

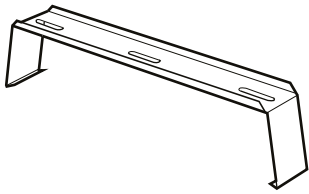
IQ STAR NOVA II CHILLED BEAM CASSETTE

INSTALLATION, COMMISSIONING AND MAINTENANCE

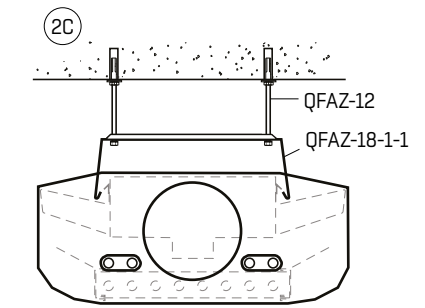
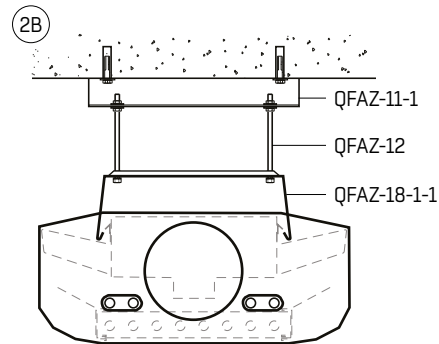
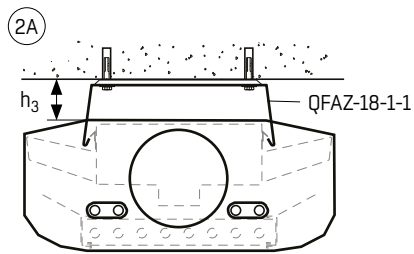
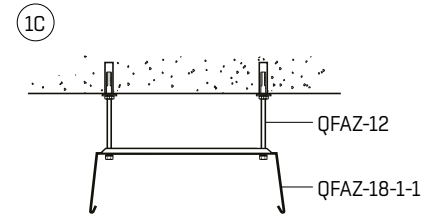
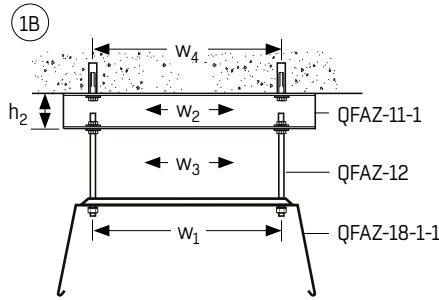
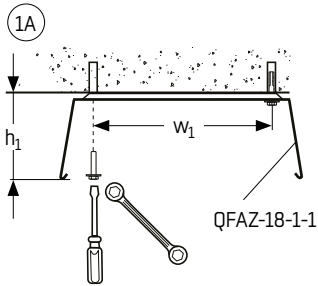
- SE | MONTERING, INJUSTERING OCH UNDERHÅLL
- FI | ASENNUS, KÄYTTÖNOTTO JA HUOLTO
- DK | INSTALLATION, JUSTERING OG VEDLIGEHOLDELSE
- DE | INSTALLATION, INBETRIEBNAHME UND WARTUNG
- NL | INSTALLATIE, INBEDRIJFSTELLING EN ONDERHOUD
- FR | MONTAGE, EQUILIBRAGE EN MAINTENANCE
- IT | INSTALLAZIONE, MESSA IN SERVIZIO E MANUTENZIONE
- PL | MONTAŻ, ROZRUCH I KONSERWACJA
- CZ | INSTALACE, UVEDENÍ DO PROVOZU A ÚDRŽBA
- RU | МОНТАЖ, ВВОД В ЭКСПЛУАТАЦИЮ И ТЕХНИЧЕСКОЕ ОБСЛУЖИВАНИЕ



QFAZ-18-1-1



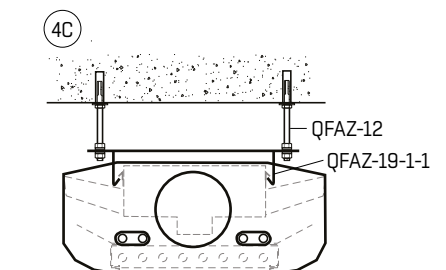
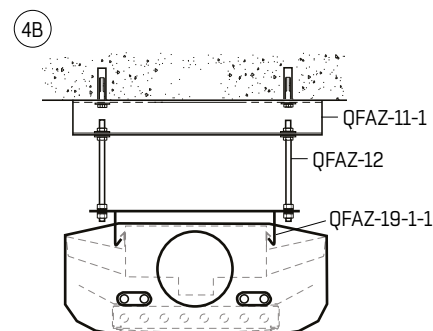
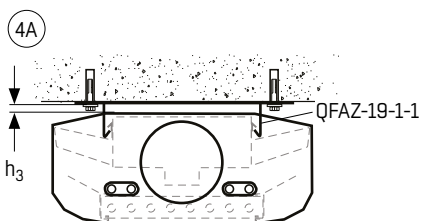
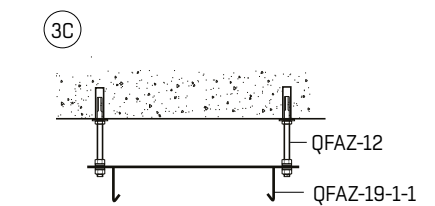
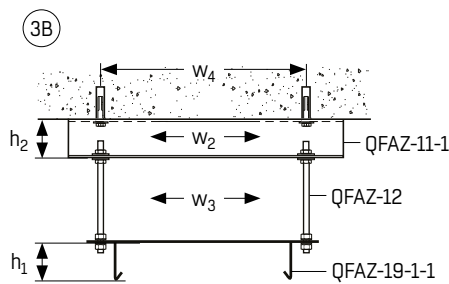
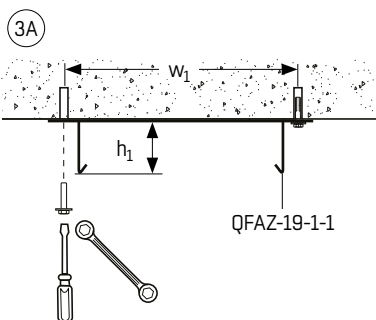
$w_1 = 169 \text{ mm}$	$h_1 = 86 \text{ mm}$
$w_2 = +/- 8 \text{ mm}$	$h_2 = 30 \text{ mm}$
$w_3 = +/- 15 \text{ mm}$	$h_3 = 56 \text{ mm}$
$w_4 = 180 \text{ mm}$	



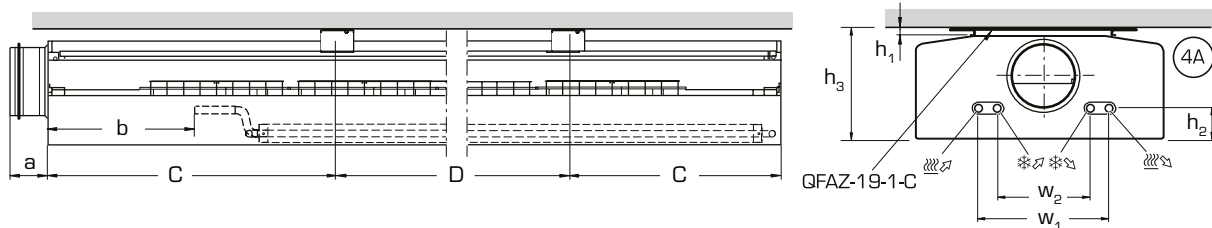
QFAZ-19-1-1



$w_1 = 304 \text{ mm}$	$h_1 = 40 \text{ mm}$
$w_2 = +/- 8 \text{ mm}$	$h_2 = 30 \text{ mm}$
$w_3 = +/- 10 \text{ mm}$	$h_3 = 12 \text{ mm}$
$w_4 = 312 \text{ mm}$	

