

# Product overview of Airyx GmbH

Item#	Description	Comments	Related articles	Image	OpenPath (OP) Subtypes
					LED
					LDLS
<b>Instruments</b>					
<b>OpenPath Instruments</b>					
OP-UV2-LED3-200R	<b>OPEN PATH REMOTE SENSING INSTRUMENT LED</b> > Trace gas measurements along open pathway between 0.2 km up to 3 km (long path DOAS method) > Trace gases: Nitrogen dioxide (NO2), Sulphur dioxide (SO2), Ozone (O3), Formaldehyde (HCHO), Nitrous acid (HONO), Bromine Monoxide (BrO) > Time resolution up to 2 seconds <b>TELESCOPE:</b> Focal length 800 mm • Diameter 200 mm • UV/VIS mirrors (aluminium coated) • Closed telescope (IP64) with front quartz glass window for UV application • Automatic light path adjustment on retro reflector • Light transmission with optical quartz glass fibre bundles • Length of fibre bundles 5 m • Automatic reference measurement • Optical camera with zoom objective for monitoring • Integrated telescope heating • Telescope unit size (approximately): 110x40x36 cm <sup>3</sup> <b>CONTROLLER UNIT WITH LED LIGHT SOURCE AND ANALYZER (SEPERATE):</b> Light source: 3 high-power UV LEDs @ 275 nm, 310 nm and 370 nm • Light merged with a fibre bundle • Controller • UV Spectrometer (270 - 385 nm) with back-thinned detector for high UV sensitivity • Temperature stabilised (better 0.1 °C) • Analyser unit size: 40 x 40 x 13.2 cm <sup>3</sup> • Data analysis software for gases providing average concentrations along the light path.	<b>GENERAL:</b> Open path instruments measure trace gases along a measurement path of several 100 meters to few kilometres. The built in light source enables non-stop 24h measurements. The system is self-aligning for constant high precision and light throughput. We recommend to use multiple retro reflector arrays for longer light paths above 1 km or if, on average, the viewing distance (and loss of light due to scattering) is decreased by fog or dust. The system consists of an IP64 rated telescope and an analyser unit, the latter is meant to be set up indoors sheltered from weather and direct sunlight and requires a control PC/Notebook which is not included and needs to be ordered separately. The two components are connected by 5m long cables. This version uses several high power LEDs as light source.	<b>REQUIRED ARTICLES:</b> Open Path Retro Reflector Array [OP-RETRO20UV] • External power supply [ACC-PWR-11A] • Measurement computer [PC-NBHP] <b>RECOMMENDED ARTICLES:</b> Open Path azimuth & elevation extension [OP-UV2-LED3-200REA] • Open Path tripod [ACC-OP-TP] • Open Path tripod floor mount [ACC-OP-TPFM]		
OP-UV2-LDLS-200R	<b>OPEN PATH REMOTE SENSING INSTRUMENT LDLS</b> > Trace gas measurements along open pathway between 0.2 km up to 3 km (long path DOAS method) > Trace gases: Nitrogen dioxide (NO2), Sulphur dioxide (SO2), Ozone (O3), Formaldehyde (HCHO), Nitrous acid (HONO), Bromine Monoxide (BrO) > Time resolution up to 2 seconds <b>TELESCOPE:</b> Focal length 800 mm • Diameter 200 mm • UV/VIS mirrors (aluminium coated) • Closed telescope (IP64) with front quartz glass window for UV application • Automatic light path adjustment on retro reflector • Light transmission with optical quartz glass fibre bundles • Length of fibre bundles 5 m • Automatic reference measurement • Optical camera with zoom objective for monitoring • Integrated telescope heating • Telescope unit size (approximately): 110 x 40 x 36 cm <sup>3</sup> <b>CONTROLLER UNIT AND ANALYZER (SEPERATE):</b> Controller • UV Spectrometer (270 - 385 nm) with back-thinned detector for high UV sensitivity • Temperature stabilised (better 0.1 °C) • Analyser unit size (approximately): 40 x 44 x 13 cm <sup>3</sup> • Data analysis software for gases providing average concentrations along the light path <b>LDLS LIGHTSOURCE:</b> High power broad band LDLS (laser driven light source) ISTEQ XWS-30 (250 - 700 nm) • Light coupling to fibre with optical UV lense, adjustable • Motorised focal length adjustment for optimal light coupling and chromatic wavelength filtering • Motorised filter wheel with pre-selected filters according to the measurement wavelength range • Integrated shutter • Integrated Controller • for 24V power supply • Lamp lifetime 10,000 h • Laser and unit lifetime - 25.000h to 50,000 h	<b>GENERAL:</b> Open path instruments measure trace gases along a measurement path of several 100 meters to few kilometres. The built in light source enables non-stop 24h measurements. The system is self-aligning for constant high precision and light throughput. We recommend to use multiple retro reflector arrays for longer light paths above 1 km or if, on average, the viewing distance (and loss of light due to scattering) is decreased by fog or dust. The system consists of an IP64 rated telescope and an analyser unit, the latter is meant to be set up indoors sheltered from weather and direct sunlight and requires a control PC/Notebook which is not included and needs to be ordered separately. The two components are connected by 5m long cables. This version uses a laser driven xenon light sources with extremely high luminosity in the UV range.	<b>REQUIRED ARTICLES:</b> Open Path Retro Reflector Array [OP-RETRO20UV] • External power supply [ACC-PWR-11A] • External power supply [ACC-PWR24-9A] • Measurement computer [PC-NBHP] <b>RECOMMENDED ARTICLES:</b> Open Path azimuth & elevation extension [OP-UV2-LED3-200REA] • Open Path tripod [ACC-OP-TP] • Open Path tripod floor mount [ACC-OP-TPFM]		
OPC-VIS-LED-300	<b>OPEN PATH COMPACT REMOTE SENSING VIS - NO2 v. 300 - INSTRUMENT</b> > Trace gas measurements along open pathway between 50 m up to 500 m (long path DOAS method) > Trace gases: Nitrogen dioxide (NO2) - 1 ppb @ 30 s & 500 m path, Glyoxal (CHOCHO) > Time resolution up to 1 seconds > Light source: high-power LED @ 450 nm > Single self contained unit • 24 V power supply > Weatherproof housing for outdoor application > 2D motorisation for adjustment and multiple paths > Size incl. 2D motor (approximately): 52 x 33 x 55 cm <sup>3</sup>  <b>TELESCOPE PROPERTIES:</b> Focal length 200 mm • Diameter 70 mm • VIS lense • Automatic light path adjustment on retro reflector • Internal light transmission with optical quartz glass fibre bundles • Automatic reference measurement • Optical camera with zoom objective for monitoring <b>SPECTROMETER:</b> UV-VIS CMOS Spectrometer (min. 300 - 500 nm) • Spectral resolution: < 0.7 nm • High spectral sampling: > 6 px/FWHM • wavelength calibration (-0.05 nm accuracy) and detector non-linearity correction included <b>CONTROLLER:</b> Integrated active temperature stabilisation with heating typ. better 0.5 °C • Integrated PC (Win10 IoT system) • Software for automated measurements and spectral data analysis providing concentrations included • MAX-DOAS measurement mode compatible • Data communication: LAN • Wi-Fi (with external adapter ACC-WIFIUSB) • Incl. 10 m LAN cable with IP68 connector	<b>GENERAL:</b> Open path instruments measure trace gases along a measurement path of several 10 meters to few kilometres. The built in light source enables non-stop 24h measurements. The system is self-aligning for constant high precision and light throughput. We recommend to use multiple retro reflector arrays for longer light paths above 100 m or if, on average, the viewing distance (and loss of light due to scattering) is decreased by fog or dust. The system consists of an IP64 rated unit. Optional 12V power supply on request.	<b>REQUIRED ARTICLES:</b> Open Path Retro Reflector Array [OP-RETRO20VIS] • External power supply [ACC-PWR24-5A-IP] • WiFi Stick [ACC-WIFIUSB] <b>RECOMMENDED ARTICLES:</b> Open Path tripod [ACC-OP-TP] • 24 V POWER CABLE EXTENSION IP68 - 5 m [ACC-PWR5] • 24 V POWER CABLE IP68-1.5 m - BLANK END [ACC-PWR1.5BE]		

