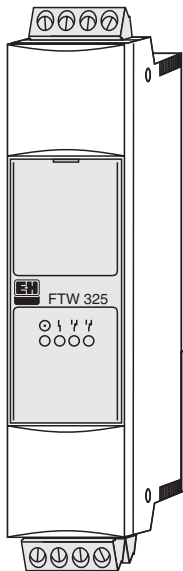


nivotester FTW 325



- 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
- nl** Niveauschakelaar
met intrinsiekveilig sensorcircuit

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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).

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.

nl **Veiligheidsinstructies**

De Nivotester FTW 325 mag uitsluitend als geleidbaarheids-niveauschakelaar gebruikt worden. Indien niet correct gebruikt kunnen gevaarlijke situaties ontstaan. Het instrument alleen door **gekwalificeerd en geautoriseerd personeel** laten inbouwen, aansluiten, in bedrijf nemen en onderhouden. Neem de instructies in deze Inbedrijfstellingsvoorschriften de desbetreffende normen, de wettelijke voorschriften en eventuele certificaten in acht.



Atención!

= Prohibido; peligro de mal funcionamiento o de destrucción.



Attenzione!

= Vietato; pericolo di malfunzionamento o di distruzione.



Opgelet!

= verboden; leidt tot foutieve werking of storing.

d Geräte-Identifikation

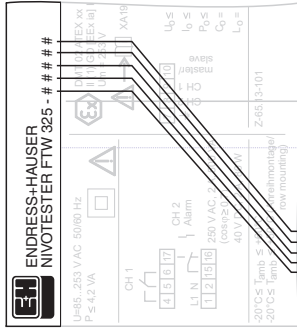
e Device Identification

f Désignation de l'appareil

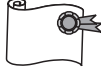
es Identificación del equipo

i Identificazione dello strumento

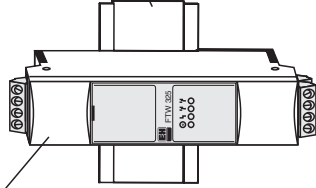
nl Instrument-identificatie



A = *1, WHG
B = *1, WHG
C = ATEX II (1) GD, [EEx 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



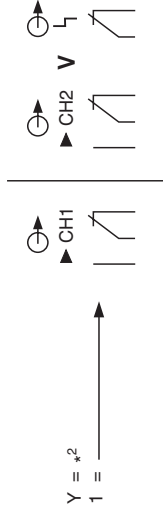
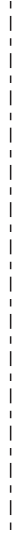
EN 60715 TH 35-7,5

EN 60715 TH 35-15

9 = *2



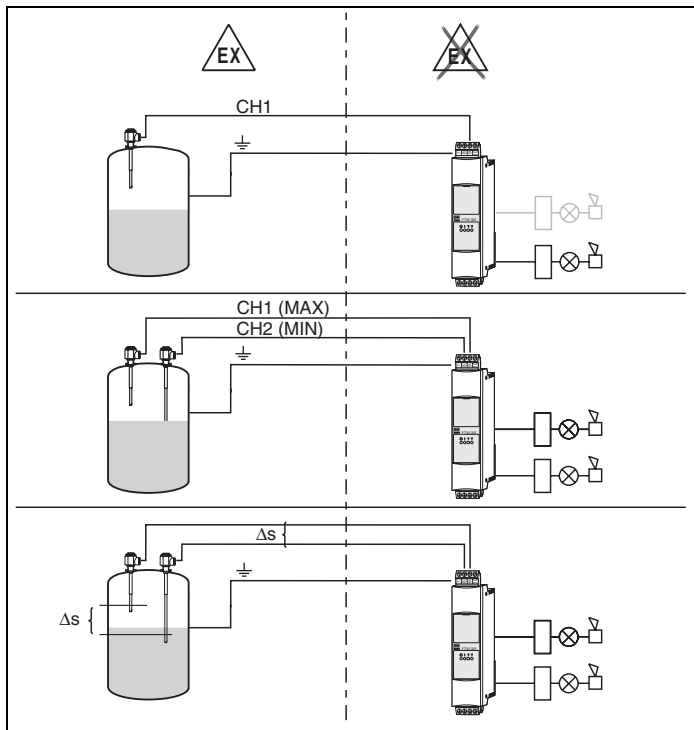
A = U~ 85 V...253 V (AC), 50/60 Hz
 B = U_{DC} 20 V... 60 V (DC)
 U~ 20 V... 30 V (AC), 50/60 Hz
 Y = *2

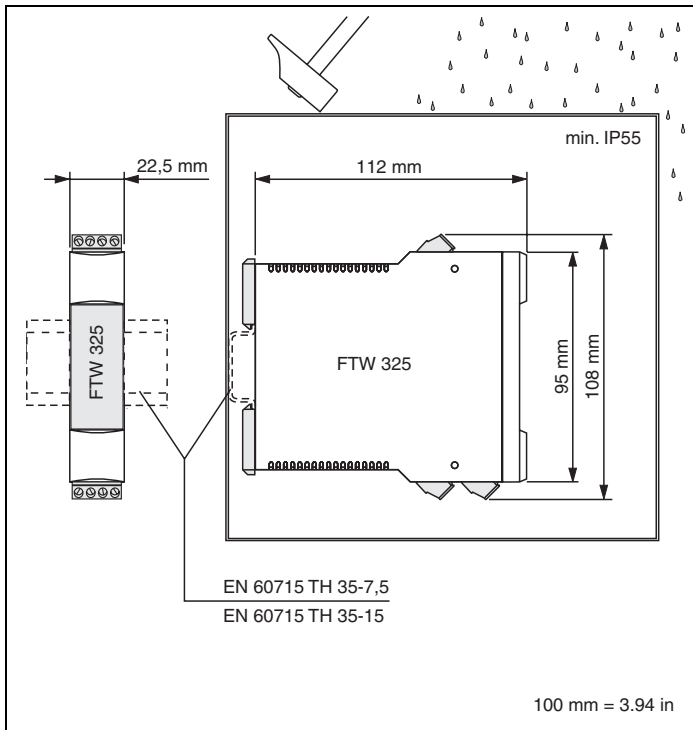


A = *1
 Y = *2

- *1 = ohne / without / sans / sin / senza / zonder
- *2 = andere / others / autres / otros / altri / andere
- V = oder / or / ou / o / o / of
- ⊖ = Ausgang / Output / Sortie / Salida / Uscita / Uitgang
- ▶ = Grenzsignal / Limit signal / Signal de seuil /
Soglia d'intervento / Señal de límite / Niveau signaal
- ⌋ = Störung / Fault / Défaüt / Fallo / Guasto / Storing
- CH = Kanal / Channel / Voie / Canal / Canale / Kanaal

