

LDP-FC-XXZ-X-T-XXXXXX-XS-XX



### Features

- 1310nm or 1550nm Wavelength
- High Optical Power
- Low Threshold Current
- High Operating Temperature
- High Speed
- Uncooled
- Mini Housing Package
- Singlemode & Multimode Fiber Pigtail
- RoHS Compliant available

### Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Condition	Rating	Unit
LD Reverse Voltage	$V_{RLD}$	CW	2.5	V
LD Forward Current	$I_F$	CW	150	mA
PD Forward Current	$I_{FPD}$	CW	2.0	mA
PD Reverse Voltage	$V_{RPD}$	CW	15	V
Operating Temperature	$T_{opr}$	-	-40 ~ 85	°C
Storage Temperature	$T_{stg}$	-	-40 ~ 85	°C

(All optical data refer to a coupled 9/125µm SM & 50/125µm M/M fiber)

### Optical and Electrical Characteristics 1310nm (Tc=25°C)

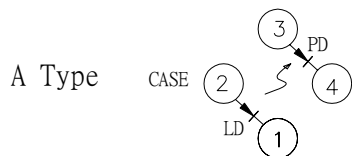
Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Wavelength	$\lambda$	1290	1310	1330	nm	CW
Spectral Width	$\Delta\lambda$	-	2	5	nm	CW(RMS)
Threshold Current	$I_{th}$	-	20	35	mA	CW
Output Power (SM, 9/125µm)						
L		200	-	500	µW	CW, Iop=Ith+20mA Kink free
M	$P_f$	500	-	1000		
H		1000	-	-		
U		2000	-	-		
Output Power(MM, 50/125µm)						
L		200	-	500	µW	CW, Iop=Ith+20mA Kink free
M	$P_f$	500	-	1000		
H		1000	-	-		
U		2000	-	-		
Rise Time/Fall Time	$T_r/T_f$	-	0.5	-	ns	
Forward Voltage	$V_f$	-	1.2	1.7	V	CW
Tracking error	$\Delta P_f/P_f$	-	±1.5	-	dB	-40 to +85°C
Monitor Current	$I_{PD}$	0.05	-	-	mA	CW(Iop)
Monitor Dark Current	$I_D$	-	0.3	1.0	µA	Vrd=5V
Monitor Capacitance	$C_{PD}$	-	10	-	pF	F=1MHz, Vrd=5V

## LDP-FC-XXZ-X-T-XXXXXX-XS-XX

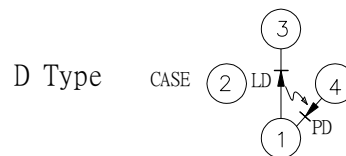
(All optical data refer to a coupled 9/125μm SM & 50/125μm M/M fiber)

Optical and Electrical Characteristics 1550nm (Tc=25°C)						
Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Wavelength	$\lambda$	1530	1550	1570	nm	CW
Spectral Width	$\Delta\lambda$	-	3	5	nm	CW(RMS)
Threshold Current	$I_{th}$	-	20	35	mA	CW
Output Power (SM, 9/125μm)	$P_f$	200	-	500	μW	CW, $I_{op}=I_{th}+25mA$ Kink free
L		500	-	1000		
M		1000	-	-		
H		2000	-	-		
Output Power(MM, 50/125μm)	$P_f$	200	-	500	μW	CW, $I_{op}=I_{th}+25mA$ Kink free
L		500	-	1000		
M		1000	-	-		
H		2000	-	-		
U	-	-	-	-	-	-
Rise Time/Fall Time	$T_r/T_f$	-	0.5	-	ns	
Foward Voltage	$V_f$	-	1.2	1.7	V	CW
Tracking error	$\Delta P_r/P_f$	-	$\pm 1.5$	-	dB	-40 to +85°C
Monitor Current	$I_{PD}$	0.05	-	-	mA	CW( $I_{op}$ )
Monitor Dark Current	$I_D$	-	0.3	1.0	μA	$V_{rd}=5V$
Monitor Capacitance	$C_{PD}$	-	10	-	pF	$F=1MHz, V_{rd}=5V$

### LD Pin Assignment



- Pin 1 : Laser Cathode
- Pin 2 : Laser Anode and Case Gnd
- Pin 3 : Monitor Diode Anode
- Pin 4 : Monitor Diode Cathode