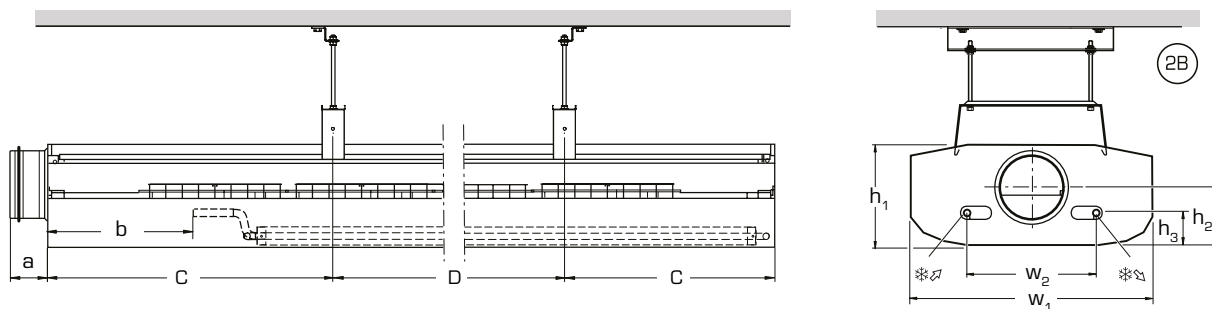


IQFI-aaa-11-05/06/09/10-d



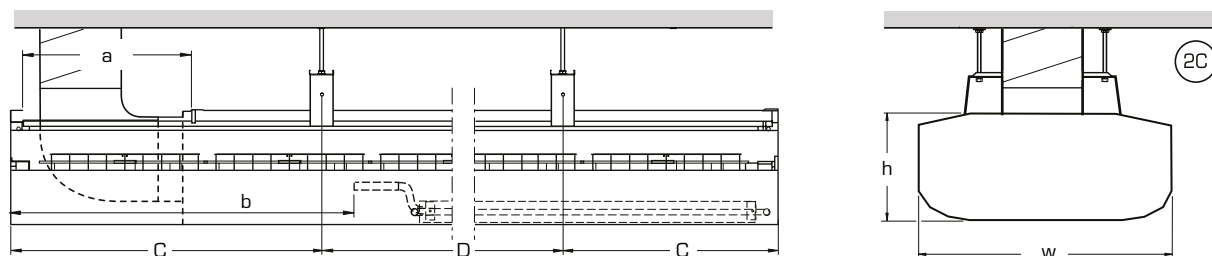
a	b	w1	w2	h1	h2	h3
69	273	228	158	12	85	204

IQFI-aaa-21-03/04/07/08/13/14-d



a	b	w1	w2	h1	h2	h3
69	273	450	228	192	118	65

IQFI-aaa-13/23-cc-d

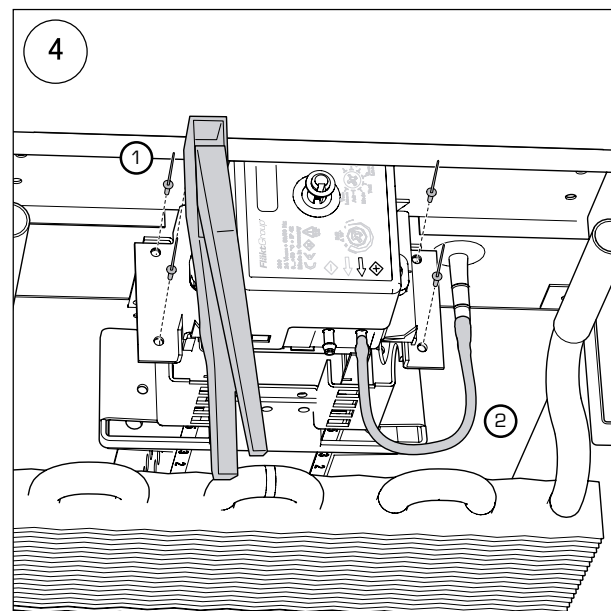
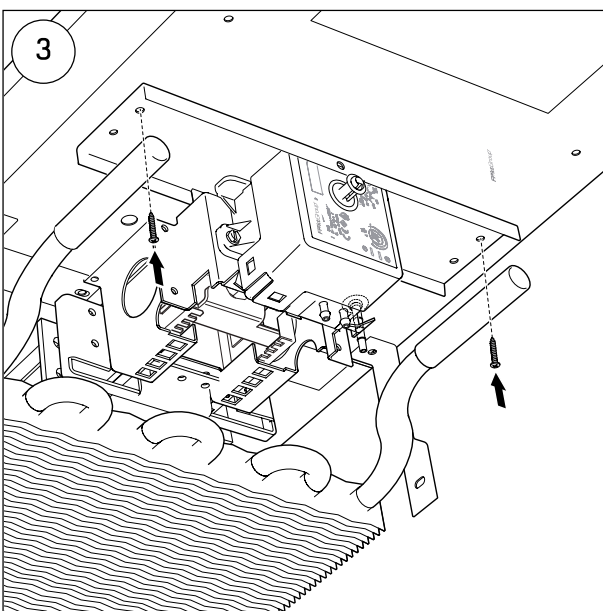
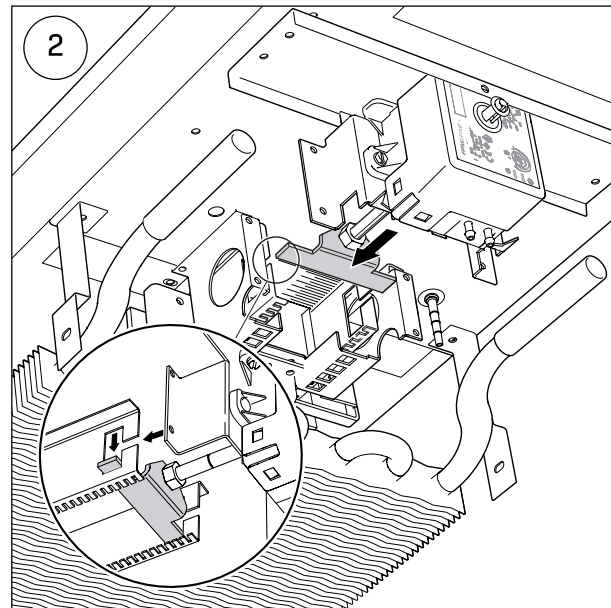
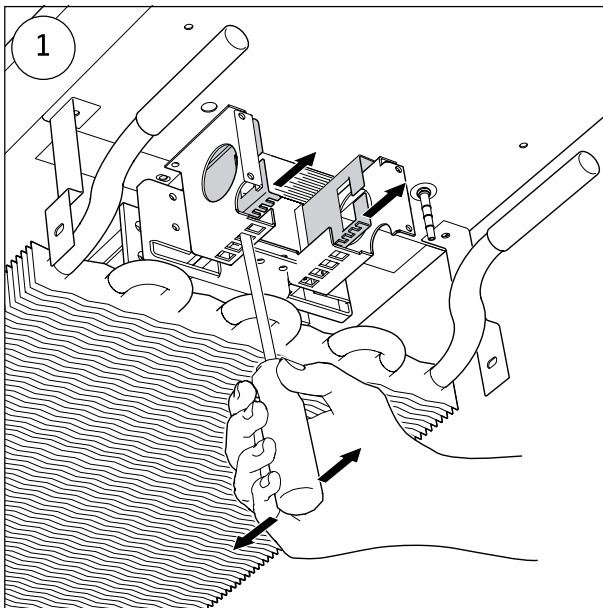


