

Cerberus™ PRO

Test units and accessories

FDUL221, DX791, RE6, REF8, REF8-S, REF8-C, RE8, RE8-S, RE8-C, RE7T, RE8ST, RE8STCO, RE8-CO, RE7T-x, RE10, FDUM293, FDLU291, LE3, StabexHF, T-229/4P, 3415MZ0-EX



Test units to test detectors and detector lines for FS720 fire detection installations.

- DX791 detector exchanger for efficient insertion and removal of Cerberus point detectors
- FDUL221 line tester for diagnosis of detector lines
- RE6 detector tester for use with environmentally friendly test gases REF8, REF8-S, REF8-C
- RE7T detector tester with hot air generator, RE8ST detector tester with RE8-S smoke capsule, RE8ST-CO detector tester with RE8-S smoke capsule, RE8-CO capsule and CO capsule
- RE10 detector tester for function checking of linear smoke detectors
- FDUM293 telescope rod as extension for detector exchanger and other testers
- Test lamps for FDF242, FDF242-EX infrared flame detectors

Properties

- 4-line display with 20 characters per line
- Menu-guided operation
- Supply with battery or via network adapter
- Possible to update the device software (firmware) via the MCL-USB adapter (radio) FDUZ227 and via a PC
- Environmentally friendly processing
- Reusable materials
- Electronic parts and synthetic materials can be easily separated

Function

Different functions can be called up, e.g.,:

- Number of devices found at A and B connection
- Line errors found, location of the line error
- Short-circuit, open line, ground fault with indication of which conductor/s
- Total resistance is too high and/or charge voltage at the line end is too low
- Data transmission fault due to line capacitance being too high
- Browsing from detector to detector with screen displaying type and serial number
- Display of branches and choice of branch for scrolling
- Activating the internal alarm indicator of the selected detector and recognizing the connected alarm sounder
- Extended operation and functionality on PC with line tester software FXS2017
- The line tester software FXS2017 is included in the scope of delivery of the line tester FDUL221.