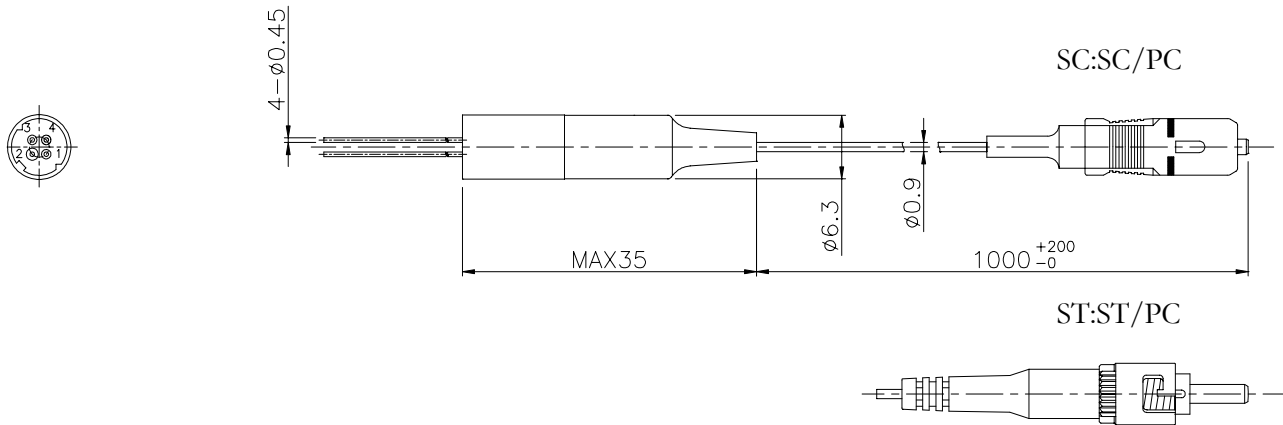


- Pin 1 : Laser Anode and Monitor Diode Cathode
- Pin 2 : Case Gnd
- Pin 3 : Laser Cathode
- Pin 4 : Monitor Diode Anode

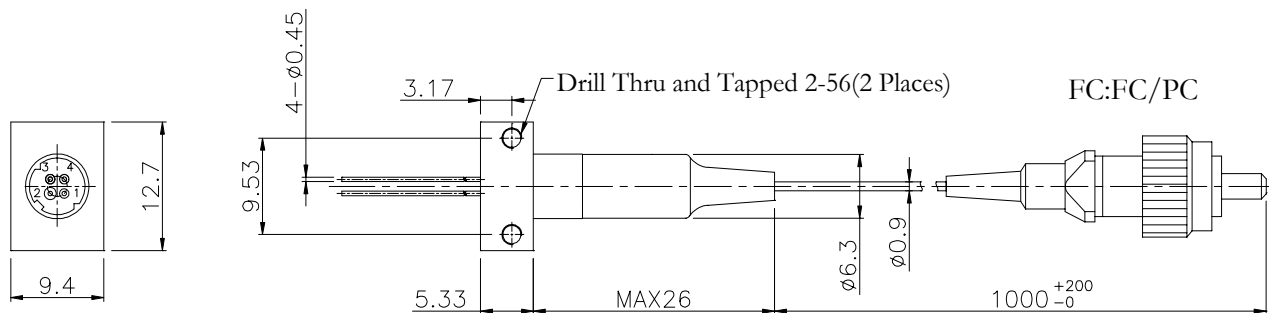
Outline Drawing

Units in mm

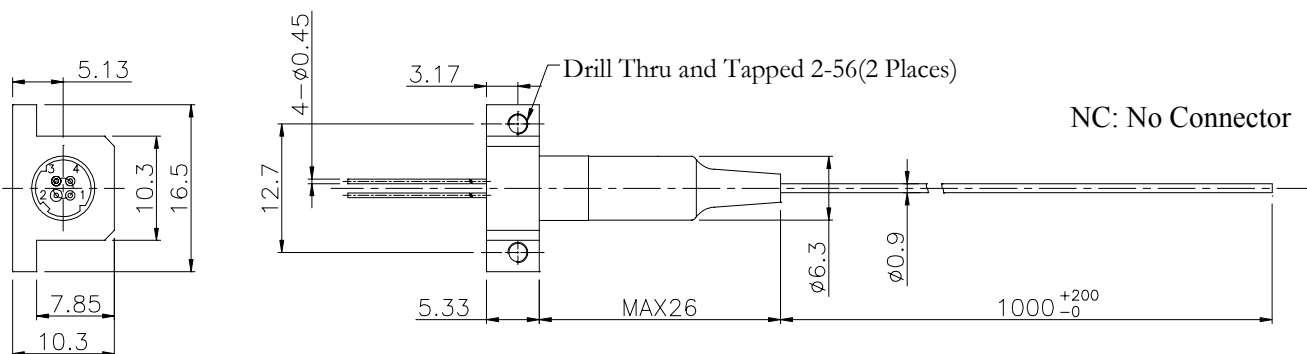
Flange Type : N - NC package



Flange Type : C - SP package



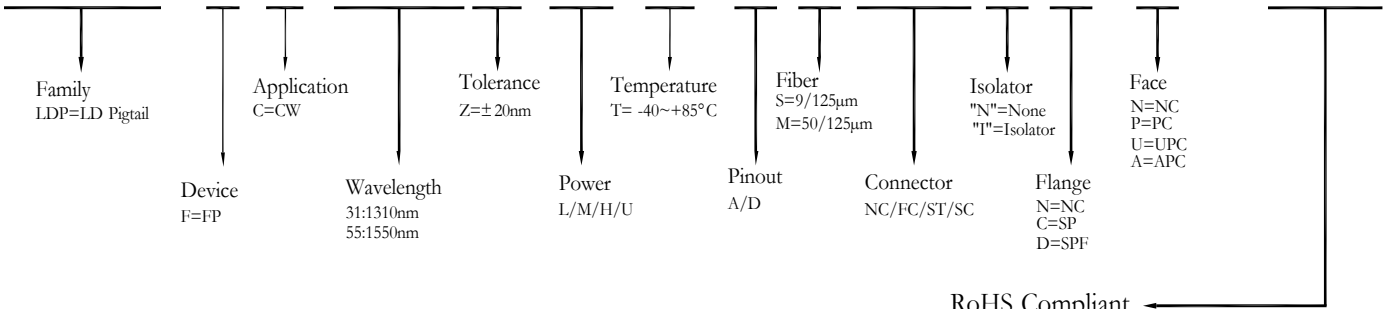
Flange Type : D - SPF package



LDP-FC-XXZ-X-T-XXXXXX-XS-XX

Ordering Information

LDP-FC-XXZ-X-T-XXXXXX-XS-XX



RoHS Compliant  
 -/G5/GR  
 Blank = RoHS non-compliant product  
 G5 = RoHS 5/6-compliant product (lead exemption)  
 GR = Full RoHS compliant product (no exemption)

Warnings:

**Handling Precautions:** This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.  
**Laser Safety:** Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

Legal Notes:

**IMPORTANT NOTICE!**  
 All information contained in this document is subject to change without notice, at LuminentOIC's sole and absolute discretion. LuminentOIC warrants performance of its products to current specifications only in accordance with the company's standard one-year warranty; however, specifications designated as "preliminary" are given to describe components only, and LuminentOIC expressly disclaims any and all warranties for said products, including express, implied, and statutory warranties, warranties of merchantability, fitness for a particular purpose, and non-infringement of proprietary rights. Please refer to the company's Terms and Conditions of Sale for further warranty information.

LuminentOIC assumes no liability for applications assistance, customer product design, software performance, or infringement of patents, services, or intellectual property described herein. No license, either express or implied, is granted under any patent right, copyright, or intellectual property right, and LuminentOIC makes no representations or warranties that the product(s) described herein are free from patent, copyright, or intellectual property rights. Products described in this document are NOT intended for use in implantation or other life support applications where malfunction may result in injury or death to persons. LuminentOIC customers using or selling products for use in such applications do so at their own risk and agree to fully defend and indemnify LuminentOIC for any damages resulting from such use or sale.

THE INFORMATION CONTAINED IN THIS DOCUMENT IS PROVIDED ON AN "AS IS" BASIS. Customer agrees that LuminentOIC is not liable for any actual, consequential, exemplary, or other damages arising directly or indirectly from any use of the information contained in this document. Customer must contact LuminentOIC to obtain the latest version of this publication to verify, before placing any order, that the information contained herein is current.

© LuminentOIC, Inc. 2006  
 All rights reserved