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Item#	Description	Comments	Related articles	Image	OpenPath (OP) Subtypes	
					LED	LDLS
OPC-UV3-DL-300	<p><b>OPEN PATH COMPACT REMOTE SENSING UV3 v. 300 - INSTRUMENT</b></p> <ul style="list-style-type: none"> <li>&gt; Trace gas measurements along open pathway between 10 m up to 100 m (long path DOAS method)</li> <li>&gt; Trace gases: Ammonia (NH<sub>3</sub>), Nitrogen Oxide (NO), Sulphur Dioxide (SO<sub>2</sub>), Ozone (O<sub>3</sub>), aromatic compounds (accuracy depending on light path and integration time see data sheet)</li> <li>&gt; Time resolution up to 10 seconds</li> <li>&gt; Light source: Deuterium lamp 200-300 nm (Lifetime ~ 0.5 year)</li> <li>&gt; Single self-contained unit • 24 V power supply</li> <li>&gt; Weatherproof housing for outdoor application</li> <li>&gt; 2D motorisation for adjustment and multiple paths</li> <li>&gt; Size incl. 2D motor (approximately): 60 x 33 x 55 cm<sup>3</sup></li> </ul> <p><b>TELESCOPE PROPERTIES:</b> Focal length 300 mm • Diameter 70 mm • UV lens • Automatic light path adjustment on retro reflector • Internal light transmission with UV optical quartz glass fibre bundles • Automatic reference measurement • Optical camera with zoom objective for monitoring</p> <p><b>SPECTROMETER:</b> UV CMOS Spectrometer (200 - 300 nm) • Spectral resolution: &lt; 0.5 nm • High spectral sampling: &gt; 6 px/FWHM • wavelength calibration (~0.05 nm accuracy) and detector non-linearity correction included</p> <p><b>CONTROLLER:</b> Integrated active temperature stabilisation with peltier (cool and heat) typ. better 0.5 °C • Integrated PC (Win10 IoT system) • Software for automated measurements and spectral data analysis providing concentrations included • Data communication: LAN • Wi-Fi (with external adapter ACC-WIFIUSB)</p>	<p><b>GENERAL:</b> Open path instruments measure trace gases along a measurement path of several 10 meters to few kilometres. The built in light source enables non-stop 24h measurements. The system is self-aligning for constant high precision and light throughput. We recommend to use multiple retro reflector arrays for longer light paths above 100 m or if, on average, the viewing distance (and loss of light due to scattering) is decreased by fog or dust. The system consists of an IP64 rated unit. Optional 12V power supply on request.</p>	<p><b>REQUIRED ARTICLES:</b> Open Path Retro Reflector Array [OP-RETRO20VIS]</p> <ul style="list-style-type: none"> <li>• External power supply [ACC-PWR24-5A-IP] • WiFi Stick [ACC-WIFIUSB]</li> </ul> <p><b>RECOMMENDED ARTICLES:</b> Open Path tripod [ACC-OP-TP] • 24 V POWER CABLE EXTENSION IP68 - 5 m [ACC-PWR5] • 24 V POWER CABLE IP68-1.5 m - BLANK END [ACC-PWR1.5BE] • SPARE DEUTERIUM LIGHT BULB [OP-SPARE-SET-DL]</p>	 	•	
OP-UV2-LED3-200REA	<p><b>OPEN PATH AZIMUTH &amp; ELEVATION EXTENSION</b></p> <p>Extension of OP-telescope for motorised elevation and azimuth rotation</p> <ul style="list-style-type: none"> <li>&gt; Azimuth rotation of telescope by -130° to 130°</li> <li>&gt; Elevation of telescope between approximately 0° - 30°</li> <li>&gt; Motors protected by a cover to protect mechanics from dust and rain</li> <li>&gt; Accuracy of elevation and azimuth rotation for light paths up to 4 km</li> <li>&gt; Motors controlled by OP system</li> </ul>	<p>This extension allow to realise several Open Path measurement paths to different reflectors. Further, in contrast to the basic Open Path version, the extension allows an easy and flexible set up of the telescope since the fine alignment on the retro reflector(s) can be done automatically using the telescope motors.</p>			•	•
