

OPERATION MANUAL

CMCP420VT-T Dual Parameter Loop Powered Transmitter

REV. G 5-19-2010



Hazardous Location Safety
E112798
Class 1, Div 2, Group B,C,D
24 VDC, 23 mA Max



Model Description:

The **CMCP420VT-T** is a solid state loop powered Velocity and Temperature Sensor. It provides a 4-20mA output that is proportional to overall vibration and temperature in terms of velocity and degrees Celsius or Fahrenheit. The CMCP420VT-T continuously monitors machinery health and transmits directly into a PLC or DCS for trending, alarm and machine shutdown.

Range:

4-20mA proportional to the full scale velocity and temperature range

CMCP420VT-T1 0-1.0 in/sec RMS (0-25.4mm) and 0-100°C (32-212°)

CMCP420VT-T2 0-2.0 in/sec RMS (0-50.8mm) and 0-100°C (32-212°)

Power Requirements

+22 to +36 VDC

R-Load

RLmax = 600 Ohms

The Recommended RL for most installations is: 250 Ohms or 100 Ohms, @ Vs = 24 Vdc

Loop Connections:

Loop + (V+)

Loop - (V-)

Dynamic Output

Temperature +(T+)

Temperature - (T-)

Case:

316 Stainless Steel

Mounting Options:

Supplied with ¼"-28 and ¼"-28 to M8 mounting studs

Dimensions:

Case: 2 5/8" H x 1 1/16" W

3/4" NPT Top Fitting

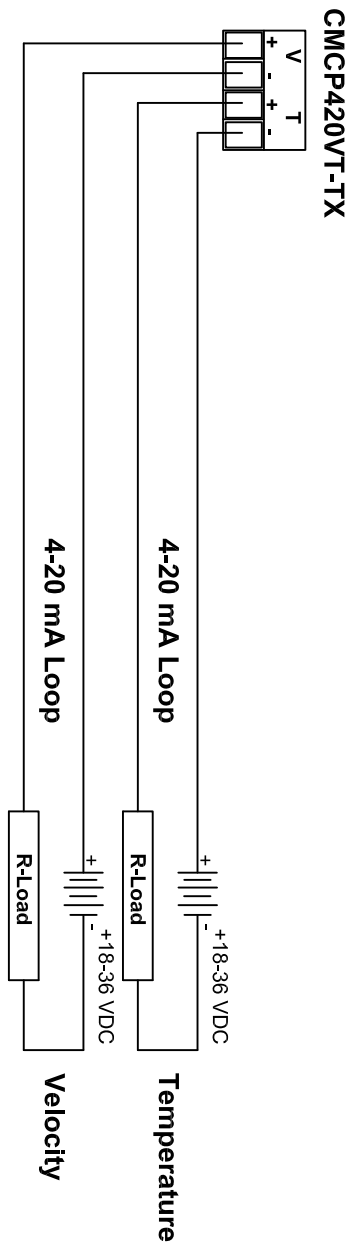
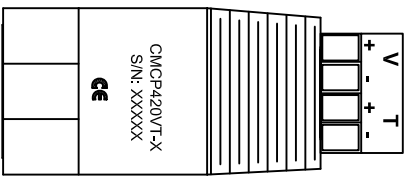
Terminal Strip: 1/2" H

Weight:

8 oz. without Display

8 7 6 5 4 3 2 1

Parameters:		
V	Velocity	4-20mA
T	Temperature	4-20mA



- Notes:
1. Power Requirements
+18 to 36 Vdc
 2. Maximum Load
600 Ohms max. @ Vs = 22 to 36 Vdc
300 Ohms max. @ Vs = 18 Vdc
 3. Grounding
Case Isolated

