Metacentre™ CX, CX auxiliary I/O – T80
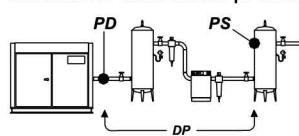
Identification:	Metacentre™ CX, CX auxiliary I/O
Part number:	Refer to Product guide / price list for specific part number or contact dealer
Product Family:	Metacentre™
Definition:	Interface control & monitoring device for variable output compressor connectivity with Metacentre™ SX & XC management system units
Function:	Metacentre™ CX is an advanced compressor interface control & monitoring device with features & functions for regulation & monitoring a compressor equipped with a compatible variable output regulation system
EX Capacity:	Up to 1 air / gas compressor or vacuum pump
Compressor connectivity:	Metacentre™ CX Terminal board & dedicated compressor interface (iPCB)
Supported protocol:	Airbus RS485™ & Modbus RTU via dedicated network gateway
Software:	Pre-programmed application software, configurable via password protected operator interface

Product overview:

Metacentre™ CX is an advanced compressor interface control & monitoring device with inherent functionality for monitoring and regulation of a compressor that is equipped with a compatible variable output regulation system
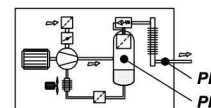
Metacentre™ CX provides optional 'local pressure sensor' connections. The compressor delivery pressure (PD), local system pressure (PS) and air treatment differential pressure (DP) can be monitored and displayed. The detected local pressure (delivery or system) is available on the system network and can be utilised by a Metacentre™ management system unit for advanced pressure related functions. A local air treatment differential pressure alarm can also be implemented.

Metacentre™ CX provides 'Internal' reclaimer vessel, or sump, pressure detection. The differential pressure between the internal pressure (PI) and delivery pressure (PD) can be monitored and displayed. An internal air/oil filtration differential pressure alarm, and excessive internal pressure alarm, can be implemented.

Metacentre™ CX is equipped with several digital (remote volt-free contact) and analogue temperature/pressure inputs. Each can be set to monitor and display status or value with the option to respond with an Alarm(Warning) or Trip(Shutdown) condition. With the addition of the optional CX Expansion Box, additional digital and analogue inputs can be made available.
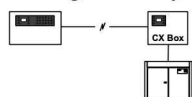
Metacentre™ CX is equipped with a 'compressor control mode'. This mode enables total control and monitoring of a compressor unit that is not equipped with its own control system (including Star/Delta motor / contactor control, fan motor / contactor control and Load solenoid control).

Interface Mode: Regulation Types

Metacentre™ CX provides advanced monitoring and control functionality for the following compressor types:

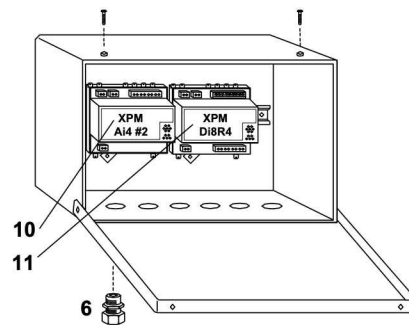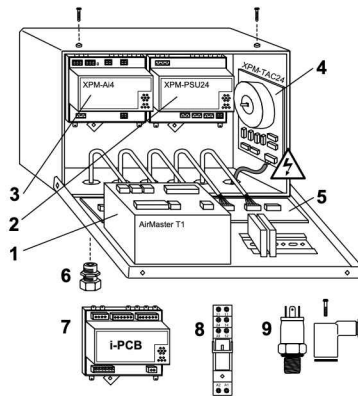|	
Load/Unload (L mode):	For a compressor equipped with single pressure switch or remote load/unload digital input, regulation.
3-Step (3S mode):	For a 3-step reciprocating type compressor fitted with two pressure switches.
5-Step (5S mode):	For a 5-step reciprocating type compressor fitted with four pressure switches.
Poppet Valve (V mode):	Rotary Screw; where each valve can be energised from a volt-free relay contact. The CX Box can accommodate 2 valve, 3 valve and 4 valve regulation systems.
Modulation Valve (AR mode):	Rotary Screw or Vane; where the modulation valve can be controlled with the use of a 4-20mA proportional pressure regulation valve.
Spiral Valve (AR mode):	Rotary Screw; where a pressure activated spiral valve can be controlled with the use of a 4-20mA proportional pressure regulation valve.
VSD (AR mode):	Inverter Drive; where the inverter drive can be regulated from a 4-20mA signal

Management System Connectivity:

The CX Box connects to a Management System using an industrial two wire RS485 data network (Airbus RS485™) up to 500m (1650ft) in length.

Product Family:	Metacentre™
Definition:	Interface control & monitoring device for variable output compressor connectivity with Metacentre™ SX & XC management system units
Function:	Metacentre™ CX is an advanced compressor interface control & monitoring device with features & functions for regulation & monitoring a compressor equipped with a compatible variable output regulation system
CX Capacity:	Up to 1 air / gas compressor or vacuum pump
Processor:	16bit ST10 Micro-processor
Op. interface:	128 x 64 graphical back lit LCD
Software:	Pre-programmed application software, configurable via password protected operator interface
Protocol:	Air RS485 bus & Modbus RTU via dedicated network gateway
Supply / Power:	230Vac +/- 10%, 115Vac +/- 10%, 50VA
Enclosure rating:	IP54 / NEMA12
Dimensions:	Height: 236mm (9.45") x Width: 286mm (11.45") x Depth: 152mm (6")
Access:	Front, lockable, hinged access panel
Cable entry:	Bottom, gland cable entry system
Weight:	6.4kg (14lb)
Mounting:	Wall, 4 x screw fixing
Temperature:	Min 0°C (32°F), Max +46°C (115°F)
Humidity:	95% RH non-condensing
Approvals:	CE, UL, cUL

1 Unit, Controller, T1 CX	5 PCB, Terminal
2 Unit, XPM – PSU24	6 Gland, Set – Pg13.5
3 Unit, XPM– Ai4	7 Unit, iPCB (CX Box c/w 2 iPCB units)
4 Unit, XPM – TAC24	8 Relay, 24vAC (purchased separately)

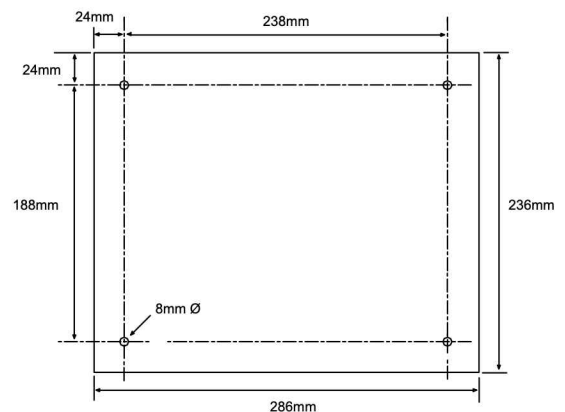| |
|---|
| 9 Sensor, pressure (purchased separately) |
| 10 Unit, XPM – Ai4 |
| 11 Unit, XPM – Di8R4 |

Metacentre™ CX & Metacentre™ CX I/O input /output options:

Input:

3 x Auxiliary fault inputs
1 x Inhibit fault function input
1 x Speed detection input (for use with VSD output monitoring kits)
4 x Analogue inputs – temperature
4 x Analogue inputs – temperature (Metacentre™ CX – I/O)
8 x Auxiliary fault inputs (Metacentre™ CX – I/O)

Output:

1 x 24vAC remote volt free output function contact
2 x Auxiliary volt free relay contact outputs
4 x Auxiliary volt free relay contact outputs (Metacentre™ CX – I/O)

Metacentre™ CX is equipped with several digital (remote volt-free contact) and analogue temperature / pressure sensor inputs. Each can be set to monitor and display status or value with the option to respond with an Alarm (Warning) or Trip (Shutdown) condition. With the addition of the optional Metacentre™ CX – I/O, additional digital and analogue inputs can be made available