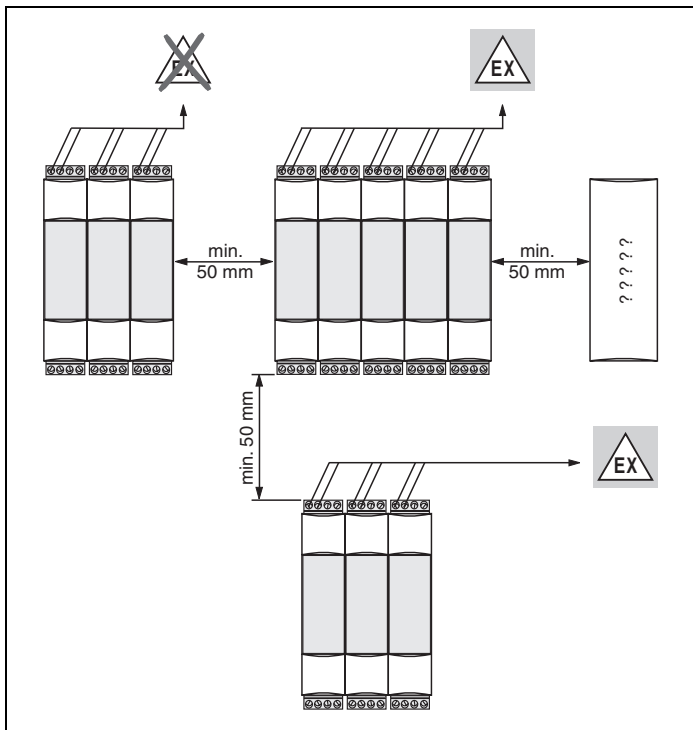
- d** Messeinrichtung
- e** Measuring system
- f** Ensemble de mesure
- es** Sistema de medida
- i** Sistema di misura
- nl** Meetopstelling

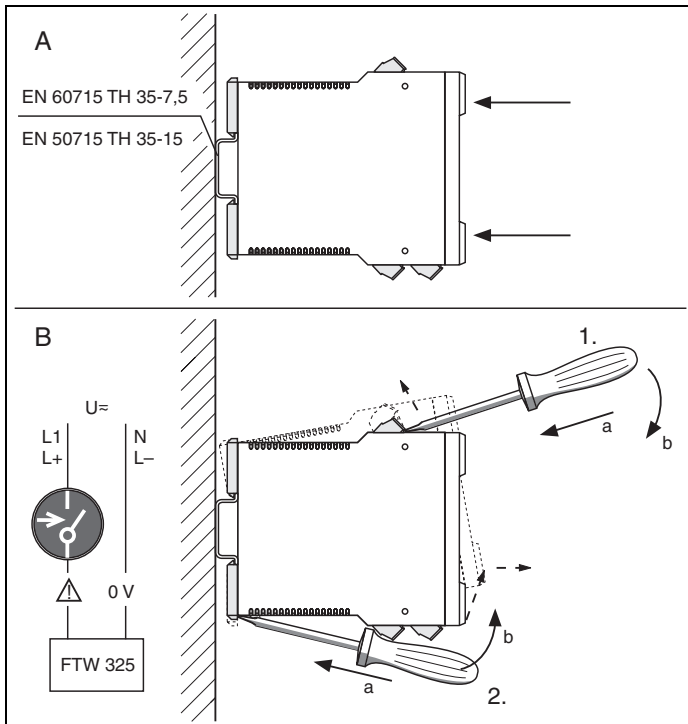




- d Einbau**
Vor Beschädigung und Witterung geschützt
- e Installation**
Protected against damage and weather
- f Montage**
Protéger contre les chocs et les intempéries
- es Montaje**
Protegido contra daños e intemperie
- i Montaggio**
Proteggere contro urti e intemperie
- nl Inbouw**
Voor beschadigingen en weersinvloeden beschermen

- d** Mindestabstände
- e** Minimum separation
- f** Intervalles min. entre deux appareils
- es** Distancia mínima
- i** Distanze minime
- nl** Minimale afstand





- 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 raíl
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

- nl** A Railmontage
B Uitbouw
1. Klemmenblok verwijderen
 2. Instrument verwijderen

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

nl Aansluiting

Klemmen positie
Voedingspanning

Typenschild beachten!

Note name plate!

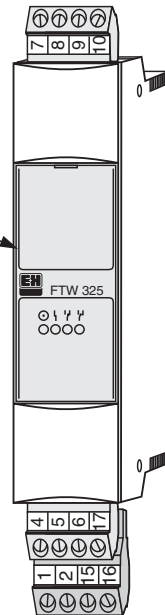
Tenir compte
de la plaque signalétique!

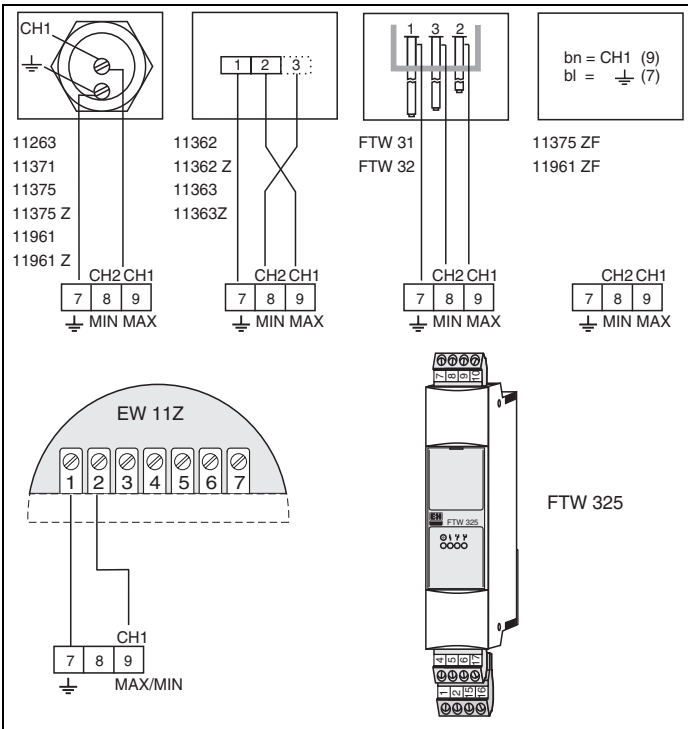
Ver identificación!

Targhetta note!

Typeplaatje bekijken!

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
- nl** Aansluiting van de sensor