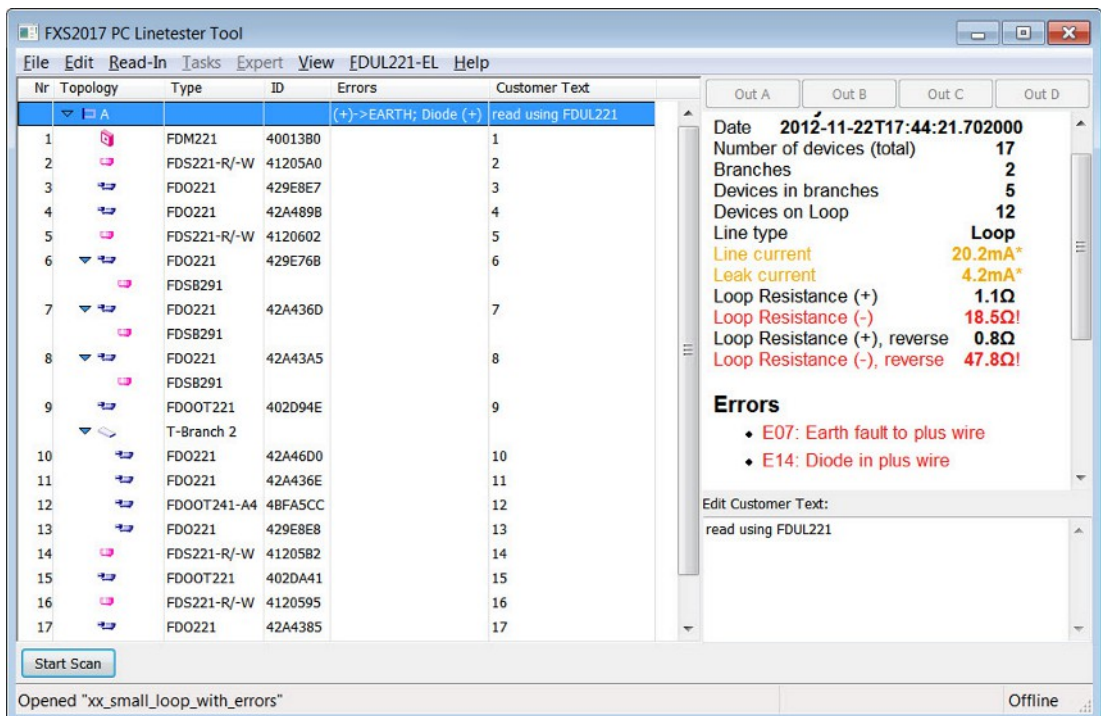


Fig. 1: Line tester software FXS2017

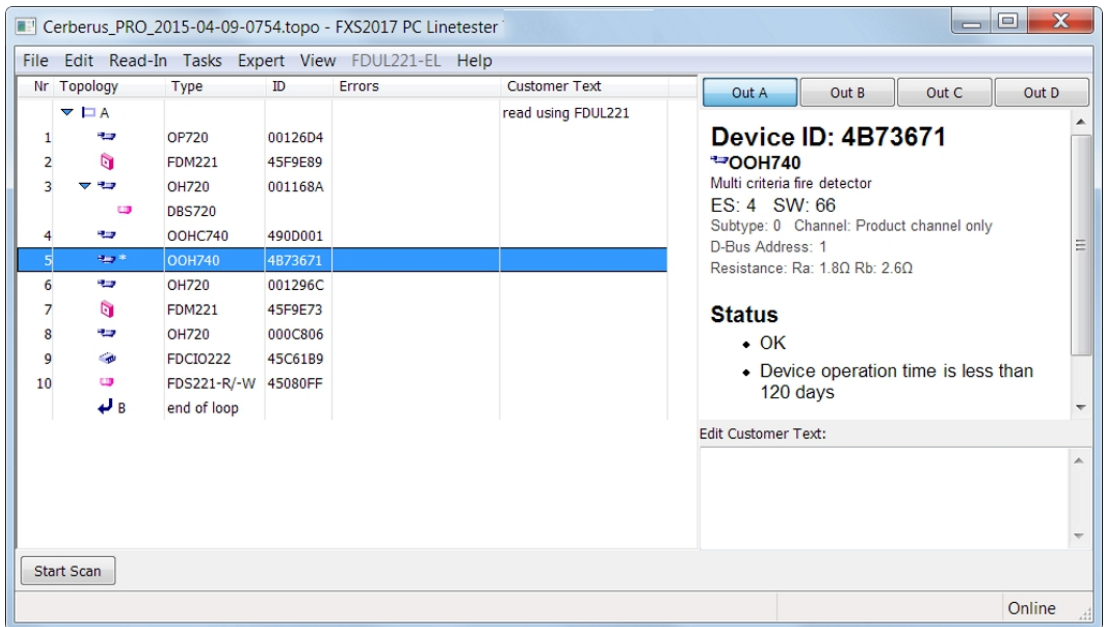
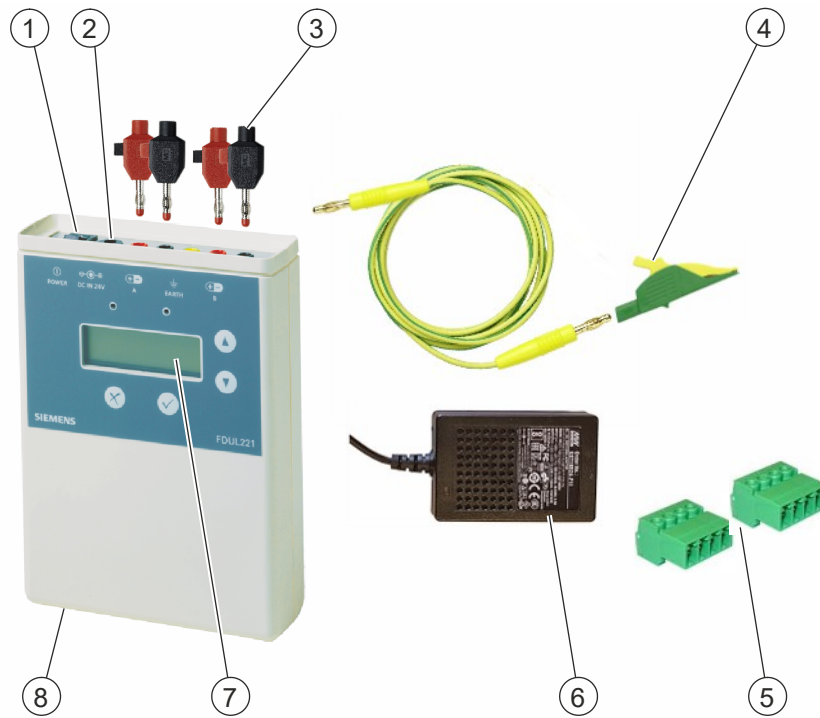


