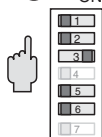
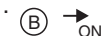
i Calibrazione

Impostazione Standard!
Per liquidi conduttivi

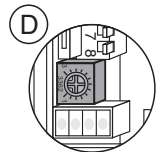
sv Kalibrering

Standardinställning!
För ledande vätskor

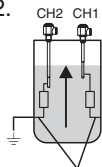
1.

... 200,0 K Ω

CH1 = MAX } z.B. / e.g. / par ex. /
CH2 = MAX } por ej. / p. es. / tex.



2.

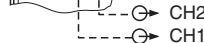


R/ Ω = Medium /
Milieu /
Mezzo /
Medio / Medium

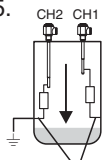
3.



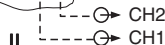
4.

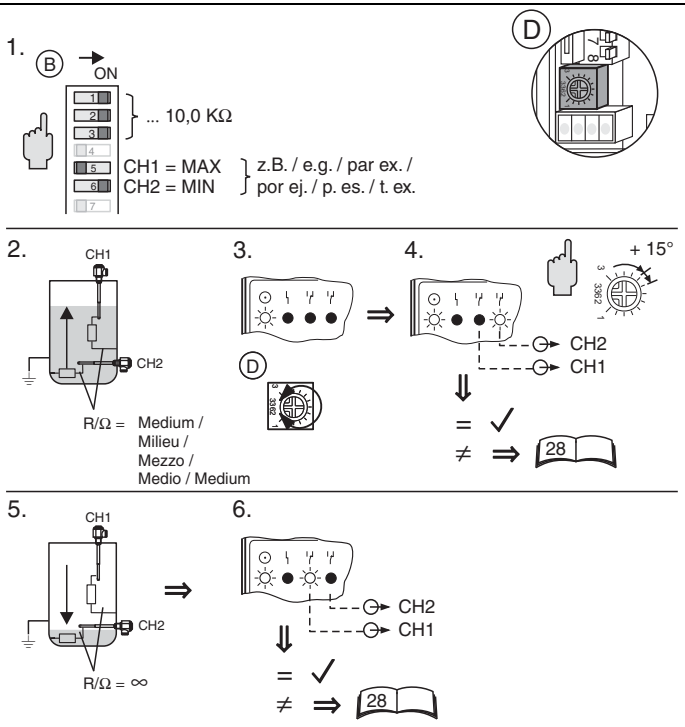


5.

R/ Ω = ∞

6.





- d** Widerstandsbereich bis 10,0 kΩ
- e** Resistance range to 10.0 kΩ
- f** Gamme de résistance jusqu'à 10,0 kΩ
- es** Rango de resistencia hasta 10,0 kΩ
- i** Campo resistenza fino a 10,0 kΩ
- sv** Motståndintervall till 10,0 kΩ

