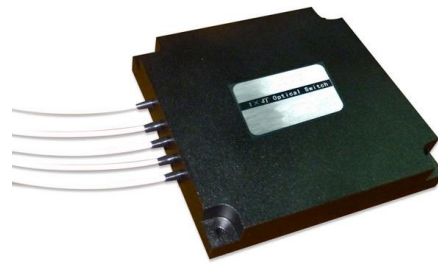


## 1x4 Optical Switch

### Features

- Wide Wavelength Range
- Low Crosstalk
- High Stability, High Reliability
- Epoxy-free on Optical Path



### Applications

- R&D in Laboratory
- System Monitoring
- OADM
- OXC

FSW-1x4 Optical Switch is an ideal component for OADM , OXC , system monitoring and protection. With compact package, it can be easy to integrate into a high density optical communication system.

### Specifications

| Parameters            | Unit   | FSW-1x4                |                        |
|-----------------------|--------|------------------------|------------------------|
| Wavelength Range      | nm     | 850±40 / 1300±40       | 1260 ~ 1650            |
| Test Wavelength       | nm     | 850 / 1300             | 1310 / 1550            |
| Insertion Loss        | dB     | Typ: 1.3 Max: 1.5      |                        |
| Return Loss           | dB     | MM ≥ 30 SM ≥ 50        |                        |
| Crosstalk             | dB     | MM ≥ 35 SM ≥ 55        |                        |
| PDL                   | dB     | ≤ 0.15                 |                        |
| WDL                   | dB     | ≤ 0.35                 |                        |
| Repeatability         | dB     | ≤ ±0.05                |                        |
| Power Supply          | V      | 5.0 ± 5%               |                        |
| Durability            | Cycles | ≥ 10 Million           |                        |
| Switching Time        | ms     | ≤8                     |                        |
| Optical Power         | mW     | ≤500                   |                        |
| Operating Temperature | ℃      | -20 ~ +70              |                        |
| Storage Temperature   | ℃      | -40 ~ +85              |                        |
| Relative Humidity     | %      | 5 ~ 95                 |                        |
| Dimension             | mm     | (L)90×(W)58×(H)14 ±0.2 | (L)95×(W)76×(H)14 ±0.2 |

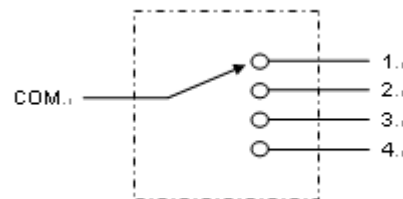
## Pin Configurations

| Pin No. | Signal Name | I / O  | Description                          |
|---------|-------------|--------|--------------------------------------|
| 1       | D0          | Input  | Channel selection bit 0              |
| 2       | D1          | Input  | Channel selection bit 1              |
| 3       | NA          |        |                                      |
| 4       | NA          |        |                                      |
| 5       | /EN         | Input  | Channel Selection Enabled.           |
| 6       | NA          |        |                                      |
| 7       | VCC         | Input  | 5.0±5% VDC Power Supply (max 150mA). |
| 8       | GND         | Input  | Ground                               |
| 9       | NA          |        |                                      |
| 10      | NA          |        |                                      |
| 11      | NA          |        |                                      |
| 12      | NA          |        |                                      |
| 13      | S0          | Output | Switch status output bit 0           |
| 14      | S1          | Output | Switch status output bit 1           |
| 15      | NA          |        |                                      |
| 16      | NA          |        |                                      |
| 17      | NA          |        |                                      |
| 18      | NA          |        |                                      |
| 19      | NA          |        |                                      |
| 20      | NA          |        |                                      |

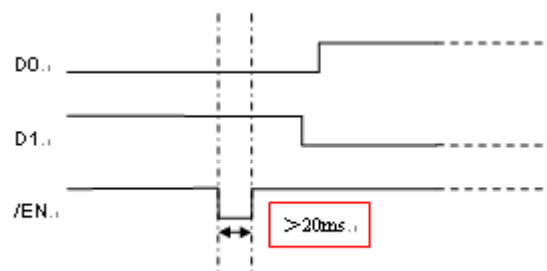
## Channel Selection Correspond to Switch Status

| Input |    |    | Active Channel | Output |      |
|-------|----|----|----------------|--------|------|
| /EN   | D1 | D0 |                | S1     | S0   |
| 0     | 0  | 0  | COM→1          | 0      | 0    |
| 0     | 0  | 1  | COM→2          | 0      | 1    |
| 0     | 1  | 0  | COM→3          | 1      | 0    |
| 0     | 1  | 1  | COM→4          | 1      | 1    |
| 1     | x  | x  | Hold           | Hold   | Hold |