OP-RETRO20UV	<p><b>OPEN PATH RETRO REFLEKTOR ARRAY UV</b></p> <ul style="list-style-type: none"> <li>&gt; Each array with 20 x 1 inch fused silica corner cube reflectors</li> <li>&gt; Material fused silica (JGS1) suitable for UV (190nm) to NIR (2 μm)</li> <li>&gt; Beam deviation &lt; 9 arcsec</li> <li>&gt; In weatherproof housing (IP67)</li> <li>&gt; With desiccant and changeable reservoir</li> <li>&gt; size 14,1 x 20,5 cm<sup>2</sup>, thickness 3,5 cm</li> <li>&gt; weight 1.230 g</li> </ul>	<p>Retro reflector are used to reflect the light of the Open Path system back to the telescope. recommended are min. two arrays for each light path up to 1 km. More Retro reflector arrays increase the reflected light and allow shorter measurement times. Measurements in the deep UV require more reflectors than in the visible spectral range.</p> <p>Mounted with 4 x M5 screws from the back side if the reflector array. Reflectivity for reflector - 90% (250-1000nm). Reflective surface cover ~ 30% of front.</p>			•	•
OP-RETRO20VIS	<p><b>OPEN PATH RETRO REFLEKTOR ARRAY VIS</b></p> <ul style="list-style-type: none"> <li>&gt; Each array with 20 x 1 inch fused silica corner cube reflectors</li> <li>&gt; Material glass (H-K9) suitable for visible (350 nm) - NIR (2 μm)</li> <li>&gt; Beam deviation &lt; 9 arcsec</li> <li>&gt; In weatherproof housing (IP67)</li> <li>&gt; With desiccant and changeable reservoir</li> <li>&gt; size 14,1 x 20,5 cm<sup>2</sup>, thickness 3,5 cm</li> <li>&gt; weight 1.230 g</li> </ul>	<p>Retro reflector are used to reflect the light of the Open Path system back to the telescope. recommended are min. two arrays for each light path up to 1 km. More Retro reflector arrays increase the reflected light and allow shorter measurement times. Measurements in the deep UV require more reflectors than in the visible spectral range.</p> <p>Mounted with 4 x M5 screws from the back side if the reflector array. Reflectivity for reflector - 90% (390-1000nm). Reflective surface cover ~ 30% of front.</p>			•	•
OP-LDLS-UV	<p><b>OPEN PATH LIGHT SOURCE LDLS</b></p> <ul style="list-style-type: none"> <li>&gt; Light source: high power broad band LDLS (laser driven light source) ISTEQ XWS-30 (250 nm - 700 nm)</li> <li>&gt; Light coupling to fibre with optical UV lense, adjustable</li> <li>&gt; Motorised focal length adjustment for optimal light coupling and chromatic wavelength filtering</li> <li>&gt; Motorised filter wheel with pre-selected filters according to the measurement wavelength range</li> <li>&gt; Integrated shutter</li> <li>&gt; With 24 V power input</li> <li>&gt; Lamp lifetime 10.000 h</li> <li>&gt; Laser and unit lifetime - 25.000 h to 50.000 h</li> </ul>	<p>Ultra high intensity in UV for short and fast exposure times. An IR laser powers a xenon arc lamp with extra high radiation density and high spectral stability.</p>	<p><b>REQUIRED ARTICLES:</b> External Power Supply - 110 to 220 V - 24 V [ACC-PWR24-9A]</p>			•

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Item#	Description	Comments	Related articles	Image	LED	LDLS
<b>MEASUREMENT COMPUTERS</b>						
PC-DE	MEASUREMENT COMPUTER - DESKTOP PC > Windows 11 Pro installed and optimised for Airyx instrument measurement applications > Installation and configuration of measurement and (if included) evaluation software packages. > Robust Dell tower PC with min 8GB RAM, min 512GB Harddrive and min. Intel i5 Processor > Delivered with keyboard, but without monitor	If a measurement computer is ordered with a Airyx instrument, the required measurement software (e.g. SKY-SOFT-*) will be installed and preconfigured on the computer at Airyx GmbH. Same applies if software extensions (e.g. SkySpec evaluation package SKY-EVAL-*) are ordered • The system will be pre-configured as a plug-and-play setup.			•	•