a	b	w	h
280	573	450	192

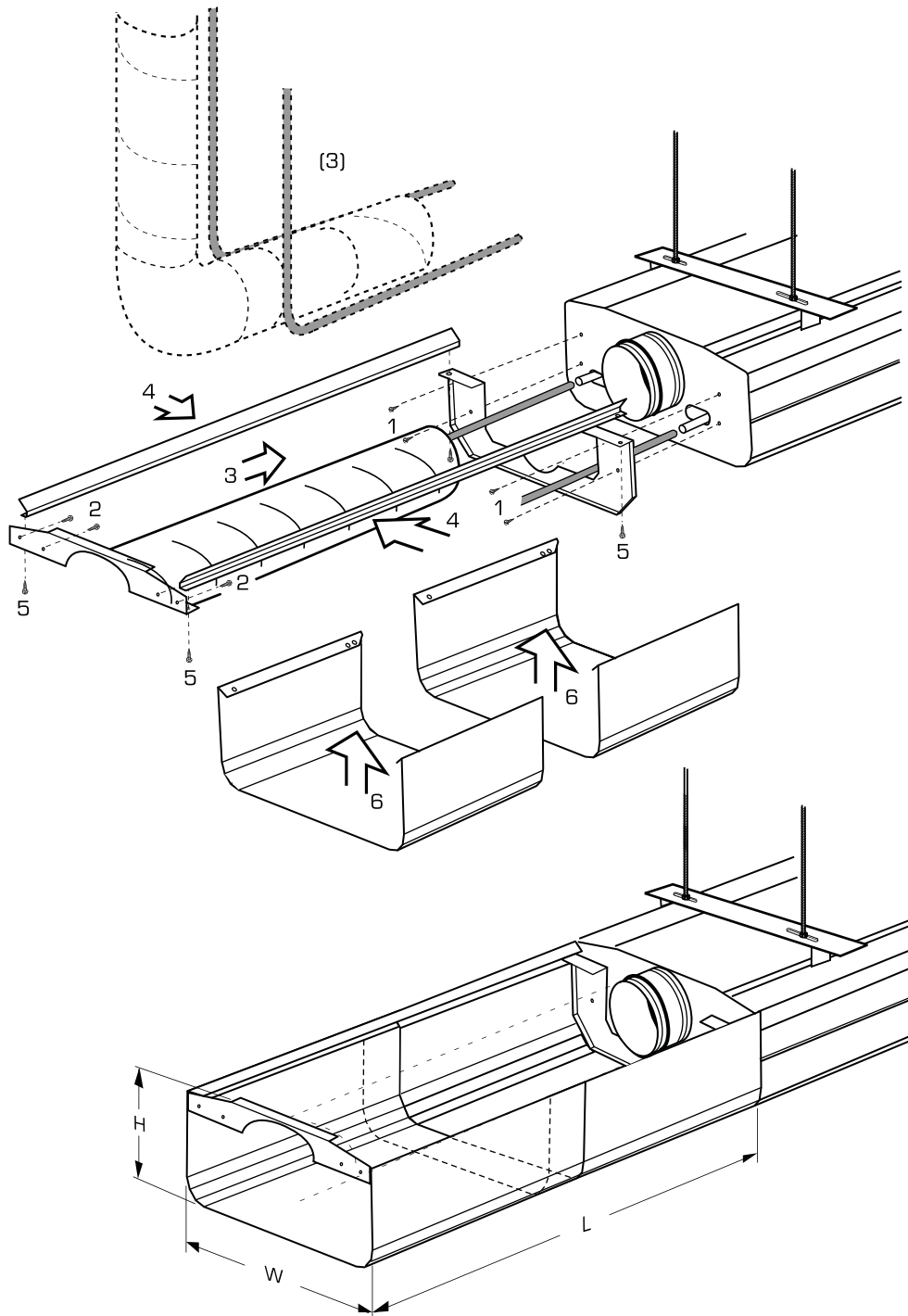
aaa (cm)	C (mm)	D (mm)
120	300	600
150	375	750
180	450	900
210	525	1050
240	600	1200
270	675	1350
300	750	1500
330	825	1650

IQAZ-35-01-1-1-2

- GB RETROFIT OF EXTERNAL DAMPER MOTOR
- SE INSTALLATION I EFTERHAND AV EXTERN SPJÄLLMOTOR
- FI ULKOISEN PELTIMOOTTORIN JÄLKIASENNUS
- DK EFTERMONTERING AF EKSTERN SPJÆLDMOTOR
- DE NACHRÜSTEN EINES EXTERNEN KLAPPENMOTORS
- NL RETROFIT VAN EXTERNE DEMPERMOTOR
- FR MONTAGE À POSTERIORI DU SERVOMOTEUR DE REGISTRE EXTERNE
- IT INSTALLAZIONE SUCCESSIVA DEL MOTORE PER SERRANDA ESTERNO
- PL REGENERACJA ZEWNĘTRZNEGO SILNIKA PRZEPUSTNICY
- CZ RETROFITOVÁNÍ EXTERNÍHO MOTORU KLAPKY
- RU ЗАМЕНА ВНЕШНЕГО ЭЛЕКТРОДВИГАТЕЛЯ КЛАПАНА



IQAZ-30-bbb-c



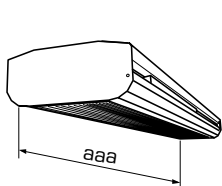
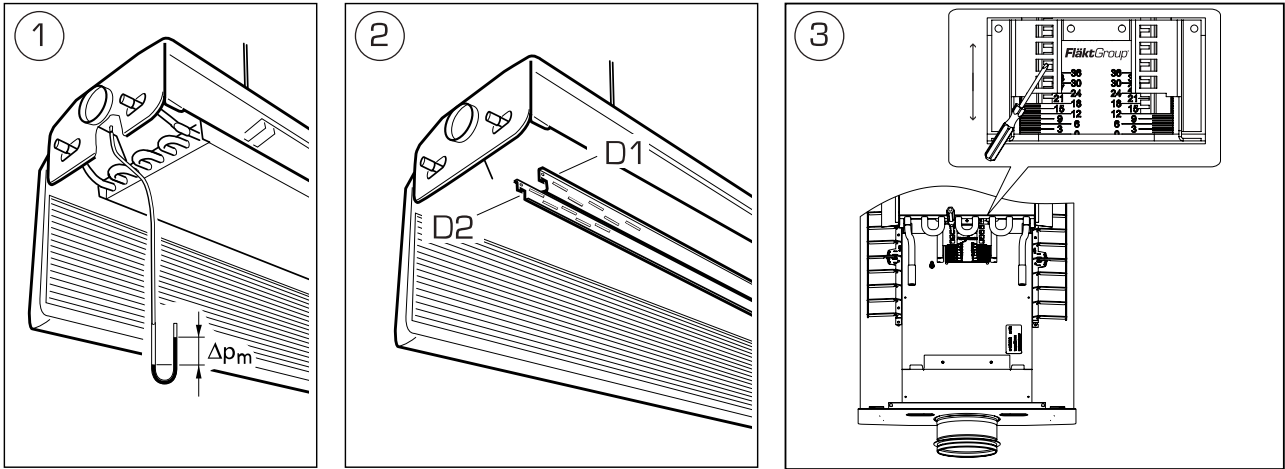
H = 189 mm