d Widerstandsbereich bis
1,0 k Ω

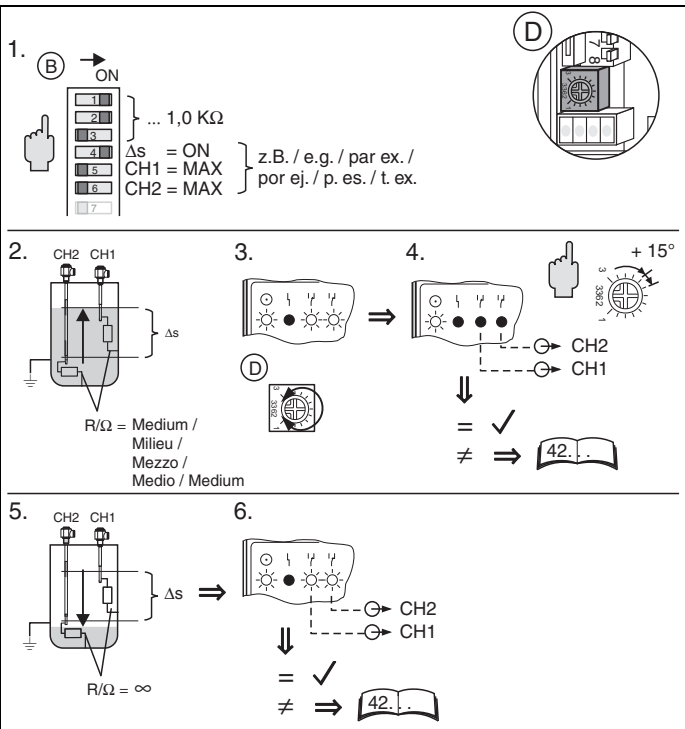
e Resistance range to
1.0 k Ω

f Gamme de résistance jusqu'à
1,0 k Ω

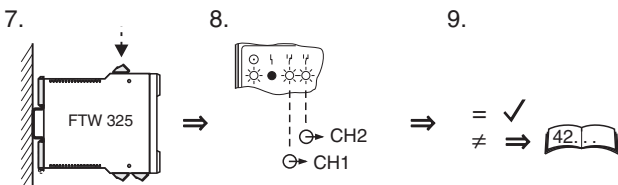
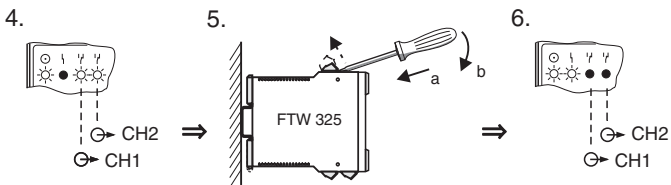
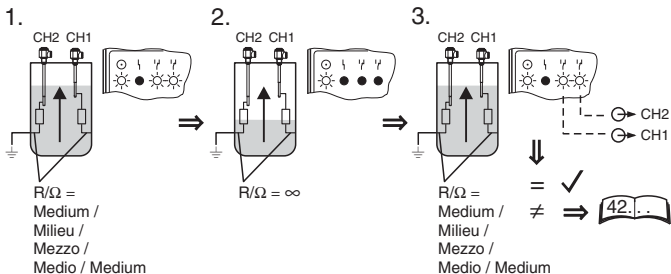
es Rango de resistencia hasta
1,0 k Ω

i Campo resistenza fino a
1,0 k Ω

sv Motståndintervall till
1,0 k Ω



z.B. / e.g. / par ex. / por ej. / p. es. / / t. ex.



d Funktionstest

Füllstandalarm 1 - 3 und
Störmeldung 4 - 9

e Function test

Level alarm 1 - 3 and
fault message 4 - 9

f Test de fonction

Alarme de niveau 1 - 3 et
message alarme 4 - 9

es Prueba de funcionamiento

Alarma de nivel 1 - 3 y
mensaje de alarma 4 - 9

i Test funzione

Allarme livello 1 - 3
malfunzionamento 4 - 9

sv Funktionstest

Nivåalarm 1-3 och
felmeddelande 4-9

d Projektierungsbeispiele und deren Konfiguration

Einkanalbetrieb mit Alarmüberwachung

e Examples for installation and configuration

One channel mode with alarm signal

f Exemples d'installation et de configuration

Mode une voie avec signal alarme

es Ejemplos de instalación y configuración

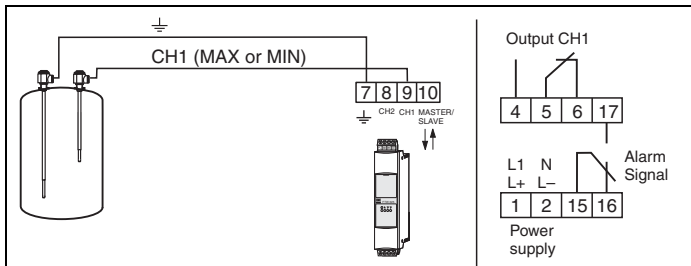
Versión de un canal con señal de alarma

i Esempio di installazione e configurazione

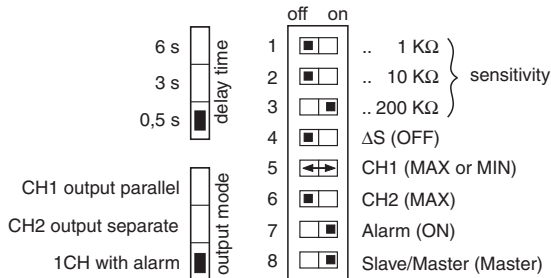
Modalità a un canale con segnale d'allarme

