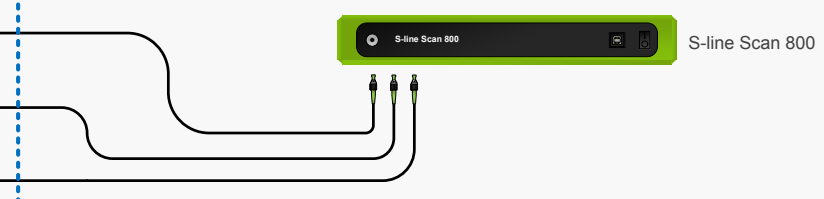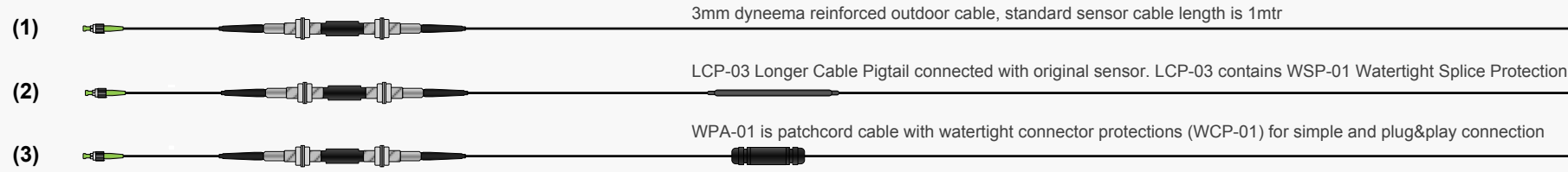# Sylex® FIBER OPTICS

FBG monitoring system – connection possibilities
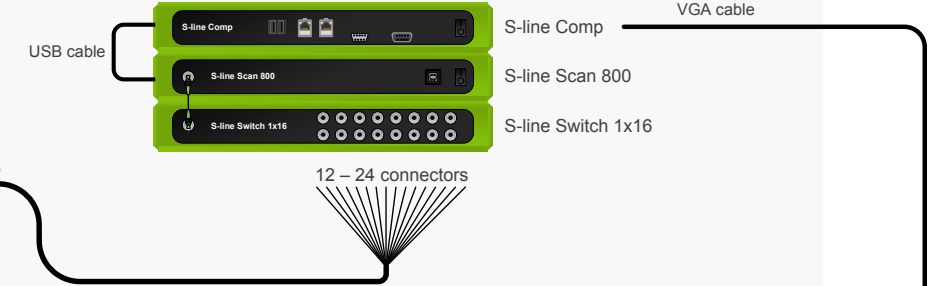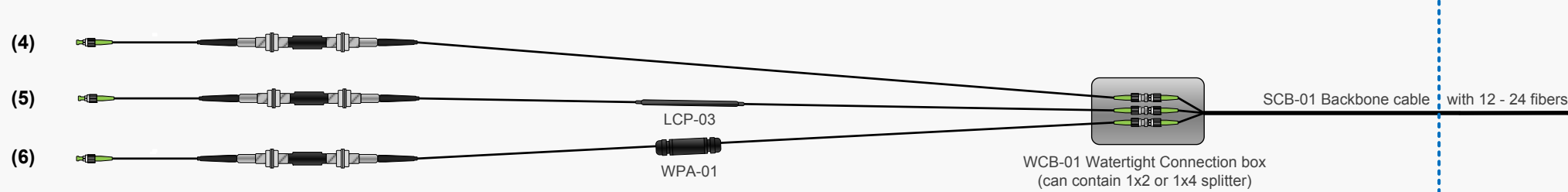
OUTDOOR / HARSH ENVIRONMENT
(no power supply needed)

INDOOR or OUTDOOR CABINET
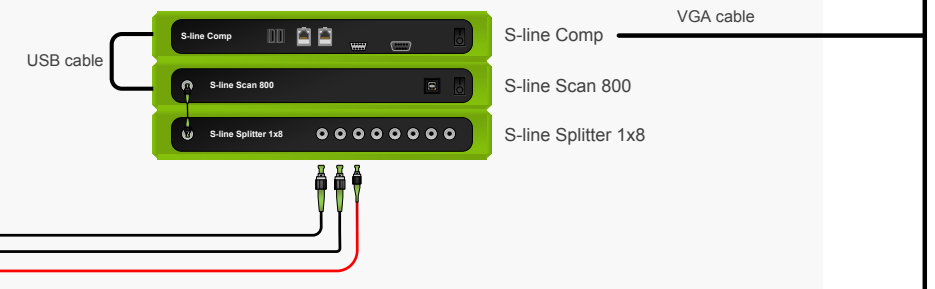(standard power supply required)

Cable length extension possibilities for direct Sensor-Interrogator connection

(1) 3mm dyneema reinforced outdoor cable, standard sensor cable length is 1mtr — S-line Scan 800

(2) LCP-03 Longer Cable Pigtail connected with original sensor. LCP-03 contains WSP-01 Watertight Splice Protection