d Anschluss der Ausgänge

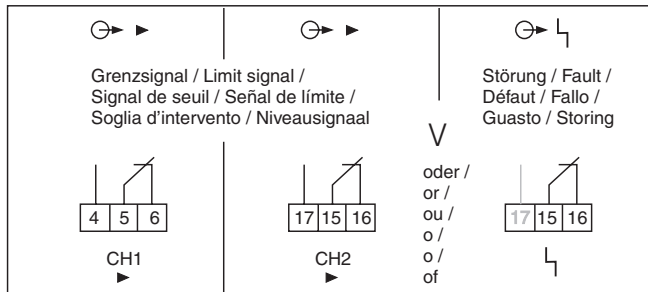
e Output connection

f Raccordement des sorties

es Conexión de la salida

i Connessione d'uscita

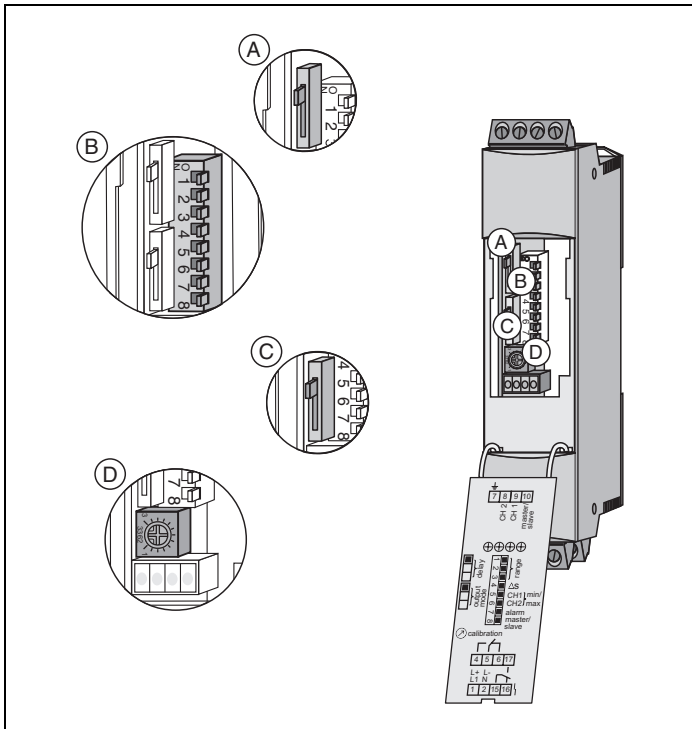
nl Aansluiting van de uitgangen



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

nl Instellingen

Lichtsignale:

Light signals:

Signaux lumineux :

Señales luminosas:

Segnali luminosi:

Lichtsignalen:

☀ leuchtet / on / allumée /
iluminado / on / aan

● aus / off / éteinte /
apagado / off / uit

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

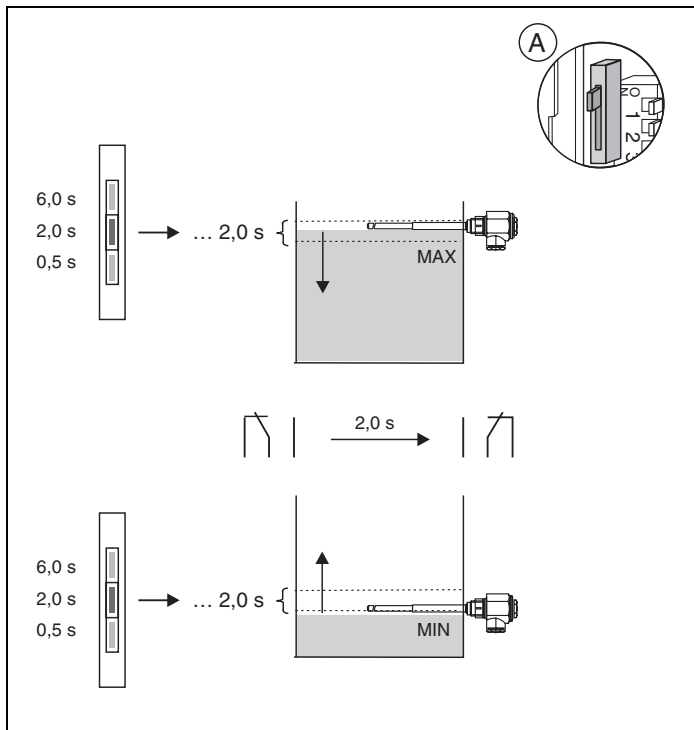
1. 6,0 s (en alto)
2. 2,0 s (en medio)
3. 0,5 s (abajo)

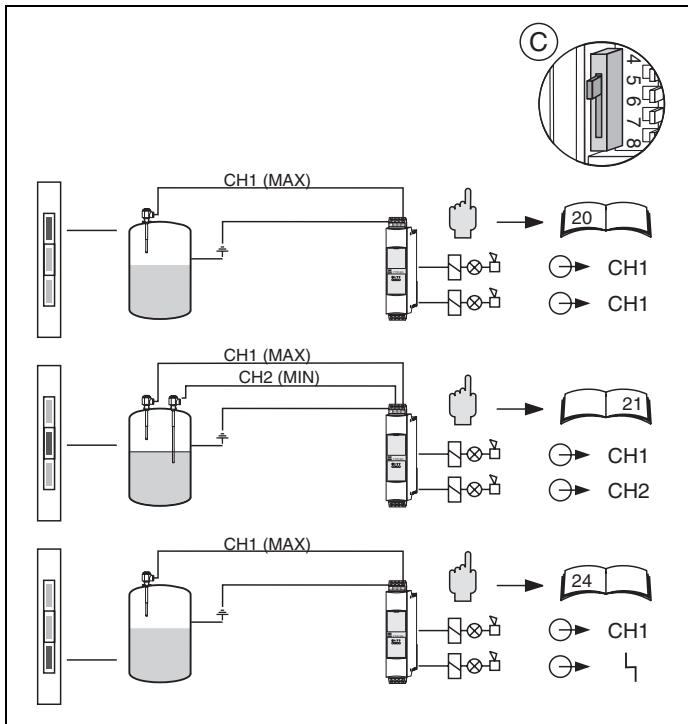
i Ritardo di commutazione

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

nl Tijdvertraging instellen

1. 6,0 s (boven)
2. 2,0 s (midden)
3. 0,5 s (onder)





- 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
- nl** Functie keuze van het tweede uitgangrelais
Niveau of alarm

d DIL-Schalter:
Widerstandsbereich einstellen
und Feinabgleich vornehmen

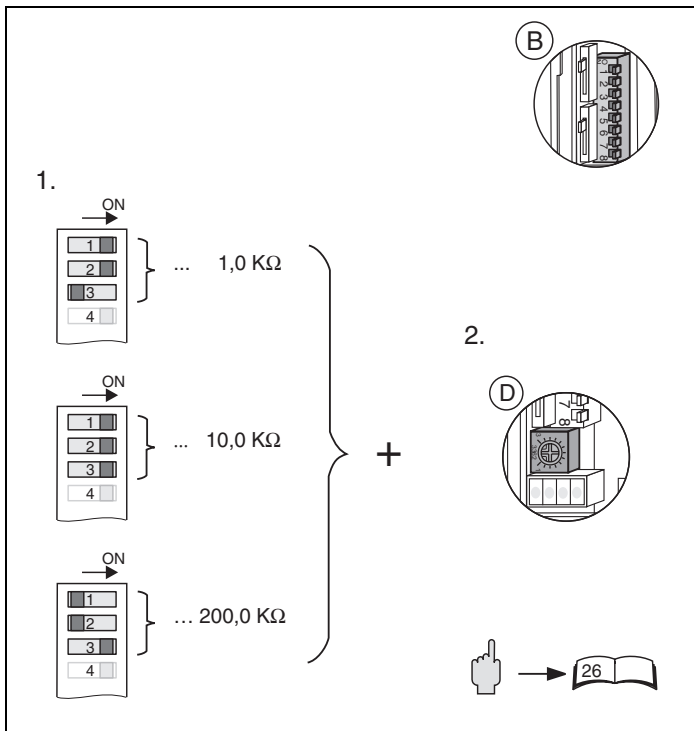
e DIL switch:
Setting resistance range and
performing fine calibration

