

SUN-FOS 1xN Fiber Optic Switch

Sun Telecom’s Fiber Optic Switch is a kind of device with the ability of the optical channel switching. It is used in optical channel control system, LAN, light source/detector change, and protect change of network etc.

Features

- More than 128 channels
- Low Loss, High Reliability
- Parallel interface (TTL)
- Modularizing Design
- Epoxy-free on Optical Path



Applications

- Remote Monitoring in Optical Network
- Testing of Fiber, Optical Component
- Ring Network

Optical Specifications:

Type	SUN-FOS-1xN		
Insertion Loss (dB)	1<N≤45	45<N≤88	88<N≤128
	Typ:0.8 Max.:1.0	Typ:1.2 Max.:1.5	Typ.:1.7 Max.:2.0
Wavelength Range (nm)	850 ± 40 / 1300 ± 40		1260 ~ 1650
Operation Wavelength (nm)	850/1300		1310/1550
Return Loss (dB)	SM≥50; MM≥30		
Cross-Talk (dB)	SM≥55; MM≥35		
PDL (Db)	≤0.05		
WDL (Db)	≤0.25		
TDL (Db)	≤0.25		
Repeatability (Db)	≤±0.05		
Switching Time (ms)	≤10 (sequence switch time of adjacent channel)		
Operating life	>10 ⁷ time		
Transmission Power (Mw)	≤500		
Operation Temp. (°C)	-20 ~ +70		
Storage Temp. (°C)	-40 ~ +85		
Relative Humidity	5% ~ 95%		
Power Supply (V)	+5 or +12		
Dimensions (mm)	135 x 40 x 32 (1<N≤4)		135 x 64 x 32 (N≤12)
	184 x 78 x 36 (12<N≤16)		184 x 78 x 66 (16<N≤45)
	184 x 156 x 66 (N≤88)		184 x 220 x 66 (N≤128)
	140 x 77.5 x 32 (N≤16)		140 x 77.5 x 64 (N≤32)



PIN Configurations: DB-9 male connector (Max.1x16)

Pin No.	Signal Name	I/O	Description
1	D0	Input	TTL, Output Channel selection bit 0
2	D1	Input	TTL, Output Channel selection bit 1
3	D2	Input	TTL, Output Channel selection bit 2
4	D3	Input	TTL, Output Channel selection bit 3
5	/RESET	Input	TTL, Low Level reset to channel 0. High level Means channel selection bits are effective
6	/READY	Output	TTL, Ready (High=not ready, Low=ready)
7	ERROR	Output	TTL, Error (High=Error, Low=No Error)
8	GND	Input	Ground
9	+5VDC	Input	5.0±5% VDC Power Supply (max 550mA)

PIN Configurations: DB-15 male connector (Max.1x32)

Pin No.	Signal Name	I/O	Description
2	D0	Input	TTL, Output Channel selection bit 0
3	D1	Input	TTL, Output Channel selection bit 1
4	D2	Input	TTL, Output Channel selection bit 2
5	D3	Input	TTL, Output Channel selection bit 3
6	D4	Input	TTL, Output Channel selection bit 4
11	/RESET	Output	TTL, Low Level reset to channel 0. High level Means channel selection bits are effective
7	/READY	Output	TTL, Ready (High=not ready, Low=ready)
8	ERROR	Input	TTL, Error (High=Error, Low=No Error)
1,9	GND	Input	Ground
15	+5VDC	Input	5.0±5% VDC Power Supply (max 50mA)
12	VM	Input	5.0±5% VDC Power Supply (max 500mA)
10,13,14	NA		

PIN Configurations: DB-25 male connector (Max.1x128)

