General Specifications

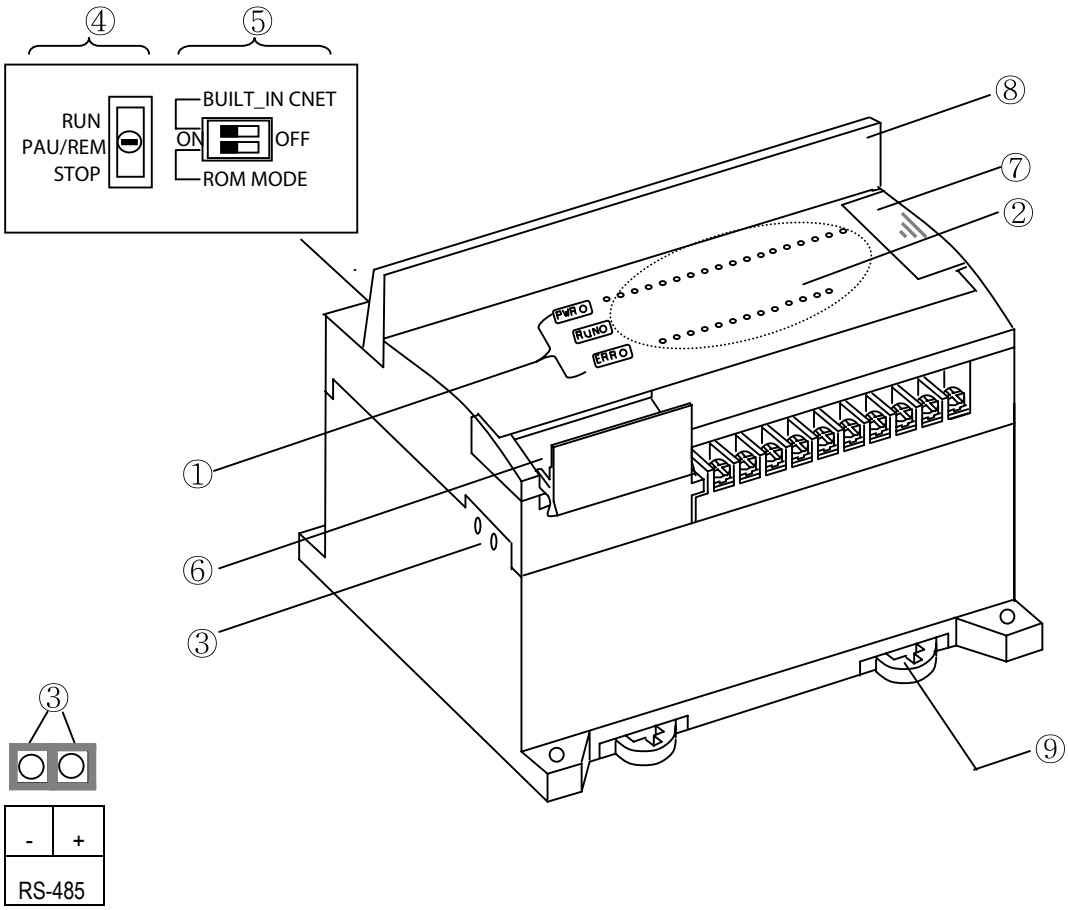
The following table shows the general specifications of the DR.N 1005-8105

