

**STACK/DUCT (SDX) PROBE ASSEMBLY
ISA DATA SHEET**



General	1	Manufacturer	Boreal Laser Inc.
	2	Analyzer Model No.	GasFinder3-MC (Multi-Channel) Assembly (e.g. BL-GF3-MC-_-_-_-_-_-_-_-_-_-_-)
	3	Measurement Head Model No.	Stack/Duct (SDX) Probe Assembly (e.g. BL-_-SDX-_-_-)
	4	Warranty Period	10 years on Laser (Light Source) and 3 years Full Warranty
Stack/Duct (SDX) Probe Assembly	5	Optical Configuration	Transceiver and Retro-Reflector (Mono-Static) or Transmit/Receive (Bi-Static) Available
	6	Assembly Composition	Stack/Duct (SDX) Probe and Retro-Flange
	7	Assembly Weight	6.2 kg (14 lbs) + Retro Flange Option
	8	Assembly Dimension (LxWxH)	270.5 x 190 x 190 mm (10.71 x 7.5 x 7.5 inches)
	9	Physical Configuration	Remote from Analyzer (GasFinder3-MC) via Fibre Optic and CAT6/5e Cabling
	10	Mounting Hardware Configuration	ANSI 3" 150# Flange
	11	Maximum Distance to Analyzer	Up to 300m of Single Mode Fibre and Shielded CAT6/5e Cabling (10m Increments)
	12	Enclosure Material	316 Stainless Steel, 6061 Anodized Aluminium Junction Box
	13	Area Classification	(A)Ex ib IIC T5 Gb environments (Equivalent to: Class 1 Div/Zone 2 and Groups A,B,C,D)
	14	Method of Protection	Intrinsic Safety "ib" & "Gb" as per IEC 60079-11
	15	Temperature (SDX Probe Enclosure)	-45 to 70°C (-49 to 158°F)
	16	Temperature (Laser Beam) - Opt. #1	-55°C to 150°C (-49 to 300°F) with Accuracy of ±2 of Reading
	17	Temperature (Laser Beam) - Opt. #2	>150°C (>300°F) with Reduced Accuracy (Application Dependent)
	18	Pressure - Stack/Duct (SDX) Probe	50 to 200 kPa Absolute (7.25 to 29 psia)
	19	Process Pressure (Laser Beam)	50 to 200 kPa Absolute (7.25 to 29 psia)
20	Beam Divergence	32mm (1 1/4") @ 1m (3.3ft) = (32 milliradian x path length (m) = laser dot size (mm))	
21	Window Material	Sapphire	
22	Power	Non-powered (Passive)	
23	Cable Entry Size	3/4" (M20) for Fibre and CAT6/5e Cabling	
24	Cable Gland	Included as part of Measurement Probe Assembly	
25	Cable Connections	Single Mode Fibre (FC/APC) and CAT6/5e (RJ-45) - Included in Assembly	
26	Dual Gas Configuration #1	Any two gases except O ₂ , CO ₂ L, COL, CO ₂ UL can share a Stack/Duct (SDX) Probe	
27	Dual Gas Configuration #2	CO ₂ L, COL, CO ₂ UL can share a Stack/Duct (SDX) Probe	
28	Dual Gas Configuration #3	O ₂ always requires a dedicated Stack/Duct (SDX) Probe	
Retro-Flange Option #1: Standard	29	Retro Enclosure Material	316 Stainless Steel
	30	Assembly Weight	2.0 kg (4.5 lbs)
	31	Assembly Dimension (LxWxH)	9.53 x 190 x 190 mm (0.375 x 7.5 x 7.5 inches)
	32	Retro Enclosure Window Material	None
	33	Retro-Reflector Temperature	-55°C to 85°C (-67°F to 185°F)
	34	Retro Enclosure Cable Entry	None (Passive)
Retro-Flange Option #2: High Temperature	35	Retro Array (IMOS)	50.8 mm (2") IMOS Reflector
	36	Path Length Ranges (Retro-Arrays)	0.5-20m Diameter Stack/Duct
	37	Retro Enclosure Material	316 Stainless Steel
	38	Retro Enclosure Window Material	Sapphire
	39	Assembly Weight	4.8 kg (10.5 lbs)
	40	Assembly Dimension (LxWxH)	200 x 190 x 190 mm (7.87 x 7.5 x 7.5 inches)
Receiver Probe (Transmit/Receive Configuration)	41	Retro-Reflector Temperature	-55°C to +120°C (-67°F to 248°F)
	42	Retro Enclosure Cable Entry	None (Passive)
	43	Retro Array (Cornercube)	50.8 mm (2") IMOS Reflector
	44	Path Length Ranges (Retro-Arrays)	0.5-20m Diameter Stack/Duct
	45	Receiver Enclosure Material	316 Stainless Steel, 6061 Anodized Aluminium Junction Box
	46	Receiver Enclosure Window Material	Sapphire
	47	Assembly Weight	6.2 kg (14 lbs)
	48	Assembly Dimension (LxWxH)	270.5 x 190 x 190 mm (10.71 x 7.5 x 7.5 inches)
	49	Receiver Temperature	-55°C to +120°C (-67°F to 248°F)
	50	Receiver Enclosure Cable Entry	3/4" (M20) for CAT6/5e Cabling
	51	Receiver Enclosure Cable Glands	Supplied by others (as per local electrical standards)
	52	Receiver Array (Gold Mirror)	25.4 mm (1") Gold Mirror
Purge Insert for SDX Assembly	53	Path Length Ranges (Retro-Arrays)	0.5-20m Diameter Stack/Duct
	54	Purge Insert Material	316 Stainless Steel
	55	Assembly Weight	7.0 kg (15.5 lbs)
	56	Assembly Dimension (LxWxH)	200 x 190 x 190 mm (7.87 x 7.5 x 7.5 inches)
Recommended Accessories	57	Mounting Hardware Configuration	ANSI 3" 150# Flange
	58	Purge Connections	1/4" NPT
	59	Alignment Kit	BL-OAK-MC
	60	In-Line Response Cell	BL-ILRC-___ (HF, HCN, NH ₃ , or CH ₄)
	61	Commissioning and Spares Assembly	BL-CASA
Latest Revision	62	Calibration Certificate Extension	BL-QDRP
	63	120-220 VAC Power Supply	BL-HAPS or BL-HAPS-S
	64	1/09/21	