Pin No.	Signal Name	I/O	Description
15	D0	Input	TTL, Output Channel selection bit 0
16	D1	Input	TTL, Output Channel selection bit 1
17	D2	Input	TTL, Output Channel selection bit 2
18	D3	Input	TTL, Output Channel selection bit 3
19	D4	Input	TTL, Output Channel selection bit 4
20	D5	Input	TTL, Output Channel selection bit 5
21	D6	Input	TTL, Output Channel selection bit 6
22	/RESET	Input	TTL, Low Level reset to channel 0. High level



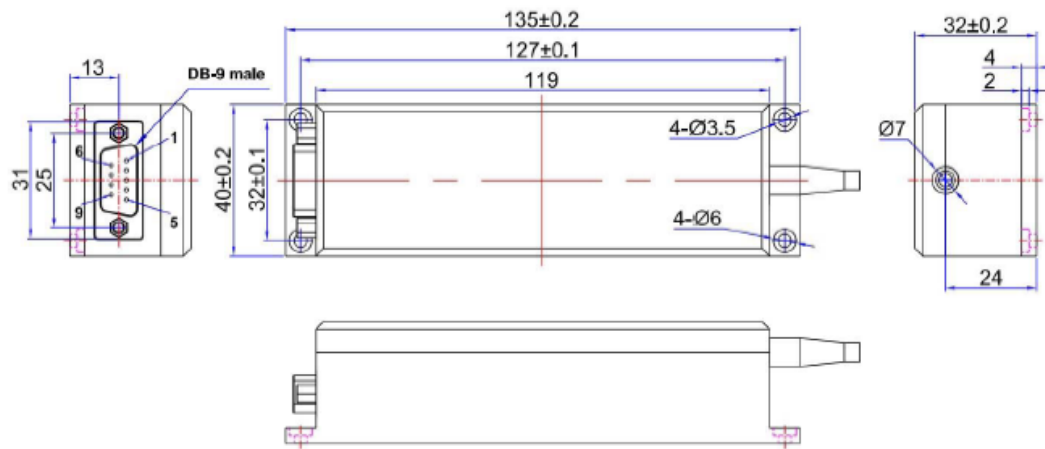
			Means channel selection bits are effective
2	/READY	Output	TTL, Ready (High=not ready, Low=ready)
3	ERROR	Output	TTL, Error (High=Error, Low=No Error)
1,10,14,23	GND	Input	Ground
12,25	+5VDC	Input	5.0±5% VDC Power Supply (max 50mA)
13	VM	Input	5.0±5% or 12.0±5% VDC Power Supply , N<45 Max Current Supply 500mA N<88 Max Current Supply 750mA N<128 Max Current Supply 1000mA
11,24			
4,5,6,7,8,9	NA		

Channel Selection Table

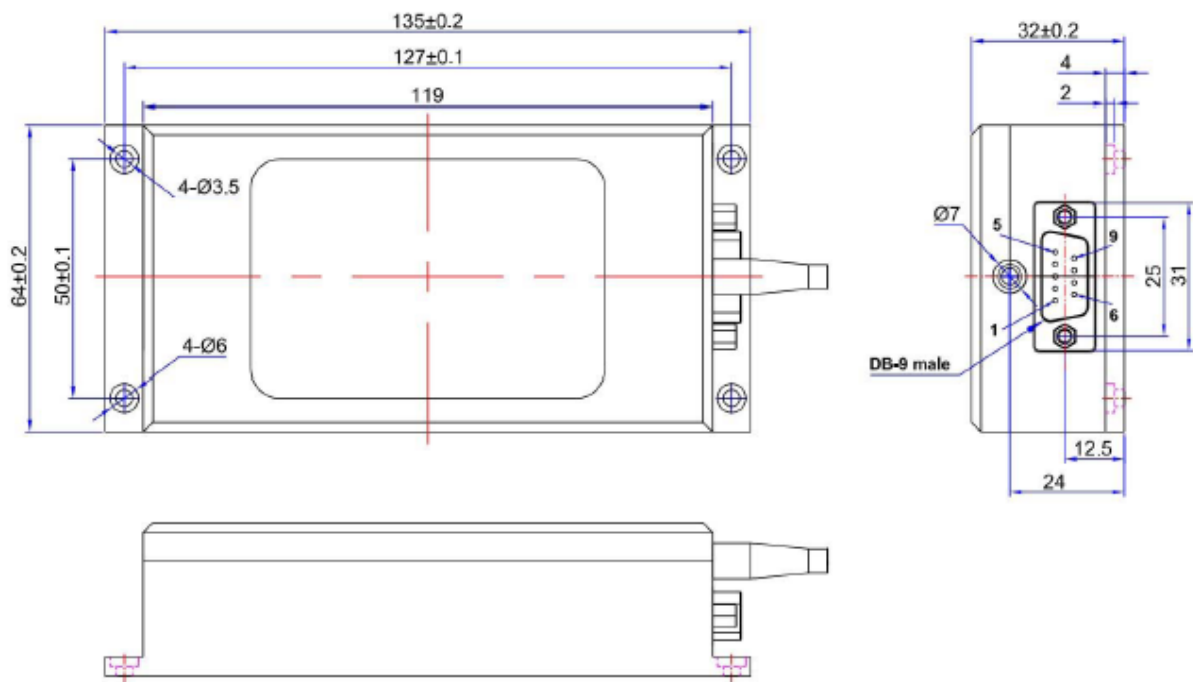
Max Channel	Input								Active Channel
	/RESET	D6	D5	D4	D3	D2	D1	D0	
N=16	0	x	x	x	x	x	x	x	0 reset
	1	x	x	x	0	0	0	0	COM → 1
		x	x	x	0	0	0	1	COM → 2
		x	x	x	0	0	1	0	COM → 3
		x	x	x
		x	x	x	1	1	1	1	COM → 16
N=128	0	x	x	x	x	x	x	x	0 reset
	1	0	0	0	0	0	0	0	COM → 1
		0	0	0	0	0	0	1	COM → 2
		0	0	0	0	0	1	0	COM → 3
	
		1	1	1	1	1	1	1	1

Dimensions

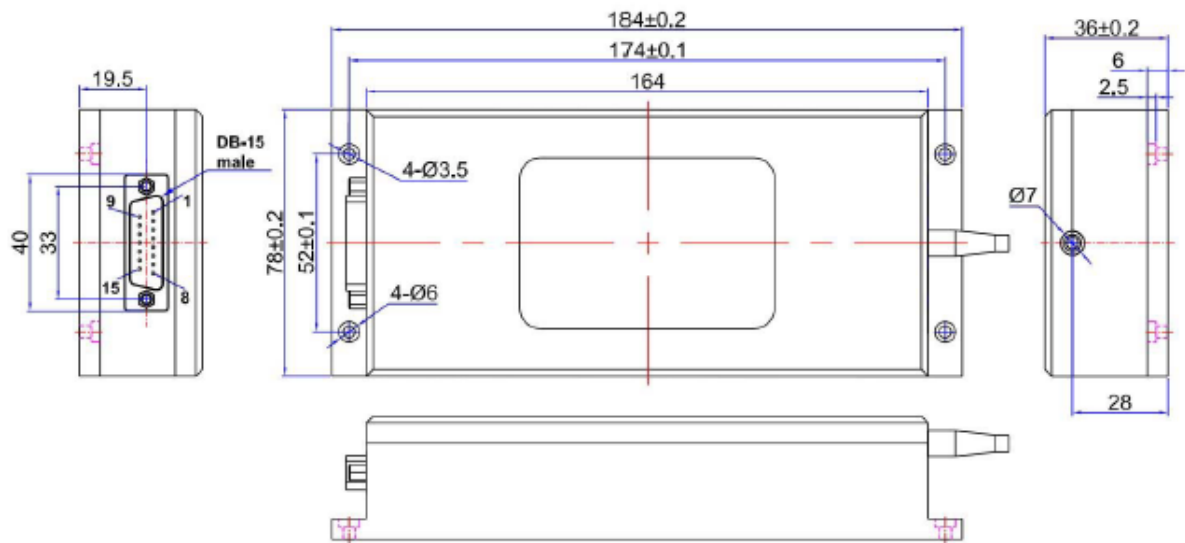
➤ 01: 135×40×32-DB9-F (N≤4, DB-9 male)



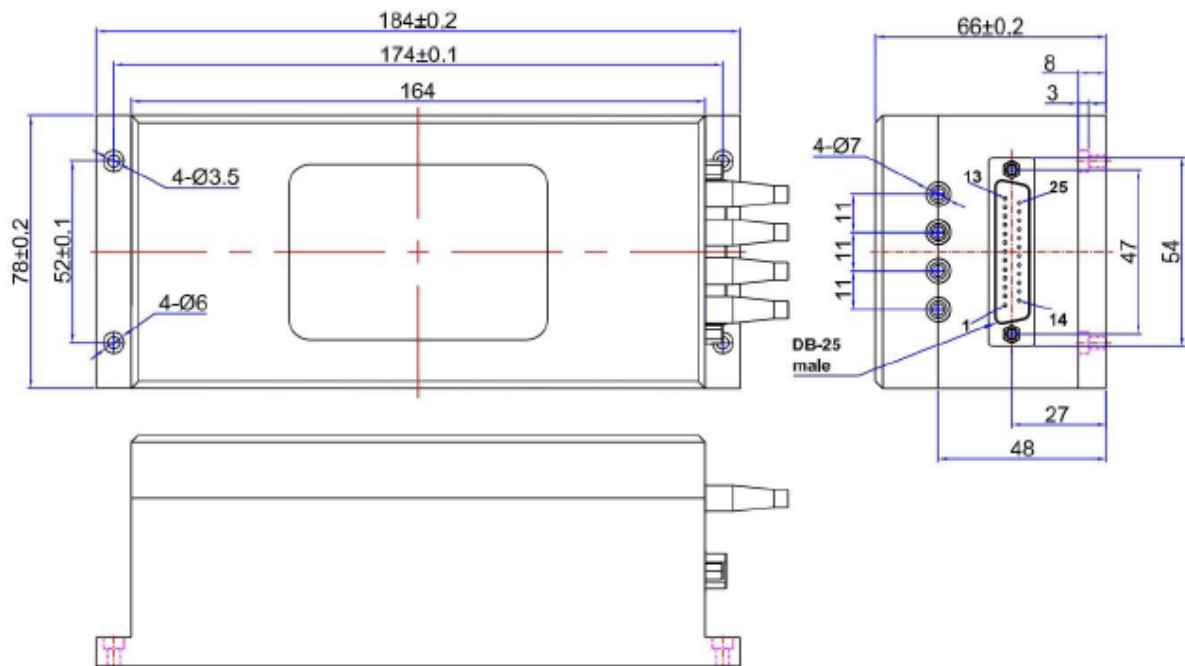
➤ 02: 135×64×32-DB9 (N≤12, DB-9 male)



