



INDUSTRIAL TEMPERATURE  
WDM TRANSCEIVERS

Safeguarding  
your connectivity,  
even in the harshest  
of environments.

  
**ProLabs**  
Unlock your connectivity

We support  
the growing  
demand,  
for connectivity  
in exposed  
environments.

## Toughened Industrial WDM Optics

Fiber connections are reaching further from the climate-controlled environments of the central office or head end every day. This in turn means that our transceivers are having to endure environments that would have seemed impossible a decade ago. Reaching everywhere from the edges of FTTX infrastructure to the factory floor, this also brings a demand for more connections through existing fiber, often where replacing cable is not an option. ProLabs new industrial temperature rated WDM optics are the solution to enable greater flexibility from your fiber infrastructure, while being able to withstand variable environments for longer with their wavelength stabilizing technology.

## ProLabs Industrial Temperature Transceivers

This broad new range of products enables you to deploy your optics where you need them, and at the scale you require. We have also introduced compatibility with key vendors across the industrial optics sector, so you can have confidence in ProLabs transceivers, wherever they are deployed.

### CATV

Arris  
Aurora  
C-cor  
Motorola  
Scientific Atlanta

### CPE NID

Adtran  
Calix  
Cisco  
Juniper  
Over 50 OEMs

### INDUSTRIAL

Rockwell Automation  
Hirschmann  
Moxa  
MRV  
Kyland

## CWDM Products

Ideal for legacy systems and deploying optics into existing fiber to increase capacity, which include: Up to 18 wavelengths, 40Km to 80Km range and SFP and SFP+ forms at 1G to 10G.

## DWDM

Dense multiplexing for complex networking and high performance systems. These include: SFP and SFP+ 40 wavelengths, 80Km to 120Km range and at 1G to 10G.

## Standard Products

The same operation as a normal transceiver, with industrial performance. Features include: LR/ER and SX/SR to ZX/ZR ranges, SFP, SFP+ and XFP forms and 1G to 10G data rates.

As fiber is pushed closer to the customer, transceivers are deployed non-climate controlled environments. ITEMP transceivers ensure network performance across temperature fluctuations the life of the network.

## WDM Performance

The pass band of WDM passive components require the WDM wavelengths to perform within the narrow window. For CWDM the pass band is +/-6.5nm and DWDM +/-0.1nm.

## Key Applications

- Fiber to the Node
- Fiber to the Business
- Fiber to the Antenna
- Fiber to the Home
- Distributed Access Architectures
- Remote PHY
- Remote MAC