Fig. 2: Line tester software FXS2017

The line tester FDUL221 is a universal device for the final testing of fully installed C-NET fire detector lines if a control panel is not connected. The device is used for error searches by the electrician, installer, or service technician.



- | | |
|---|--|
| <ul style="list-style-type: none"> 1 On/Off switch 2 USB connection 3 Connection of a loop or stub line 4 Shielding | <ul style="list-style-type: none"> 5 2x terminal strips for the detector line 6 network adapter 7 Display 8 Battery compartment on the underside for 2x 9 V lithium batteries, not included in scope of delivery |
|---|--|



Fig. 3: Scope of delivery FDUL221

Properties

- Sturdy lightweight design of environmentally friendly recyclable materials
- In rooms up to a height of 8 m, detectors can be changed without using ladders (using telescope rods)
- The point detector can be fastened in all positions. This facilitates efficient working.
- Compatible with
 - telescope rod FDMU293
 - previous extension connectors VR10/11/12/13
 - MP/MT retaining rods and extension connectors

Function

Efficient installation and removal of the point detectors below.

Adapter FDUD491 is an accessory part for detector exchanger DX791, which serves to install and remove point detectors OOH740 and OOHC740.

Installation/removal with detector exchanger DX791	Installation/removal with detector exchanger DX791 and adapter FDUD491
OH720	OOH740
OP720	OOHC740
HI720	
HI722	

1	Point detector	Detector exchanger DX791 with suction cap ¹⁾	Detector exchanger DX791 with adapter FDUD491
2	Detector exchanger DX791		

¹⁾ The suction cap is used to attach the detector dust cap to and remove it from the detector.



- The RE6 detector tester is used together with a REF8, REF8-S or REF8-C test gas can. It is intended for testing optical smoke detectors together with ionization smoke detectors and CO detectors.
- For the test procedure, the detector tester is pushed over the detector. Briefly pressing it on causes the test gas to flow into the measuring chamber of the detector, thus simulating the presence of fire aerosols. Within a short response time the detector trips and triggers the alarm.
- REF8 and REF8-S are environmentally friendly test gases and satisfy strict environmental protection regulations. They do however contain flammable substances. REF8 is used within the temperature range 0...+40 °C, REF8-S is used within the temperature range -20...+40 °C in both dry and moist ambient conditions. REF8-S is used primarily for temperatures lower than 0 °C or for point detectors which raise the alarm only at high smoke densities or after long periods of signal integration.
- REF8-C is used for testing the CO functionality of detectors with a CO sensor. REF8-C can be used in dry and moist ambient conditions at temperatures from -20 °C to +50 °C.
- In high rooms, use the telescope rod. (Order the FDUM293 telescope rod separately)



During transport (for instance in a car) it is recommended that detector testers and test gas cans are protected against heat.

For operation, see the instructions on the detector tester.



The heat detector tester kit consists of

- 1x heat detector tester,
- 2x rechargeable batteries,
- 1x battery charger (with 12-V connection cable) and
- 2x mains cables (AC 110/120-220/240 V).

The heat detector tester contains a hot air generator. For the function check, the heat detector tester is pushed over the detector. The hot air that flows out heats up the detector, which responds by triggering the alarm.

