Quick Start Guide and Safety Manual
P/N CONVERTER* QUICKSTART – Rev -

CONVERTER* (LC-500)

COSASCO®

COSASCO
11841 Smith Avenue,
Santa Fe Springs, CA 90670
USA

Phone: 800-635-6898
Phone: 562-949-0123
Fax: 562-949-3065

Website: **www.Cosasco.com**
Sales Email: **Sales@Cosasco.com**
General Email: **RCS@Cosasco.com**

⚠ IMPORTANT NOTICE

This start guide provides basic guidelines for the CONVERTER* installation. Refer to the CONVERTER* Reference Manual for additional details including configuration, diagnostics, maintenance, service, troubleshooting, and installation.

No precautions against electrostatic discharge are necessary for equipment carried by the person that has an enclosure made of plastic metal or a combination of the two, except where a significant static-generating mechanism has been identified. Activities such as placing the item in a pocket or on a belt, operating a keypad or cleaning with a damp cloth, do not present a significant electrostatic risk. However, where a static-generating mechanism is identified, such as repeated brushing against clothing, then suitable precautions shall be taken, e.g. the use of anti-static footwear.

The cells in the battery compartment shall only be changed by trained service technicians.

⚠ WARNING

Explosions could result in death or serious injury
Installation of this CONVERTER* in an explosive environment must be in accordance with the appropriate local, national, and international standards, codes, and practices. Please review the Product Certifications section for any restrictions associated with a safe installation.

- Before connecting the CONVERTER* in an explosive atmosphere, ensure the instruments are installed in accordance with intrinsically safe field wiring practices.

Electrical shock can result in death or serious injury

- Avoid contact with the leads and terminals. High voltage that may be present on leads can cause electrical shock.

Use only with RCS Batteries P/N 095820 or P/N 095818, do not mix.

Intrinsic Safety Parameters:

Tx and Rx pins combined w.r.t. GND pin:				
Ui = 11.1 V	Ii = n/a	Pi = n/a	Ci = 0	Li = 35 nH
Uo = 11.1 V	Io = 22.5 mA	Po = 62.3 mW		

Tx pin w.r.t. Rx pin:				
Ui = 22.2 V	Ii = n/a	Pi = n/a	Ci = 0	Li = 35 nH
Uo = 22.2 V	Io = 11.3 mA	Po = 62.3 mW		

The load parameters are as follows:

Gas Group	Maximum external capacitance (Co)	Maximum external inductance (Lo)	Maximum external inductance to resistance ratio (Lo/Ro)
IIC	0.16 µF	70 mH	571 µH/Ω
IIB	1.11 µF	280 mH	2.28 mH/Ω
IIA	4.08 µF	560 mH	4.57 mH/Ω

Direct Transmitter Mounting

Typical Mounting: ML-9500B

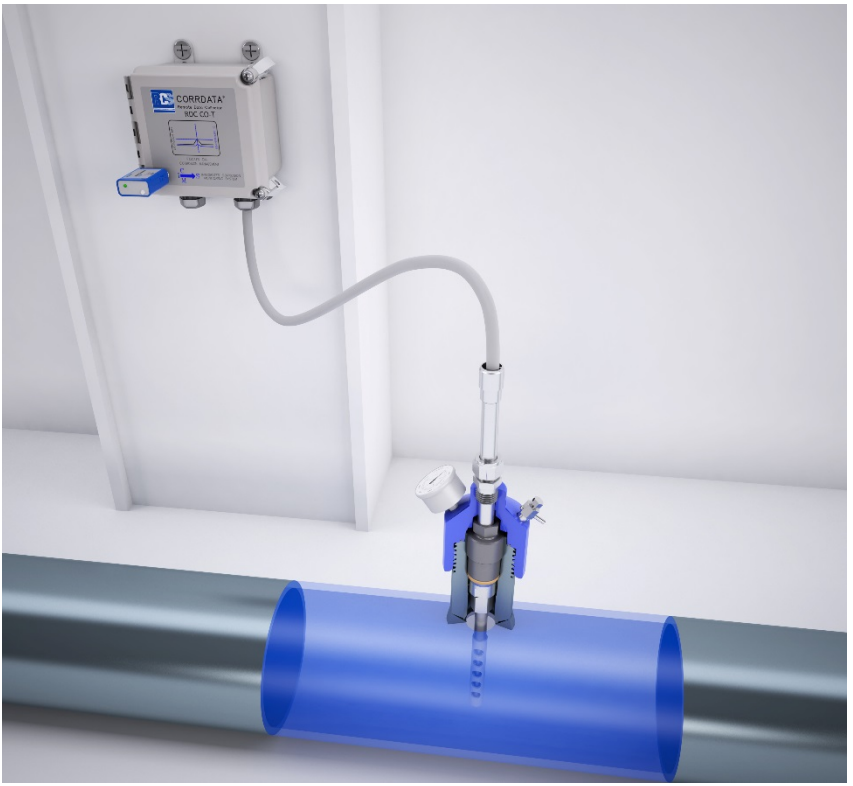
1. Attach CONVERTER* directly to Transmitter Communications Port.