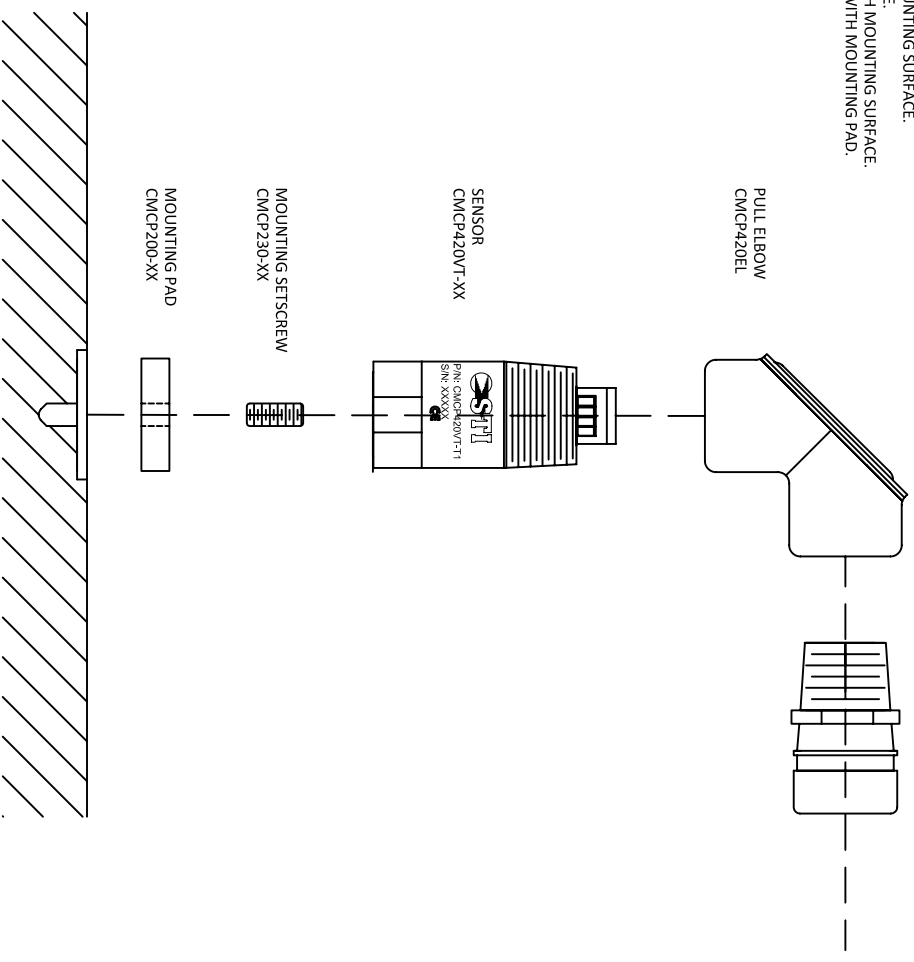
REV.	DATE	DESCRIPTION

DRAWN MDH		DATE 11/15/07		Sales Technology Inc. League City, Texas	
CHECK		SIZE		CMCP420 VT Connections	
DATE	APPN.	INCH. NO.	SCALE	NONE	SHEET 1 OF 1

8 7 6 5 4 3 2 1

CMCP420VT SERIES INSTALLATION AND ASSEMBLY

1. REMOVE ANY DEBRIS FROM THREADED HOLE DRILLED INTO MOUNTING SURFACE.
2. INSTALL SENSOR SETSCREW (CMCP230-XX) INTO THREADED HOLE.
3. THREAD MOUNTING PAD ONTO SETSCREW UNTIL CONTACT WITH MOUNTING SURFACE.
4. THREAD CMCP420VT ONTO SETSCREW UNTIL IT IS IN CONTACT WITH MOUNTING PAD.
MAX TORQUE 30 INCH-POUNDS
5. INSTALL CMCP420EL ONTO SENSOR.
6. USE WRENCH TO HOLD CMCP420VT WHILE TIGHTENING ELBOW.
7. IF USED, INSTALL THE CMCP420WF FITTING ON THE ELBOW.
FLEXIBLE CONDUIT CAN BE USED IN PLACE OF THE CMCP420EL.
8. REMOVE ELBOW COVER AND MAKE TERMINAL CONNECTIONS.



THIS DOCUMENT IS PROPERTY OF STI AND CANNOT BE UNDER ANY CIRCUMSTANCES COPIED OR USED FOR ANY UNAUTHORIZED PURPOSE. TRANSMISSION TO ANY THIRD PARTY WITHOUT APPROVAL FROM STI.

REV.	DATE	ISSUE	DESCRIPTION
1	11/18/09	ISSUE	ORIGINAL DRAWING

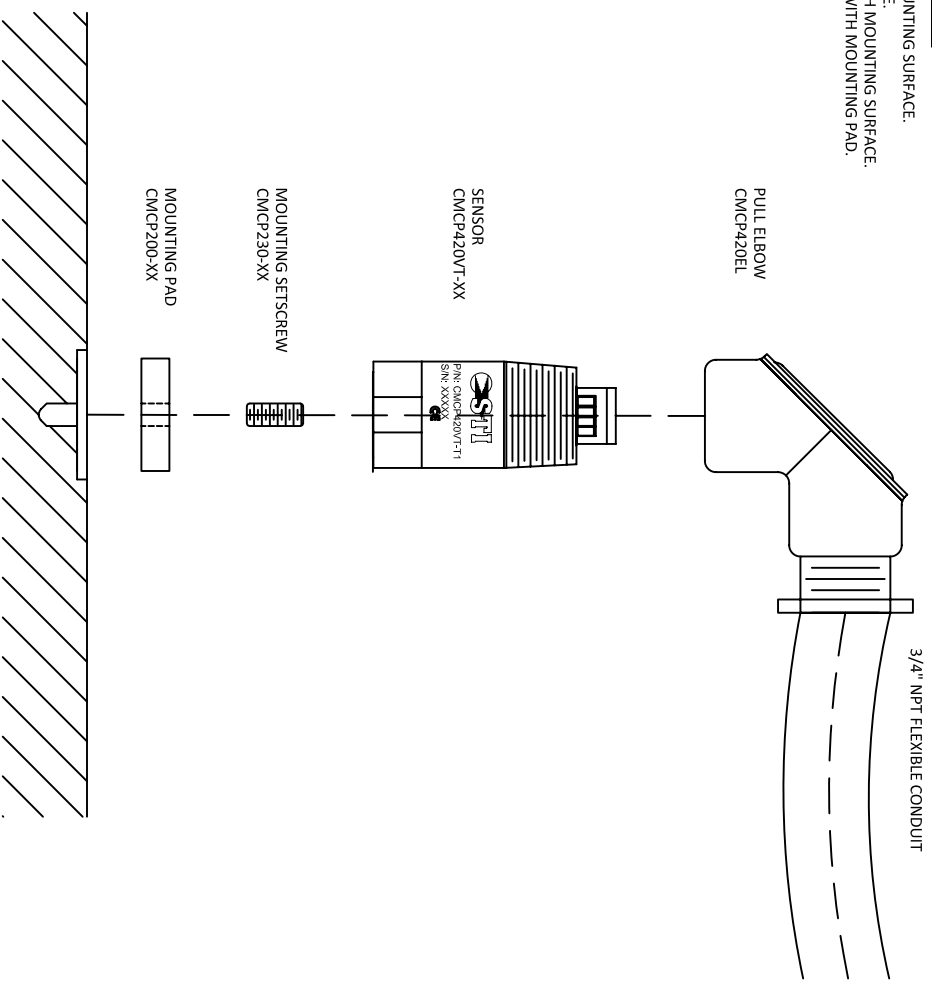
CUSTOMER LOCATION		DATE		STI		Sales Technology Inc. League City, Texas	
ORDER NO.		DATE	11/18/09	SCALE	NONE	SHEET	1 OF 1
SER. NO.		DATE	11/18/09	SCALE	1/8" = 1"	SHEET	1 OF 1
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES.		TOLERANCES:		DECIMALS		ANGLES	
FRACTIONS		.XX ± 0.01		.XXX ± 0.005		± 1.0	
FRACTIONS		.XXX ± 0.005		.XXX ± 0.005		± 1.0	
SCALE: NONE		SCALE: NONE		SCALE: NONE		SCALE: NONE	



Note:
1. OPTIONAL INSTALLATION TOOL KIT - CMCP200-01
2.
3.
4.

CMCP420VT SERIES INSTALLATION AND ASSEMBLY

1. REMOVE ANY DEBRIS FROM THREADED HOLE DRILLED INTO MOUNTING SURFACE.
2. INSTALL SENSOR SETSCREW (CMCP230-XX) INTO THREADED HOLE.
3. THREAD MOUNTING PAD ONTO SETSCREW UNTIL CONTACT WITH MOUNTING SURFACE.
4. THREAD CMCP420VT ONTO SETSCREW UNTIL IT IS IN CONTACT WITH MOUNTING PAD.
MAX TORQUE 30 INCH-POUNDS
5. INSTALL CMCP420EL ONTO SENSOR.
6. USE WRENCH TO HOLD CMCP420VT WHILE TIGHTENING ELBOW.
7. REMOVE ELBOW COVER AND MAKE TERMINAL CONNECTIONS.



THIS DOCUMENT IS PROPERTY OF STI AND CANNOT BE UNDER ANY CIRCUMSTANCES COPIED OR USED FOR ANY UNAUTHORIZED PURPOSE. TRANSMISSION TO ANY THIRD PARTY WITHOUT APPROVAL FROM STI.

REV.	DATE	ISSUE	DESCRIPTION
1	11/18/09	ISSUE	ORIGINAL DRAWING

CUSTOMER LOCATION		DATE		11/18/09	
ORDER NO.		DATE		11/18/09	
SR. NO.		DATE		11/18/09	
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES.		DATE		11/18/09	
FRACTIONS: .XX ± 0.01		DATE		11/18/09	
DECIMALS: .XXX ± 0.005		DATE		11/18/09	
ANGLES: ± 1.0		DATE		11/18/09	
TOLERANCES: .XXX ± 0.005		DATE		11/18/09	
ALL DIMENSIONS ARE IN INCHES.		DATE		11/18/09	
SCALE: NONE		DATE		11/18/09	



