

Installation Instructions

Kit XPC0003 General-purpose spare parts and accessories

Replacement for Cleanfit CPA871 process
retractable assembly



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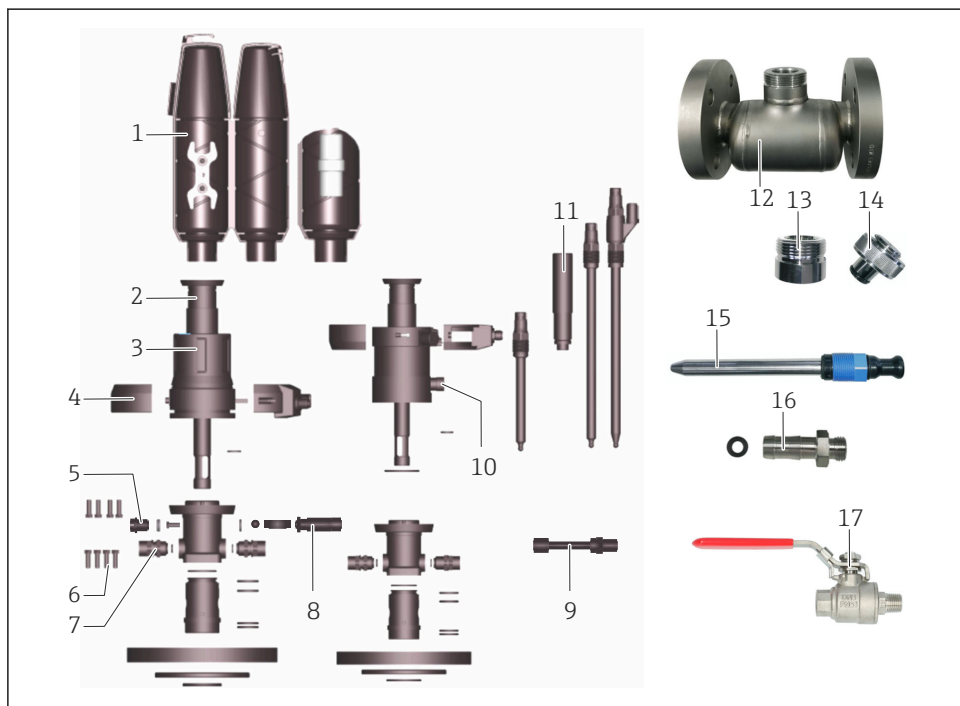
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1 Overview

 Not all spare parts kits are shown below!



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 1 *Cleanfit CPA871 process retractable assembly*

- | | |
|---|---|
| 1 Protective cover | 10 Stop bolt |
| 2 Retraction pipe (different versions) | 11 Gel-KCI adapter |
| 3 Drive (different versions) | 12 Flow vessel |
| 4 Protection ring (different versions) | 13 Weld-in adapter (different versions) |
| 5 Sealing plug (different versions) | 14 Dummy plug |
| 6 Connecting screws kit | 15 Sensor dummy |
| 7 Service chamber connection (different versions) | 16 Hose connection kit |
| 8 Pressure retarder (different versions) | 17 Ball valve rinse connection |
| 9 Rinse connection extension (different versions) | |

2 Intended use

- The parts of the kits must only be used as retrofit parts or replacement parts for Cleanfit CPA871 retractable assemblies. Any other use is not permitted!
- Only use original parts from Endress+Hauser.
- In the W@M Device Viewer, check if the spare part is suitable for the existing device.

3 Authorized installation personnel

- Installation, commissioning, operation and maintenance of the measuring system may be carried out only by specially trained technical personnel.
- The technical personnel must be authorized by the plant operator to carry out the specified activities.
- The electrical connection may be performed only by an electrical technician.
- The technical personnel must have read and understood these Installation Instructions and must follow the instructions they contain.
- Faults at the measuring point may only be rectified by authorized and specially trained personnel.



Repairs not described in the Operating Instructions provided must only be carried out directly at the manufacturer's site or by the service organization.

4 Safety instructions

WARNING

Risk of injury from high pressure, high temperature or chemical hazards if process medium escapes!

- ▶ Before installing or removing an assembly, depressurize the system, drain the system and clean it.

WARNING

Danger due to compressed air in the case of pneumatically operated assemblies!

- ▶ Before starting work on the assembly, switch off the compressed air supply and vent the compressed air lines.

CAUTION

Contact with the medium poses a health hazard!

- ▶ Wear protective gloves, protective goggles and protective clothing, particularly when working with reagents, chemicals or process solutions.
- ▶ In case of contact with eyes or skin, rinse the affected area with plenty of water and then seek medical advice. Show the relevant safety data sheet to the physician.

NOTICE**Material damage due to solvents!**

- ▶ Do not use any halogen-containing organic solvents or acetone. These solvents could destroy plastic components of the assembly.

**Impact on the process**

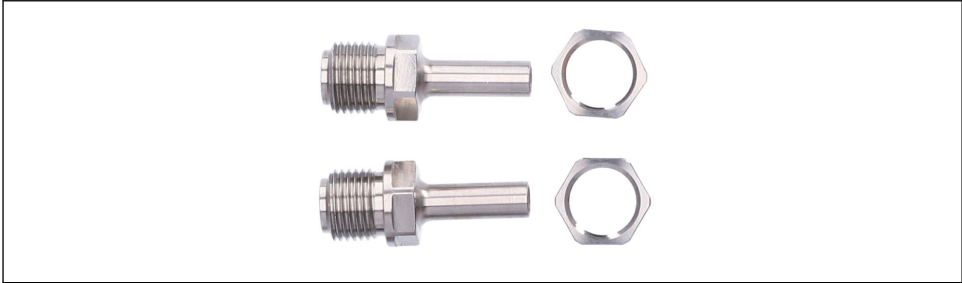
Before decommissioning an active device, the potential impact on the overall process must be taken into account! This applies in particular to the use of the switching contacts, analog signal outputs or the communication interface of the associated measuring device to control process variables. Coordinate service tasks with the operator!

5 Scope of delivery

5.1 Kit XPC0003-V+EA, connection for service chamber: pipe

The kit contains the following parts →  2,  6:

2 x	Rinse connection pipe 6x8 mm 316L	1 x	Kit instructions
2 x	Nut M16 AF19		



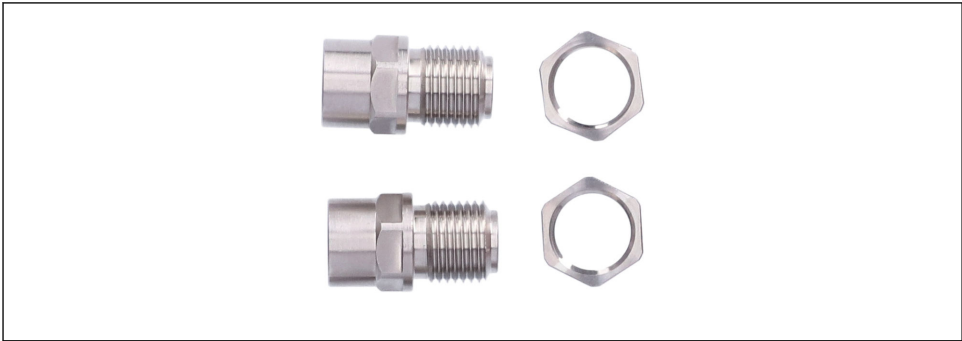
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 2 Kit XPC0003-V+EA


5.2 Kit XPC0003-V+EB, connection for service chamber G¹/₄" 1.4404

The kit contains the following parts →  3,  6:

2 x	Rinse connection CPA 1.4404, G ¹ / ₄ " female	1 x	Kit instructions
2 x	Nut M16 AF19		



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 3 Kit XPC0003-V+EB / +ED / +EC / +EE

5.3 Kit XPC0003-V+ED, connection for service chamber G $\frac{1}{4}$ " Alloy C22

The kit contains the following parts →  3,  6:

2 x	Rinse connection CPA Alloy C22 (2.4602), G $\frac{1}{4}$ " female	1 x	Kit instructions
2 x	Nut M16 AF19		

5.4 Kit XPC0003-V+EC, connection for service chamber NPT $\frac{1}{4}$ " 1.4404

The kit contains the following parts →  3,  6:

2 x	Rinse connection CPA 1.4404, NPT $\frac{1}{4}$ " female	1 x	Kit instructions
2 x	Nut M16 AF19		

5.5 Kit XPC0003-V+EE, connection for service chamber NPT $\frac{1}{4}$ " Alloy C22

The kit contains the following parts →  3,  6:

2 x	Rinse connection CPA Alloy C22 (2.4602) NPT $\frac{1}{4}$ " female	1 x	Kit instructions
2 x	Nut M16 AF19		


5.6 **Kit XPC0003-V+G1 / -V+G5, manual drive 36 mm stroke, for basic version and immersion version**

The kit contains the following parts →  4,  8:

- | | | | |
|-----|------------------------------|-----|------------------|
| 1 x | Manual drive stroke 36 mm | 1 x | Kit instructions |
| 1 x | Retraction pipe stroke 36 mm | | |



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-  4 *Kit XPC0003-V+G1 / +G3 / +G5 (manual drive) and kit XPC0003-V+G2 / +G4 / +G6 (pneumatic drive)*
- 1 *Example: manual drive, long version (78 mm stroke)*
- 2 *Example: pneumatic drive, long version (78 mm stroke)*

5.7 **Kit XPC0003-V+G3, manual drive 78 mm stroke, for basic version**

The kit contains the following parts →  4,  8:

- | | | | |
|-----|------------------------------|-----|------------------|
| 1 x | Manual drive stroke 78 mm | 1 x | Kit instructions |
| 1 x | Retraction pipe stroke 78 mm | | |

5.8 Kit XPC0003-V+G2 / -V+G6, pneumatic drive 36 mm stroke, for basic version and immersion version

The kit contains the following parts →  4,  8:

1 x	Pneumatic drive stroke 36 mm	1 x	Kit instructions
1 x	Retraction pipe stroke 36 mm		

5.9 Kit XPC0003-V+G4, pneumatic drive 78 mm stroke, for basic version

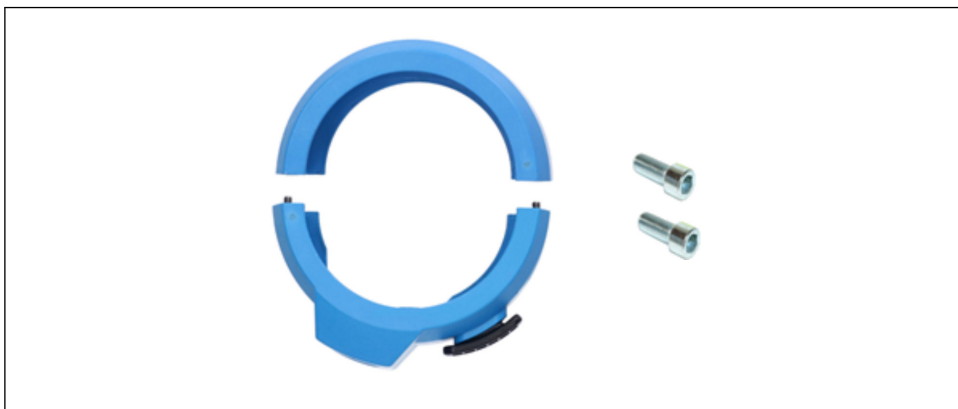
The kit contains the following parts →  4,  8:

1 x	Pneumatic drive stroke 78 mm	1 x	Kit instructions
1 x	Retraction pipe stroke 78 mm		


5.10 Kit XPC0003-V+M1, protection ring for manual drive, without limit switch

The kit contains the following parts →  9:



1 x	Half-shell 1	2 x	Allen screw M3x10
1 x	Half-shell 2 manual	1 x	Kit instructions
1 x	Unlocking button		



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 5 Kit XPC0003-V+M1, protection ring for manual drive, without limit switch


5.11 **Kit XPC0003-V+M2, protection ring for pneumatic drive, without limit switch**

The kit contains the following parts →  6,  10:

- | | | | |
|-----|------------------------|-----|--------------------------------------|
| 1 x | Half-shell 1 | 1 x | Holder for limit position switch |
| 1 x | Half-shell 2 pneumatic | 1 x | Dummy plug for limit position switch |
| 3 x | Allen screw M3x10 | 1 x | Kit instructions |



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 6 *Kit XPC0003-V+M2, protection ring for pneumatic drive, without a limit switch*


5.12 Kit XPC0003-V+M3, protection ring for manual drive, with one limit switch

The kit contains the following parts →  7,  11:

1 x	Half-shell 1	2 x	Allen screw M3x10
1 x	Half-shell 2 manual with one limit switch	1 x	Kit instructions
1 x	Unlocking button		



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 7 *Kit XPC0003-V+M3, protection ring for manual drive, with one limit switch*

5.13 **Kit XPC0003-V+M4, protection ring for pneumatic drive, with two limit switches**

The kit contains the following parts → 📦 8, 📄 12:

- | | | | |
|-----|--|-----|-------------------|
| 1 x | Half-shell 1 | 3 x | Allen screw M3x10 |
| 1 x | Half-shell 2 pneumatic with two limit switches | 1 x | Kit instructions |



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📦 8 *Kit XPC0003-V+M4, protection ring for pneumatic drive, with two limit switches*


5.14 Kit XPC0003-V+PA, weld-in adapter G1¼", straight

The kit contains the following parts →  9,  13:

1 x	Weld-in adapter G1¼", straight, 1.4435	1 x	Kit instructions
1 x	Cleaning cloth		



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 9 Kit XPC0003-V+PA, weld-in adapter G1¼", straight

5.15 Kit XPC0003-V+PB, weld-in adapter G1¼", angled 15°

The kit contains the following parts →  10,  13:



1 x	Weld-in adapter G1¼", angled 15°, 1.4435	1 x	Kit instructions
1 x	Cleaning cloth		



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 10 Kit XPC0003-V+PB, weld-in adapter G1¼", angled 15°


5.16 **Kit XPC0003-V+PC, dummy plug G1¼"**

The kit contains the following parts →  11,  14:



- | | | | |
|-----|-------------------------|-----|------------------|
| 1 x | Dummy plug G1¼", 1.4435 | 1 x | Kit instructions |
| 1 x | Cleaning cloth | | |



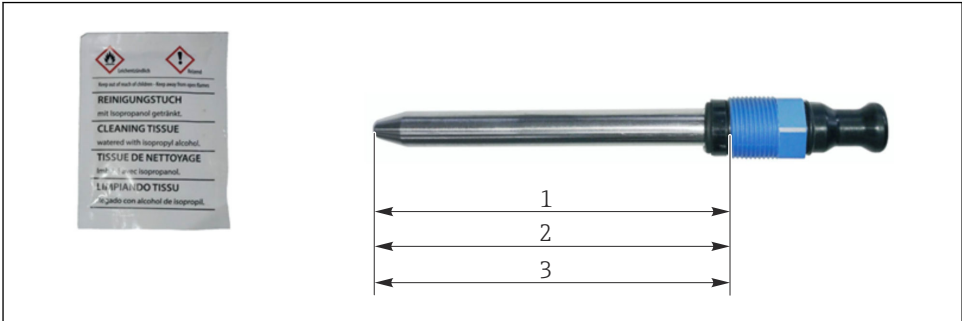
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 11 *Kit XPC0003-V+PC, dummy plug G1¼"*


5.17 **Kit XPC0003-V+PD / +PE / +PF, sensor dummy**

The kit contains the following parts →  12,  14:

- | | | | |
|-----|---|-----|------------------|
| 1 x | Sensor dummy 120 mm (with option PD), 316 L | 1 x | Cleaning cloth |
| | Sensor dummy 225 mm (with option PE), 316 L | 1 x | Kit instructions |
| | Sensor dummy 360 mm (with option PF), 316 L | | |



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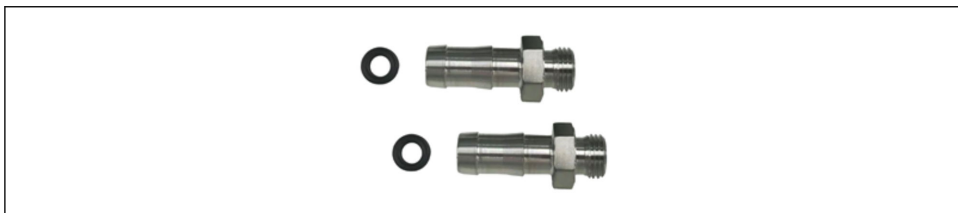
 12 *Kit XPC0003-V+PD / +PE / +PF, sensor dummy*

- 1 120 mm (4.3 in), option PD
- 2 225 mm (8.9 in), option PE
- 3 360 mm (14.2 in), option PF

5.18 Kit XPC0003-V+PG / +PH, hose connection kit G $\frac{1}{4}$ ", DN12


The kit contains the following parts →  13,  15:

1 x	Hose connection 1.4401 (with option PG)	1 x	Kit instructions
	Hose connection PVDF (with option PH)		



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 13 Kit XPC0003-V+PG / +PH, hose connection kit G $\frac{1}{4}$ ", DN12

 The example shown in the diagram is the PG version = stainless steel 1.4401

5.19 Kits XPC0003-V+PI (EPDM), XPC0003-V-PJ (FKM) and XPC0003-V-PK (FFKM), rinse chamber sealing plug, M16, 1.4404


The kits contain the following parts →  14,  15:

1 x	Rinse chamber plug	1 x	Sealing washer OD12.00 W2.00 EPDM (with option PI)
1 x	Nut M16 x 1.5 AF19		Sealing washer OD12.00 W2.00 FKM (with option PJ)
1 x	Kit instructions		Sealing washer OD12.00 W2.00 FFKM (with option PK)





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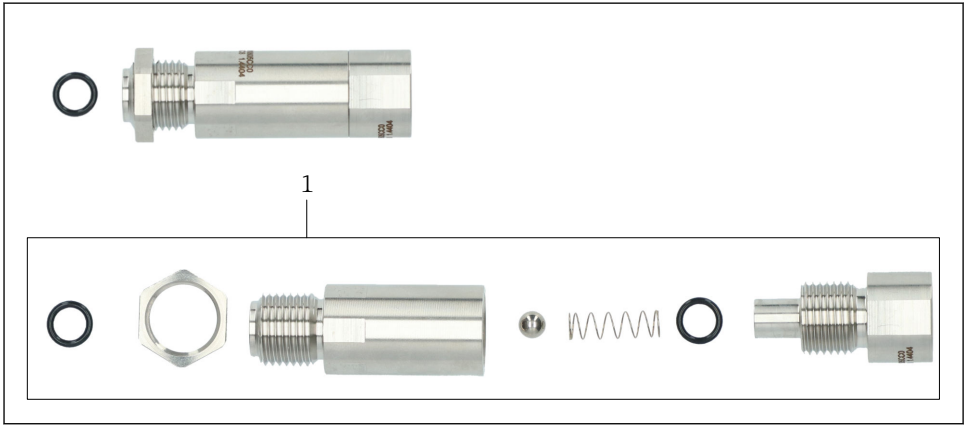
 14 Kits XPC0003-V+PI (EPDM), XPC0003-V-PJ (FKM) and XPC0003-V-PK (FFKM)

 The color of the seals may vary.