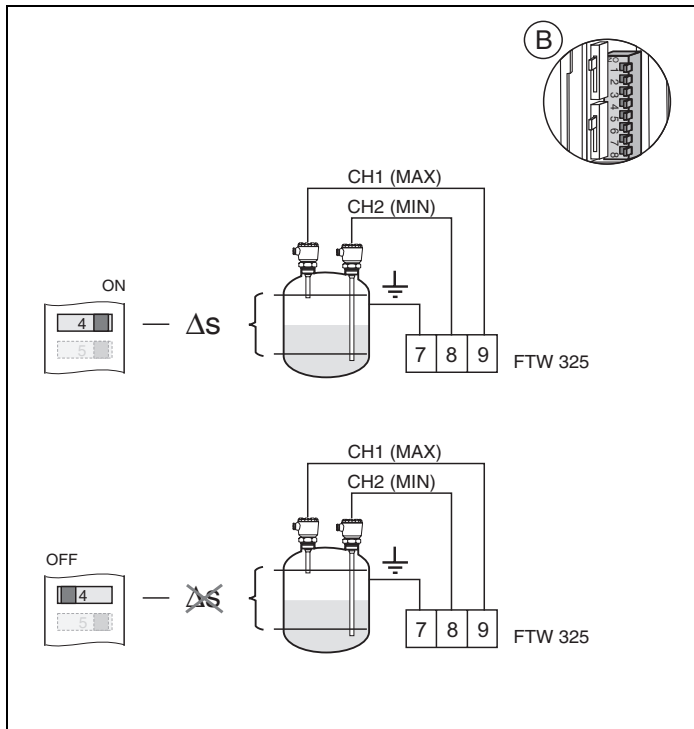
f Commutateur DIL:
Régler la gamme de
résistance et procéder à
l'étalonnage fin

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

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

nl DIP-schakelaar:
Weerstandsbereik en
fijnafregeling uitvoeren





- 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
- nl** DIP-schakelaar:
Δs-functie
2-puntsregeling

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

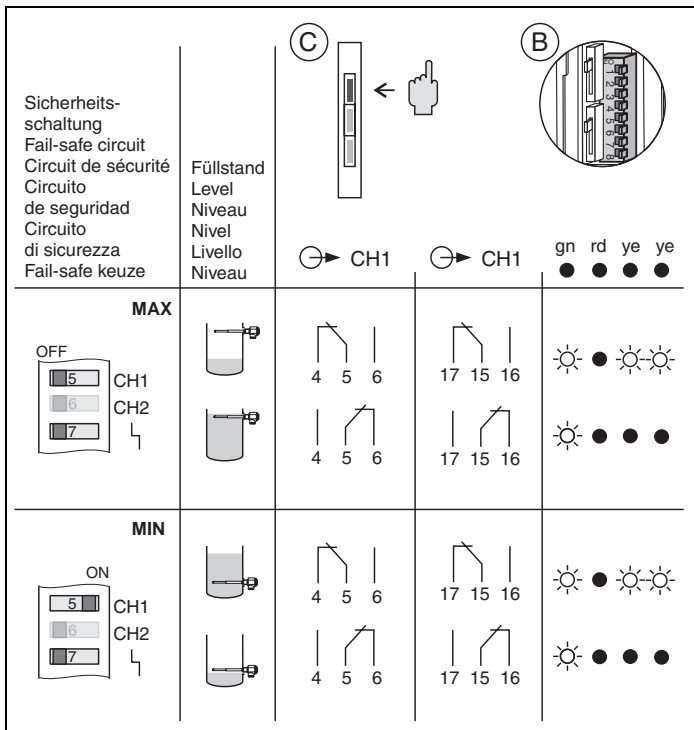
e DIL switch:
Min/Max safety
2 x CH1
Line monitoring (OFF)

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)

nl DIP-schakelaar:
Min/Max-fail safe
2 x CH1
Kabelbewaking (UIT)



Sicherheits- schaltung Fail-safe circuit Circuit de sécurité Circuito de seguridad Circuito di sicurezza Fail-safe keuze	Füllstand Level Niveau Nivel Livello Niveau							
		CH1	CH2	gn ● rd ● ye ● ye ●				
MAX - MIN 						4 5 6 17 15 16	● ● ● ●	☀ ● ☀ ●
MIN - MAX 						4 5 6 17 15 16	● ● ● ●	☀ ● ☀ ●

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)

nl DIP-schakelaar:
Min/Max-fail safe
CH1 en CH2
Kabelbewaking (UIT)

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

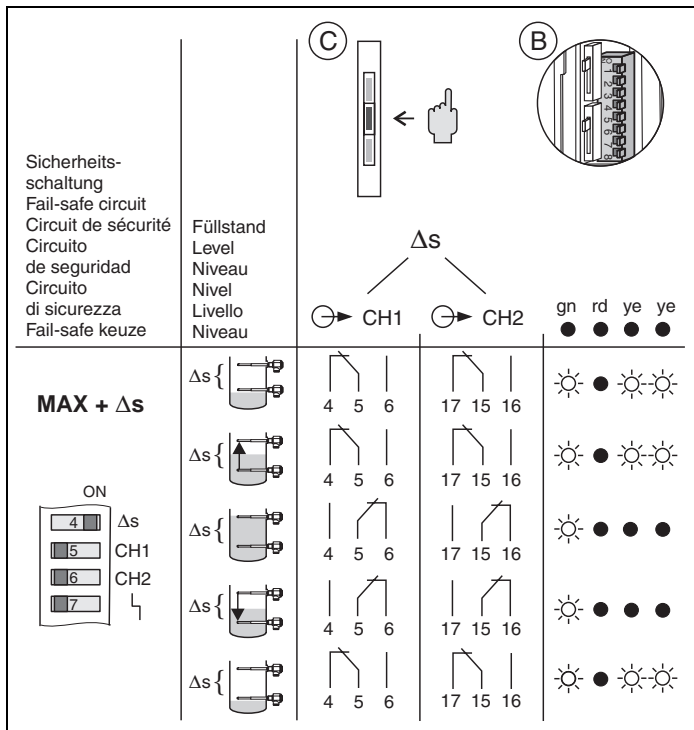
e DIL switch:
MAX safety
 Δs (CH1 + CH2)
Line monitoring (OFF)

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

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

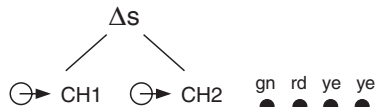
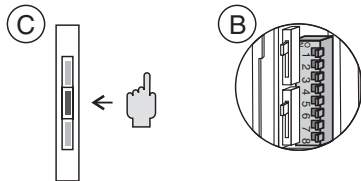
i Commutatore DIL:
Sicurezza di massimo
 Δs (CH1 + CH2)
Monitoraggio della linea (OFF)

nl DIP-schakelaar:
MAX-fail safe
 Δs (CH1 + CH2)
Kabelbewaking (UIT)