Adapters and telescope rods can be used to access and test detectors in high rooms, even if they are in angled positions.

The RE7T-A adapter and the FDUM293 telescope rod must be ordered separately.



Heat detector testers must not be used in electrical switchgear cabinets or in explosion hazard areas.



The RE8ST test kit consists of

- 1X 1001-045 Testifire tester,
- 1X RE8-S smoke capsule,
- 2x rechargeable batteries,
- 1x battery charger (with 12-V connection cable),
- 2x mains cables (AC 110/120-220/240 V),
- 1x USB cable.

The detector tester contains a smoke capsule. For the function check, the detector tester is pushed over the detector. The smoke that flows out triggers the alarm.

The detector tester can also be used to test thermal fire detectors.

Adapters and telescope rods can be used to access and test detectors in high rooms, even if they are in angled positions.

The RE7T-A adapter and the FDUM293 telescope rod must be ordered separately.



Detector testers must not be used in electrical switchgear cabinets or in explosion hazard areas.



Fig. 4:

The RE8STCO test kit consists of

- 1X 2001-045 Testifire tester,
- 1X RE8-S smoke capsule,
- 1X RE8-CO CO capsule,
- 2x rechargeable batteries,
- 1x battery charger (with 12-V connection cable),
- 2x mains cables (AC 110/120-220/240 V),
- 1x USB cable.

The detector tester contains a smoke capsule or CO capsule. For the function check, the detector tester is pushed over the detector. The smoke that flows out or the gas that flows out triggers the alarm .

The detector tester can also be used to test thermal fire detectors.

Adapters and telescope rods can be used to access and test detectors in high rooms, even if they are in angled positions.

The RE7T-A adapter and the FDUM293 telescope rod must be ordered separately.



Detector testers must not be used in electrical switchgear cabinets or in explosion hazard areas.

RE7T-A (Solo719 adapter for FDUM293)



Installation adapter for the RE7T, RE8ST and RE8STCO detector testers on the FDUM293 telescope rod

RE7T-B1 (Solo770 battery)



Battery as a spare part

RE7T-C1 (Solo727 battery charger)



Battery charger as a spare part for charging RE7T-B1 batteries

RE8-S (smoke capsule) for RE8ST and RE8STCO





RE8-CO (CO capsule) for RE8STCO




Properties

- Light and robust yellow plastic pipes, non-conductive material
- Plastic sockets and friction bearings ensure that the pipes run into each other easily.
- Quick spring-type locking mechanisms allow continuous adjustment of the length.
- The pipes can be extended to their maximum length. A stop is used to prevent them from extending further.
- Existing testers can be used.
- The telescope rods cannot be extended.

⚠ WARNING	
	<p>Falling objects Danger of injury</p> <ul style="list-style-type: none"> • Always wear a hardhat when working with telescope rods.

⚠ WARNING	
	<p>Approaching or touching live lines Electric shock</p> <ul style="list-style-type: none"> • Only use testers with telescope rods in volt-free areas.

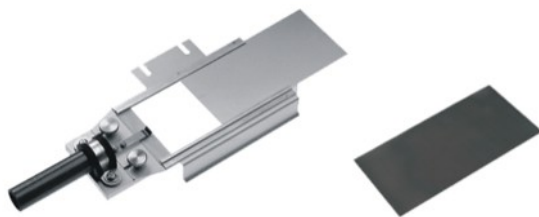
⚠ CAUTION	
	<p>Uncontrolled movements of sections of rod Injuries to hands</p> <ul style="list-style-type: none"> • Keep a tight hold of the section of rod during the insertion process. • Starting at the bottom, insert the sections of rod one after the other, largest diameter first. • Maintain the safety distance between the sections of rod. • Use a spring-type locking mechanism to secure each section of rod.