5.20 Kits XPC0003-V+PL (EPDM), XPC0003-V-PM (FKM) and XPC0003-V-PN (FFKM), pressure retarder, 16 bar version

The kits contain the following parts →  15,  16:


1 x	Check valve, complete	1 x	Kit instructions
2 x	O-ring ID 7.00 W 1.50 OD 10.00 EPDM FDA (with option PL)		
	O-ring ID 7.00 W 1.50 OD 10.00 FKM FDA (with option PM)		
	O-ring ID 7.00 W 1.50 OD 10.00 FFKM FDA (with option PN)		




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 15 Kits XPC0003-V+PL (EPDM), XPC0003-V-PM (FKM) and XPC0003-V-PN (FFKM)

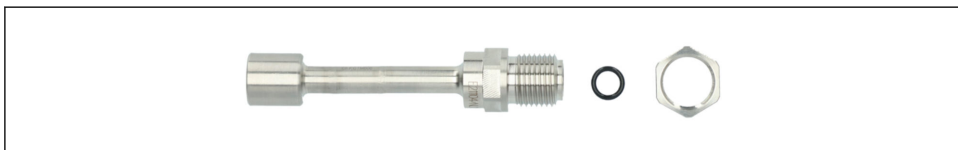
1 Structure of the pressure retarder

 The color of the seals may vary.

5.21 Kits XPC0003-V+PO (EPDM), XPC0003-V-PP (FKM) and XPC0003-V-PQ (FFKM), rinse connection extension, 1.4404, M16, G 1/4"


The kits contain the following parts →  16,  17:

1 x	Rinse connection extension 1.4404	1 x	O-ring ID 7.00 W 1.50 OD 10.00 EPDM
1 x	Nut M16 x 1.5 AF19		FDA (with option PO)
1 x	Kit instructions		O-ring ID 7.00 W 1.50 OD 10.00 FKM
			FDA (with option PP)
			O-ring ID 7.00 W 1.50 OD 10.00 FFKM
			FDA (with option PQ)



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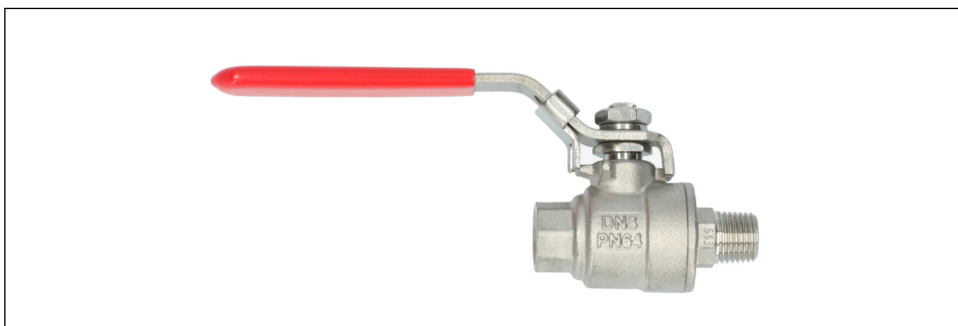
 16 Kits XPC0003-V+PO (EPDM), XPC0003-V-PP (FKM) and XPC0003-V-PQ (FFKM)

 The color of the seals may vary.


5.22 Kit XPC0003-V+PR rinse connection ball valve, G 1/4", 316


The kit contains the following parts →  13,  15:

1 x	Ball valve IG/AG G1/4" PN63 1.4408/316	1 x	Kit instructions
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 17 Kit XPC0003-V+PR rinse connection ball valve, G 1/4", 316

 The color of the seals may vary.