sv Exempel för installation och konfigurering

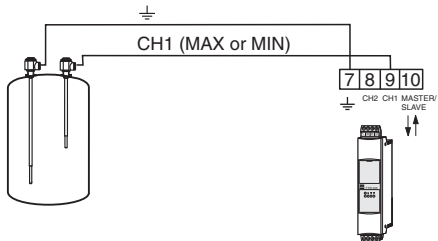
Enkanalsläge med larmsignal



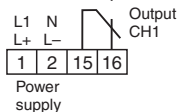
Switch setting



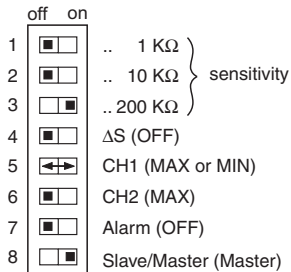
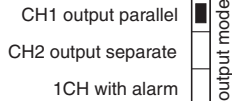
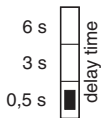
Calibration



Output CH1



Switch setting



- d** Einkanalbetrieb ohne Alarmüberwachung (Ausgänge parallel)
- e** One channel mode without alarm signal (outputs parallel)
- f** Mode une voie sans signal alarme (sorties parallèles)
- es** Versión de un canal sin señal de alarma (salidas paralelas)
- i** Modalità a un canale senza segnale d'allarme (uscite in parallelo)
- sv** Enkanalsläge utan larmsignal (parallella utgångar)

d Zweikanalbetrieb
(Ausgänge separat)

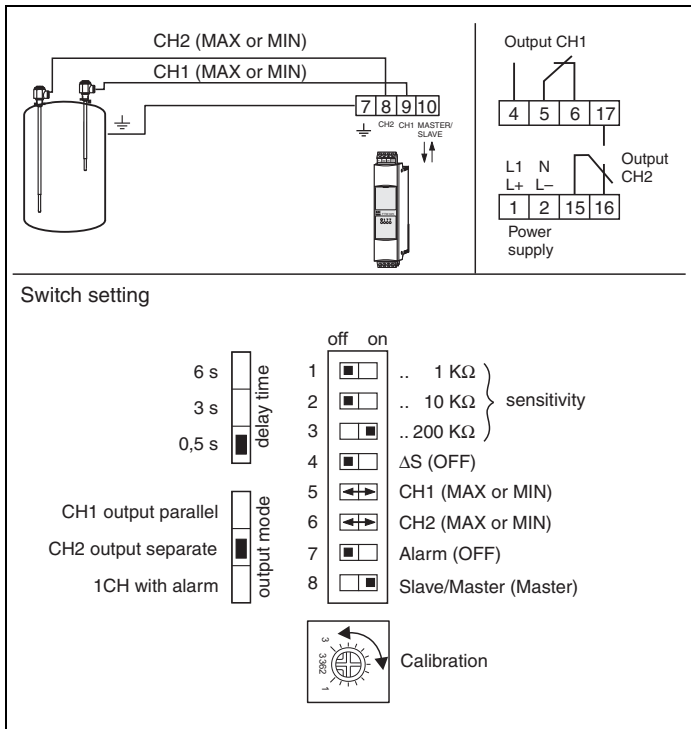
e Two channel mode
(outputs separate)

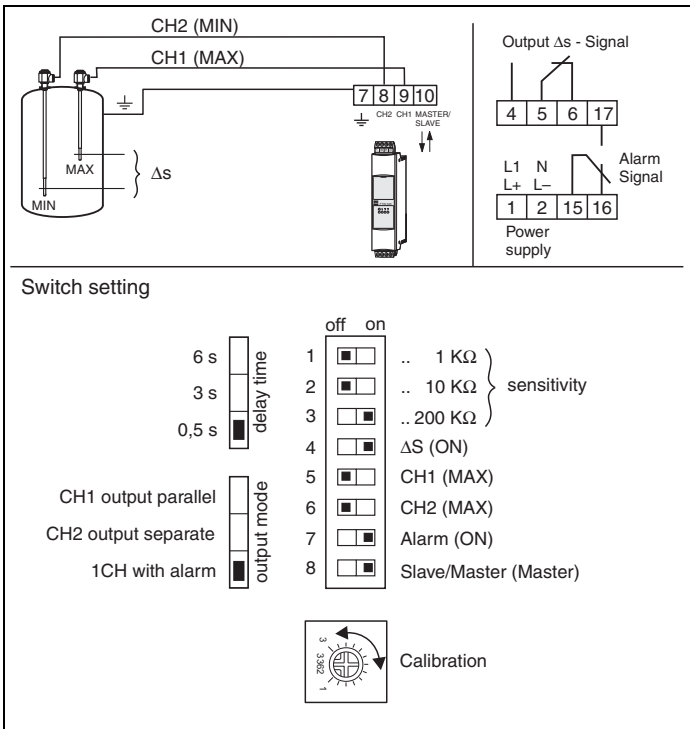
f Mode deux voies
(sorties séparées)

