

Integration Solution For SKF Multilog On-line System IMx-8

CMCP9000 Series Enclosures For SKF Multilog On-line System IMx-8

Features

- For Easy Implementation of up to eight IMx-8's
- Fiberglass, Painted Steel, and Stainless-Steel Enclosure Options
- Pre-Assembled Panel with Din Rail, Wire Duct and Power Distribution Terminals
- Power Supply, Network Switch and Ground Bar Included
- Optional Communication modules (Wi-Fi and/or Cellular)
- Optional Touchscreen (HMI)



Description

STI's CMCP9000 Series Enclosures were designed to allow for an easy implementation of SKF's Multilog On-line System IMX-8. Enclosures are available for up to 8 IMx's and are either NEMA 4X Fiberglass, NEMA 4 Painted Steel or NEMA 4X Stainless Steel, all rated for IP67.

The series ranges from basic enclosures with DIN-Rails to preconfigured systems with communications modules, just add the IMx-8 modules and ready to go.



CMCP9000PS-Base

The basic enclosures are for integration of up to 2 IMx-8 in the field, come equipped with DIN-Rails and a ground bar.

Overall Dimensions are 16" x 14" x 8"
(406 x 356 x 203 mm) for all base enclosures:
CMCP9000FG-Base Fiberglass, CMCP9000PS-Base
Painted Steel and CMCP9000SS-Base Stainless
Steel.

The preconfigured systems come with internal panels prepared with TS35 Din Rail for mounting the IMx and wire duct for routing wires. A premium 100-240VAC input, 24VDC output power supply, sized appropriately for the equipment in the enclosure, is provided along with a network switch and high-quality ground bar. Power distribution terminals make it easy to route the 24 VDC power to each IMx using the supplied field wiring kit. Additional distribution terminals are provided for powering the available optional wireless communication modules, local Touch Screen PC's (HMI) or any other 24 VDC powered device.

Specifications

Enclosure Material

9000FG Series: NEMA 4X Fiberglass
9000PS Series: NEMA 4 Painted Steel
9000SS Series: NEMA 4X Stainless Steel

High-Performance Power Supply

Rating:

1 IMx (Low Cost):	3.5 Amps
1-2 IMx System:	3.5 Amps
3-4 IMx System:	5 Amps
5-8 IMx System:	10 Amps

Average Enclosure Dimensions:

*Refer to Drawing for Actual

Dimensions

1 IMx (FG):	16"x14"x10"
1-2 IMx's:	20"x20"x8"
3-4 IMx's:	36"x24"x8"
5-8 IMx's:	36"x30"x8"

AC Power Input: 100-240 VAC ($\pm 15\%$)
Output: 24 VDC ($\pm 20\%$ Adjustable)
Temperature Range: -25 to +70°C
Ratings: Class 1 Division 2 Approved

Network Switch

Ports:

1 IMx System:	Switch Not Provided
1-2 IMx System:	6 Port
3-4 IMx System:	6 Port
5-8 IMx System:	16 Port
Temperature Range:	-25 to +70°C
Ratings:	Class 1 Division 2 Approved

Optional WIFI Communications Module:

Manufacturer:	Phoenix Contact
Part Number:	WLAN 2101
Type:	IEEE 802.11a/b/g/n
	2.4 GHz and 5 GHz

Rate:	300 Mbps
Temperature Range:	0 to +75°C
Antennas:	Internal Antenna
Power:	+24 VDC From Enclosure Power Supply

Mounting: External, screw mount (top of enclosure) - Preinstalled



Optional Cellular Communications:

Part Number:	MOXA G3470A-LTE-US-T
Type:	4G LTE (Verizon)
Download Rate:	42 Mbps
Upload Rate:	5.76 Mbps
Temperature Range:	-30 to +70°C
Antennas:	1 External Antenna Kit provided
Power:	+24VDC From Enclosure Power Supply
Mounting:	Din Rail Mountable (inside enclosure) - Preinstalled

Note: This cellular communications module is provided without a SIM card and for use on Verizon's 4G LTE network only.

Human Machine Interface (HMI) Option For SKF Multilog On-line System IMx-8

SKF Multilog IMx-8 provides a complete system for early fault detection. The compact device offers 8 analogue and 2 digital channels, with connectivity to mobile devices, laptops as well as Human Machine Interface devices for easy configuration and local monitoring. The HMI Touch Screen continuously monitors inputs from an IMx-8 based system.