5.23 **Kit XPC0003-V+QI, flow vessel for flange DN25**


The kit contains the following parts →  18,  18:

1 x	Flow vessel as per EN1092-1 with flange DN25, 1.4403, PN16, flange ø 115 mm	1 x	Kit instructions
-----	--	-----	------------------



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 18 *Kit XPC0003-V+QI, flow vessel for flange DN25*

 Flow vessel XPC0003-V+QI only suitable for CPA871-*****NA** (DN25 thread G1¼", female)


5.24 Kit XPC0003-V+RA / +RB, cable for limit switch, plug-in

The kit contains the following parts →  19,  19:



1 x	Cable for limit switch, plug-in M12, 5m (RA)	1 x	Kit instructions
	Cable for limit switch, plug-in M12, 10m (RB)		



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 19 Kit XPC0003-V+RA / +RB, cable for limit switch, plug-in


5.25 **Kit XPC0003-V+RC, black cable for limit switch, plug-in**

The kit contains the following parts →  20,  20:

- | | | | |
|-----|--|-----|------------------|
| 1 x | Black cable for limit switch, plug-in M12, 10m | 1 x | Kit instructions |
| 5 x | Blue adhesive markers | | |



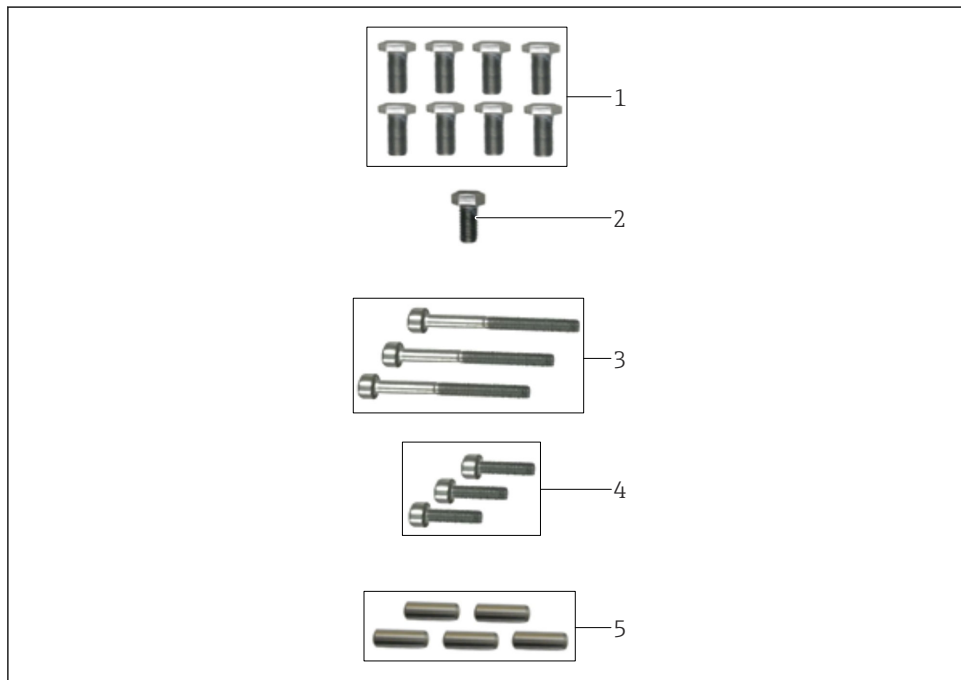
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 20 *Kit XPC0003-V+RC, black cable for limit switch, plug-in*

5.26 Kit XPC0003-V+RD, connecting screws kit

The kit contains the following parts → 📦 21, 📄 21:

8 x	Hexagonal-headed bolt M5 x 16, 1.4401, DIN 933	3 x	Allen screw M3 x 10, 1.4401, DIN 912
1 x	Hexagonal-headed bolt M5 x 10, 1.4401, DIN 933	5 x	Cylinder pin 4M 6 x 12, 1.14401, DIN 6325
3 x	Allen screw M3 x 30, 1.4401, DIN 912	1 x	Kit instructions





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📦 21 Kit XPC0003-V+RD, connecting screws kit

- 1 M5 x 16 to secure the support housing to the process connection and drive
- 2 M5 x 10 to secure the service chamber with support housing
- 3 M3 x 30 to secure the service chamber in immersion version
- 4 M3 x 10 to secure the protection ring half-shells
- 5 4M 6 x 12 for positioning the service chamber and preventing it from rotating


5.27 **Kit XPC0003-V+RE, protective cover**

The kit contains the following parts →  22,  22:



- | | | | |
|-----|--------------------------|-----|------------------|
| 1 x | Protective cover | 1 x | Kit instructions |
| 1 x | Hybrid open-ended wrench | | |



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 22 *Kit XPC0003-V+RE, protective cover*

5.28 Kit XPC0003-V+RG / +RH, retraction pipe


The kit contains the following parts →  23,  23:

1 x Retraction pipe 36 mm (option RG)
Retraction pipe 78 mm (option RH)