es Versi ón de dos canales
(salidas separadas)

i Modalità a due canali
(uscite separate)

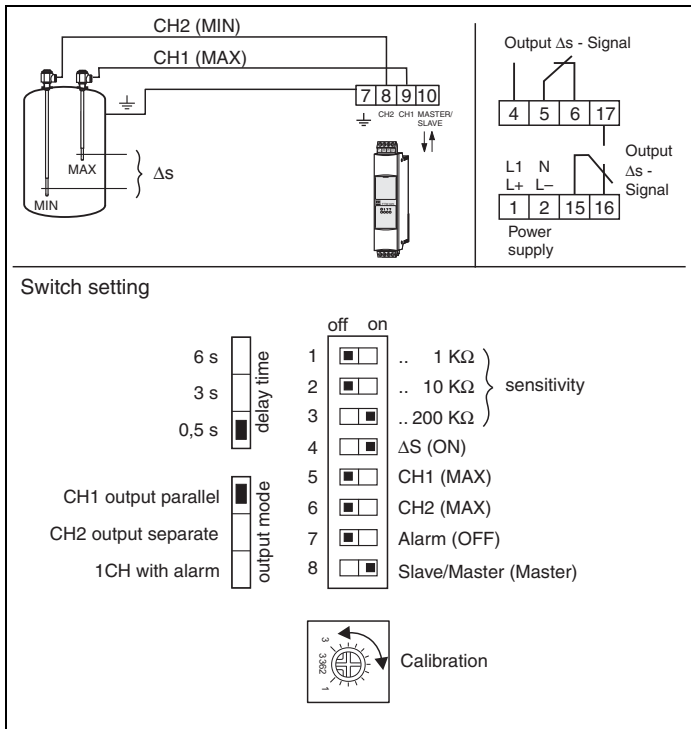
sv Tvåkanalsläge
(separata utgångar)

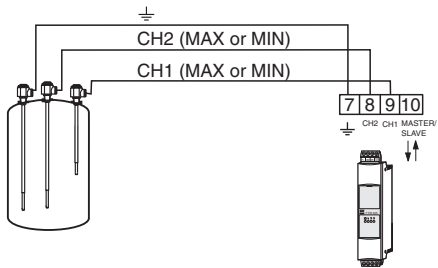




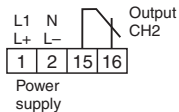
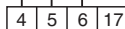
- d** ΔS -Betrieb mit Alarmüberwachung
- e** Two-point control with alarm signal
- f** Régulation entre deux points avec signal alarme
- es** Dos puntos de control con señal de alarma
- i** Controllo su due punti (delta) con segnale d'allarme
- sv** Tvåpunktsstyrning med larmsignal

- d** ΔS -Betrieb ohne Alarmüberwachung (Ausgänge parallel)
- e** Two-point control without alarm signal (outputs parallel)
- f** Régulation entre deux points sans signal alarme (sorties parallèles)
- es** Dos puntos de control sin señal de alarma (salidas paralelas)
- i** Controllo su due punti (delta) senza segnale d'allarme (uscite in parallelo)
- sv** Tvåpunktsstyrning utan larmsignal (parallella utgångar)