## Optical Route

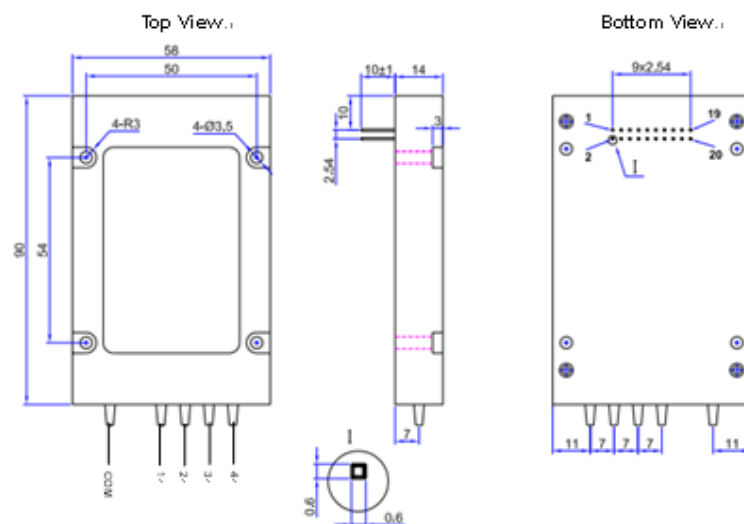


## Timing Diagram

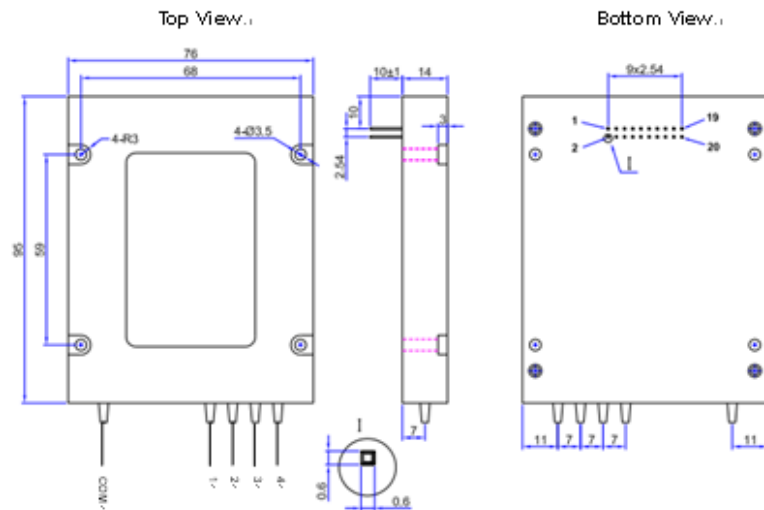


## Dimension

➤ 01: 90x58x14.



➤ 02: 95×76×14.1



### Ordering Information: FSW-1×4-A-B-C-D-E-F-G

| A               | B           | C                     | D         | E                                   | F           | G            |
|-----------------|-------------|-----------------------|-----------|-------------------------------------|-------------|--------------|
| Fiber Type      | Switch Type | Test Wavelength       | Tube Type | Fiber Length<br>(Include connector) | Connector   | Dimension    |
| SM: SM, 9/125   | L: Latching | 850: 850nm            | 90:900um  | 05: 0.5m±5cm                        | OO:None     | 01: 90×58×14 |
| M5:MM, 50/125   | X: Others   | 1310: 1310nm          | X: Others | 10: 1.0m±5cm                        | FP: FC/PC   | 02: 95×76×14 |
| M6:MM, 62.5/125 |             | 1550: 1550nm          |           | 15: 1.5m±5cm                        | FA: FC/APC  | X: Others    |
| X: Others       |             | 1310/1550:1310/1550nm |           | X: Others                           | SP: SC/PC   |              |
|                 |             | X:Others              |           |                                     | SA: SC/APC  |              |
|                 |             |                       |           |                                     | STP: ST/PC  |              |
|                 |             |                       |           |                                     | STA: ST/APC |              |
|                 |             |                       |           |                                     | LP: LC/PC   |              |
|                 |             |                       |           |                                     | LA: LC/APC  |              |
|                 |             |                       |           |                                     | X: Others   |              |