<table>
<tr><th>No.</th><th>Item</th><th colspan="6">Specifications</th><th>References</th></tr>
<tr><td>1</td><td>Operating ambient Temperature</td><td colspan="6">0 ~ 55 °C</td><td></td></tr>
<tr><td>2</td><td>Storage ambient Temperature</td><td colspan="6">–25 ~ +70 °C</td><td></td></tr>
<tr><td>3</td><td>Operating ambient Humidity</td><td colspan="6">5 ~ 95%RH, non-condensing</td><td></td></tr>
<tr><td>4</td><td>Storage ambient Humidity</td><td colspan="6">5 ~ 95%RH, non-condensing</td><td></td></tr>
<tr><td rowspan="9">5</td><td rowspan="9">Vibrations</td><td colspan="4">Occasional vibration</td><td>-</td><td></td></tr>
<tr><td>Frequency</td><td colspan="2">Acceleration</td><td>Amplitude</td><td>Sweep count</td><td rowspan="9">IEC 61131-2</td></tr>
<tr><td>10 ≤ f < 57Hz</td><td colspan="2">–</td><td>0.075mm</td><td rowspan="6">10 times for each X, Y, Z axis</td></tr>
<tr><td>57 ≤ f ≤ 150Hz</td><td colspan="2">9.8m/s² {1G}</td><td>–</td></tr>
<tr><td colspan="4">Continuous vibration</td></tr>
<tr><td>Frequency</td><td colspan="2">Acceleration</td><td>Amplitude</td></tr>
<tr><td>10 ≤ f < 57Hz</td><td colspan="2">–</td><td>0.035mm</td></tr>
<tr><td>57 ≤ f ≤ 150Hz</td><td colspan="2">4.9m/s² {0.5G}</td><td>–</td></tr>
<tr><td>6</td><td>Shocks</td><td colspan="6">• Maximum shock acceleration: 147 m/s² {15G}
• Duration time: 11ms
• Pulse wave: half sine pulse (3 shocks per axis, on X, Y, Z axis)</td><td>IEC 61131-2</td></tr>
<tr><td rowspan="5">7</td><td rowspan="5">Noise Immunity</td><td>Square wave Impulse noise</td><td colspan="5">± 1,500 V</td><td>LGIS' Internal Standard</td></tr>
<tr><td>Electronic discharge</td><td colspan="5">Voltage: 4 kV (Discharge by contact)</td><td>IEC 61131-2, IEC 1000-4-2</td></tr>
<tr><td>Radiated electromagnetic field noise</td><td colspan="5">27 ~ 500 MHz, 10 V/m</td><td>IEC 61131-2, IEC 1000-4-3</td></tr>
<tr><td rowspan="2">Fast transient & burst noise</td><td>Item</td><td>Power supply</td><td>Digital I/O (24V and up)</td><td colspan="2">Digital I/O (less than24V) Analog I/O Interface</td><td rowspan="2">IEC 61131-2 IEC 1000-4-4</td></tr>
<tr><td>Voltage</td><td>2kV</td><td>1kV</td><td colspan="2">0.25kV</td></tr>
<tr><td>8</td><td>Atmosphere</td><td colspan="6">Free of corrosive gases and excessive dust</td><td></td></tr>
<tr><td>9</td><td>Altitude</td><td colspan="6">Up to 2,000m</td><td></td></tr>
<tr><td>10</td><td>Pollution degree</td><td colspan="6">2</td><td></td></tr>
<tr><td>11</td><td>Cooling method</td><td colspan="6">Air-cooling</td><td></td></tr>
</table>

REMARK

1) IEC (International Electrotechnical Commission): An international civilian institute who establishes international standards in area of electric and electronics.
2) Pollution degree: An indicator, which indicates pollution degree, which determine insulation performance of equipment.
* Pollution degree 2 : Normally, only non-conductive pollution occurs. Occasionally, however, a temporary conductivity caused by condensation shall be expected.