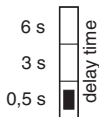




Output CH1



Switch setting

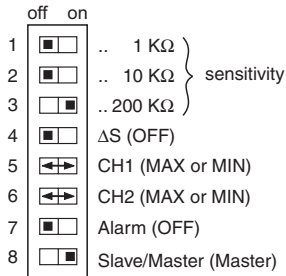


delay time

CH1 output parallel
CH2 output separate
1CH with alarm



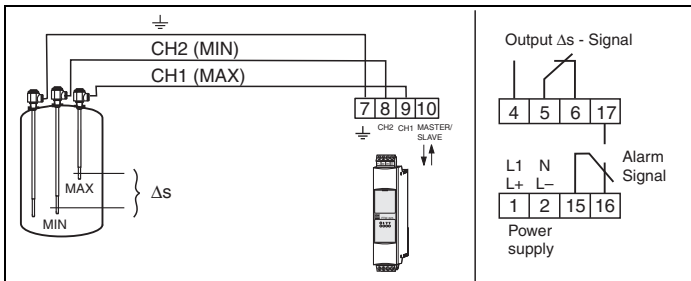
output mode



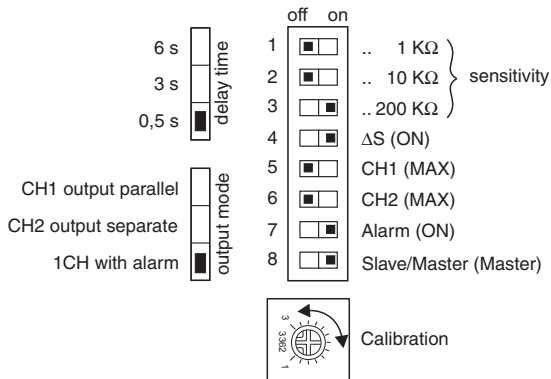
Calibration

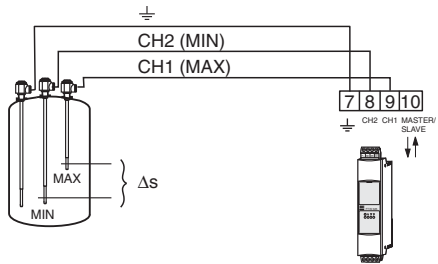
- d** Zweikanalbetrieb (Ausgänge separat)
- e** Two channel mode (outputs separate)
- f** Mode deux voies (sorties séparées)
- es** Versión de dos canales (salidas separadas)
- i** Modalità a due canali (uscite separate)
- sv** Tvåkanalsläge (separata utgångar)

- d** ΔS -Betrieb mit Alarmüberwachung
- e** Two-point control with alarm signal
- f** Régulation entre deux points avec signal alarme
- es** Dos puntos de control con señal de alarma
- i** Controllo su due punti (delta) con segnale d'allarme
- sv** Tvåpunktsstyrning med larmsignal

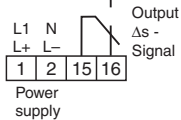
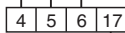


Switch setting

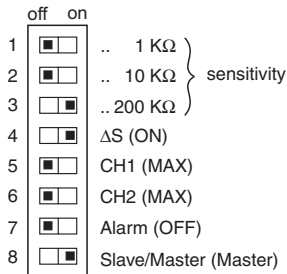
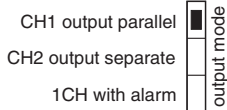
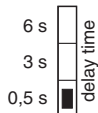