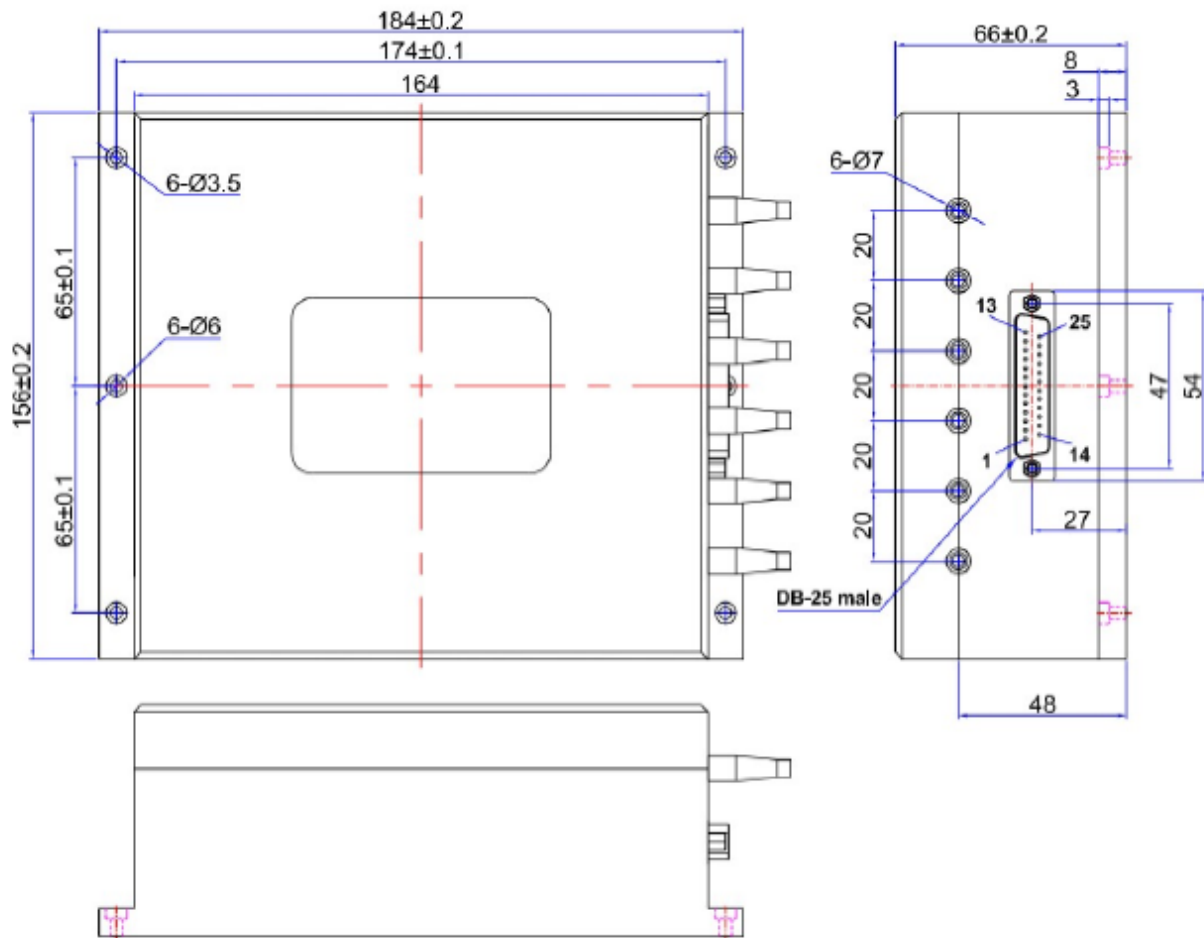
➤ 03: 184×78×36-DB15-F (N≤16, DB-15 male)



