

2.45 GHz

Ultra-Compact Design
Multi tag ID

LPR 3033-B / LPR 3034-B / LPR 3035-B

Ultra-Compact Readers - 2.45 GHz
Nominal Range* : 4m, 6m & 10m
Antenna Pattern : 45°x 45°



HIGH SPEED IDENTIFICATION

DEPENDABLE IDENTIFICATION

MULTIPLE READERS IN CLOSE PROXIMITY

EASY AND QUICK INSTALLATION

LOW ENVIRONMENTAL INTERFERENCE

I - INTRODUCTION

Balogh HyperX™ LPR 303x-B compact readers enable high speed identification of all tags in the HyperX™ product range. These readers are available in 3 versions with a fully integrated compact design.

The compact casing contains all the functional parts of the reading unit: antenna, RF source, demodulator, processor, and interface modules. The electronics are totally integrated into robust ABS casing and coated with a special resin.

The readers can be mounted against walls or poles, even on metallic surfaces, using the optional bracket support that can be adjusted to direct the identification field toward the direction of the tags.

The LPR 303x-B models are designed for outdoor installation.

II - OPERATING PRINCIPLE

Electromagnetic radiation characteristics in the 2.45 GHz frequency band allow high data transmission rates and directional antenna beams. Tag detection is therefore very rapid and relatively insensitive to environmental interference.

The HyperX™ tag is electro-magnetically inactive when outside of the reader's range. It's state-of-the-art feature (registered patent) is its capacity to reflect incident microwaves - a tag receiving a 2.45 GHz carrier will echo this signal, modulated by its individual identification code, back to the reader.

The reader receives and processes this signal, sending the data to a host system via a standard interface.

III - COMMUNICATIONS

Balogh LPR 303x-B readers are available in three versions with all interfaces for easy integration:

- TTL version :
ISO2, Wiegand (26 bits)
and USB for service
- RS version :
RS232, RS422, RS485,
ISO2, Wiegand (26 bits)
and USB for service
- ETH version :
ETHERNET
RS232, RS422, RS485,
ISO2, Wiegand (26 bits)
and USB for service

Via TTL links, they can substitute for most traditional contact and proximity card readers.

For computerized links, a complete dialogue can be implemented utilizing the ModBus™ protocol (by interruption from readers or by polling from the host system).

The reader disposes of optocoupled I/O and allow peripherals to be addressed.

IV -POWER SUPPLY

These readers have an integrated regulator that is powered from 12 to 24VDC.

A "switch-off" device puts the reader in standby mode when the voltage is insufficient.

Connection to the mains is to be made via an external 18W power supply (not included)

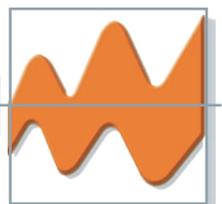
RFID

INDUSTRY

RAILWAYS

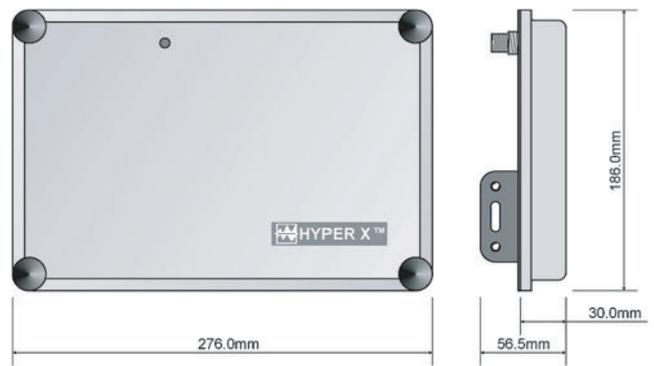
SECURITY

BALOGH

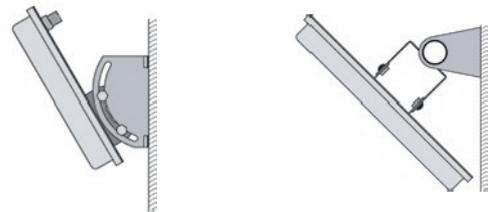


CHARACTERISTICS**

Dimensions	276 x 186 x 56.5 mm
Weight	2.5 Kg
Color	Light Grey
Operating temperatures	- 20C° to +50C°
Storage temperatures	- 40C° to +85C°
Protection level	I.P. 65
Relative humidity	90%, without condensing
Power supply	12 ~ 24 VDC - 18 W
Frequency band	2.45 GHz
Data rate (between tag&reader)	30000 kbps
Number of reading channels	31
Fault reading protocol	HDLG
Modulation type	BPSK
Rate of (Fault reading/Failure reading*)	1E-7/1E-4*
Radiated power (33-34-35)	75mW - 200mW - 350mW
Nominal reading distance* (33-34-35)	4m - 6m - 10m
Maximal reading distance (33-34-35)	up to 6m - 10m - 15m
Speed	up to 100Km/h
Approvals	EN 60950, EN 300489-1&3, EN 50364 ETS 300440 - CE 0536



Installation example using optional mounting bracket



(*) Normal condition of use.

(**) Specification do not form part of any contract and may be changed without notice.

APPLICATIONS



High speed identification of vehicles

- Vehicles controlled in narrow and wide lanes,
- Doppler effect filtered at high speeds,
- Well-defined reading field in the vehicle lane.

Special Vehicles access control

- Simultaneous ID of tag holders and their vehicles,
- Tag identification in almost any position,
- Robust design,

Fleet management

- Long range identification of vehicles, at high speed,
- Many readers can be installed in the same area,
- Reader adapted to environment.

VERSIONS AVAILABLE

Part n°	Read distance 4m	Read distance 6m	Read distance 10m
Wiegand 26 bits, ISO2 & USB (for service)	LPR3033-B TTL	LPR3034-B TTL	LPR3035-B TTL
RS 232/422/485 Wiegand 26bits, ISO2 & USB (for service)	LPR3033-B RS	LPR3034-B RS	LPR3035-B RS
ETHERNET, RS 232/422/485 Wiegand 26bits, ISO2 & USB (for service)	LPR 3033-B ETH	LPR3034-B ETH	LPR3035-B ETH



Cautions

- Metal surfaces or persons coming between tags and the reading antennas create shadow zones in the identification area.
- The proximity of a tag and a metal or magnetic surface or a person (<5mm) reduces the reading distance.