1 x Kit instructions





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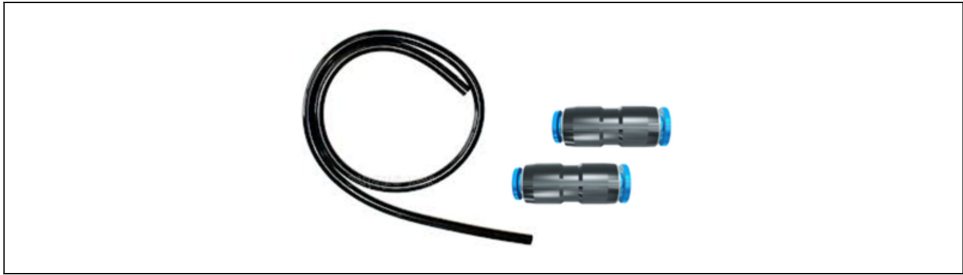
 23 Kit XPC0003-V+RG / +RH, retraction pipe

- 1 Retraction pipe 36 mm (RG)
- 2 Retraction pipe 78 mm (RH)


5.29 **Kit XPC0003-V+RI, compressed air adapter**

The kit contains the following parts →  24,  24:



- | | | | |
|-------|--|-----|------------------|
| 2 x | Pneumatic plug-in connector OD 6 mm to OD 4 mm | 1 x | Kit instructions |
| 0.5 m | Hose PUN-H black, OD 4 mm | | |



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 24 *Kit XPC0003-V+RI, compressed air adapter*


5.30 **Kit XPC0003-V+RK, stop bolts**

The kit contains the following parts →  25,  24:

- | | | | |
|-----|------------|-----|------------------|
| 2 x | Stop bolts | 1 x | Kit instructions |
|-----|------------|-----|------------------|



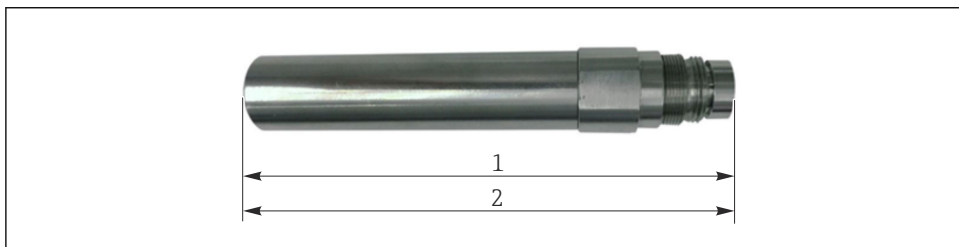
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 25 *Kit XPC0003-V+RK, stop bolts*


5.31 Kit XPC0003-V+RM / +RN, gel-KCI adapter

The kit contains the following parts →  26,  25:

- | | | | |
|-----|--|-----|------------------|
| 1 x | Gel-KCI adapter 225-360 mm (option RM) | 1 x | Kit instructions |
| | Gel-KCI adapter 120-225 mm (option RN) | | |



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 26 Kit XPC0003-V+RM / +RN, gel-KCI adapter

- 1 163 mm (6.6 in) (option RM)
- 2 133 mm (5.24 in) (option RN)

5.32 Kit XPC0003-V+RO, lock screw stainless steel 1.4404

The kit contains the following parts →  27,  25:



- | | | | |
|-----|--|-----|------------------|
| 2 x | Lock screw G $\frac{1}{4}$ 1.4404 AF 13 mm | 1 x | Kit instructions |
|-----|--|-----|------------------|



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 27 Kit XPC0003-V+RO, lock screw stainless steel 1.4404


5.33 Kit XPC0003-V+RP, lock screw PVDF


The kit contains the following parts →  28,  26:

2 x Lock screw G¼ PVDF AF 17 mm 1 x Kit instructions



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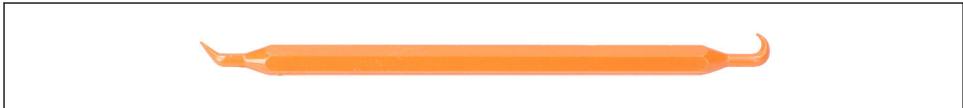
 28 *Kit XPC0003-V+RP, lock screw PVDF*

-  The lock screws are used to temporarily close the rinse connections. Use:
 - as a transport lock,
 - for temporary operation without rinsing.
- Regular cleaning of the assembly must be guaranteed. It is not permitted to permanently close the rinse chamber during operation, as this may cause medium residue to settle. The rinse chamber must be rinsed regularly.
- Use Teflon sealing tape to seal the lock screws.
- The following keys are needed for installation:
 - Stainless steel lock screw (+RO) = AF 13 mm,
 - PVDF lock screw (+RP) = AF 17 mm.
- The nominal pressure for the lock screws is limited to PN10 (145 psi).
- When used in areas where gas explosions may occur, the lock screws may only be used in Zone 1 or Zone 2.