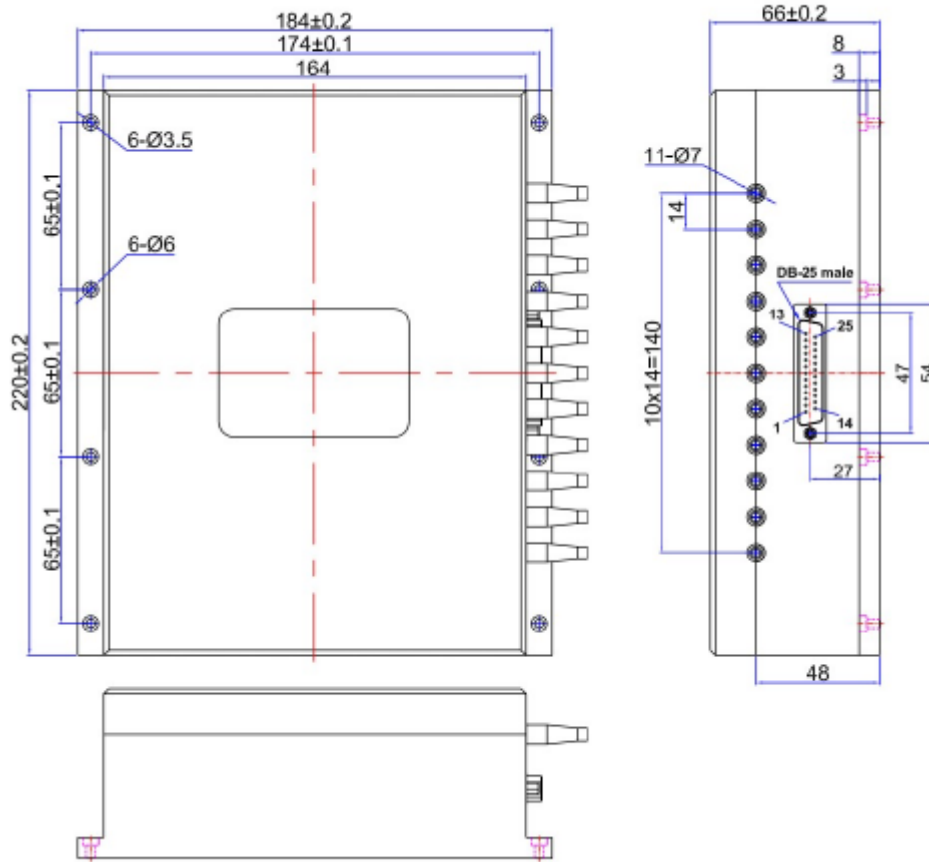
➤ 04: 184×78×66-DB25 (N≤45, DB-25 male)



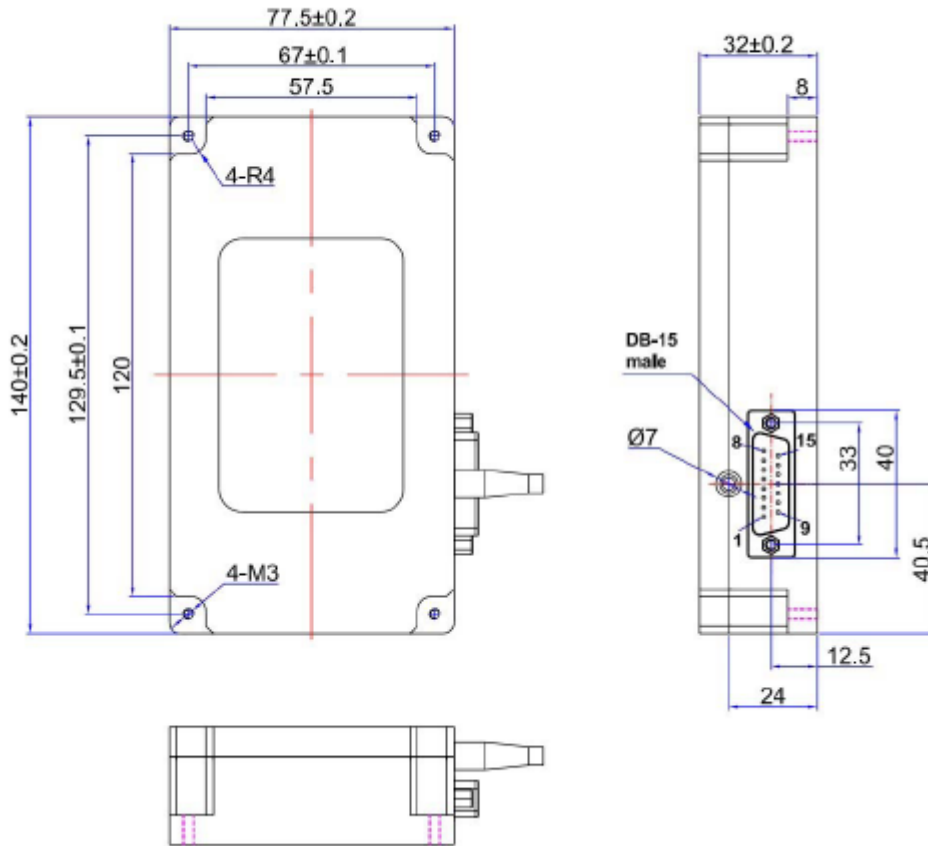
05: 184×156×66-DB25 (N≤88, DB-25 male)