(3) WPA-01 is patchcord cable with watertight connector protections (WCP-01) for simple and plug&play connection

Cable length extension possibilities when using Connection box and Backbone cable

USB cable

S-line Comp — VGA cable
S-line Scan 800
S-line Switch 1x16

(4)

(5) LCP-03 — SCB-01 Backbone cable with 12 - 24 fibers

12 – 24 connectors

(6) WPA-01

WCB-01 Watertight Connection box
(can contain 1x2 or 1x4 splitter)

Daisy-chaining sensors at installation (can be combined with Connection box and/or Splitter)

USB cable

S-line Comp — VGA cable
S-line Scan 800
S-line Splitter 1x8

(7) WSP-01

(8) WCP-01

LCP-01 Longer Fiber Pigtail connected with original sensor fiber. LCP-01 contains FSP-01 Fiber Splice Protection

(9)
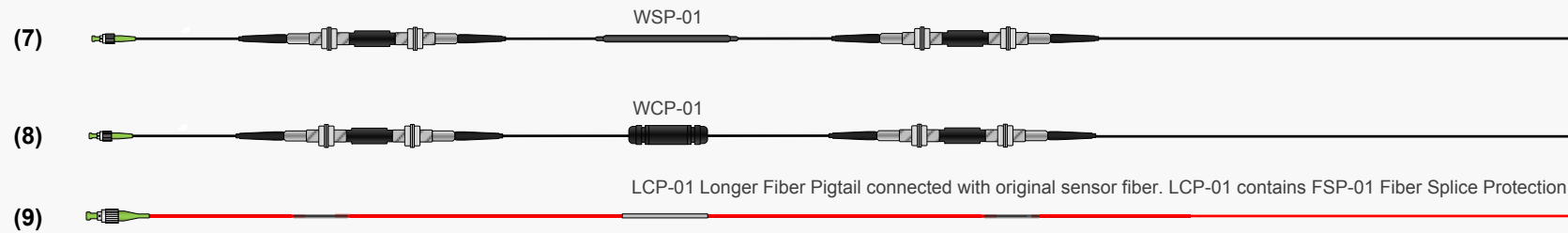
S-line Scan – FBG Interrogator with one optical port.
S-line Switch – Active multiplexer switching between multiple optical ports.
If in use, must be always stacked on the interrogator.
S-line Splitter – Passive divider and combiner of optical fibers.
Can be used anywhere in the cable network or with the interrogator.
S-line Comp – Can be replaced with customer's PC or laptop (Win 7,8,10).

Legend

|	Cable length extension possibilities for direct Sensor-Interrogator connection
(1)	Standard sensor cable length is 1mtr, longer lengths on demand and subject to longer lead times
(2)	Standard sensor cable length extended with LCP-03 which is a spliced-in longer cable length. Must be done at the factory
(3)	Standard sensor cable length extended with WPA-01 which is a patchcord with water-tight connectors. The most recommended and plug&play solution at installation

	Connection box together with Backbone cable improve the flexibility of cable network. This reduces the volume of cables and associated installation efforts. Connection box can also contain Splitter modules.
(4)	The same like (1) but via Connection box
(5)	The same like (2) but via Connection box
(6)	The same like (3) but via Connection box

	Daisy-chaining of multiple sensors into one optical channel. This is highly recommended to reduce the volume of cables and associated installation efforts. Splitter module can also be located at interrogator location.
(7)	The same like (2) but with multiple sensors daisy-chained together via WSP-01 Watertight Splice Protection
(8)	The same like (3) but with multiple sensors daisy-chained together via WCP-01 Watertight Connector Protection
(9)	The same like (2) but for sensors based on 900um fibers. Can be as well daisy-chained for multiple sensors like (7) but based on FSP-01 Fiber Splice Protection
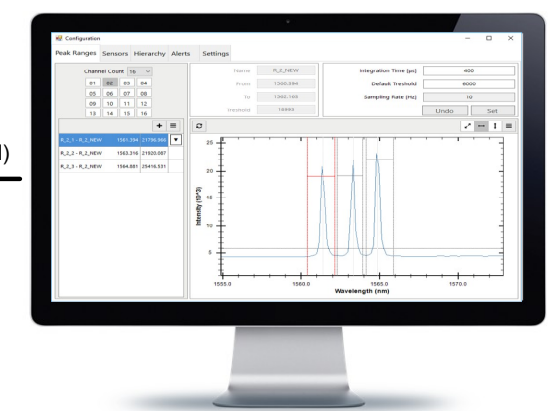
(optional)

S-line View 1.0   Web-based visualization SW
- Installed on a cloud server
- Data are imported from Sentinel 2.0 via Wifi or 3G/4G GSM modem that can be plugged into S-line Comp via USB port
- S-line View 1.0 is Sylex brand name for a VDV software

Sentinel 2.0   Measurement and project setup SW
- Always installed on S-line Comp or on customer's laptop
- Monitor and VGA cable are standardly not supplied

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