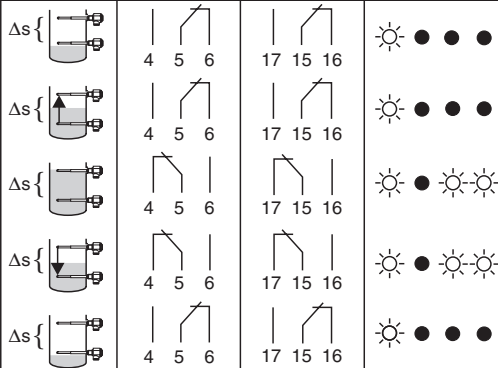
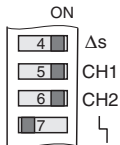


Sicherheits-
schaltung
Fail-safe circuit
Circuit de sécurité
Circuito
de seguridad
Circuito
di sicurezza
Fail-safe keuze

Füllstand
Level
Niveau
Nivel
Livello
Niveau



MIN + Δs



d DIL-Schalter:
MIN-Sicherheit
 Δs (CH1 + CH2)
Leitungsüberwachung (AUS)

e DIL switch:
MIN safety
 Δs (CH1 + CH2)
Line monitoring (OFF)

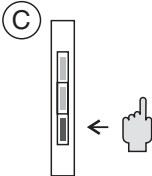
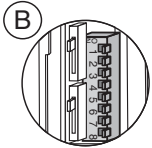
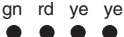












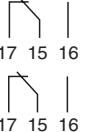










f Commutateur DIL:
Sécurité MIN
 Δs (CH1 + CH2)
Surveillance de ligne (OFF)

es Interruptor DIL:
Seguridad MIN
 Δs (CH1 + CH2)
Monitorización de línea (OFF)

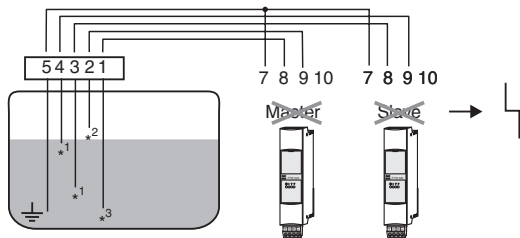
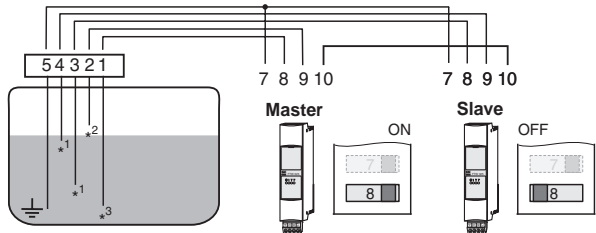
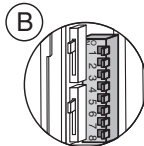
i Commutatore DIL:
Sicurezza di massimo
 Δs (CH1 + CH2)
Monitoraggio della linea (OFF)

nl DIP-schakelaar:
MIN-fail safe
 Δs (CH1 + CH2)
Kabelbewaking (UIT)

- 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)
- nl** DIP-schakelaar:
Min/Max-fail safe
CH1 + foutmelding
Kabelbewaking (AAN)

Sicherheits- schaltung Fail-safe circuit Circuit de sécurité Circuito de seguridad Circuito di sicurezza Fail-safe keuze	Füllstand Level Niveau Nivel Livello Niveau			
OFF MAX  CH1 CH2 	 			
ON MIN  CH1 CH2 	 			
Störung / Fault / Défaut / Fallo / Guasto / Storing				
				

MASTER ———
 SLAVE ······



- *1 Δs
- *2 MAX
- *3 MIN

- 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
- nl Master-slave functie**
Synchronisatie van de fasen instellen

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!

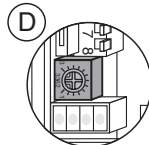
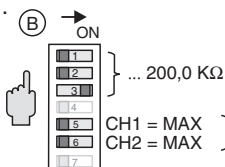
Per liquidi conduttivi

nl Afregeling

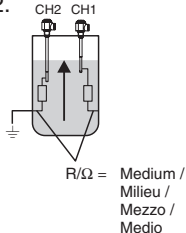
Standaardinstelling!

Voor geleidende vloeistoffen

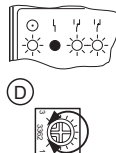
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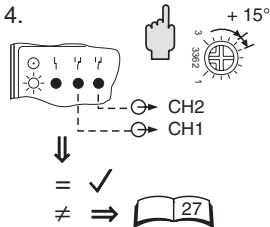
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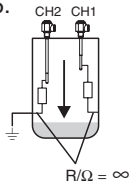
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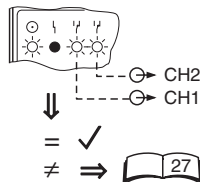
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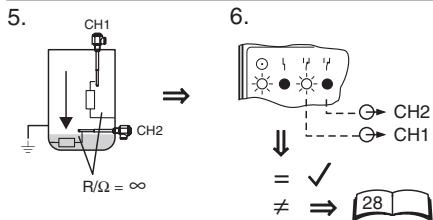
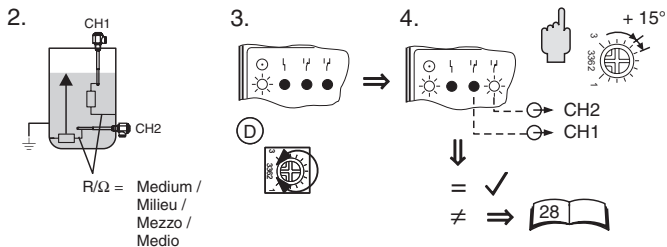
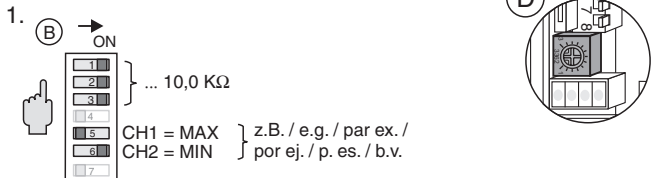


