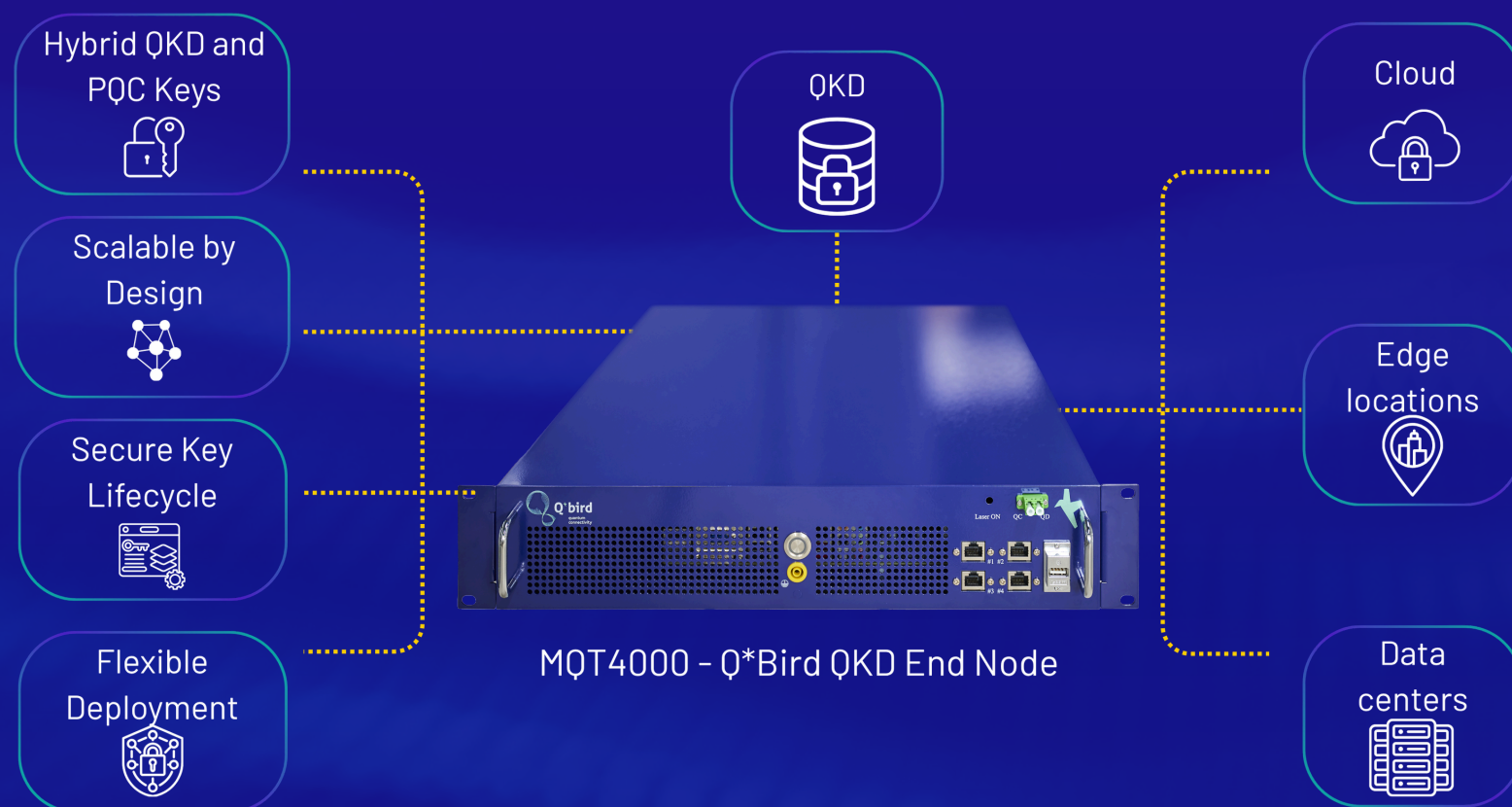


# Q\*Bird Falqon<sup>®</sup> Key Manager

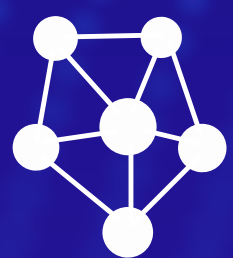
**FOR SCALABLE QUANTUM  
SECURE NETWORKING**



## Extend

**quantum secure  
communications beyond  
QKD-enabled locations  
across cloud, edge and  
distributed environments.**

The Falqon<sup>®</sup> Key Manager enables organisations to securely ingest, store, synchronise and deliver QKD keys, PQC keys and hybrid keys across distributed quantum secure networks.