Typical Mounting: MWT-3905-MDL

1. Attach CONVERTER* directly to Communications Port.

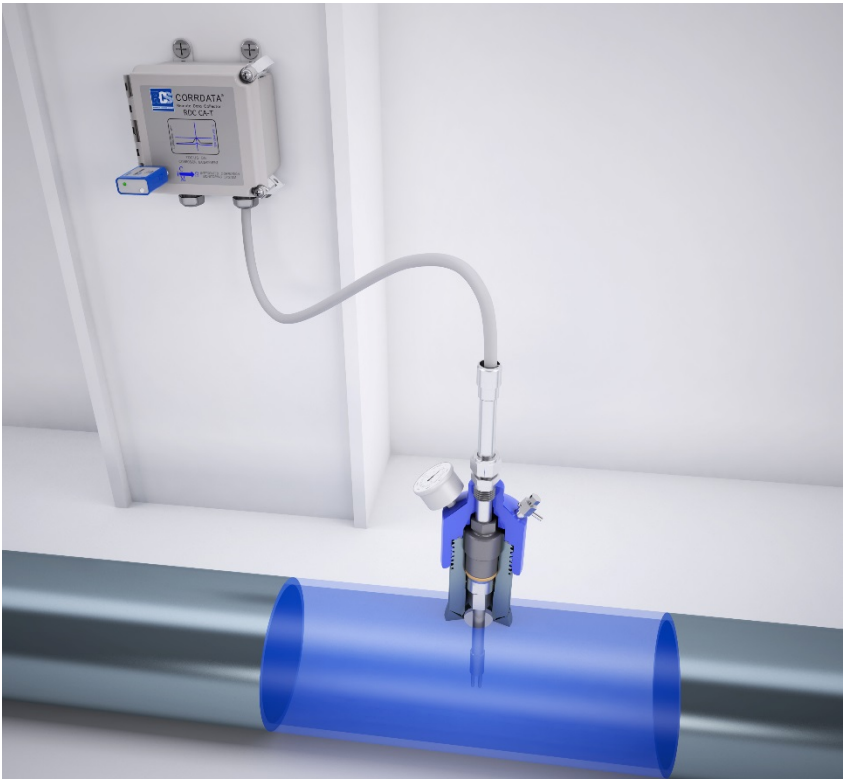
Typical Mounting: RDC-COT

1. Attach CONVERTER* directly to Communications Port.



Typical Mounting: RDC-CAT

1. Attach CONVERTER* directly to Communications Port.



PRODUCT CERTIFICATIONS

Product Name: CONVERTER* (Legacy Converter)
Model: LC-500

Approved Manufacturing Location

Rohrback Cosasco Systems, Inc. — Santa Fe Springs, California USA

Canadian Standard Association (CSA) Certification

The CONVERTER* has been examined and tested to determine that the design meets basic electrical, mechanical and fire protection requirements by CSA Approvals, a Nationally Recognized Testing Laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

European Union (EU) Directives

ATEX certification

SIRA 14 ATEX 2264X
Ex ib IIC T4 Gb, Ta = -40C to +70C
Enclosure: IP20
For use only with RCS Batteries P/N 095820 or P/N 095818, do not mix.

ATEX Directive 94/9/EC

The CONVERTER* complies with the European ATEX Directive and the following standards:

EN 60079-0:2012/A11:2013, Explosive atmospheres – Part 0: Equipment – General Requirements
EN 60079-11:2012, Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”

IEC Ex Certification

IECEx SIR 14.0097X
Ex ib IIC T4 Gb, Ta = -40C to +70C
Enclosure: IP20 Minimum
For use only with RCS Batteries P/N 095820 or P/N 095818, do not mix.

The CONVERTER* complies with the following IEC standards:

IECEx:
IEC 60079-0:2011, Edition 6.0, Explosive atmospheres – Part 0: Equipment – General Requirements
IEC 60079-11:2011, Edition 6.0, Explosive atmospheres – Part 11: Equipment protection by intrinsic safety “i”

North American Certifications

CSA Certification: 70008374
CSA_{US} Class I, Zone 1, AEx ib IIC T4 Gb, Ta = -40C to +70C
$_{C}$CSA Ex ib IIC T4 Gb Ta = -40C to +70C
Enclosure: IP20 Minimum
For use only with RCS Batteries P/N 095820 or P/N 095818, do not mix.

The CONVERTER* complies with the following North American standards:

US Approval:
ANSI/ISA-61010-1 3rd Edition, Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements – Third Edition
ANSI/UL 60079-0:2013, 6th Ed. Electrical Apparatus for Explosive Gas Atmospheres – Part 0: General Requirements
ANSI/UL 60079-11:2013, 6th Ed. Electrical apparatus for Explosive Gas Atmospheres – Part 11: Intrinsic safety "i"

Canadian Approval:
CAN/CSA-C22.2 No. 61010-1-12, Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 1: General Requirements – Third Edition
CAN/CSA-C22.2 No. 60079-0:11 Ed. 5, Explosive Atmospheres – Part 0: Equipment – General requirements
CAN/CSA-C22.2 No. 60079-11:14 Ed. 6, Explosive Atmospheres – Part 11: Equipment protection by intrinsic safety "i"

Electromagnetic Compatibility Directive (EMC) 89/336/EEC, Amended 91/263/EEC, 92/31/EEC and 93/97/EEC

The CONVERTER* complies with the European EMC Directive and the following standards:

EN 61326-1:2006, Electrical Equipment for Measurement and Control
EN 61000-4-2:1995, A1:1998, A2:2001, EMC: Electrostatic Discharge Immunity
EN 61000-4-3:2006, A1:2008, EMC: Radiated Radio Frequency Immunity
EN 61000-6-4:2007, EMC Radiated Emissions

Radio and Telecommunications Terminal Equipment Directive (R&TTE) 1999/S/EC

The CONVERTER* complies with the European R&TTE Directive.

Telecommunication Compliance

All wireless devices require certification to ensure that they adhere to regulations regarding the use of the radio frequency (RF) spectrum. Nearly every country requires this type of product certification. RCS is working with governmental agencies around the world to supply fully compliant products and to remove the risk of violating country directives or laws governing wireless device usage.

NOTES: