

⚠️ WARNING! WARNUNG! AVERTISSEMENT !

Risk of electrical voltage and possibly high pressure in the device or in the system! Observe applicable accident prevention and safety regulations! Switch off voltage and pressure before reaching into the device or system! Vent the lines!

Gefahr durch elektrische Spannung und evtl. hohen Druck im Gerät oder in der Anlage! Geltende Unfallverhütungs- und Sicherheitsbestimmungen beachten! Vor Eingriffen in Gerät oder Anlage Spannung und Druck abschalten! Leitungen entlüften!

Danger par la tension électrique et éventuellement par la haute pression dans l'appareil ou dans le système ! Respectez les réglementations de prévention des accidents et de sécurité en vigueur ! Coupez la tension et la pression avant d'intervenir dans l'appareil ou le système ! Désaérez les conduites !

! The **instruction manual** can be found on the internet at: / Die **Bedienungsanleitung** finden Sie im Internet unter: /
Vous trouverez les **instructions de service** sur Internet sous: www.spxflow.com

1. ASSEMBLY / MONTAGE / MONTAGE - EXTERNAL TARGET

The assembly process is shown in 8 steps:

- 1.) Insert the top rod (1) into the upper housing (5) and rotate it.
- 2.) Push the rod (1) down into the middle housing (5).
- 3.) Rotate the rod (1) to align the internal components.
- 4.) Push the rod (1) down further.
- 5.) Push the rod (1) down until it reaches the bottom housing (5).
- 6.) Rotate the rod (1) to lock the assembly.
- 7.) Push the rod (1) down to the final position.
- 8.) Tighten the top cap (1) with a torque of 8 Nm.

Parts list for step 8:

- 1: Top cap
- 2: O-ring
- 3: Shim
- 4: (4x) Screws
- 5: Housing
- 6: Shim

2. PNEUMATIC INSTALLATION / PNEUMATISCHE INSTALLATION / INSTALLATION PNEUMATIQUE


Port locations and connection details:

- 3/R** (3/8" NPT)
- 1/P** (1/2" NPT)
- 2/A3** (2/A3)
- 2/A1** (2/A1)
- 2/A2** (2/A2)
- 2/A1..3** (Ø6 mm (1/4"))
- 1/P** (Ø8 mm (5/16"))
- 2/A1** (Ø8 mm (5/16"))

Connection specifications:

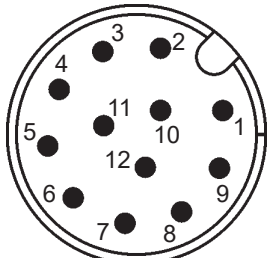
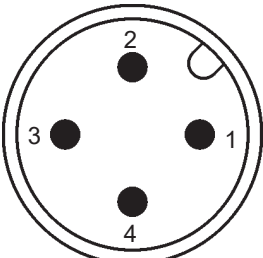
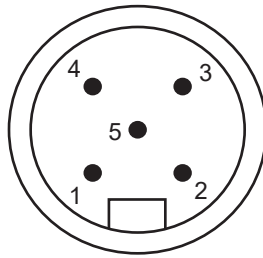
- G1/4 (3/R)**
- G1/8 (2/A3 .. 2/A1) (Ø6 mm (1/4"))**
- G1/4 (1/P) (Ø8 mm (5/16"))**

3. ELECTRICAL CONNECTION / ELEKTRISCHER ANSCHLUSS / RACCORDEMENT ÉLECTRIQUE



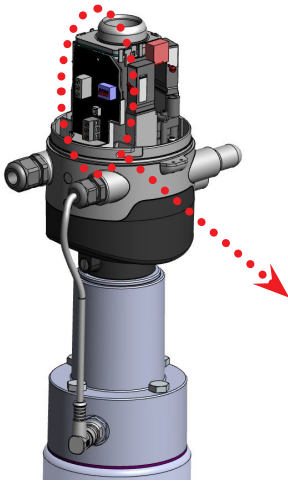
1 8681 Control Unit - D4 ↔ External position sensor / Externes Wegmesssystem / Capteur de déplacement externe

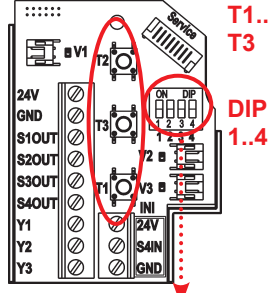
2

24 V DC	AS interface	DeviceNet																														
M12 plug / Stecker / prise mâle (IEC 61076-2-101), L = 80 cm (approx. / ca. / env.)																																
																																