**Scalable Quantum Secure  
Networking**



**Secure Key Lifecycle  
Management**



**Hybrid QKD and PQC  
Integration**



**Standalone Quantum Key  
Management**

**Interested in Collaboration or  
Partnerships, Contact US!**

**sales@q-bird.com  
www.q-bird.com**



## KEY FEATURES

### Feature

Network Architecture  
Secure Key Lifecycle Management  
Delivered Key Types  
Ingested Key Types  
Generated Key Types  
Hybrid QKD & PQC Integration  
Multi-Site Key Distribution  
Trusted-Node Networking  
Multi-Tenancy  
Crypto Agility  
Crypto Resilience  
High availability  
Multi-Vendor Interoperability  
Deployment Models  
Maximum Size of Stored Keys Database  
Maximum Number of Keys per Request  
Maximum Request Rate  
Maximum Key Size  
Minimum Key Size  
Concurrent Requests

### Specification

Distributed Quantum Secure Networking KMS  
Generation, Storage, Rotation, Archival, Destruction  
QKD, PQC, PKI, Hybrid  
QKD  
PQC, PKI, Hybrid  
✓  
✓  
✓  
✓  
Runtime Selection of Cryptographic Algorithm  
Optional Automatic Failover Between QKD, PQC and Classical Key Sources  
Active-Passive Deployment  
ETSI GS QKD Compliant  
Embedded, Standalone On-Premise, Containerised On-Premise, Cloud  
Varies on Deployment  
100 keys  
over 1 Mbits/s  
1 Mbit  
1 bit  
✓

## SECURITY FEATURES

### Security Capability

Key Pool Management  
Key Expiration Policies  
Key Retention  
Key Revocation  
Key Usage Auditing  
Secured Key Delivery  
PQC-Protected mTLS Communication  
Encrypted Key Store  
TPM-Protected Secret Storage  
Signed Software Binaries  
Strict Firewall Policies  
Physical Separation of Networks  
Role-Based Access Controls  
Secure Software Updates

### Specification

Dynamic Allocation and Replenishment  
Configurable per Tenant  
✓  
✓  
✓  
mTLS End-to-End Encrypted  
ML-KEM  
AES-256 Encrypted Storage  
TPM 2.0  
Cryptographically Signed  
Default-deny Rules  
Control / Management / Data  
✓  
Signed and Verified

## SUPPORTED STANDARDS AND PROTOCOLS

### Category

Key Delivery Protocols  
Relay Node Protocol  
Key Types  
Certificate Management  
Management  
Health Monitoring  
Software Update Method

### Specification

ETSI GS QKD 014, SKIP and Nokia SMS  
ETSI GS QKD 020  
QKD Keys, PQC Keys, PKI Keys, Hybrid Keys  
X.509 certificates  
CLI via NETCONF, Web via QDC  
✓  
Via NETCONF

# DEPLOYMENT MODELS

## Deployment

Embedded Deployment  
 Stand-Alone Server\*  
 Containerised  
 Cloud  
 Air-gapped Operation  
 High Availability Deployment

## Specification

On Falqon® QKD Node  
 On Q\*Bird Provided Device  
 Docker  
 Azure, AWS and others  
 ✓  
 ✓