HMI Features

- 9" or 15" Color Touch Screen
- Daylight Visible, Outdoor Approved Display
- Easy Setup in Field Setup
- CE and Class 1 Division 2
- Built in Web Server (Remote Viewing)
- Four Alarms per Channel (2 High, 2 Low)
- Meter and Bar Graph Displays
- Alarm and Event List
- 16 Pin Trending
- Email and SMS Text Alerts
- Modbus TCP/IP or RTU Input



HMI Touch Screen

Description

The HMI Touch Screen connects to the IMx-8's via Modbus TCP/IP or Modbus RTU. The HMI is easily configured in the field to accept any input by selecting and entering the appropriate values in the HMI. The HMI is preconfigured to accept 8, 16, 32 or 64 inputs.

The HMI uses a 9" or 15" color touch screen with high resolution. The HMI's built in Web Server allows remote viewing (or editing) by any internet connected PC or Smart Phone. The HMI is available mounted in a CMCP9000 enclosure, or standalone with just the Display mounting on an existing enclosure. Standard System HMI Screens include Meter Display, Alert Bar Graph, Danger Bar Graph, Alarm List, Event List and Setup.

Application specific machine mimic screens are available upon request and can be easily uploaded to an existing HMI via USB.

More information can be found on STI's website (<http://www.stiweb.com>) under Monitoring Systems, click on CMCP7500MMS 32 Channel Monitor to find more detailed information and a link to a live demo.



CMCP7500MMS 32 Channel Monitor

(http://www.stiweb.com/CMCP7500MMS_Machinery_Monitoring_System_p/cmcp7500mms.htm)

Ordering Information

Low Cost Base Enclosures

CMCP9000XX -BASE

Part ID	Description
CMCP9000FG-BASE	NEMA 4X Fiberglass, Basic Enclosure for up to 2x IMX-8, DIN-Rail and Ground bar
CMCP9000PS-BASE	NEMA 4 Painted Steel, Basic Enclosure for up to 2x IMX-8, DIN-Rail and Ground bar
CMCP9000SS-BASE	NEMA 4X Stainless Steel Basic Enclosure for up to 2x IMX-8, DIN-Rail and Ground bar

Fiberglass Enclosure, 1 IMx Only

CMCP9000FG -XX-XXXXX

Part ID	Description
CMCP9000FG-00-00	NEMA 4X Fiberglass Enclosure for One IMX-8, no communication module & no HMI. 3.5 Amp Universal Power Supply
CMCP9000FG-4GLTE-00	NEMA 4X Fiberglass Enclosure for One IMX-8, Verizon Cell Modem & no HMI. 3.5 Amp Universal Power Supply
CMCP9000FG-WIFI-00	NEMA 4X Fiberglass Enclosure for One IMX-8, Wifi communication module & no HMI. 3.5 Amp Universal Power Supply
CMCP9000FG-00-HMI9	NEMA 4X Fiberglass Enclosure for One IMX-8, no communication module & 9" HMI Mounted in Door. 3.5 Amp Universal Power Supply
CMCP9000FG-WIFI-HMI09	NEMA 4X Fiberglass Enclosure for One IMX-8, Wifi module & 9" HMI Mounted in Door. 3.5 Amp Universal Power Supply
CMCP9000FG-4GLTE-HMI15	NEMA 4X Fiberglass Enclosure for One IMX-8, Verizon Cell Modem & 15" HMI Mounted in Door. 3.5 Amp Universal Power Supply