W = 446 / 448 mm

L = 300-500 mm / 500 - 900 mm / 900 - 1700 mm

IQFI-aaa-bb-cc-d

aaa = 120, 150, 180, 210, 240, 270, 300, 330 (cm)

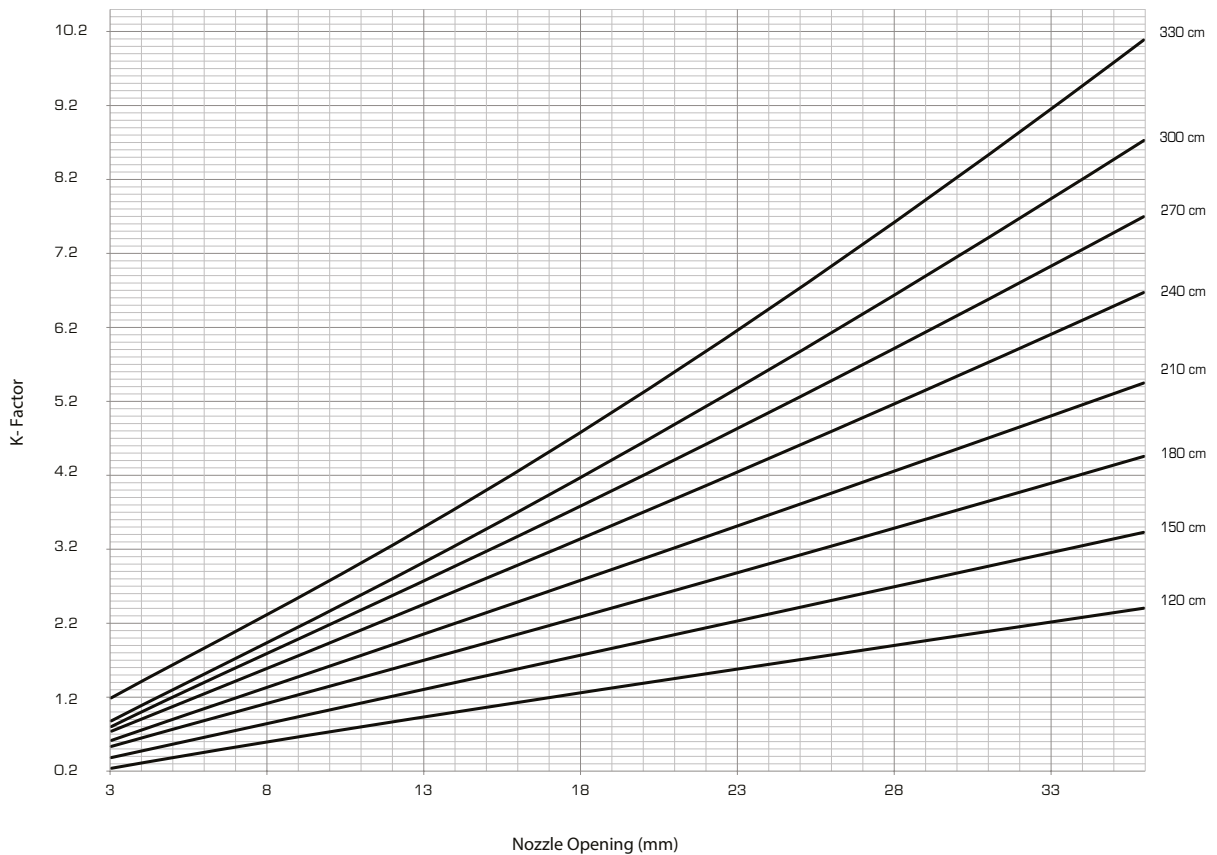


④ $D1 = D2$

$q = k \sqrt{\Delta p_m}$ (l/s) (Pa)	$q = 3.6k \sqrt{\Delta p_m}$ (m ³ /h) (Pa)
---	--

④ $D1 \neq D2$

$q = \left(\frac{k_{D1}}{2} + \frac{k_{D2}}{2} \right) \sqrt{\Delta p_m}$ (l/s) (Pa)	$q = 3.6 \left(\frac{k_{D1}}{2} + \frac{k_{D2}}{2} \right) \sqrt{\Delta p_m}$ (m ³ /h) (Pa)
--	--





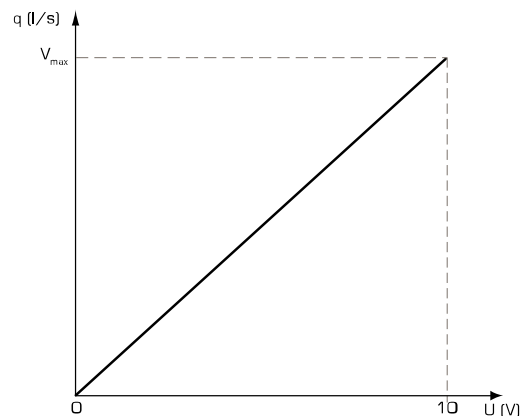
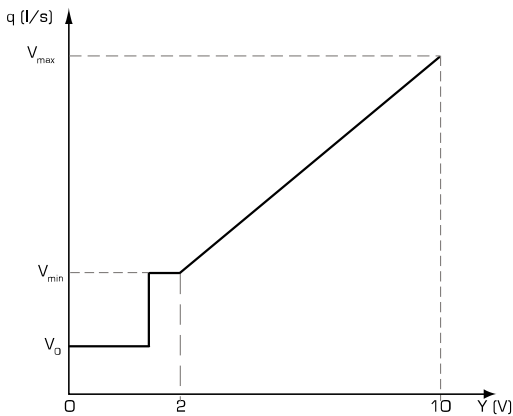
309VM-024-150-MB-003
150 N
3,0 W (1,0 W) • 5,0 VA
12,5 mm/min • 36 mm
150 Pa • max.100 kPa

1	2	3	4	A	B
BU	BN	BK	GY	WH	WH
↓	↓	↑	↓	↓	↓
⊥	~	Y	U		
		-	+		

XXXXXXXX • XX • 15/11
 Serial nr. Software version YY/MM

Table 1: Wiring

1	2	3	4	a	b
24 VAC (⊥) 24 VDC (-)	24 VAC (-) 24 VDC (+)	0...10 V	0...10 V	Modbus	
Operating Voltage		Control signal (Y)	Feedback signal (U)		
blue (BU)	brown (BN)	black (BK)	grey (GY)		

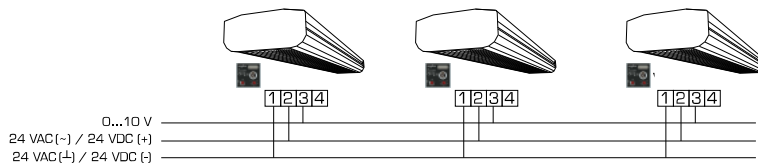


$$q_{\text{act}} = V_{\text{min}} + \frac{Y - 2}{8} \times (V_{\text{max}} - V_{\text{min}})$$