FDUM293

- The telescope rod is a 2-in-1 product consisting of five segments
- The maximum length of the telescope rod is 7.3 m. It is suitable for ceiling heights up to 8.5 m
- Both the upper inner segments are removable and can be used separately as a smaller rod with a length range 1.7...3.2 m
- Thanks to the buckle fasteners the length is steplessly adjustable
- Scope of delivery:
 - Telescope rod
 - Separate foot for the inner rod
 - Padded bag with adjustable shoulder strap and hand carrying strap, internal Velcro straps and loops for secure transport of the telescope rod



Detector tester RE10, alarm test filter TF04



- For function checking of the FDL241-9 linear smoke detector. The TF04 alarm test filter is inserted into the detector tester in accordance with the type of detector to be tested. An alarm test filter is also included in the FDLU291 adjustment kit.
- To perform the test, the detector tester is held in front of the optical receiver of the detector (in the IR beam). After a few seconds, the detector trips.

Adjustment kit FDLU291



The adjustment kit is used for commissioning the linear smoke detector FDL241-9. The lens of the linear smoke detector can be efficiently aligned to the reflector by one man.

Scope of delivery:

- Case with adjustment device
- Alarm test filter
- Visor
- Magnet
- Spiral cable
- MC link cable
- 9 V battery
- Suspension fixture with cable grippers and chain

LE3 Test lamp



The LE3 test lamp is used for functional checking of the FDF241-9 flame detector at distances up to 10 m. It is accommodated in a case that is suitable for transport. The case is suitable for dust-free storage of the test lamp.

The quartz halogen lamp that is used generates an intensive ray of light with which the lamp can be directed to the detector that is to be tested. The ray of light is modulated during the testing of the detector. The light intensity can be adjusted to suit the distance.

Power is provided by a rechargeable battery. Since the color of the light is dependent on the state of charge of the battery, this must be continually topped up in buffer mode. A special battery charger is available for this purpose.

⚠ WARNING	
	<p>Test lamps in explosion hazard areas</p> <p>Explosion risk</p> <ul style="list-style-type: none"> Do not use the LE3 test lamp in explosion hazard areas.

Test lamp Stabex HF



The Stabex HF test lamp can be used for function checking of the DF1101-EX intrinsically safe flame detector in explosion hazard areas of zones 1 and 2.

To perform the test, the lamp is placed immediately in front of the detector. The slide switch must then be used to pulse the light beam at half second intervals.

⚠ WARNING	
	<p>Opening test lamps in areas at risk of explosion</p> <p>Risk of explosion</p> <ul style="list-style-type: none"> Do not open the test lamp Stabex HF in areas at risk of explosion.

Flame detector test lamp T-229/4P



The test lamp is suitable for reliable checking of the functionality of the FDF242 flame detector in non-explosion hazard areas.

With a range of 6 to 10 meters this portable lamp emits a pulsed light at a frequency that will effectively trip the flame detector.

The test lamp is supplied with all the necessary accessories including a protective case, a battery charger and a rechargeable battery.

⚠ WARNING	
	<p>Test lamps in explosion hazard areas</p> <p>Explosion risk</p> <ul style="list-style-type: none"> Do not use the T-229/4P test lamp in explosion hazard areas.

Test lamp 3415MZ0-EX



The test lamp can be used for function checking of the FDF242-EX intrinsically safe flame detector in explosion hazard areas.

Technical data

Line tester FDUL221

Supply voltage	Min. DC 10 V, max. DC 30 V
Battery or via network adapter	Lithium manganese dioxide battery ¹ , 2x 9 V AC 240 V / DC 24 V, 750 mA
Power consumption during measurement	Depends on the number of devices and the display backlight
Detector line voltage:	
C-NET (FS720)	DC 32 V
C-NET	DC 28 V
Max. detector key figures (MK) per line:	
MK with network adapter	Min. 550
MK with battery	Min. 150
Operating temperature	-25...+40 °C
Storage temperature without battery	-30...+75 °C
Storage temperature with battery	-25...+60 °C
Air humidity (no condensation permitted)	≤95 % rel.