NEMA 4 Painted Steel Enclosure Examples

CMCP9000PS-X-XXX-XXXXX

Part ID	Description
CMCP9000PS-2-00-00	NEMA 4 Painted Steel Enclosure for up to 2x IMX-8, no communication module & no HMI. 6 Port Network Switch, 3.5 Amp Universal Power Supply
CMCP9000PS-4-00-00	NEMA 4 Painted Steel Enclosure for up to 4x IMX-8, no communication module & no HMI. 6 Port Network Switch, 5 Amp Universal Power Supply
CMCP9000PS-8-00-00	NEMA 4 Painted Steel Enclosure for up to 8x IMX-8, no communication module & no HMI, 16 Port Network switch, 10 Amp Universal Power Supply
CMCP9000PS-2-LTE-00	NEMA 4 Painted Steel Enclosure for up to 2x IMX-8, 4G LTE Cell Modem & no HMI. 6 Port Network Switch, 3.5 Amp Universal Power Supply
CMCP9000PS-4-LTE-HMI09	NEMA 4 Painted Steel Enclosure for up to 4x IMX-8, 4G LTE Cell Modem & 9" HMI Mounted in Door. 6 Port Network Switch, 5 Amp Universal Power Supply
CMCP9000PS-8-LTE-HMI15	NEMA 4 Painted Steel Enclosure for up to 8x IMX-8, 4G LTE Cell Modem & 15" HMI Mounted in Door. 16 Port Network switch, 10 Amp Universal Power Supply

NEMA 4X Stainless Steel Enclosure Examples

CMCP9000SS-X-XX-XXX-XXXXX

Part ID	Description
CMCP9000SS-2-00-00	NEMA 4X Stainless Steel Enclosure for up to 2x IMX-8, no communication module & no HMI. 6 Port Network Switch, 3.5 Amp Universal Power Supply
CMCP9000SS-4-00-00	NEMA 4X Stainless Steel Enclosure for up to 4x IMX-8, no communication module & no HMI. 6 Port Network Switch, 5 Amp Universal Power Supply
CMCP9000SS-8-00-00	NEMA 4X Stainless Steel Enclosure for up to 8x IMX-8, no communication module & no HMI. 16 Port Network switch, 10 Amp Universal Power Supply
CMCP9000SS-2-LTE-00	NEMA 4X Stainless Steel Enclosure for up to 2x IMX-8, 4G LTE Cell Modem & no HMI. 6 Port Network Switch, 3.5 Amp Universal Power Supply
CMCP9000SS-4-LTE-HMI09	NEMA 4X Stainless Steel Enclosure for up to 4x IMX-8, 4G LTE Cell Modem & 9" HMI Mounted in Door. 6 Port Network Switch, 5 Amp Universal Power Supply
CMCP9000SS-8-LTE-HMI15	NEMA 4X Stainless Steel Enclosure for up to 8x IMX-8, 4G LTE Cell Modem & 15" HMI Mounted in Door. 16 Port Network switch, 10 Amp Universal Power Supply

Accessories

Industrial Accelerometers

Sensitivity 100 mV/g
Rated to 140°C
Frequency Range:
0.8 to 15 kHz



CMCP785A

Low Profile, Side Entry
1/4-28 UNF
Captive Bolt



CMCP786A

Top Entry
1/4-28 UNF
Mounting Stud

Industrial Cable Connector Assemblies

2-PIN MS Connector



CMCP602LST

General
Purpose TPE
Rated to 125°C

CMCP602HST

High
Temperature FEP
Rated to 200°C

Dual Output Sensors (Vibration & Temperature)

Sensitivity 100 mV/g
10 mV/°C Temperature Output
Rated to 140°C
Frequency Range:
0.8 to 15 kHz



CMCP785T

Low Profile, Side Entry
1/4-28 UNF
Captive Bolt



CMCP786T

Top Entry
1/4-28 UNF
Mounting Stud

Industrial Cable Connector Assemblies

3-PIN MS Connector



CMCP603LST

General
Purpose TPE
Rated to 125°C

CMCP603HST

High
Temperature FEP
Rated to 200°C

Tachometers



CP-I5565

Inductive Speed Sensor
10 Meter Integral Cable
2 Wire Connection



CP-I5597

Inductive Speed Sensor
M12 Connector (use CMCP605M Cable)
2 Wire Connection

Appendix A Application Note

Customer: SKF USA
Contact: SKF USA Inc. – Strategic Sales & Services
End User: Gear Manufacturing Facility

Application: Single (1) IMx-8 installed in NEMA 4X fiberglass enclosure.
IMx-8 installed in enclosure along with 24 VDC power supply, ethernet switch and ground bar. IMx-8 to communicate to HMI via Modbus RTU so TCP ethernet can remain on DHCP network.



CMCP9000FG-00-HMI09
Front View



CMCP9000FG-00-HMI09 Inside View