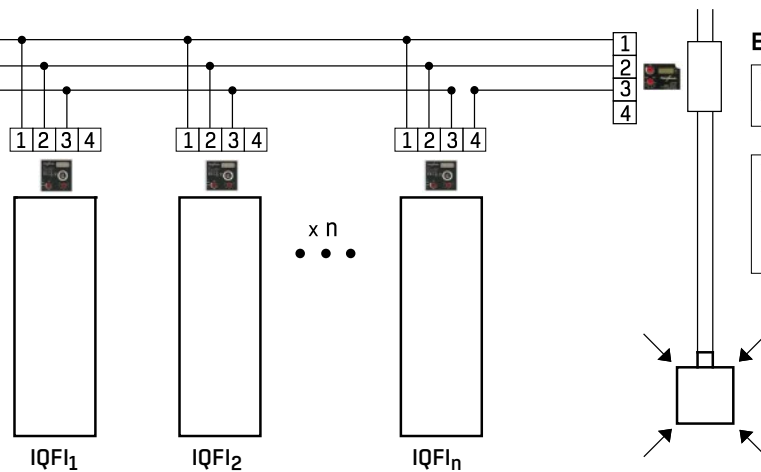
(l/s) (l/s)

$$U = 0 - 10 \quad (0 \text{ V} = 0 \text{ l/s}, 10 \text{ V} = V_{\text{max}})$$

(VDC)



24 VAC (⊥) / 24 VDC (-)
 24 VAC (~) / 24 VDC (+)
 Y = 0 ... 10 V



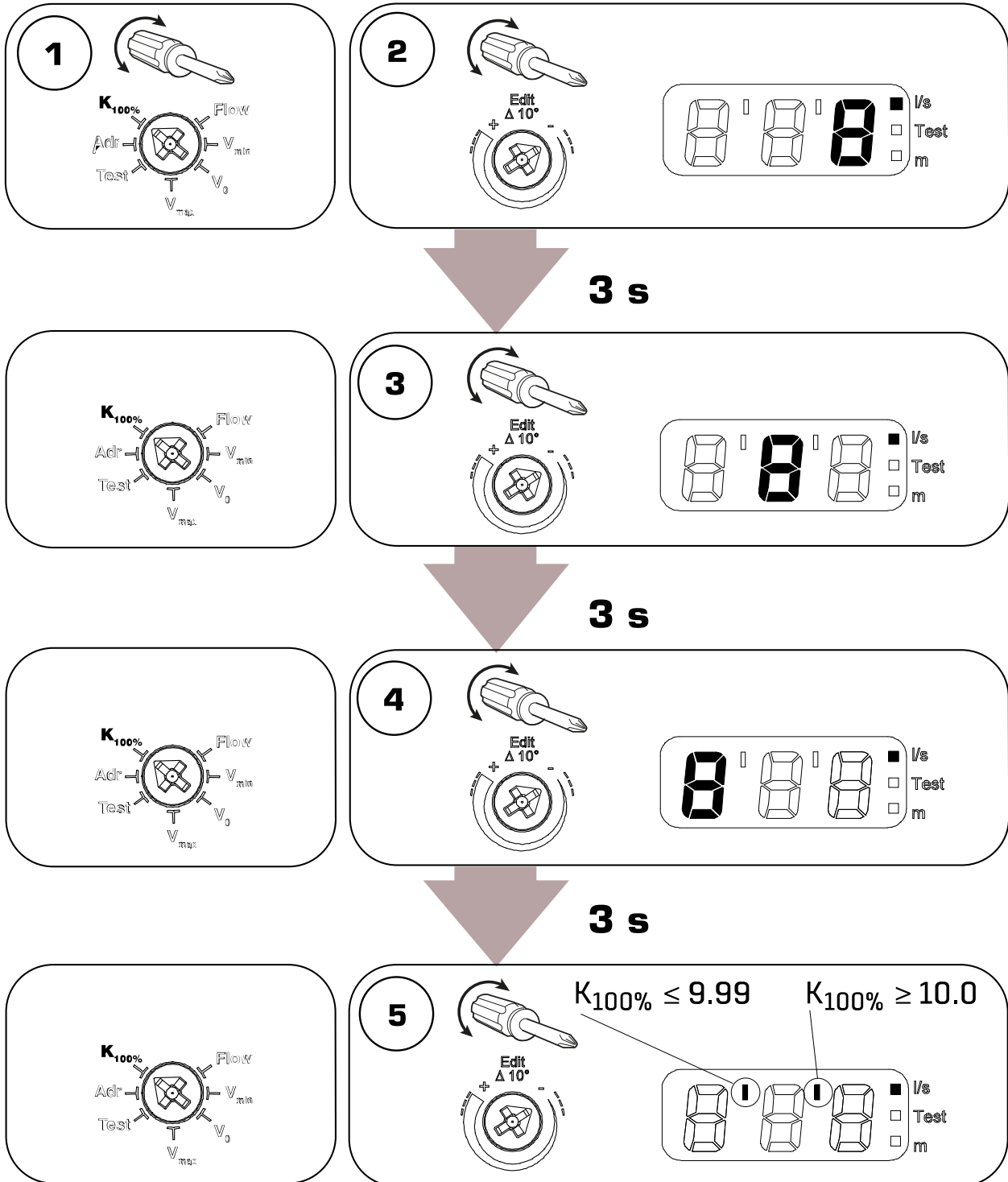
EMSS/EMSD

$V_{\text{min}} = 0$
 $V_{\text{max}} = V_{\text{max}} (\text{IQFI}) \times n$
 alt.