¹ ULTRALIFE U9VL or U9VL-J or EVE CR9V/P-S

Detector exchanger DX791

Dimensions Ø x H:	
With suction cap	82 x 175 mm
With adapter FDUD491	87 x 178 mm

Detector tester RE6

Operating temperature:	
REF8	0...+40 °C
REF8-S	-20...+40 °C
REF8-C	-20...+50 °C
Storage temperature	-20...+40 °C
Number of detector tests, depending on detector type	Max. 400

Heat detector tester RE7T

Operating temperature	5...+45 °C
Storage temperature	-10...+50 °C
Air humidity (no condensation permitted)	≤95 % rel.
Voltage	Auto: DC 12 V Mains: AC 110/120-220/240 V

Heat detector tester RE7T	
Charging time	Approx. 1 hour per battery
Detector tester RE8ST/RE8STCO	
Operating temperature	5...+45 °C
Storage temperature	-10...+50 °C
Air humidity (no condensation permitted)	≤ 95 % rel.
Voltage	Auto: DC 12 V Mains: AC 110/120-220/240 V
Charging time	Approx. 1 hour per battery
Adjustment kit FDLU291	
Dimensions of the adjustment device	120 x 65 x 22 mm
Test lamp LE3	
Power consumption	50 W
Modulation frequency	4 Hz
Max. distance for alarm activation	10 m
Measuring capacity with charged battery and max. distance Number of detectors	~ 50
Operating and storage temperature	-20...+ 45 °C
Areas of use	Areas not at risk of explosion
Incandescent lamp	Halogen 12 V / 50 W
Battery	12 V / 7 Ah, lead, gas tight
Charging time	Min. 16 h
Power supply connection charger	AC 220 / 240 V, 50...60 Hz
Dimensions:	
Test lamp	178 x 180 x 369 mm
Battery	153 x 103 x 67 mm
Test lamp Stabex HF	
Max. distance for alarm activation	A few cm
Operating and storage temperature	-20...+ 40 °C
Explosion protection	II 2G Ex e ib IIC T4 Gb
Ex approvals	BVS 11 ATEX E174
Areas of use	Zones 1 and 2
Protection category	IP65
Incandescent lamp	Halogen 2.8 V / 0.5 A
Battery	2x alkaline batteries 1.5 V Mono cell UM-1
Flame detector test lamp T-229/4P	
Operating temperature	4...40 °C
Protection category	IP30
Dimensions	160 × 140 × 260 mm
Battery	DC 12 V / 2,7 Ah
Test lamp 3415MZ0-EX	
Dimensions	189 x 20 x 20 mm
Ex classification	II 1 G Ex ia op is IIC T4 Ga

Test lamp 3415MZ0-EX	
Ex approvals	ITS17ATEX201830X
Battery	Alkaline, 3 × AA, 4.5 V

Disposal



The device is considered an electronic device for disposal in accordance with European Directive and may not be disposed of as domestic waste.

- Use only designated channels for disposing the devices.
- Comply with all local and currently applicable laws and regulations.
- Dispose of empty batteries at designated collection points.

Details for ordering

	Type	Item number	Designation	Weight
Line tester	FDUL221	A5Q00004397	Line tester with line connection kit FDUL221-A, power unit set FDUL221-B and carry case	1.567 kg
Accessories	–	A5Q00004142	Lithium manganese dioxide battery 9 V / 1.2 Ah	0.035 kg
Spare part	FDUL221-A	A5Q00008436	Line connection kit	0.088 kg
	FDUL221-B	A5Q00008437	Power unit kit	0.278 kg
	FDUL221-C	A5Q00008438	RS232 PC cable as spare part for FDUL221 with RS232 interface	0.037 kg
	FDUL221-3	S54370-S30-A1	Line tester without accessories	0.440 kg

	Type	Item number	Designation	Weight
Detector exchanger	DX791	S54319-F6-A1	Detector exchanger	0.082 kg
Adapter	FDUD491	S54319-F18-A1	Adapter	0.034 kg

	Type	Item number	Designation	Weight
Detector tester	RE6	BPZ:3680300001	Detector tester for smoke detectors	0.950 kg
Accessories	REF8	A5Q00011687	Test gas can	0.194 kg
	REF8-S	A5Q00011688	Test gas can	0.186 kg
	REF8-C	S54370-N2-A1	Test gas can CO	0.203 kg