PC-NB	MEASUREMENT COMPUTER - NOTEBOOK > Windows 11 installed and optimised for Airyx instrument measurement applications > Installation and configuration of measurement and (if included) evaluation software packages. > Robust Dell Notebook with min. 8GB RAM, SSD Harddrive	If a measurement computer is ordered with a Airyx instrument, the required measurement software (e.g. SKY-SOFT-*) will be installed and preconfigured on the computer at Airyx GmbH. Same applies if software extensions (e.g. SkySpec evaluation package SKY-EVAL-*) are ordered • The system will be pre-configured as a plug-and-play setup.			•	•
PC-NBHP	MEASUREMENT COMPUTER - NOTEBOOK - HIGH PERFORMANCE > Windows 11 Pro installed and optimised for Airyx instrument measurement applications > Installation and configuration of measurement and (if included) evaluation software packages. > Robust Dell Notebook with min. 8GB RAM, min. 512GB SSD Harddrive and min. Intel i5 Processor	If a measurement computer is ordered with an Airyx instrument, the required measurement software (e.g. SKY-SOFT-*) will be installed and preconfigured on the computer at Airyx GmbH. Same applies if a software extension (e.g. SKY-EVAL-*) is ordered • the system will be pre-configured as a plug-and-play setup • In the "HIGH PERFORMANCE" configuration a fast (i7 processor with 16GB RAM will be used); recommended for Open Path systems and SkySpec applications with calculation intensive data processing (going beyond the Airyx standard software packages)			•	•
<b>EXTENSIONS AND ACCESSORIES</b>						
ACC-PWR-15A-IP	EXTERNAL POWER SUPPLY - 180 TO 280 V - 12 V / 15 A IP67 power supply and connector configured for Airyx instruments.	Power supply for Airyx instruments in IP67 housing with IP68 connector configured for Airyx instruments • Input: 100 V to 240 V • Output: regulated 12 V / 15 A				
ACC-PWR-11A	EXTERNAL POWER SUPPLY - 110 TO 230 V - 12 V / 11.5 A IP68 connector configured for Airyx instruments with higher power consumption.	Power supply for Airyx instruments with IP68 connector configured for Airyx instruments • Input: 110 V to 220 V • Output: regulated 12 V / 11.5 A			•	•
ACC-PWR24-9A	EXTERNAL POWER SUPPLY - 110 TO 230 V - 24 V / 9.2 A for LDLS light source	Power supply for Airyx LDLS light source • Input: 110 V to 220 V • Output: regulated 24 V / 9.2 A			•	•
ACC-PWR24-5A-IP	EXTERNAL POWER SUPPLY - 180 TO 280 V - 24 V / 5 A IP67 power supply and connector configured for Airyx instruments with 24V	Power supply for Airyx OPC instruments • Input: 110 V to 220 V • Output: regulated 24 V / 5 A. Use power extension cable between power supply and instrument.			•	
ACC-EXT-HG	HANDHELD HG (MERCURY) CALIBRATION-LAMP > with SMA optical fibre connector > Battery powered (4 x AA cells)	For manual acquisition of mercury emission line spectra with Airyx spectrometer systems • Useful for spectrometer wavelength calibration.			•	•

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					LED	LDS
ACC-USB2	USB-B TO USB-A CABLE IP68 - 2 m	2 m IP68 connector on the instrument side. Only with these Usb cables the Usb connection on the IP65 Airyx instrument boxes are air and water tight. This is important to avoid humidity in the instrument.			•	•
ACC-USB3	USB-B TO USB-A CABLE IP68 - 3 m	3 m IP68 connector on the instrument side. Only with these Usb cables the Usb connection on the IP65 Airyx instrument boxes are air and water tight. This is important to avoid humidity in the instrument.			•	•
ACC-USB5	USB-B TO USB-A CABLE IP68 - 5 m	5 m IP68 connector on the instrument side. Only with these Usb cables the Usb connection on the IP65 Airyx instrument boxes are air and water tight. This is important to avoid humidity in the instrument.			•	•