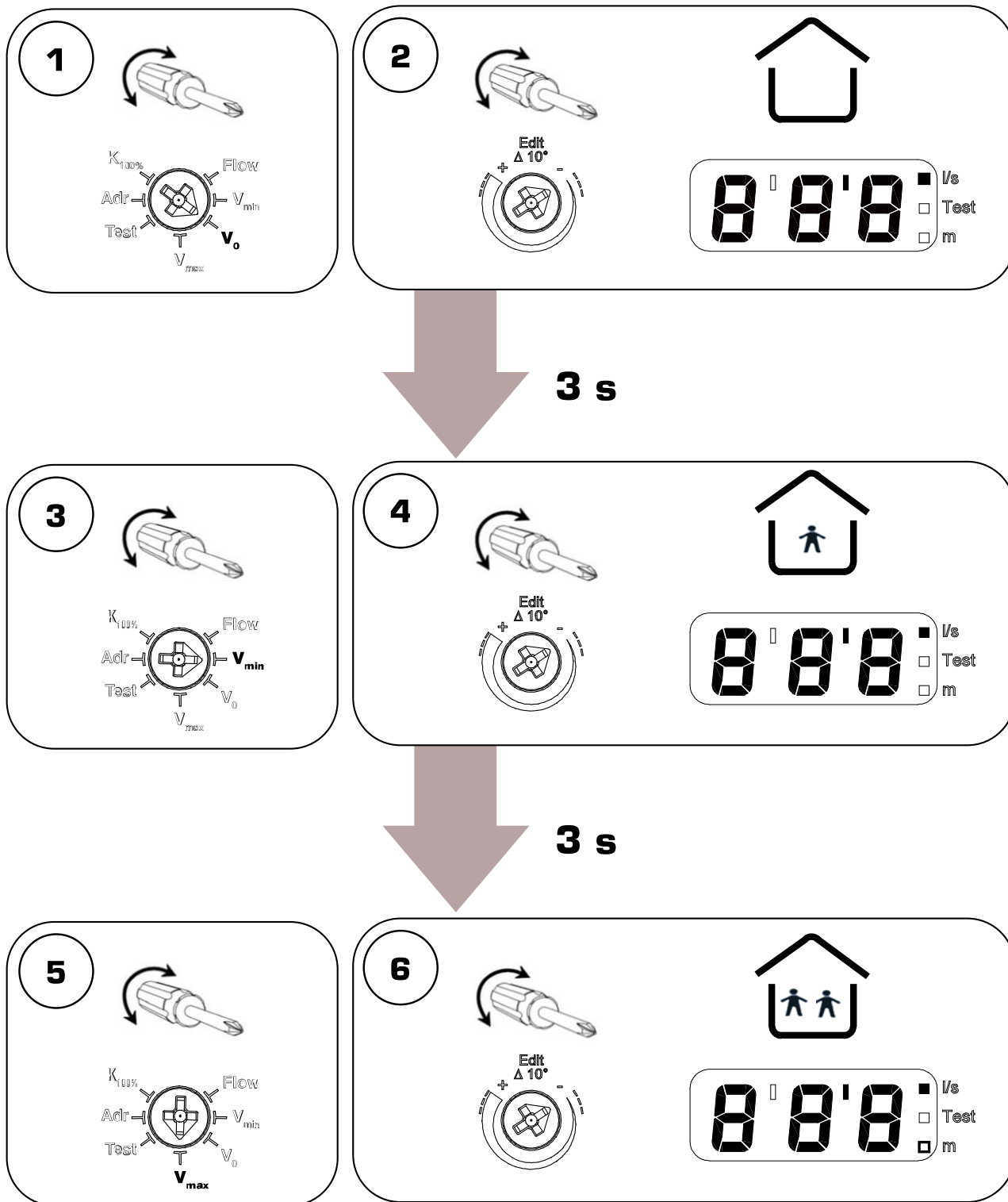
$V_{\text{min}} = 0$
 $V_{\text{max}} = V_{\text{max}} (\text{IQFI}_1) +$
 $V_{\text{max}} (\text{IQFI}_2) + \dots$
 $\dots V_{\text{max}} (\text{IQFI}_n)$

K_{100%}

aaa (cm)	k _{100%}	aaa (cm)	k _{100%}
120	2.5	240	6.7
150	3.6	270	7.7
180	4.6	300	8.5
210	5.5	330	9.6