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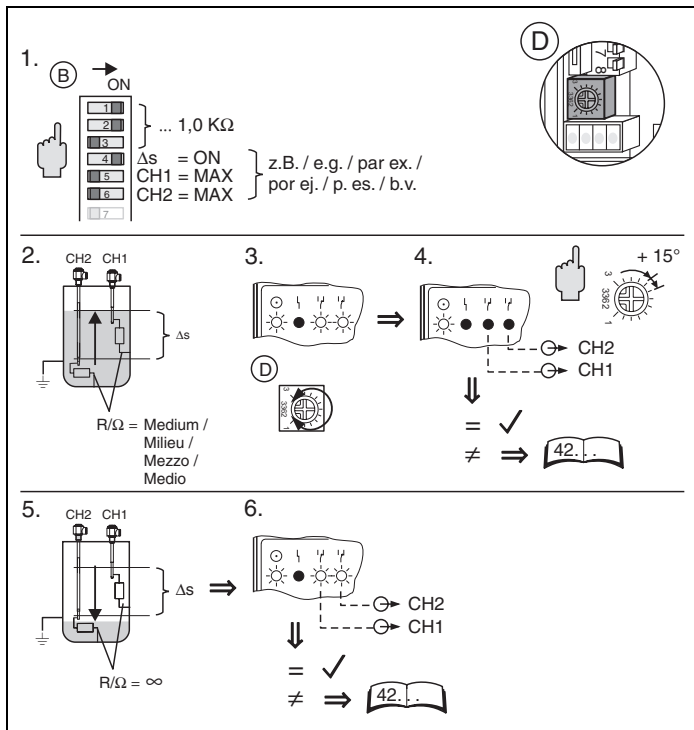
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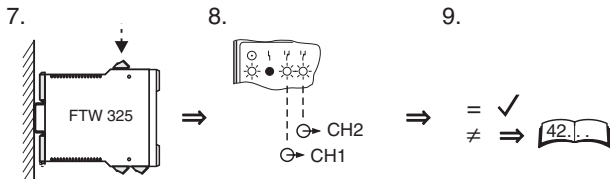
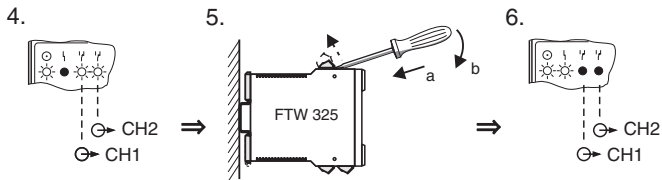
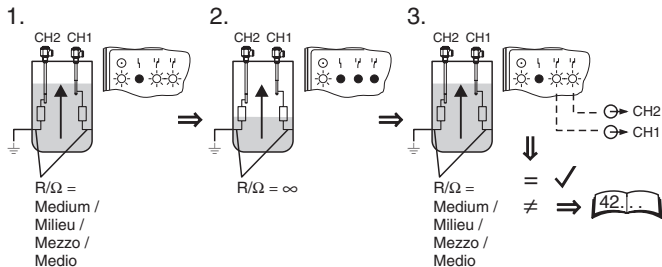


- d** Widerstandsbereich bis 10,0 kΩ
- e** Resistance range to 10.0 kΩ
- f** Gamme de résistance jusqu'à 10,0 kΩ
- es** Rango de resistencia hasta 10,0 kΩ
- i** Campo resistenza fino a 10,0 kΩ
- nl** Weerstandsbereik tot 10,0 kΩ

- d** Widerstandsbereich bis
1,0 k Ω
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1,0 k Ω
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1,0 k Ω



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



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

nl Functietest

Niveau-alarm 1 - 3 en
foutalarm 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**

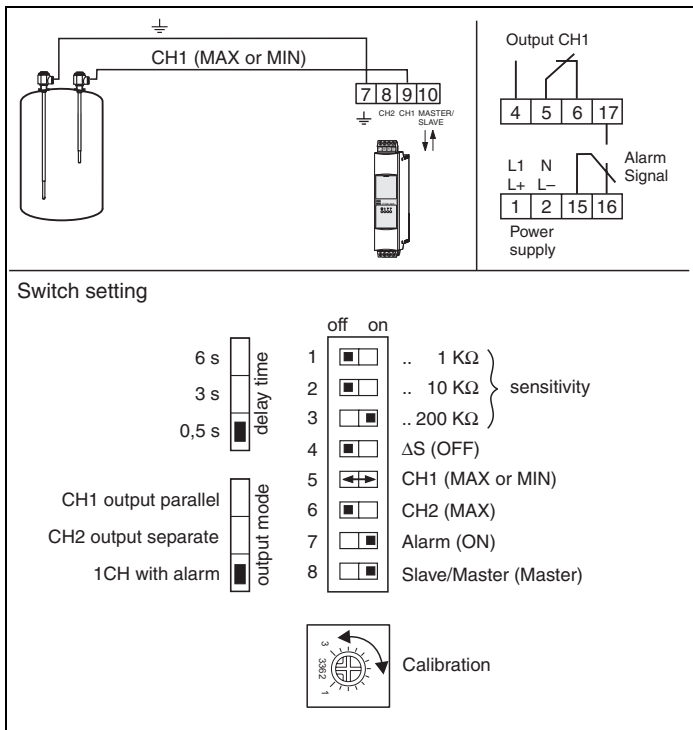
Versión de un canal con
señal de alarma

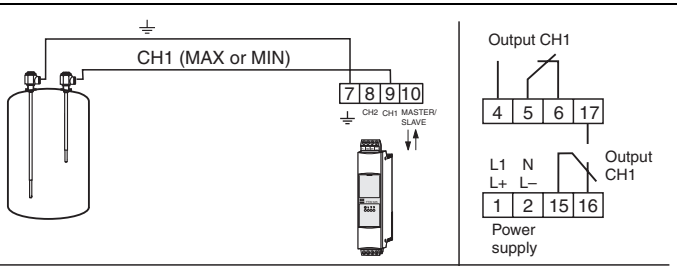
**i Esempio di installazione
e configurazione**

Modalità a un canale con
segnale d'allarme

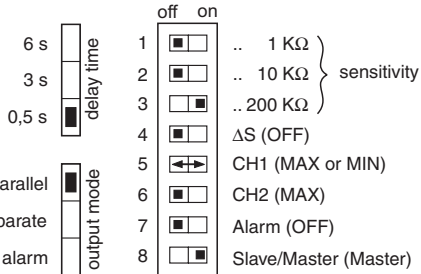
**nl Toepassingsvoorbeelden
en configuratie**

Éénkanaalsfunctie met
functiealarm



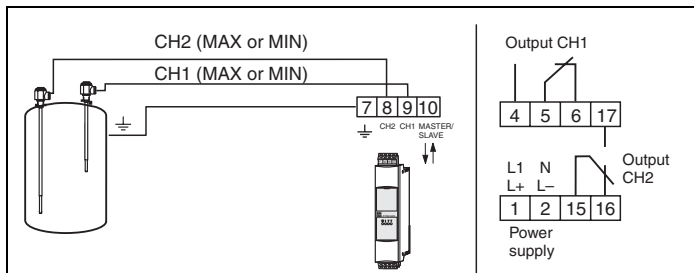


Switch setting

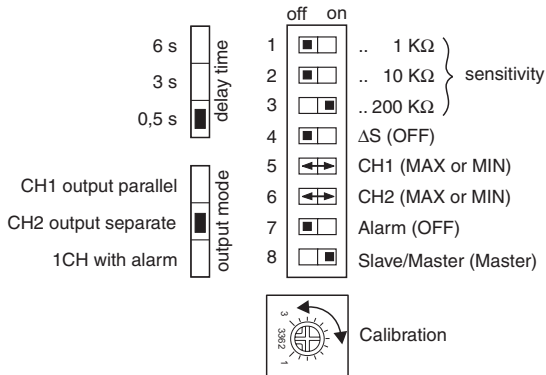


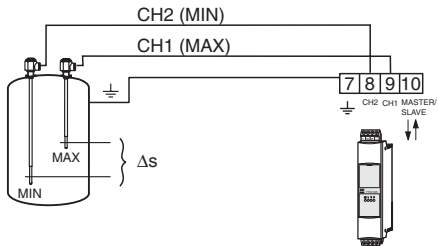
- d** Einkanalbetrieb ohne Alarmüberwachung (Ausgänge parallel)
- e** One channel mode without alarm signal (outputs parallel)
- f** Mode une voie sans signal alarme (sorties parallèles)
- es** Versión de un canal sin señal de alarma (salidas paralelas)
- i** Modalità a un canale senza segnale d'allarme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