Sales Technology Inc.
League City, Texas

CMCP420VT SERIES ASSEMBLY
VTINSTALL003
SHEET 1 OF 1

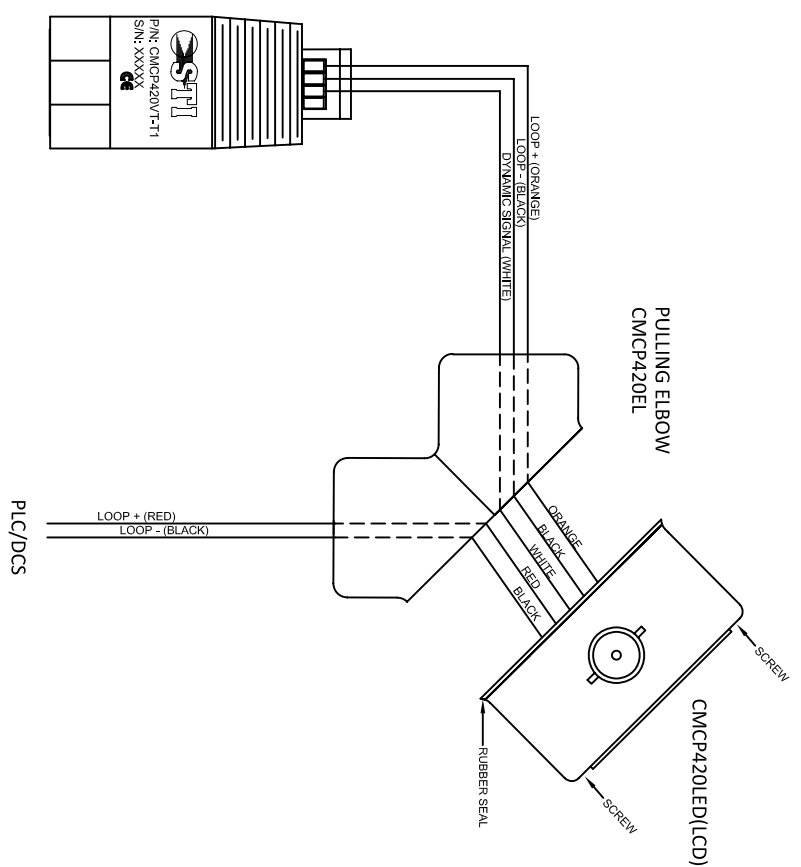


- Notes:
1. OPTIONAL INSTALLATION TOOL KIT - CMCP200-01
 - 2.
 - 3.
 - 4.

8 7 6 5 4 3 2 1

CMCP420VTLCD) INSTALLATION AND ASSEMBLY

1. REMOVE TWO (2) SCREWS FROM CMCP420LED(LCD) THAT CONNECT ELBOW
2. INSERT WIRES FROM CMCP420(LCD) THROUGH ELBOW
3. CONNECT WIRES TO CMCP420VT
4. SLIDE ELBOW DOWN WIRES AND TIGHTEN TO CMCP420LED(LCD)
5. USE WRENCH TO HOLD CMCP420VT WHILE TIGHTENING ELBOW
6. CONNECT PLC/DCS WIRES TO CMCP420LED
7. ATTACH CMCP420LED(LCD) BACK TO ELBOW
8. CONNECT RIGID OR FLEXIBLE CONDUIT TO ELBOW



Note:
 1. USE 20AWG TWISTED SHIELDED CABLE
 2.
 3.
 4.

REV.	DATE	DESCRIPTION
1	1/17/10	ORIG. DRAWING

THIS DOCUMENT IS PROPERTY OF STI AND CANNOT BE UNDER ANY CIRCUMSTANCES COPIED OR USED FOR ANY UNAUTHORIZED PURPOSE. TRANSMISSION TO ANY THIRD PARTY WITHOUT APPROVAL FROM STI.

CUSTOMER LOCATION	ORDER NO.	DATE	1/25/10	DATE	1/25/10	SCALE: NONE	SHEET 1 OF 1
SR. NO.	UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE INCHES.	DATE	1/25/10	DATE	1/25/10	SCALE: NONE	SHEET 1 OF 1
FRACTIONS .XX ± 0.01	TOLERANCES: .XX ± 0.01	DATE	1/25/10	DATE	1/25/10	SCALE: NONE	SHEET 1 OF 1
DECIMALS .XXX ± 0.005	ANGLES ± 1.0	DATE	1/25/10	DATE	1/25/10	SCALE: NONE	SHEET 1 OF 1
		DATE	1/25/10	DATE	1/25/10	SCALE: NONE	SHEET 1 OF 1



Sales Technology Inc.
 League City, Texas

CMCP420LXD SERIES WIRING
 VTLXDWRING001

8 7 6 5 4 3 2 1