## \* PHYSICAL PARAMETERS OF Q\*BIRD PROVIDED SERVER (NOT APPLICABLE TO OTHER DEPLOYMENT MODELS)

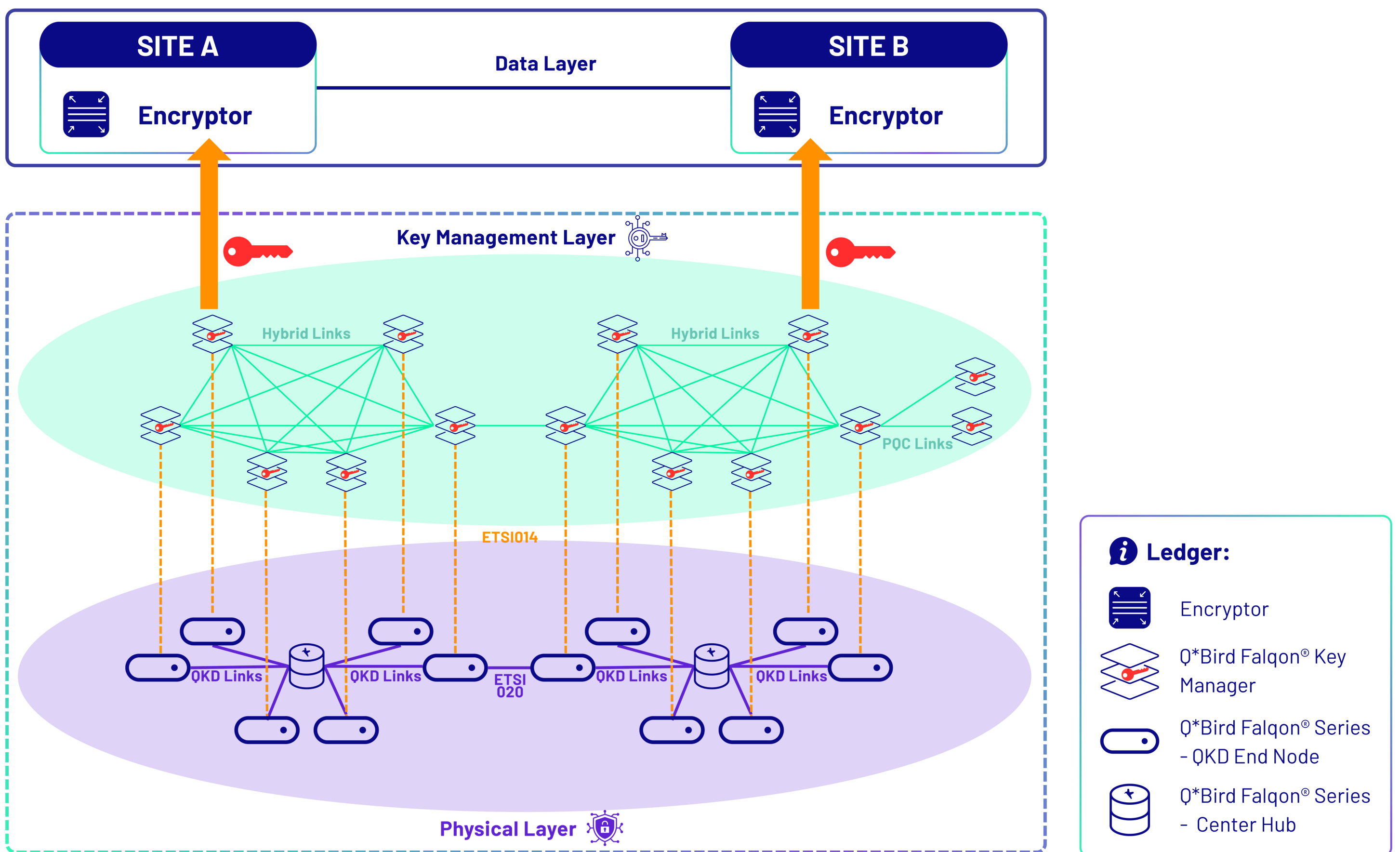
## Parameter

Form Factor  
 Power Supply  
 Redundant Power Supply  
 Dimensions  
 Weight  
 Operating Temperature  
 Relative Humidity

## Specification

1U Rack-Mounted Device  
 <100W at 230V, -60V, or -48V  
 Optional  
 1U x 19" x 41 cm depth  
 7.5 kg  
 +5 to +40 Celsius  
 5% to 85%

## DEPLOYMENT ARCHITECTURE:



# Your Partner in Quantum Security

Q\*Bird is a leader in quantum communication technology, based in Delft, The Netherlands.

We provide cutting-edge solutions and expert support to ensure your data security.

## Trusted By



Port of  
Rotterdam



QDNL

SURF



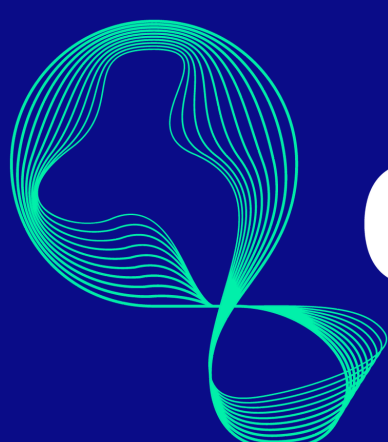
eurofiber

Belnet

Adtran



Contact us today to learn how the Falcon® Series can protect your organization from data breaches, quantum threats and future-proof your network security



**Q\*bird**  
quantum  
connectivity

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