ACC-PWR3	12 V POWER CABLE EXTENSION IP68 - 3 m	3 m extension 12 V connection between power supply and instrument • PUR outdoor cable with IP68 connectors on both sides • Can also be used to connect LiPo battery packs [ACC-BATPACK].			•	•
ACC-PWR5	12 V POWER CABLE EXTENSION IP68 - 5 m	5 m extension 12 V connection between power supply and instrument • PUR outdoor cable with IP68 connectors on both sides • Can also be used to connect LiPo battery packs [ACC-BATPACK].			•	•
ACC-PWRX	12 V POWER CABLE EXTENSION IP68 - CUSTOM LENGTH Price: 40 € + 6 €/m (Example price for 10 m)	Custom length extension 12 V connection between power supply and instrument • PUR outdoor cable with IP68 connectors on both sides. Flexible length, 50€ + 5€/M • Can also be used to connect LiPo battery packs [ACC-BATPACK].			•	•
ACC-PWR1.5BE	12 V POWER CABLE IP68- 1.5 m - BLANK END suiteable for connection of 12V battery or 12V power supply	1.5 m connection between instrument and arbitrary 12 V power supply • PUR outdoor cable with IP68 connector on the instrument side • Other end with blank wires for flexible assembly.			•	•
ACC-PWR3BE	12 V POWER CABLE IP68 - 3 M - BLANK END suiteable for connection of 12V battery or 12V power supply	3 M connection between instrument and arbitrary 12 V power supply • PUR outdoor cable with IP68 connector on the instrument side • Other end with blank wires for flexible assembly.			•	•
ACC-LAN2	LAN DATA CABLE IP68 - 2 M	2 m LAN cable to connect Airyx instruments to an external PC • PUR outdoor cable with IP68 connector on the instrument side. Not for ICAD instruments in the rack, there a normal LAN cable is included and sufficient.			•	•
ACC-LANX	LAN DATA CABLE IP68 - CUSTOM LENGTH PUR Outdoor cable CAT 7 Price: 60€ + 7€/m (example price for 10 m)	Custom length LAN cable to connect Airyx instruments to an external PC • PUR outdoor cable with IP68 connector on the instrument side • Flexible length, 90 € + 10 €/m Not for ICAD instruments in the rack, there a normal LAN cable is included and sufficient.			•	•
ACC-PWR3CAR	12V POWER CABLE FOR CAR CIGARETTE LIGHTER IP68 - 3 m, plus adaptercable to connect 12V buffer battery	3 m power cable for connection of Airyx instruments to a 12 V cigarette lighter in a car • connectable additional 12 V power source (battery) as 12V buffer to avoid power cuts when car power is off • PUR outdoor cable • IP68 connector on instrument side.			•	•

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Item#	Description	Comments	Related articles	Image	OpenPath (OP) Subtypes	
					LED	LDLS
ACC-BAT-50Ah	LIPO BATTERY 12 V/50.4 Ah IP67 - PELICASE > Included: 5 A charger > Included 1.5 m power cable for Airyx instrument connection (shipped separately) > 3.37 kg > Rugged Peli 1150 case (24 x 19 x 11 cm <sup>3</sup> ) > This item will be shipping from battery manufacturer directly > This item is only available in Europe	Battery pack for instrument power supply in remote areas • IP67 • 3.37 kg • Allow ~15 h of ICAD operation • 3 IP67 power connectors • Battery is directly shipped from the company producing the battery for Airyx • Batteries can only be sold within Europe due to transport restrictions.			•	•
ACC-OP-TP	OPEN PATH TRIPOD for setting up Open Path telescopes on flat surface. Stability for high weight. Including OPEN PATH TRIPOD FLOOR MOUNT [OP-TPFM]	This tripod can carry any Open Path telescope configuration. Floor mount [OP-TPFM] required for application of hard surfaces (e.g., asphalt, metal).	OPEN PATH TRIPOD FLOOR MOUNT [OP-TPFM]		•	•

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Item#	Description	Comments	Related articles	Image	OpenPath (OP) Subtypes	
					LED	LDLS
<b>MAINTENANCE EQUIPMENT AND SPARE PARTS</b>						