Main Unit

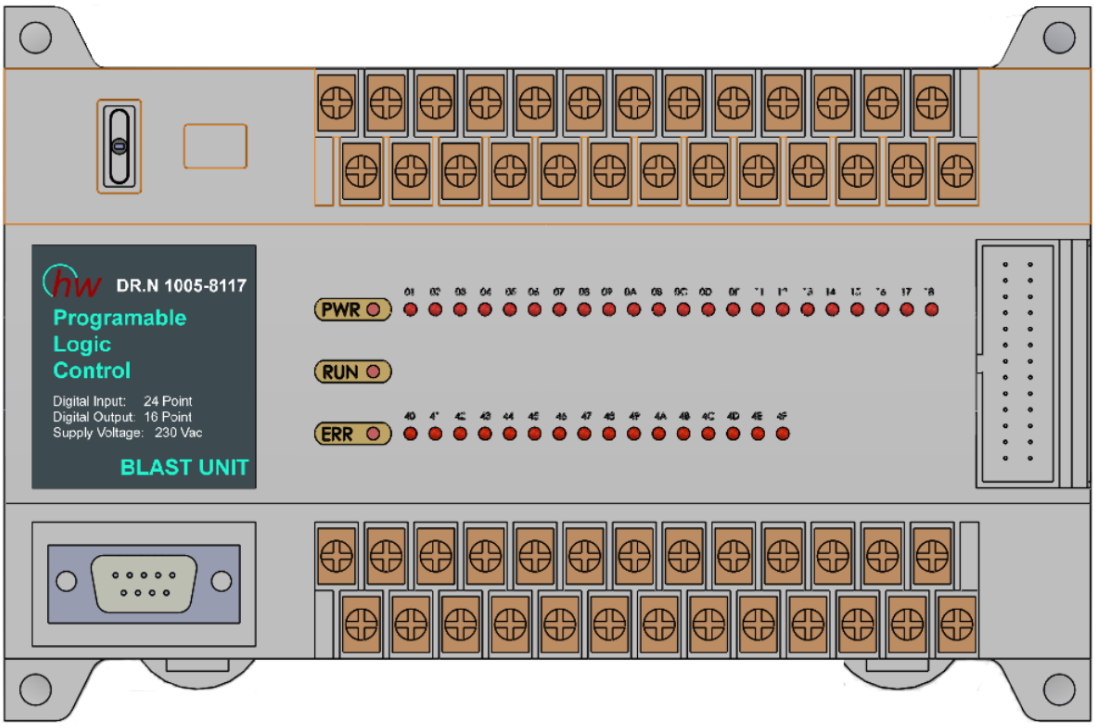


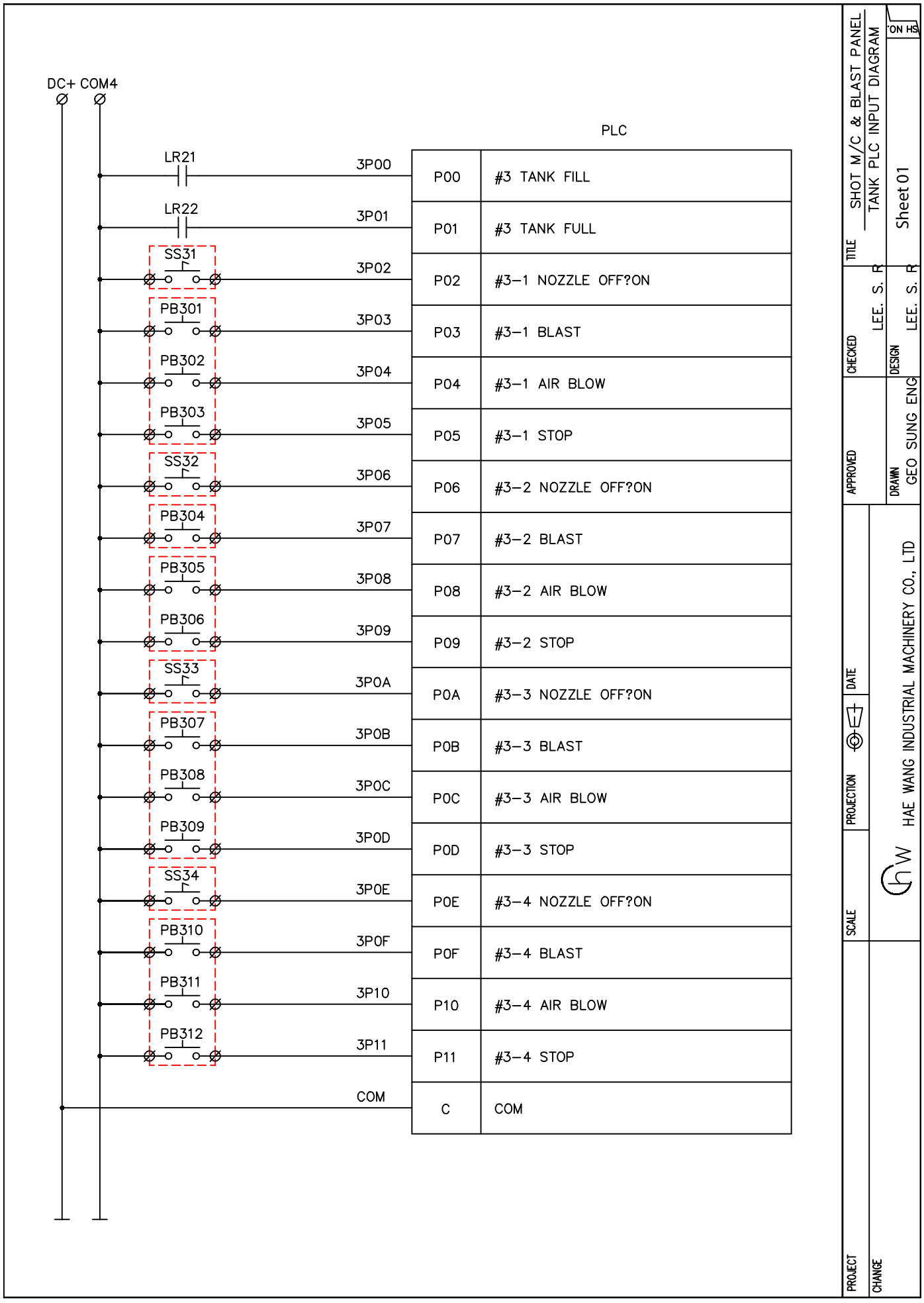
No.	Name		Description
①	CPU Condition LED	PWR LED	Indicates status of power supply to the system • On : When the supplied power is normal • Off : When the supplied power is abnormal
		RUN LED	Indicates operating status of main unit • On : Indicates local key switch or remote running mode • Off : with the followings, LED turns off - When the supplied power to the main unit is abnormal. - While key switch is on stop mode - Detecting an error which makes operation stop
		ERR LED	Indicates operating status of CPU • Flickering : self-inspected error • Off: CPU is working normal.

