



 Gachsaran Polymer Industries Company PIDMCO	Gachsaran Polymer Industries Company HDPE Plant I/O List		
		 	
PO No: GPIC-PT-MA-PO-000-3029	Document Number: VD-GPIC-MA-3029-3029-0045	Rev. 01	Page 1 of 5

EL:
 It seems that start and stop commands from UCP to MCC have been deleted from this document!
 It is not acceptable and all required signals between UCP and MCC shall be considered in this document, otherwise, the responsibility of any consequences is by vendor.
 Vendor Reply: Noted. It will be rechecked.

I/O List

Code1	<input type="checkbox"/> No Comment/ Approved (Applicable Only for "FOR REVIEW" and "For Approval" Documents) No comment and the document are released for Manufacturing.
Code2	<input type="checkbox"/> No Comment/ Approved with Note(s) Vendor/Sub-Contractor shall correct, revise and resubmit the document. The document is released for Manufacturing if changes incorporated.
Code3	<input checked="" type="checkbox"/> Commented Vendor/Sub-Contractor shall correct, revise and resubmit the document by the date specified. The document shall be revised under the Status of "R: Revised Issue". All corrected documents shall be resubmitted before starting the Manufacturing Process.
	<input type="checkbox"/> Not Accepted (Rejected) Vendor/Sub-Contractor shall re-work / re-design / re-specify the contents of the document according to reasons for rejection. Documents shall be resubmitted before starting the manufacturing. Vendor/Sub-Contractor shall submit the document with subsequent works of Material Supply or Manufacturing until receiving Code1/Code2 from PURCHASER. Vendor/Sub-Contractor shall resubmit the document with the same 5 working days after receiving comments.
	for "For Information" Documents and "As Built DWGs") been submitted for PURCHASER's Information (FI). Consistency, completeness and document content is in Vendor/Sub-Contractor's responsibility.
	may relieve Vendor of any liability, obligation and responsibility out of the purchase order and the mutual agreement in writing.
 Energy Industries Engineering & Design co.	Date: Nov. 19, 2025 Dept.: MA Signature: F.Hamooni

EL(repeated comment):
 Winding RTD signals shall be added for all MV motors (from motor RTD terminal Box to MCC).
 Vendor Reply: Already it has been considered in electrical cable list. no need to consider this signals in IO. required signals from MCC to UCP and from UCP to MCC will be considered in IO.

05					
04					
03					
02					
01	3-Nov-25	IFR	A.M	F.T	A.M
00	8-Jul-25	IFR	A.M	F.T	A.M
Rev.	DATE	PURPOSE OF ISSUE	PREPARED	CHECKED	APPROVED



Repeated comment: Instead of "dry contact" this column shall be filled as follows:
 NO: Normally Open
 NC: Normally Close
 - Digital Output:
 NDE: Normally De- Energize (Horn, lamp, etc.)
 NE: Normally Energize (Trip Signal, Solenoid Valves, etc.)
 Vendor Reply: Noted

I/O List

FOR PROJECT: Gachsaran Polymer Industries Company (GPIC)
 P.O No. HDPE ITEM: F
 SITE: GPIC DD MA REQ 000 3029
 SERVICE: Propylene Refrigeration Package

TAG	SERVICE	PID DWG No.	TYPE	FROM	TO	DESCRIPTION	Engineering units	LOCATION	JB No.	SIGNAL CATEGORY	SIGNAL	RELAY	OUTPUT	POWER SUPPLY	TYPE	SERIAL	IS/NS	RACK	SLOT	CHANNEL	STATE	REMARK	
ESD																							
Vendor Reply: Noted																							
ESD																							
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I/O List

FOR PROJECT: Gach saran Polymer Industries Company (GPIC)
 P.O No. HDPE ITEM: PK-6101
 SITE GPIC DD MA REQ 000 3029
 SERVICE Propylene Refrigeration Package

TAG	SERVICE	PID DWG No.	TYPE	FROM	TO	DESCRIPTION	Engineering units	LOCATION	JB No.	SIGNAL CATEGORY	SIGNAL	RELAY OUTPUT	POWER SUPPLY	RACK	SLOT	CHANNEL	OFF	ON				
Card Type: Digital IN/ 16																						
Card Type: Digital OUT/ 16																						
YH-6101B	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	LCP-6101A	COMPRESSOR -A- RUNNING		COMP SKID	LCP-6101A	DO	24VDC											
YH-6101B	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	LCP-6101A	COMPRESSOR -A- AVAILABLE/FAULT		COMP SKID	LCP-6101A	DO	24VDC											
YH-6101B	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	LCP-6101B	COMPRESSOR -B- RUNNING		COMP SKID	LCP-6101A	DO	24VDC											
YH-6101B	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	LCP-6101B	COMPRESSOR -B- AVAILABLE/FAULT		COMP SKID	LCP-6101A	DO	24VDC											
XA-61195	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	UCP-6101	ENCLOSURE FANS ON/OFF - 1		SPARE	UCP-6101	DO	24VDC											
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	6					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	7					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	8					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	9					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	10					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	11					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	12					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	13					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	14					
						SPARE		SPARE	UCP-6101	DO	24VDC	PW400			2	6	15					
Card Type: Digital OUT/ 16																						
XV-61111	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	FIRLD	COMPRESSOR -A- SLID		COMP SKID	JB-UCP-61112	DO	24VDC	WET CONTACT	PW400	H	NIS	2	7	0	OFF	ON		
XV-61112	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	FIRLD	COMPRESSOR -A- SLID		COMP SKID	JB-UCP-61112	DO	24VDC	WET CONTACT	PW400	H	NIS	2	7	1	OFF	ON		
XV-61111	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	FIRLD	COMPRESSOR -B- SLID		COMP SKID	JB-UCP-61112	DO	24VDC	WET CONTACT	PW400	H	NIS	2	7	2	OFF	ON		
XV-61112	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	FIRLD	COMPRESSOR -B- SLID		COMP SKID	JB-UCP-61112	DO	24VDC	WET CONTACT	PW400	H	NIS	2	7	3	OFF	ON		
XV-61151	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	FIRLD	OIL RECOVERY VALVE		VESSELS SKID	JB-UCP-61152	DO	24VDC	WET CONTACT	PW400	H	NIS	2	7	0	OFF	ON		
XV-61152	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	FIRLD	OIL RECOVERY VALVE		VESSELS SKID	JB-UCP-61152	DO	24VDC	WET CONTACT	PW400	H	NIS	2	7	1	OFF	ON		
						SPARE		SPARE	UCP-6101	DO	24VDC					2	7	3				
						SPARE		SPARE	UCP-6101	DO	24VDC					2	7	4				
						SPARE		SPARE	UCP-6101	DO	24VDC					2	7	5				
XA-61101	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	DCS	COMPRESSOR -A- TRIP COMPRESSOR			UCP-6101	DO	24VDC	DRY CONTACT	PW400	H		5	NIS	2	7	6	OFF	ON
XA-61102	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	DCS	COMMON -A- ALARM COMPRESSOR			UCP-6101	DO	24VDC											
XA-61103	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	DCS	COMPRESSOR -B- TRIP COMPRESSOR			UCP-6101	DO	24VDC											
XA-61104	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	DCS	COMMON -B- ALARM COMPRESSOR			UCP-6101	DO	24VDC											
UA-61199	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	DCS	PLC FAULT			UCP-6101	DO	24VDC											
UA-61114	Propylene	VD-GPIC-MA-3029-3029-0015	BOOL	UCP-6101	DCS	INTERLOCK ACTIVATED			UCP-6101	DO	24VDC											

DOR
Vendor Reply: For critical IO and closed loop as per MAYEKAWA design concept will be considered. no need to redundancy for this signals

612
Vendor Reply: Noted

622
Vendor Reply: Noted

652
Vendor Reply: Noted


Repeated comment: Redundancy shall be considered for critical I/O and closed loops. In this case DIR, DOR, AIR, AOR shall be mentioned in this column instead of DI, DO, AI, AO.
Vendor Reply: Noted. for critical IO and closed loop as per MAYEKAWA design concept will be considered

PLC I/O LIST
COUNT IS PER UNIT

AI : Analog Input
 AO : Analog Output
 H : Hardwire
 S : Serial
 DI : Digital Input
 DO : Digital Output
 MCC : Motor Control Center
 UCP-6101 : Unit Control Panel
 LCP : Local Control Station
 PLC : Programmable Logic Controller
 PW400 : POWER SUPPLY 400 W

This IO List is a document containing list of instrumentation which is

These signals are not in the P&ID and shall be added to P&ID if they are required.
Vendor Reply: Noted. PID is correct and these signals are deleted from IO list

				Document No.: VD-GPIC-MA-3029-0045	
NO.	BY	APP	DATE	P.O.I	
00	FAD	IMA	09/07/2025	IFR	
01	FAD	IMA	03/11/2025	IFR	

I/O List

FOR PROJECT: Gachsaran Polymer Industries Company (GPIC)
 P.O No. HDPE ITEM: PK-6101
 SITE: GPIC DD MA REQ 000 3029
 SERVICE: Propylene Refrigeration Package

611
Vendor Reply: Noted

Repeated comment: Redundancy shall be considered for critical I/O and closed loops. In this case DIR, DOR, AIR, AOR shall be mentioned in this column instead of DI, DO, AI, AO.

Vendor Reply: Noted. For critical IO and closed loop as per MAYEKAWA design concept will be considered

TAG	SERVICE	PID DWG No.	TYPE	FROM	TO	DESCRIPTION	Engineering units	LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL	RELAY						
Card Type: Digital IN/ 16																		
Card Type: Analog IN/ 8																		
TAG						DESCRIPTION		LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL TYPE	RELAY						
PT-61111	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -A- SUCTION PRESSURE		Bar	COMP SKID	JB-UIA-61111	AI	4-20mA						
PT-61113	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -A- OIL SUPPLY PRESSURE		Bar	COMP SKID	JB-UIA-61111	AI	4-20mA						
TT-61111	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -A- SUCTION TEMPERATURE		C	COMP SKID	JB-UIA-61111	AI	4-20mA						
VT-61111	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -A- CASING VIBRATION		G	COMP SKID	JB-UIA-61111	AI	4-20mA						
ZT-61111	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -A- SLIDE VALVE POSITION		%	COMP SKID	JB-UIA-61111	AI	4-20mA						
						SPARE					AI	4-20mA						
						SPARE					AI	4-20mA						
Card Type: Analog IN/ 8																		
TAG						DESCRIPTION		LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL	RELAY						
PT-61121	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -B- SUCTION PRESSURE		Bar	COMP SKID	JB-UIA-61121	AI	4-20mA						
PT-61123	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -B- OIL SUPPLY PRESSURE		Bar	COMP SKID	JB-UIA-61121	AI	4-20mA						
TT-61121	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -B- SUCTION TEMPERATURE		C	COMP SKID	JB-UIA-61121	AI	4-20mA						
VT-61121	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -B- CASING VIBRATION		G	COMP SKID	JB-UIA-61121	AI	4-20mA						
ZT-61121	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR -B- SLIDE VALVE POSITION		%	COMP SKID	JB-UIA-61121	AI	4-20mA						
						SPARE					AI	4-20mA						
						SPARE					AI	4-20mA						
						SPARE					AI	4-20mA						
Card Type: Analog IN/ 8																		
TAG						DESCRIPTION		LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL	RELAY						
PT-61131	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMMON DISCHARGE PRESSURE		Bar	COMP SKID	JB-UIA-61131	AI	4-20mA						
PT-61132	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COALESCE ELEMENT OUTLET PRESSURE		Bar	COMP SKID	JB-UIA-61131	AI	4-20mA						
PT-61133	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	OIL FILTER SUPPLY PRESSURE		Bar	COMP SKID	JB-UIA-61131	AI	4-20mA						
PT-61134	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	OIL SUPPLY PRESSURE		Bar	COMP SKID	JB-UIA-61131	AI	4-20mA						
TT-61131	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	OIL SEPARATOR TEMPERATURE		C	COMP SKID	JB-UIA-61131	AI	4-20mA						
TT-61132	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	OIL SUPPLY TEMPERATURE		C	COMP SKID	JB-UIA-61131	AI	4-20mA						
LT-61131	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	OIL SEPARATOR LEVEL		%	COMP SKID	JB-UIA-61131	AI	4-20mA						
						SPARE					AI	4-20mA						
Card Type: Analog IN/ 8																		
TAG						DESCRIPTION		LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL	RELAY						
TIC-61101	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6100	CHILLER TUBE OUTLET TEMPERATURE		C	VESSELS SKID	JB-UIA-61141	AI	4-20mA						
LT-61151	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	CHILLER LEVEL		%	VESSELS SKID	JB-UIA-61141	AI	4-20mA						
						SPARE					AI	4-20mA						
PT-61141	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	ECONOMIZER TUBESIDE PRESSURE		Bar	COMP SKID	JB-UIA-61141	AI	4-20mA						
TT-61141	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	ECONOMIZER TUBESIDE TEMPERATURE		Bar	COMP SKID	JB-UIA-61141	AI	4-20mA						
TT-61190	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	UNIT CONTROL PANEL TEMPERATURE		C	UCP-6101	UCP-6101	AI	4-20mA						
						SPARE					AI	4-20mA						
Card Type: Analog IN/ 8																		
TAG						DESCRIPTION		LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL	RELAY						
TE-61117	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR MOTOR -A- BEARING TEMP DE		C	COMP -A- SKID	MOTOR IB	AI	4-20mA						
TE-61118	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR MOTOR -A- BEARING TEMP NDE		C	COMP -A- SKID	MOTOR IB	AI	4-20mA						
TE-61127	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR MOTOR -B- BEARING TEMP DE		C	COMP -B- SKID	MOTOR IB	AI	4-20mA						
TE-61128	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	FIELD	UCP-6101	COMPRESSOR MOTOR -B- BEARING TEMP NDE		C	COMP -B- SKID	MOTOR IB	AI	4-20mA						
						SPARE					AI	4-20mA						
						SPARE					AI	4-20mA						
IT-61111	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	MCC	UCP-6101	COMPRESSOR -A- MOTOR CURRENT		AMPS	MCC	UCP-6101	AI	4-20mA						
IT-61121	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	MCC	UCP-6102	COMPRESSOR -B- MOTOR CURRENT		AMPS	MCC	UCP-6102	AI	4-20mA						
Card Type: Analog OUT 4																		
TAG						DESCRIPTION		LOCATION	IB No.	SIGNAL CATEGORY	SIGNAL TYPE	RELAY						
PHI-61151	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	UCP-6101	FIELD	HOT GAS BYPASS CONTROL VALVE		%	VESSELS SKID	JB-UIA-61141	AO	4-20 mA						
LYA-61151	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	UCP-6101	FIELD	CHILLER LEVEL CONTROL VALVE		%	VESSELS SKID	JB-UIA-61141	AO	4-20 mA						
TPYI-61141	Propylene	VD-GPIC-MA-3029-3029-0015	FLOAT/REAL	UCP-6102	FIELD	ECONOMIZER TEMPERATURE CONTROL VALVE		%	VESSELS SKID	JB-UIA-61141	AO	4-20 mA						
						SPARE					AO	4-20 mA						

0015
Vendor Reply: Noted.

621
Vendor Reply: Noted

631
Vendor Reply: Noted

641
Vendor Reply: Noted

JB-UIA-651
Vendor Reply: This is motor terminal box and there is no tag number for motor RTD Box

JB-UIA-661
Vendor Reply: Vendor Reply: This is motor terminal box and there is no tag number for motor RTD Box

AOR
Vendor Reply: For critical IO and closed loop as per MAYEKAWA design concept will be considered

Native file (Excel) shall be submitted with PDF file in all the next revisions.
Vendor Reply: Noted.

PLC I/O LIST
COUNT IS PER UNIT

AI : Analog Input
AQ : Analog Output
H : Hardwire
S : Serial
DI : Digital Input
DO : Digital Output
DCS : Data Control Center
MCC : Motor Control Center
UCP-6101 : Unit Control Panel
LCP : Local Control Station
PLC : Programmable Logic Controller
PW400 : POWER SUPPLY 400 W

This IO List is a document containing list of instrumentation which serve as input or output of control system.