SPARE-TSENS-SPD	DIGITAL TEMPERATURE AND HUMIDITY SENSOR FOR SPECTROMETER CONTROL	1 x digital sensor to control spectrometer temperature and monitor humidity • On micro printed circuit board with 30 cm connection ribbon cable • Humidity monitoring to avoid water condensation on sensitive spectrometer • I2C digital address 0 • Direct connection to internal Airyx controller board.			•	•
SPARE-TSENS-DX	DIGITAL TEMPERATURE SENSOR FOR MONITORING > Digital sensor address selectable = 0, 1, 2, 3	1 x digital ADT temperature sensor for monitoring. Internal used in Airyx instruments • On micro printed circuit board with 30 cm connection ribbon cable • Digital I2C-adress is selectable (0, 1, 2 or 3) • Also used in older instruments (instead of [SPARE-TSENS-SPD]) to control spectrometer temperature • Direct connection to internal Airyx controller board.			•	•
SPARE-CGLAND	WEATHERPROOF M16 CABLE GLAND WITH SEALING, UV	Weatherproof M16 power and data cable gland with sealing (large size) • For a water and air tight cable feedthrough • For outdoor use (UV resistant).			•	•
SPARE-TGLAND	WEATHERPROOF M12 CABLE GLAND WITH SEALING, UV	Weatherproof M12 temperature sensor cable gland with sealing (small size) • For a water and air tight cable feedthrough • For outdoor use (UV resistant).			•	•
OP-SPARE-SET-LED	SPARE PART SET WITH LEDS FOR OP-UV2-LED3-200R > 3 high-power UV LEDs @ 275nm, 310nm and 370nm > LED lifetime >15.000h > Mounted on electronic board with connection cable				•	
OP-SPARE-SET-LDLS	SPARE LDLS LIGHT BULB > Spare light bulb for replacement in open path light source LDLS > lamp lifetime 10.000h		COMPATIBLE WITH: OPEN PATH REMOTE SENSING INSTRUMENT LDLS [OP-UV2-LDLS-200R] or OPEN PATH LIGHT SOURCE LDLS [OP-LDLS-UV]		•	
OP-SPARE-SET-DL	SPARE DEUTERIUM LIGHT BULB > Spare light bulb for replacement in open path deuterium lamp light source > Mounter on electronic board for simple change > lamp lifetime >2.000h		COMPATIBLE WITH: OPEN PATH COMPACT REMOTE SENSING UV3 v. 300 [OPC-UV3-DL-301]		•	
SPARE-PELTIER-V2	PELTIER COOLER AIRYX	Peltier cooler in Airyx instruments with cooling function. Peltier regulate the heating / cooling of the instrument between the heat sinks. Silicon sealed version			•	•
SPARE-FAN80V3	HEAT EXCHANGER FAN - 80 MM Long life and high power	Fan fitting to Airyx temperature stabilisation heat exchangers.			•	•
SPARE-FANFILT80	FAN FILTER - 80 MM - WASHABLE	Fan filter fitting to Airyx temperature stabilisation heat exchangers.			•	•

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					LED	LDLS
SPARE-SILICA	SILICA DESICCANT - 0.9 KG (1l)	0.9 kg silica desiccant with colour indicator (orange -> greenish) to be used in Airyx instruments and zero air systems (ICAD instruments).			•	•

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					LED	LDLS
<b>SERVICES</b>						
IC-SERV-OP-LED	POST WARRANTY MAINTENANCE SERVICE EXTENSION - OPEN PATH REMOTE SENSING INSTRUMENT LED Optional extension package • Starts after expiring of warranty • Price per year and OP system • Consumption parts like lamps, LEDs, filters and pumps not included.	This is analogue to a longer warranty for this instrument. This does not include shipping costs if required. Required to be ordered with a new instrument.			•	
IC-SERV-OP-LDLS	POST WARRANTY MAINTENANCE SERVICE EXTENSION - OPEN PATH REMOTE SENSING INSTRUMENT LDLS Optional extension package • Starts after expiring of warranty • Price per year and OP system • Consumption parts like lamps, LEDs, filters and pumps not included.	This is analogue to a longer warranty for this instrument. This does not include shipping costs if required. Required to be ordered with a new instrument.				•
SERV-NONLIN	SPECTROMETER NON-LINEARITY CHARACTERISATION Spectrometer non-linearity • Quantification and analysis • Protocol (per spectrometer)	Included when buying an Airyx instrument			•	•