- 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)
- nl** Tweekanaalsfunctie
(uitgangen separaat)

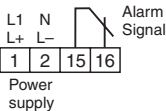
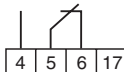


Switch setting

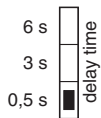




Output Δs - Signal



Switch setting

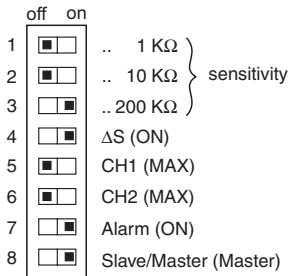


delay time

CH1 output parallel
CH2 output separate
1CH with alarm



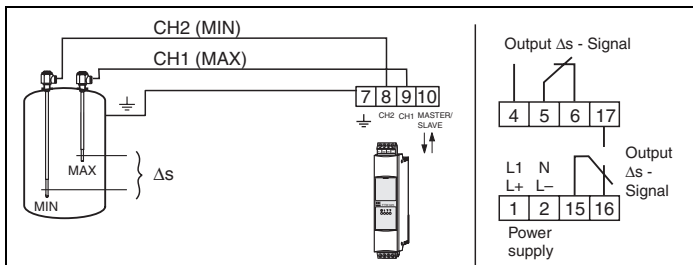
output mode



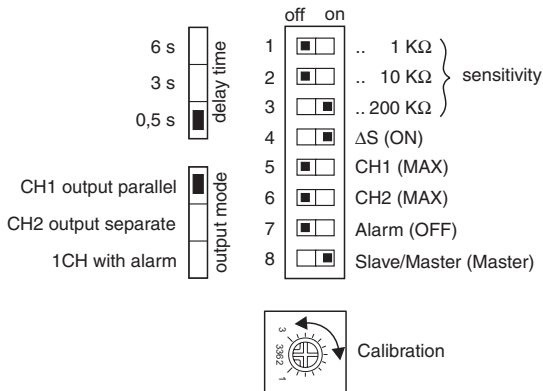
Calibration

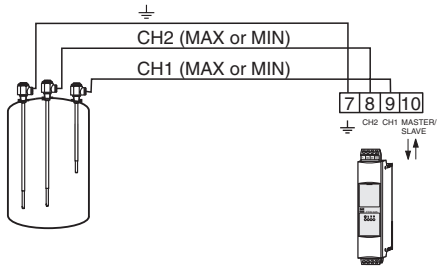
- d** ΔS -Betrieb mit Alarmüberwachung
- e** Two-point control with alarm signal
- f** Régulation entre deux points avec signal alarme
- es** Dos puntos de control con señal de alarma
- i** Controllo su due punti (delta) con segnale d'allarme
- nl** Twee-punts regeling met functiealarm

- 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)
- nl** Twee-punts regeling zonder functiealarm (uitgangen parallel)

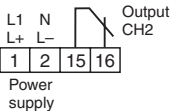
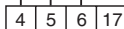


Switch setting



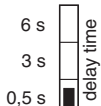


Output CH1



- 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)
- nl** Tweekanaalsfunctie (uitgangen separaat)

Switch setting

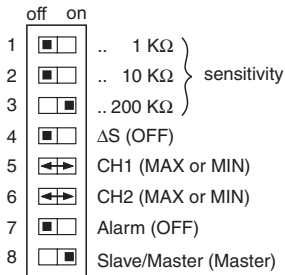


delay time

CH1 output parallel
CH2 output separate
1CH with alarm



output mode

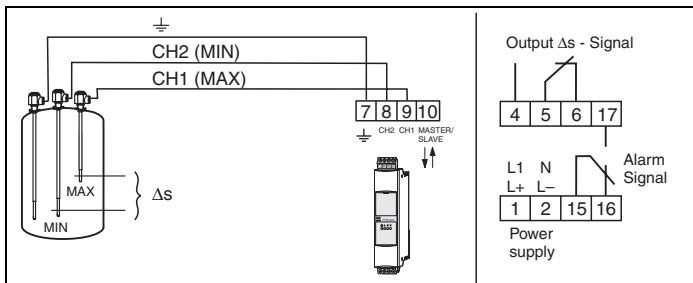


sensitivity

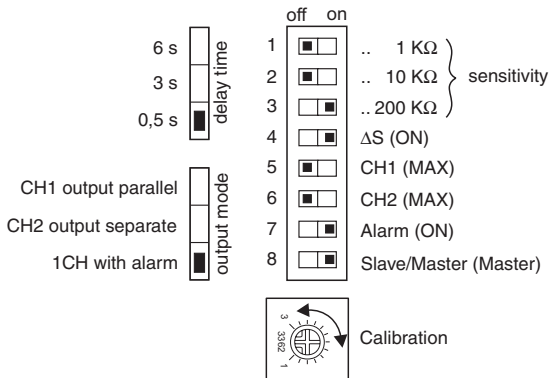


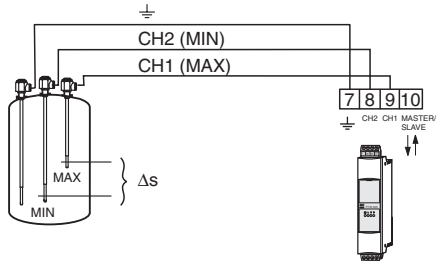
Calibration

- 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
- nl** Twee-punts regeling met functiealarm

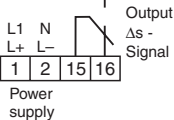
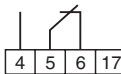