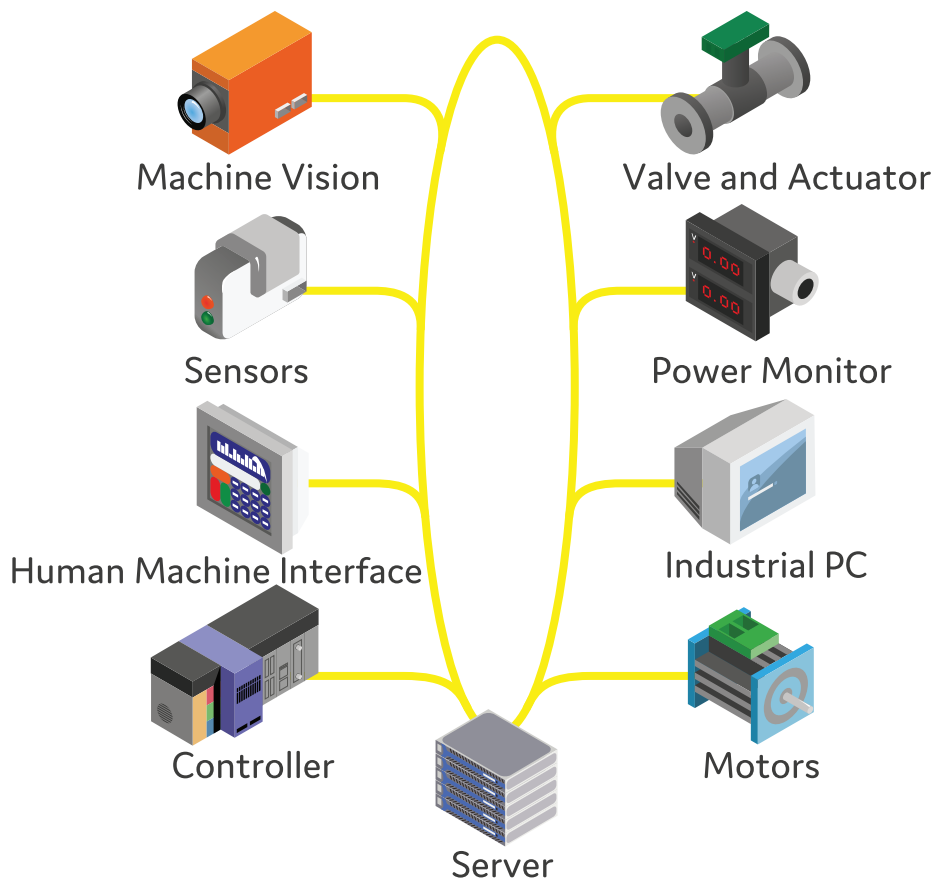
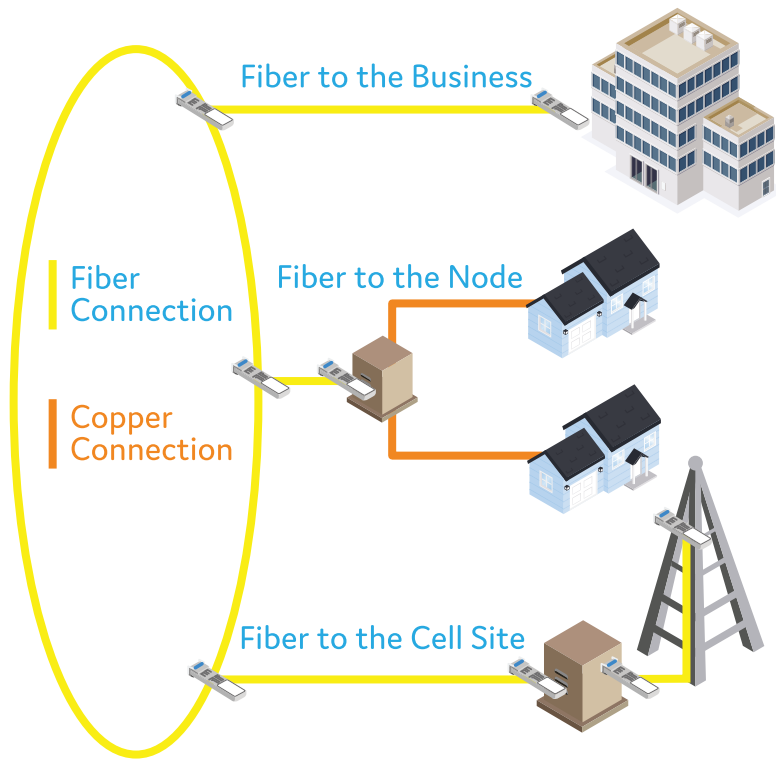
## Industrial Environments

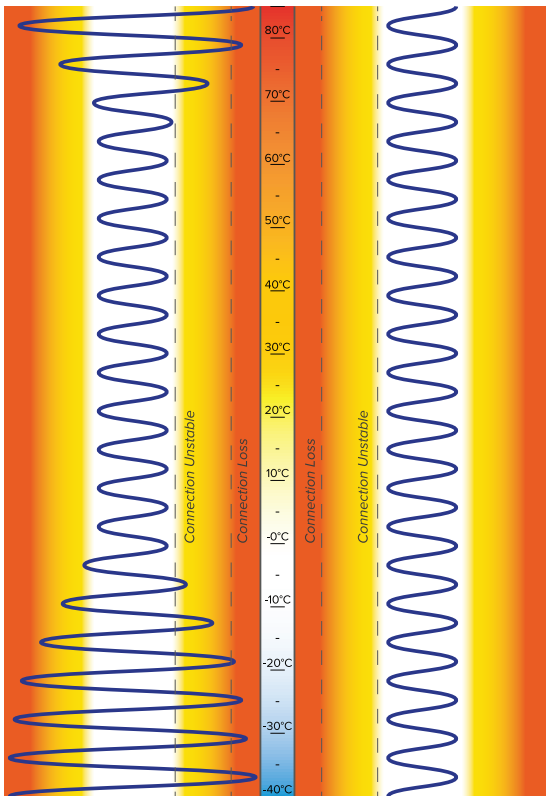
The factory floor is seeing a revolution in networking – moving to large systems controlled through a single interconnected network.

Industrial switches deployed outside of climate controlled data centers and wire closets likewise required support for industrial temperatures.

## Transceiver Temperature Envelopes

Commercial Temperature "CTEMP" 0°C to +70°C  
Industrial Temperature "ITEMP" -40°C to +85°C  
Extended Temperature ~ Transceivers rated outside CTEMP, but not to ITEMP levels.





## Why ITEMP?

A transceiver's performance over time can be impacted by the temperature fluctuations outside of the commercial temperature envelope. WDM wavelengths are especially susceptible to performance issues through the passive component pass band.

## The ProLabs Difference

ProLabs is your trusted partner for Industrial Temperature transceiver solutions to ensure that your network is protected in harsh network conditions.

ProLabs ITEMP WDM solutions embed wavelength stability technology to ensure the performance of WDM transceivers over the life of the network.

Visit [www.prolabs.com](http://www.prolabs.com) for more connectivity solutions.