Output Δs - Signal

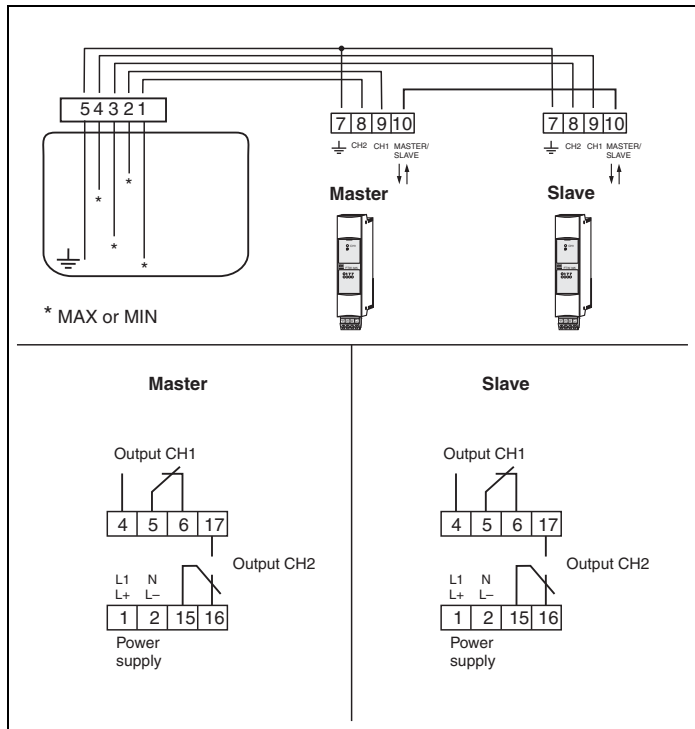


Switch setting

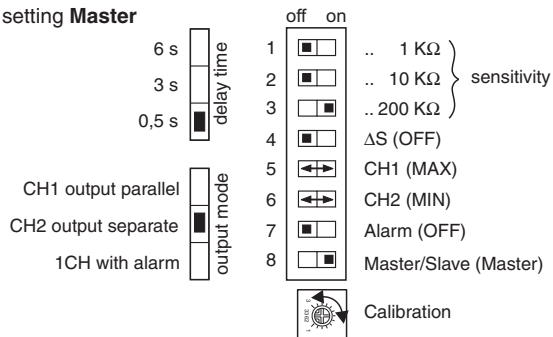


- d** ΔS -Betrieb ohne Alarmüberwachung (Ausgänge parallel)
- e** Two-point control without alarm signal (outputs parallel)
- f** Régulation entre deux points sans signal alarme (sorties parallèles)
- es** Dos puntos de control sin señal de alarma (salidas paralelas)
- i** Controllo su due punti (delta) senza segnale d'allarme (uscite in parallelo)
- sv** Tvåpunktsstyrning utan larmsignal (parallella utgångar)

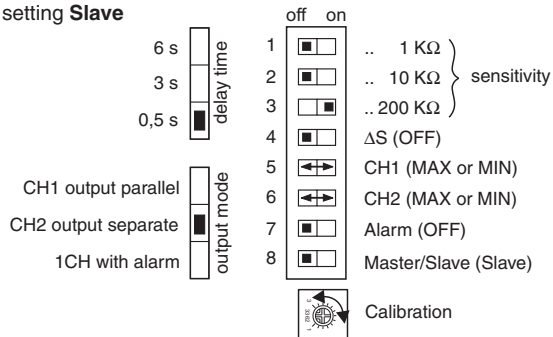
- d** Vierkanalbetrieb
(MIN bzw. MAX beliebig kombiniert)
- e** Four channel mode
(MIN resp. MAX arbitrary combined)
- f** Mode quatre voies
(MIN resp. MAX, combinées de façon aléatoire)
- es** Versión de cuatro canales
(Min resp. Máx)
Combinación arbitraria
- i** Modalità a quattro canali
(combinazione arbitraria MIN risp. MAX)
- sv** Fyrkanalsläge
(MIN resp. MAX kombinerat godtyckligt)



Switch setting **Master**



Switch setting **Slave**



- d** Vierkanalbetrieb (MIN bzw. MAX beliebig kombiniert)
- e** Four channel mode (MIN resp. MAX arbitrary combined)
- f** Mode quatre voies (MIN resp. MAX, combinées de façon aléatoire)
- es** Versión de cuatro canales (Min resp. Máx) Combinación arbitraria
- i** Modalità a quattro canali (combinazione arbitraria MIN risp. MAX)
- sv** Fyrkanalsläge (MIN resp. MAX kombinerat godtyckligt)

d ΔS -Betrieb ohne Alarmüberwachung und 2 Kanalbetrieb (Ausgänge separat)