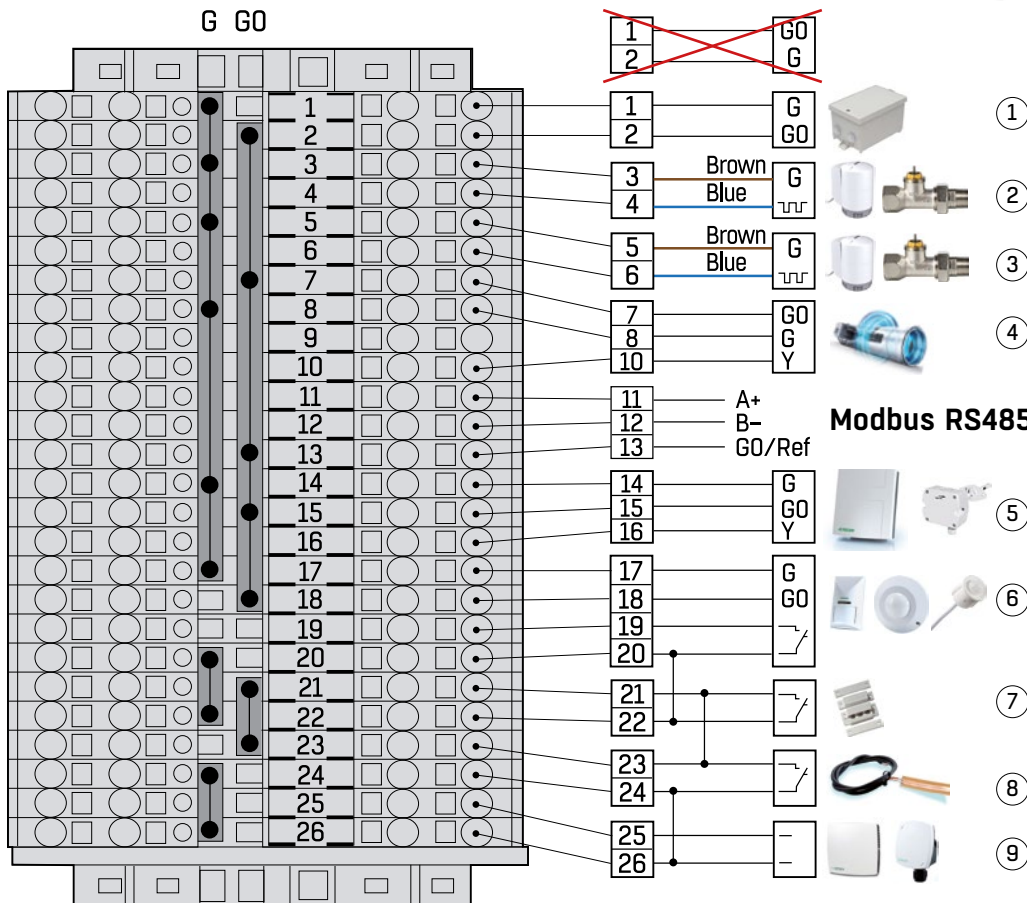


V_0 , V_{max} & V_{min}



STRZ-76

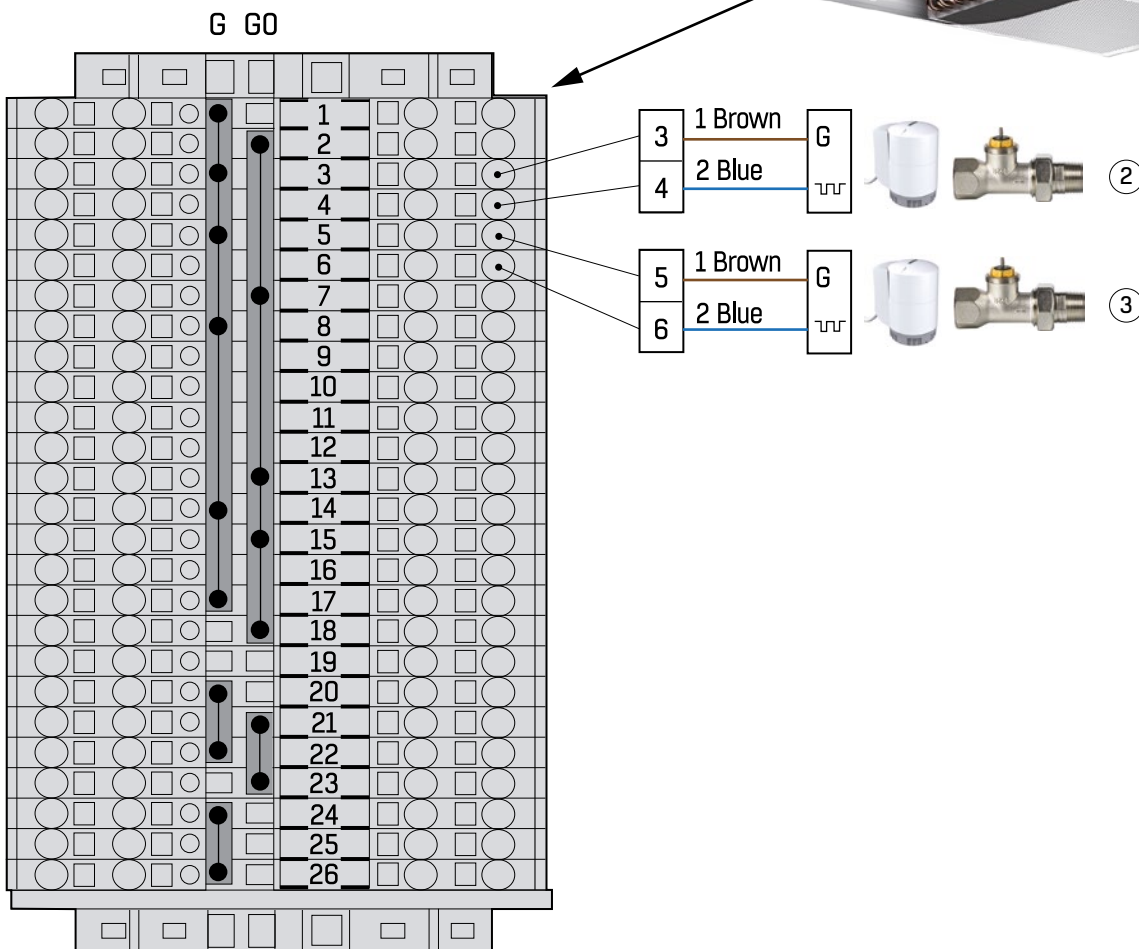
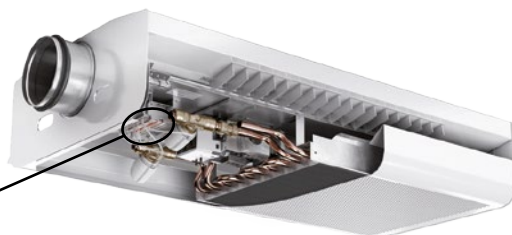
MASTER BEAM



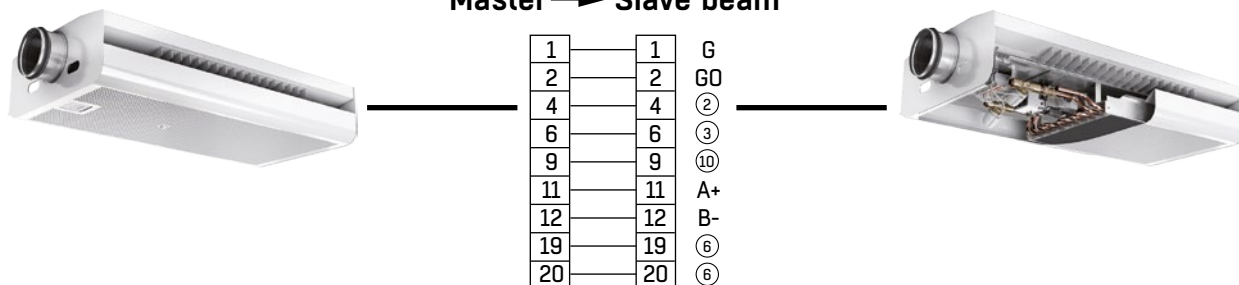
	1	2	3	4	5	6	7	8	9
GB	Transformer	Actuator heating	Actuator cooling	Exhaust actuator	CO ₂ sensor	PIR sensor	Window sensor	Condense sensor	Temperature sensor
SE	Transformator	Ventil värme	Ventil kyla	VAV-spjäll	CO ₂ -givare	Närvarogivare	Fönsterkontakt	Kondensgivare	Temperaturgivare
FI	Muuntaja	Toimilaitteen lämmitys	Toimilaitteen jäähdytys	Poistoilman toimilaite	CO ₂ -anturi	PIR-anturi	Ikkunakosketin	Kondenssianturi	Lämpötila-anturi
DK	Transformer	Aktuator, opvarmning	Aktuator, køling	Afkastaktuator	CO ₂ -sensor	PIR-sensor	Vinduessensor	Kondenssensor	Temperatursensor
DE	Transformator	Stellglied Heizung	Stellglied Kühlung	Fortluftstellglied	CO ₂ -Sensor	PIR-Sensor	Fenstersensor	Kondensationssensor	Temperaturfühler
NL	Transformator	Actuator verwarming	Actuatorkoeling	Exhaust actuator	CO ₂ sensor	PIR-sensor	Raamsensor	Condensatiesensor	Temperatuursensor
FR	Transformateur	Servomoteur chauffage	Servomoteur refroidissement	Servomoteur air extrait	Sonde CO ₂	Sonde PIR	Capteur de fenêtre	Sonde de condensation	Sonde de température
IT	Trasformatore	Attuatore di riscaldamento	Attuatore di raffreddamento	Attuatore di scarico	Sensore di CO ₂	Sensore PIR	Contatto finestra	Sensore di condensa	Sensore di temperatura
PL	Transformator	Siłownik grzanie	Siłownik chłodzenie	Siłownik pow. wylot.	Sensor CO ₂	Czujnik PIR	Czujnik otw. okna	Czujnik skraplania	Czujnik temperatury
CZ	Transformátor	Ohřev servopohonu	Chlazení pohonu	Pohon výfuku	Snímač CO ₂	Snímač PIR	Čidlo oken	Snímač kondenzace	Senzor teploty
RU	Трансформатор	Привод обогрева	Привод охлаждения	Привод удаляемого воздуха	Датчик CO ₂	Пассивный инфракрасный датчик	Датчик окна	Датчик конденсации	Датчик температуры

STRZ-76

SLAVE BEAM



Slave → Slave beam
Master → Slave beam



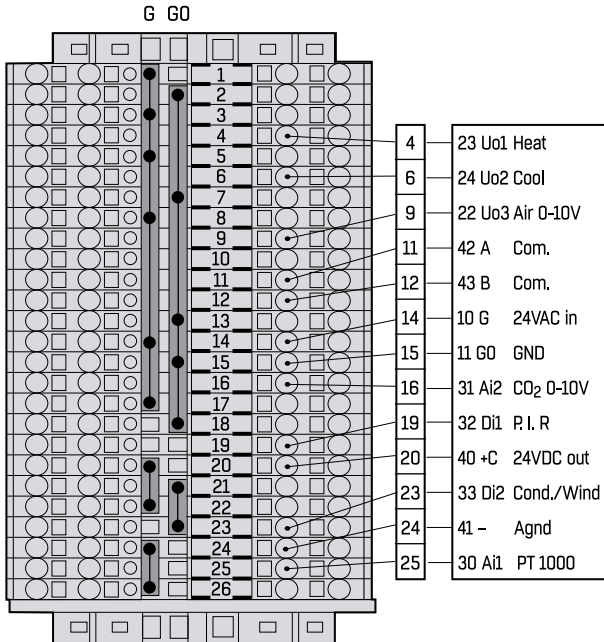
- 10**
- ⒸB Supply air actuator
 - ⒸE Tilluftsställdon
 - ⒸI Tuloilman toimilaite
 - ⒸK Tilluftaktuator
 - ⒸE Zuluftstellglied
 - ⒸL Toevoerluchtaandrijving