Switch setting

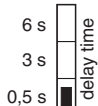




Output Δs - Signal



Switch setting



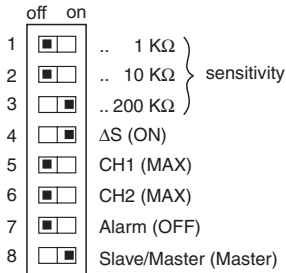
delay time

CH1 output parallel
CH2 output separate



output mode

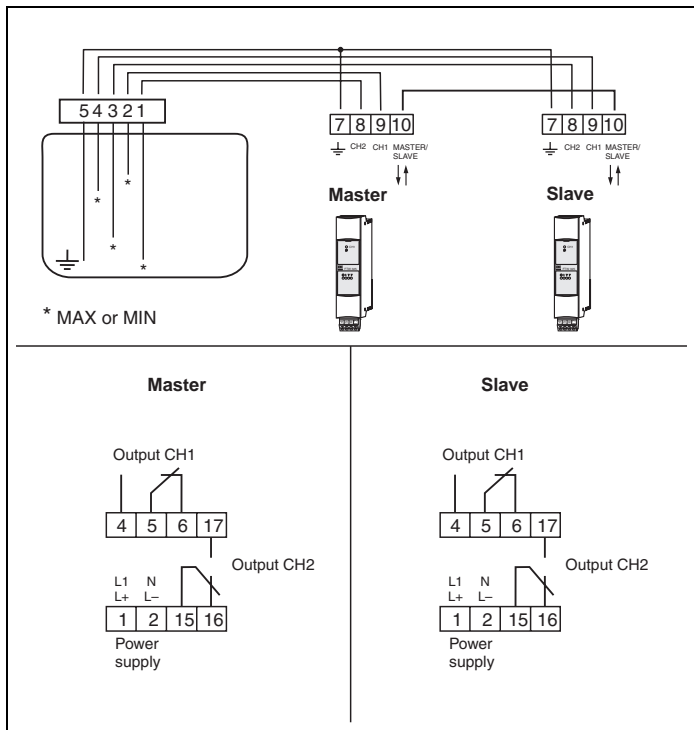
1CH with alarm



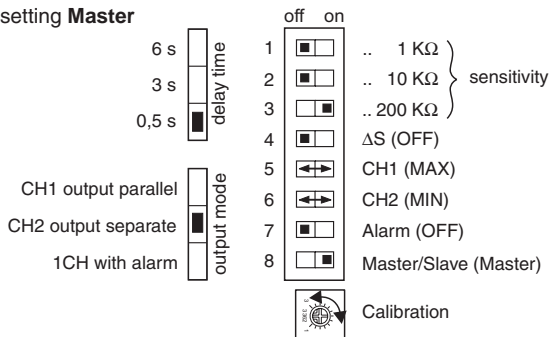
Calibration

- 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)
- nl** Twee-punts regeling zonder functiealarm (uitgangen parallel)

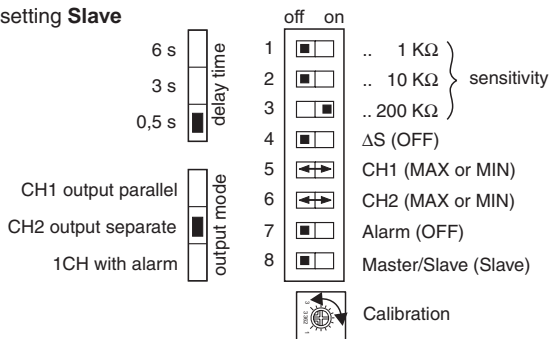
- d** Vierkanalbetrieb
(MIN bzw. MAX beliebig kombiniert)
- e** Four channel mode
(MIN resp. MAX arbitrary combined)
- f** Mode quatre voies
(MIN resp. MAX, combinées de façon aléatoire)
- es** Versión de cuatro canales
(Min resp. Máx)
Combinación arbitraria
- i** Modalità a quattro canali
(combinazione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



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)
- nl** Vierkanaalsfunctie (MIN resp. MAX willekeurig gecombineerd)

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

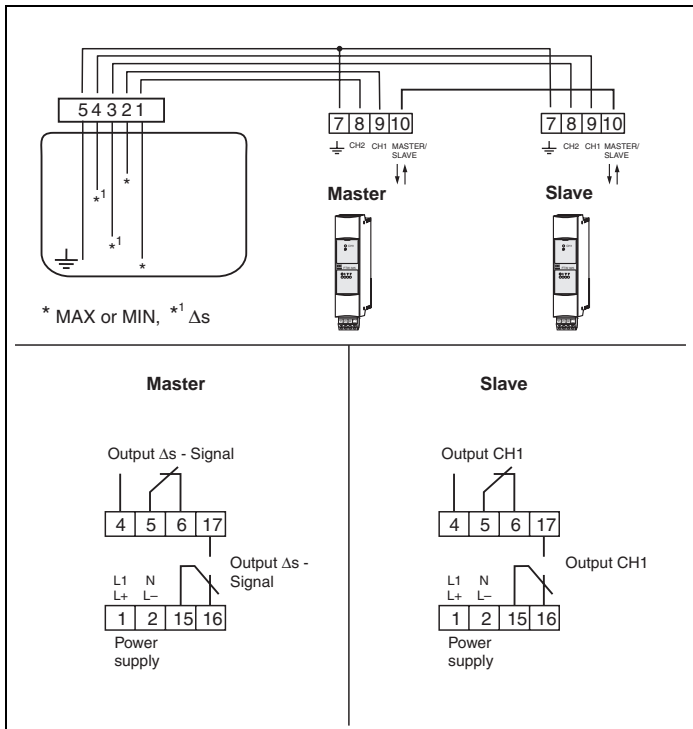
e Two-point control without alarm signal and two channel mode (outputs separate)

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

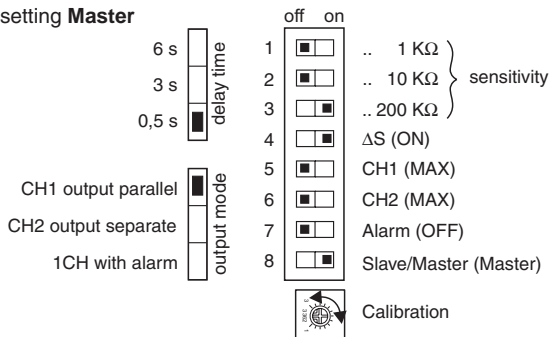
es Dos puntos de control sin señal de alarma y dos canales (salidas separadas)

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

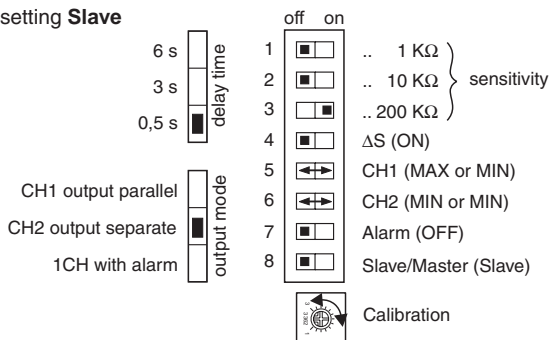
nl Twee-punts regeling zonder functiealarm en tweekanaals-functie (uitgangen separaat)



Switch setting **Master**



Switch setting **Slave**



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)

nl Twee-punts regeling zonder functiealarm en tweekanaals-functie (uitgangen separaat)

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 Grenzsinal 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
	Trasmettitore 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
	Trasmettitore di misura elettronica difettosa	Sostituire trasmettitore di misura elettronica
	Nivotester guasto	Sostituire il Nivotester

Fout	Oorzaak	Maatregel
Schakelt niet	Voeding ontbreekt (groene LED = uit)	Voeding controleren
	Elektronica defect	FTW 325 wisselen
	Contacten verkleefd (na kortsluiting)	FTW 325 wisselen; zekering in schakelkring opnemen
	Sensor defect	Sensor wisselen
Schakelt foutief	In de FTW 325 niveausignaal fout ingesteld	Omschakelaar achter de frontplaat goed instellen
Continu stooralarm	Onderbreking of kortsluiting van sensor leiding	Leiding controleren
	Sensor elektronica defect	Sensor elektronica wisselen
	Nivotester defect	Nivotester wisselen

d Ergänzende
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