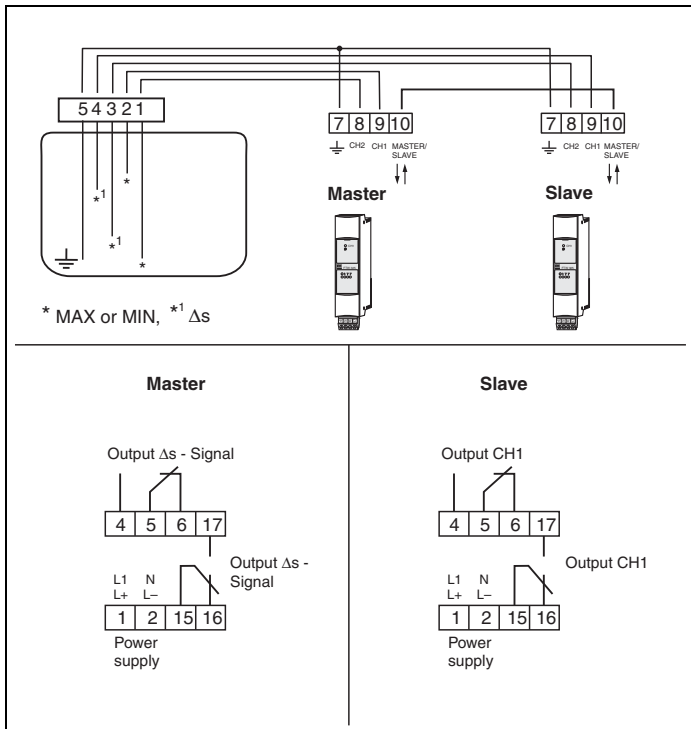
e Two-point control without alarm signal and two channel mode (outputs separate)

f Régulation entre deux points avec signal alarme et mode deux voies (sorties séparées)

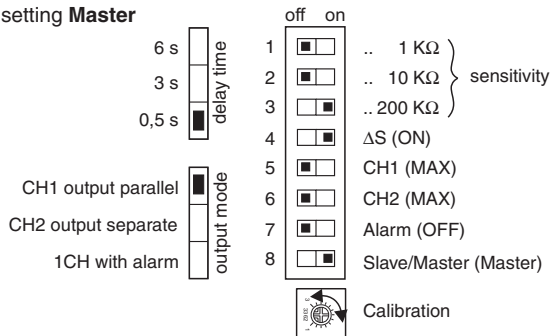
es Dos puntos de control sin señal de alarma y dos canales (salidas separadas)

i Controllo su due punti (delta) senza segnale allarme e modalità a due canali (uscite separate)

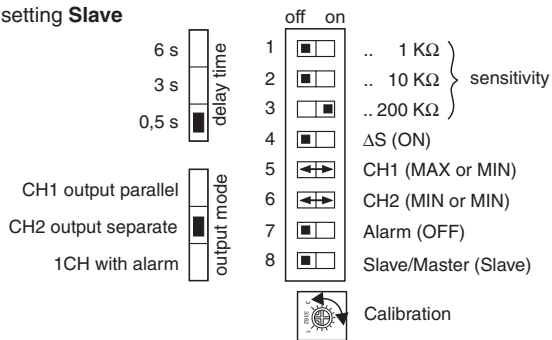
sv Tvåpunktsstyrning utan larmsignal och tvåkanalsläge (separata utgångar)



Switch setting **Master**



Switch setting **Slave**



- d** Δ S-Betrieb ohne Alarmüberwachung und 2 Kanalbetrieb (Ausgänge separat)
- e** Two-point control without alarm signal and two channel mode (outputs separate)
- f** Régulation entre deux points avec signal alarme et mode deux voies (sorties séparées)
- es** Dos puntos de control sin señal de alarma y dos canales (salidas separadas)
- i** Controllo su due punti (delta) senza segnale allarme e modalità a due canali (uscite separate)
- sv** Tvåpunktsstyrning utan larmsignal och tvåkanalsläge (separata utgångar)

d Fehlersuche

Fehlfunktion	Ursache	Maßnahme
Schaltet nicht	Versorgungsspannung fehlt (Grüne Leuchtdiode aus)	Versorgung prüfen
	Elektronik defekt	FTW 325 austauschen
	Kontakte verschweißt (nach einem Kurzschluss)	FTW 325 austauschen; Sicherung in den Kontaktstromkreis
	Messaufnehmer defekt	Messaufnehmer austauschen
Schaltet falsch	Im FTW 325 Umschalter für Grenzsignal falsch eingestellt	Umschalter hinter der Frontplatte richtig einstellen
Dauernde Störungsmeldung	Unterbrechung oder Kurzschluss der Leitung zum Messaufnehmer	Leitung überprüfen
	Messaufnehmer-Elektronik defekt	Messaufnehmer-Elektronik austauschen
	Nivotester defekt	Nivotester austauschen