OP-SERV-INSTL	ONLINE INSTALLATION AND OPERATION SUPPORT - OPEN PATH Open Path online installation and operation support via remote desktop (not on site) for 1 year. Price per instrument.				•	•
ACC-SERV-SPEC1	SPECTROMETER GRATING REPLACEMENT > Replacement Grating for Avantes Spectrometers > Installation • Adjustment • Calibration • Non Linearity measurement	for Avantes ULS Spectrometers Type of grating and wavelengthrange to be defined			•	•
<b>RENTAL / TRAINING / MEASUREMENT SERVICE</b>						
	Airyx provide a large range of Measurement services, instrument rental and training. Please contact Airyx for more details.				•	•
ACC-RENT-BAT-50AH-WEEK	WEEKLY RENTAL OF AIRYX INSTRUMENT LIPO BATTERY 12 V/50.4 Ah IP67 - PELICASE > Included: 5 A charger > Included 1.5 m power cable for Airyx instrument connection > 3.37 kg > Rugged Peli 1150 case (24 x 19 x 11 cm <sup>3</sup> ) > Including extra shipping fees for batteries in EU	Battery pack for instrument power supply in remote areas • IP67 • 3.37 kg • Allow ~15 h of ICAD operation • 3 IP67 power connectors			•	•
OP-RENT-RETRO20UV	MONTHLY RENTAL - OPEN PATH RETRO REFLEKTOR ARRAY > Each array with 20 x 1 inch fused silica corner cube reflectors > Material fused silica (JGS1) suitable for UV (190nm) to NIR (2μm) > Beam deviation < 9 arcsec > In weatherproof housing (IP67) > With desiccant and changeable reservoir > size 14,1 x 20,5 cm <sup>2</sup> , thickness 3,5cm > weight 1.230 g	Rental for customer measurement or testing projects. Airyx provide 75% of rental fee reimbursement, if within 3 months after the rental the same or similar type of instrument is purchased.			•	•
OP-RENT-RETRO20VIS	MONTHLY RENTAL - OPEN PATH RETRO REFLEKTOR ARRAY > Each array with 20 x 1 inch fused silica corner cube reflectors > Material glass (H-K9L) suitable for visible (350nm) - NIR (2μm) > Beam deviation < 9 arcsec > In weatherproof housing (IP67) > With desiccant and changeable reservoir > size 14,1 x 20,5 cm <sup>2</sup> , thickness 3,5cm > weight 1.230 g	Rental for customer measurement or testing projects. Airyx provide 75% of rental fee reimbursement, if within 3 months after the rental the same or similar type of instrument is purchased.			•	•

# Product overview of Airyx GmbH

Item#	Description	Comments	Related articles	Image	OpenPath (OP) Subtypes	LED	LDS
<b>SHIPPING / PACKING CUSTOMS (REGULAR)</b>							
SHIP-D-S1	SHIPPING TO GERMANY - SIZE 1, including shipping insurance	< 5 kg e.g. Spare Parts					
SHIP-D-S4	SHIPPING TO GERMANY - SIZE 4, including shipping insurance	> 40 kg e.g. OPENPATH, WGA				•	•
SHIP-EU-S1	SHIPPING TO EU COUNTRIES - SIZE 1, including shipping insurance	< 5 kg EU countries excl. Germany e.g. e.g. Spare Parts					
SHIP-EU-S4	SHIPPING TO EU COUNTRIES - SIZE 4, including shipping insurance	> 40 kg, large Size EU countries excl. Germany e.g. OPENPATH, WGA				•	•
SHIP-W1-S1	SHIPPING TO WORLD 1 DISTANCE COUNTRIES - SIZE 1, including shipping insurance, export custom documents	< 5 kg incl. export customs, Europe excl. EU e.g. Spare Parts					
SHIP-W1-S3	SHIPPING TO WORLD 1 DISTANCE COUNTRIES - SIZE 3, including shipping insurance, export custom documents	> 20 kg incl. export customs, Europe excl. EU e.g. SkySpec-1D / 2D; ICAD-XX-210L					
SHIP-W1-S4	SHIPPING TO WORLD 1 DISTANCE COUNTRIES - SIZE 4, including shipping insurance, export custom documents	> 40 kg, large size incl. export customs, Europe excl. EU e.g. OPENPATH, WGA				•	•
SHIP-W2-S1	SHIPPING TO WORLD 2 DISTANCE COUNTRIES - SIZE 1, including shipping insurance, export custom documents	< 5 kg incl. export customs, non-Europe countries e.g. Spare Parts					
SHIP-W2-S4	SHIPPING TO WORLD 2 DISTANCE COUNTRIES - SIZE 4, including shipping insurance, export custom documents	> 40 kg, large size incl. export customs, non-Europe countries e.g. OPENPATH, WGA				•	•

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