5.34 Kit XPC0003-V+RR, O-ring removal tool

The kit contains the following parts →  29,  26:



5 x O-ring removal tool 1 x Kit instructions



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 29 *Kit XPC0003-V+RR, O-ring removal tool*


5.35 Kit XPC0003-V+RS, sensor installation open-ended wrench

The kit contains the following parts →  30,  27:

2 x	Sensor installation open-ended wrench	1 x	Kit instructions
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 30 Kit XPC0003-V+RR, O-ring removal tool

5.36 Kit XPC0003-V+R1, toolbox

The kit contains the following parts →  31,  28:

1 x Toolbox, complete for CPA87x

1 x Kit instructions




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 31 Kit XPC0003-V+R1, toolbox

- 1 Tool for holding immersion tube
- 2 Toolbox
- 3 Open-ended wrench AF17/19
- 4 Allen key 2.5 mm
- 5 Allen key 2.0 mm
- 6 Immersion tube tool CPA87x
- 7 Torque wrench 9x12
- 8 Socket wrench AF17/19
- 9 Open end head wrench AF8 9x12
- 10 Open end head wrench AF12 9x12
- 11 O-ring picker


5.37 Kit XPC0003-V+R2, support housing

The kit contains the following parts →  32,  29:



1 x	Support housing 1.4308 (without service chamber)	1 x	Hexagonal-headed bolt M5 x 10, 1.4401, DIN 933
8 x	Hexagonal-headed bolt M5 x 16, 1.4401, DIN 933	1 x	Kit instructions
1 x	Cylinder pin 4M 6 x 12, 1.4401, DIN 6325 pre-installed		



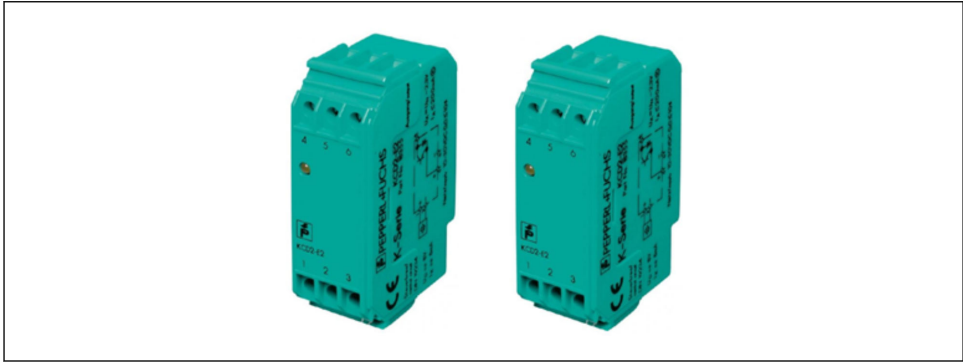
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 32 Kit XPC0003-V+R2, support housing


5.38 Kit XPC0003-V+R7, output interface terminals

The kit contains the following parts →  33,  30:

2 x	Output interface terminals (for inductive limit switch as per NAMUR recommendation)	1 x	Kit instructions
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 33 Kit XPC0003-V+R7, output interface terminals

Instructions for use of output interface terminals:

- The output interface terminal is used to power an inductive two-wire proximity switch as per NAMUR recommendation (approx. 8 V DC) and to analyze and output the sensor signal.
- Direction of action of output: NO contact (PNP)
- Operating voltage U_B : 10 - 30 V DC, approx. 22 mA
- Output signal: H output level = $U_B - 1.1$ V
- See back for a link to more information


5.39 Kit XPC0003-V+R8, Klüberfett grease

The kit contains the following parts →  34,  31:

- | | | | |
|-----|--|-----|------------------|
| 1 x | Klüberfett Paraliq GTE 703, tube with 60 g special lubricating grease based on silicon oil with PTFE | 1 x | Kit instructions |
| 1 x | Cleaning cloth | | |



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 34 Kit XPC0003-V+R8, Klüberfett grease

6 Additional documentation

Detailed information on the device can be found in the Operating Instructions for the sensor and in the other documentation available via:

- www.endress.com/device-viewer
- Smartphone / tablet: Endress+Hauser Operations app

Detailed service instructions CPA871

The purpose of these instructions is to provide an overview of the spare parts kits and accessories generally available for CPA871 and the scope of delivery of these kits.

Information on the use of these spare parts is not included in these instructions, but can be found in the detailed repair and maintenance instructions CPA871 (document number 71269404). These are available in the spare parts finder tool on the Endress+Hauser website or directly via https://portal.endress.com/picpool/sft/advicepdfs/71269404_service.pdf

7 Disposal

7.1 Sensors



If required by the Directive 2012/19/EU on waste electrical and electronic equipment (WEEE), the product is marked with the depicted symbol in order to minimize the disposal of WEEE as unsorted municipal waste. Do not dispose of products bearing this marking as unsorted municipal waste. Instead, return them to the manufacturer for disposal under the applicable conditions.



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www.addresses.endress.com