Fault	Reason	Remedy
Does not switch	No power (green LED does not light up)	Check power
	Electronic defect	Replace FTW 325
	Contacts welded together (after short-circuit)	Replace FTW 325; connect a fuse into contactor circuit
	Measuring transmitter defective	Replace measuring transmitter
Switches incorrectly	Incorrect setting of change-over switch for limit signal in FTW 325	Correctly set change-over switch behind front panel
Permanent alarm signal	Interrupt or short-circuit line to measuring transmitter	Check line
	Measuring transmitter electronics defective	Replace measuring transmitter electronics
	Nivotester defective	Replace Nivotester


Défaut	Cause	Mesure
Ne commute pas	Absence tension d'alimentation (diode verte éteinte)	Vérifier l'alimentation
	Electronique défectueuse	Remplacer le FTW 325
	Contacts soudés (après un court-circuit)	Remplacer le FTW 325; insérer un fusible dans le circuit du contact
	Capteur défectueux	Remplacer le capteur
Mauvaise commutation	Dans le FTW 325, commutateur pour signal de seuil mal réglé	Régler correctement le commutateur derrière la plaque frontale
Message alarme permanent	Interruption ou court-circuit de la liaison au capteur	Vérifier la liaison
	Electronique du capteur défectueuse	Remplacer l'électronique du capteur
	Nivotester défectueux	Remplacer le Nivotester

Fallo	Causa	Solución
No conmuta	No hay alimentación (el LED verde no está iluminado)	Compruebe la alimentación
	Las electrónicas son defectuosas	Sustituya el FTW 325
	Contactos soldados juntos (después del corto circuito)	Sustituya el FTW 325; conecte un fusible en el circuito contactor
	Sensor defectuoso	Sustituya el sensor
Conmuta incorrectamente	Ajuste incorrecto de la señal de límite en FTW 325	Posicione correctamente el interruptor en el frontal
Aviso de fallo constante	Interrupción o cortocircuito de la conexión con el sensor	Compruebe el cableado
	Electrónicas del transmisor defectuosas	Cambie la electrónica del transmisor
	Nivotester defectuoso	Sustituya el Nivotester

i Individuazione e
eliminazione delle
anomalie

Guasto	Motivo	Rimedio
Non commuta	Mancanza alimentazione (LED verde spento)	Controllare l'alimentazione
	Elettronica guasta	Sostituire elettronica FTW 325
	Contatti saldati insieme (dopo il corto circuito)	Sostituire FTL 625; mettere il fusibile nel circuito di contatto
	Trasmittitore di misura difettoso	Sostituire trasmettitore di misura
Commuta non correttamente	Settaggio FTL 625 non corretto	Correggere il punto di misura
Segnali di allarme permanente	Interruzione del collegamento al trasmettitore	Verifica la linea
	Trasmittitore di misura elettronica difettosa	Sostituire trasmettitore di misura elettronica
	Nivotester guasto	Sostituire il Nivotester

Fel	Orsak	Åtgärd
Kopplar ej	Ingen ström (grön lysdiod tänds ej)	Kontrollera strömförsörjningen
	Elektroniskt fel	Byt ut FTW 325
	Kontakterna hopsvetsade (efter kortslutning)	Byt ut FTW 325; anslut en säkring till kontaktorkretsen
	Mätningssändare felaktig	Byt ut mätningssändaren
Kopplar felaktigt	Fel inställning för omkopplare för gränssignal i FTW 325	Ställ in omkopplaren bakom frontpanelen korrekt
Ihållande larmsignal	Bruten krets eller kortslutning i ledning till mätningssändare	Kontrollera ledningen
	Mätningssändarens elektronik felaktig	Byt ut mätningssändarens elektronik
	Nivotester felaktig	Byt ut Nivotester

d	Ergänzende Dokumentation	Technische Information / Technical information / Information technique / Información técnica / Informazioni tecniche / Teknisk information
e	Supplementary Documentation	TI 373F
f	Documentation complémentaire	Sicherheitshinweise / Notes on Safety / Conseils de sécurité / Notas sobre seguridad / Note sulla sicurezza / Om säkerhet
es	Documentación suplementaria	XA 196F
i	Documentazione supplementare	CE  II (1) GD, EEx ia/ib IIC/IIB
sv	Ytterligare dokumentation	

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