<table border="0" style="width: 100%;"> <tr><td>1 24 V</td><td>7 Y1</td></tr> <tr><td>2 GND</td><td>8 Y2</td></tr> <tr><td>3 S1 out</td><td>9 Y3</td></tr> <tr><td>4 S2 out</td><td>(10 -)</td></tr> <tr><td>5 S3 out</td><td>(11 -)</td></tr> <tr><td>6 S4 out</td><td>(12 -)</td></tr> </table>	1 24 V	7 Y1	2 GND	8 Y2	3 S1 out	9 Y3	4 S2 out	(10 -)	5 S3 out	(11 -)	6 S4 out	(12 -)	<table border="0" style="width: 100%;"> <tr><td>1 ASI+</td><td></td></tr> <tr><td>2 (GND)</td><td></td></tr> <tr><td>3 ASI-</td><td></td></tr> <tr><td>4 (24 V+)</td><td></td></tr> </table>	1 ASI+		2 (GND)		3 ASI-		4 (24 V+)		<table border="0" style="width: 100%;"> <tr><td>1 Shield / Schirm / Blindage</td><td></td></tr> <tr><td>2 V +</td><td></td></tr> <tr><td>3 V -</td><td></td></tr> <tr><td>4 CAN_H</td><td></td></tr> <tr><td>5 CAN_L</td><td></td></tr> </table>	1 Shield / Schirm / Blindage		2 V +		3 V -		4 CAN_H		5 CAN_L	
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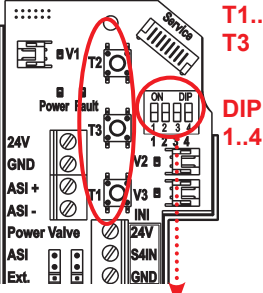
DIP1 .. DIP6 → **DeviceNet addresses** (normal binary code / normaler Binärcode / code binaire normal):
 DIP1 ON = 2⁰ = 1 +
 DIP2 ON = 2¹ = 2 +
 DIP3 ON = 2² = 4 +
 DIP4 ON = 2³ = 8 +
 DIP5 ON = 2⁴ = 16 +
 DIP6 ON = 2⁵ = 32
 example: address 10 = DIP2 ON + DIP4 ON (DIP1, DIP3, DIP5, DIP6 OFF)

DIP7 .. DIP8 → **Baud rate / le baud:**
 DIP7 OFF + DIP8 OFF = 125 kBit/s
 DIP7 ON + DIP8 OFF = 250 kBit/s
 DIP7 OFF + DIP8 ON = 500 kBit/s
 (DIP7 ON + DIP8 ON = not / nein / non)

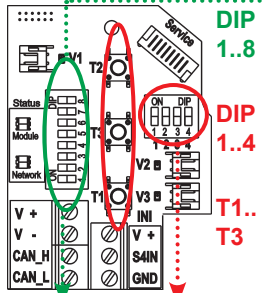




T1.. T3
DIP 1..4



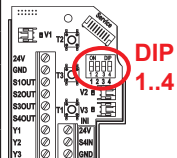

T1.. T3
DIP 1..4




DIP 1..8
DIP 1..4
T1.. T3

! After setting the DIP switches, restart the device to accept the new values!
 Nach dem Setzen der DIP-Schalter das Gerät neustarten, um die neuen Werte zu übernehmen!
 Après avoir réglé les commutateurs DIP, redémarrez l'appareil pour qu'il accepte les nouvelles valeurs !

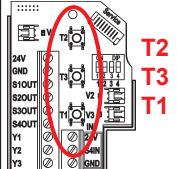
4. DIP SWITCHES / DIP-SCHALTER / INTERRUPTEUR DIP (DIP1- DIP4)

	DIP1	DIP2		(1) Valve closed	(2) Valve open	(3) Upper seat lift	(4) Lower seat lift	(5) Fault
 <p>DIP 1..4</p>	0	0						
	1 (ON)	0						
	0	1 (ON)						
	1 (ON)	1 (ON)						

	DIP3	DIP4	Process valve type / Prozessventiltyp / Type de vanne de process	Legend / Legende / Légende (DIP1 + DIP2) :
 <p>?</p>	0	0	D4	(1) Ventil geschlossen / Vanne fermée
	1 (ON)	0	DA4	(2) Ventil offen / Vanne ouverte
	0	1 (ON)	D4SL	(3) Oberer Sitz angehoben / Siège supérieur soulevé
	1 (ON)	1 (ON)	D4PMO	(4) Unterer Sitz angehoben / Siège inférieur soulevé


(5) Fehler / Erreur

5. AUTOTUNE: START SEQUENCE / START-SEQUENZ / SÉQUENCE DE DÉMARRAGE






T2
T3
T1

1. T2 + T3
2.5 sec.




2.




500 ms 500 ms 500 ms

< 10 sec.
then
dann
puis

3. T1
0.5 sec.



4.

200 ms 200 ms 200 ms

Autotune Reset (Teach Reset): T1 + T2 (2.5 sec.)