- 10**
- ⒸR Servomoteur air neuf
 - ⒸT Attuatore dell'aria di mandata
 - ⒸL Siłownik pow. wlot.
 - ⒸZ Pohon přívodního vzduchu
 - ⒸU Привод приточного воздуха

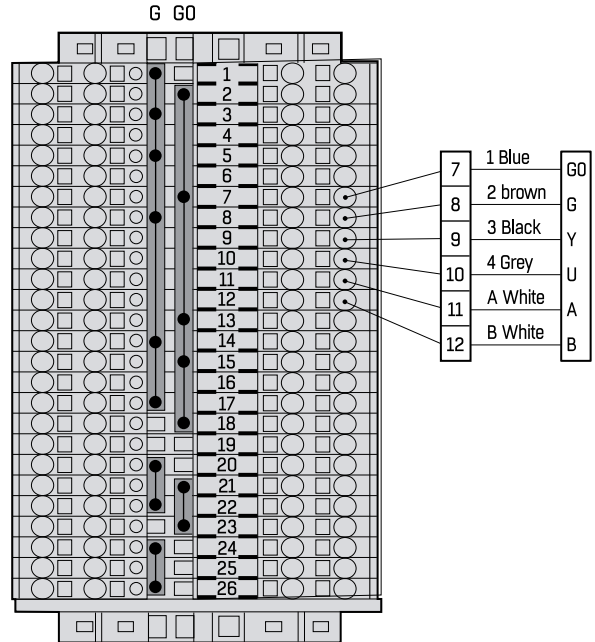
STRZ-76



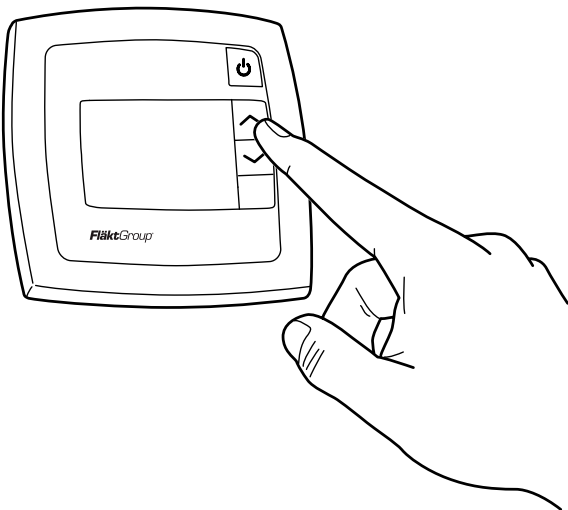
Control unit STRA



PI actuator



STRZ-76



STRZ-76-02-cc-d-ee

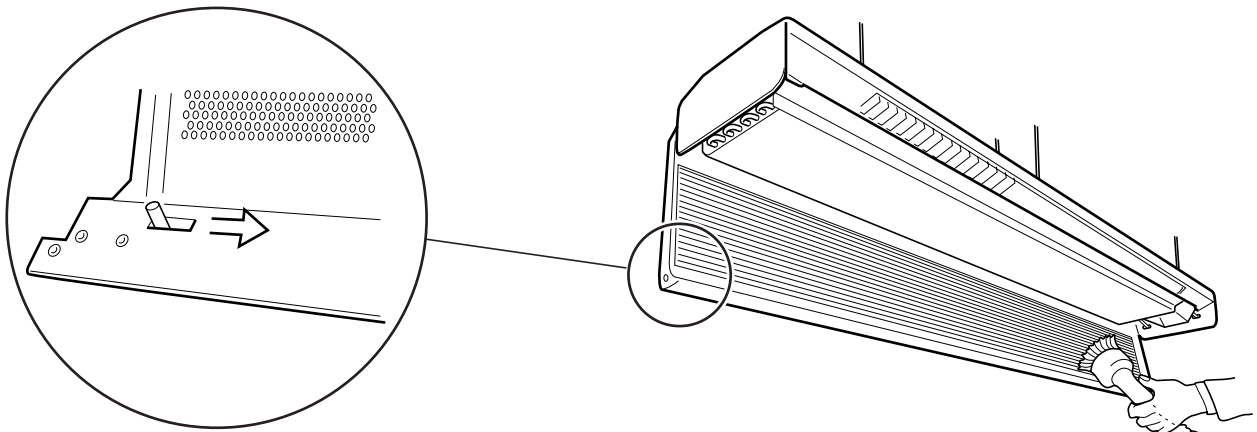
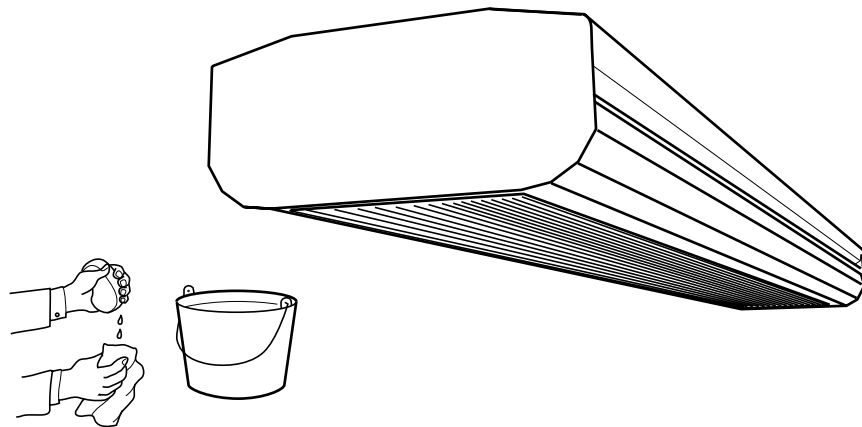
Parameter 15 = 1

STRZ-76-bb-02/04/06/08-d-ee

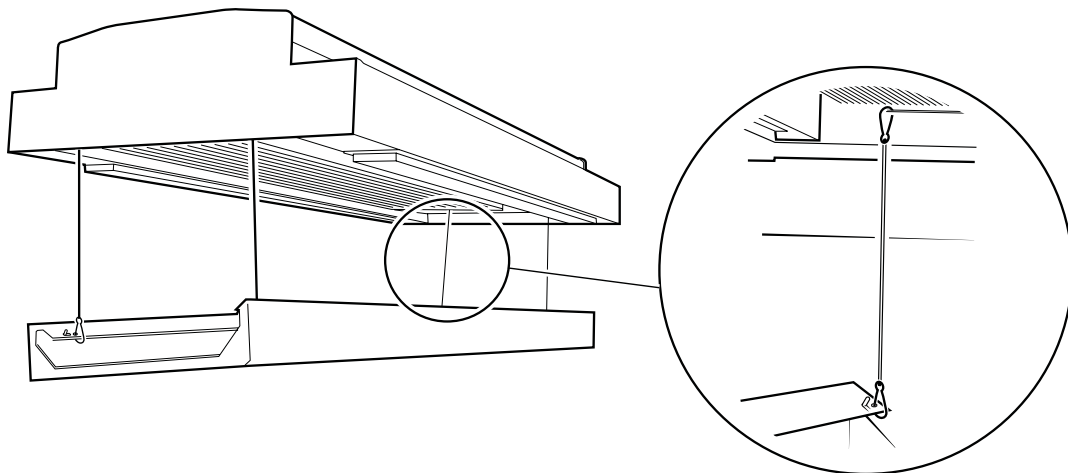
Parameter 18 = 2

STRZ-76-bb-03/04/07/08

Parameter 45 = 1, Parameter 17 = 3



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