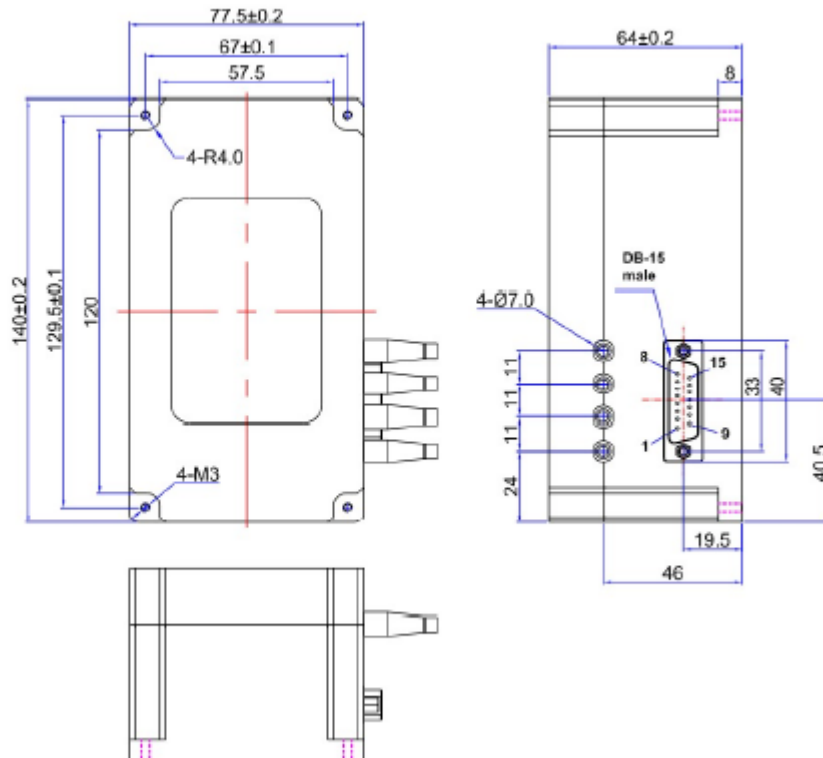
➤ 06: 184×220×66-DB25 (N≤128, DB-25 male)



➤ 07: 140×77.5×32-DB15-C (N≤16, DB-15 male)



➤ 08: 140×77.5×64-DB15-C (N≤32, DB-15 male)





Ordering Information: SUN-FOS-1XN-A-B-CD-E-F-H

N	A	B	C	D	E	F
Channel	Mode	Wavelength (nm)	Voltage	Fiber type	Fiber diameter	Fiber Length
N = 1~128	S:SM M:MM	85: 850 13: 1310 15: 1550 1315:1310/1550 X: Other	3=5V 5=12V	5:50/125 6:62.5/125 9: 9/125 X: Other	900:900um; 2:2.0mm 3: 3.0mm X: Other	L1:1.0m X: Other
	H					
	Connector					
	None FC: FC/PC AFC: FC/APC SC: SC/PC ASC: SC/APC ST: ST/PC AST: ST/APC LC: LC/PC ALC: LC/APC X: Other					

Note: For the necessity of improvement, the material contained in this document is subject to change without notice.