	Type	Item number	Designation	Weight
Detector tester	RE7T	S54370-S3-A1	Solo461 heat detector tester kit consisting of tester, 2 batteries, charger, cable	2.800 kg
Accessories	RE7T-A	S54370-N4-A1	Solo719 adapter for FDUM293	0.260 kg
Spare part	RE7T-B1	S54370-N7-A1	Solo770 battery for RE7T	1.090 kg
	RE7T-C1	S54370-N8-A1	Solo727 charger for RE7T	1.210 kg

	Type	Item number	Designation	Weight
Detector tester	RE8ST	S54370-S23-A1	Testifire 1001-045 ST test kit	3.470 kg
	RE8STCO	S54370-S24-A1	Testifire 2001-045 STCO test kit	3.750 kg
Capsule	RE8-S	S54370-N25-A1	TS3 smoke capsules, 6 items	0.079 kg
	RE8-CO	S54370-N22-A1	TS3 CO capsules, 6 items	0.077 kg
Accessories	RE7T-A	S54370-N4-A1	Solo719 adapter for FDUM293	0.260 kg
Spare part	RE7T-B1	S54370-N7-A1	Solo770 battery for RE7T ¹⁾	1.090 kg
	RE7T-C1	S54370-N8-A1	Solo727 charger for RE7T ¹⁾	1.210 kg

¹ Compatible with RE8ST and RE8STCO

	Type	Item number	Designation	Weight
Telescope rod	FDUM293	S54370-S40-A1	Telescope rod, 5 segments, 1.7... 7.3 m	2.3 kg
	Type	Item number	Designation	Weight
Detector tester	RE10	BPZ:3685190001	Detector tester for linear smoke detectors	0.345 kg
Alarm test filter for RE10	TF04	BPZ:4931090001	Alarm test filter, absorption 77 %	0.005 kg
	Type	Item number	Designation	Weight
Adjustment kit	FDLU291	A5Q00004905	Adjustment kit for linear smoke detector incl. case	0.840 kg
	Type	Item number	Designation	Weight
Test lamp	LE3	BPZ:3669510001	Test lamp for flame detector incl. case and charger, without battery	5.260 kg
Accessories	FA2003-A1	A5Q00019353	Battery 12 V / 7 Ah / VdS	2.293 kg
Spare part		BPZ:3679630001	Halogen lamp 12 V / 50 W	0.395 kg
	Type	Item number	Designation	Weight
Test lamp	Stabex HF	BPZ:4620910001	Test lamp for areas at risk of explosion	0.175 kg
	Type	Item number	Designation	Weight
Test lamp	T-229/4P	S54330-Z10-A1	Flame detector test lamp	5.0 kg
	Type	Item number	Designation	Weight
Test lamp	3415MZ0- EX	S54330-Z11-A1	Test lamp for EX flame detectors	0.3 kg

Applicable documents

Document ID	Name
A6V10229261	List of compatibility (for 'Cerberus™ PRO' product line)
A6V10201731	Installation Detector exchanger DX791, adapter for detector exchanger FDUD491
A6V10254740	Operating instructions Solo461 heat detector tester kit RE7T
A6V10387053	Installation RE8ST Testifire 1001-045 ST test kit, RE8STCO Testifire 2001-045 STCO test kit
A6V10260320	Operation RE7T-C Solo726 charger for RE7T-B
A6V11432110	Operation RE7T-C1 Solo727 charger for RE7T-B1 Solo770
008250	Technical Manual Line tester FDUL221
A6V10395483	Line tester – operating instructions for electricians
007016	Technical manual Linear smoke detector FDL241-9
000257	Operating instructions Test lamp LE3
Safety data sheets	
A5Q00011687D	Safety data sheet REF8
A5Q00011688D	Safety data sheet REF8-S
A5Q00035329C	Safety data sheet REF8-C

MCL-USB adapter (radio) FDUZ227, see data sheet A6V10355605.