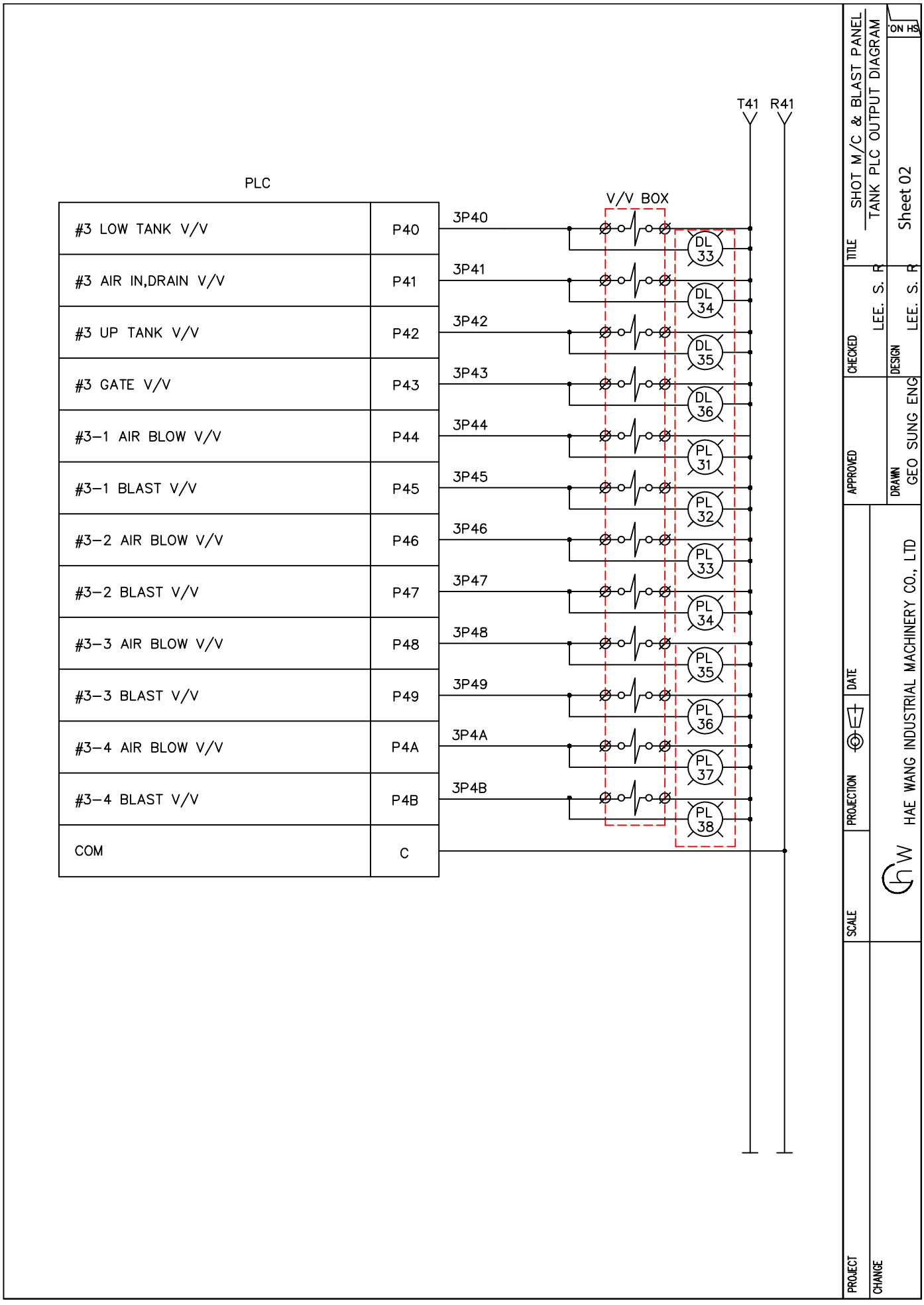
No	Name	Description
②	I/O LED	Indicates operating status of I/O
③	Built-in RS-485 connector (Except K7M-DR10/14UE)	2-pin connector for built-in RS-485 communications.
④	Key switch for mode creation .(Except economic type)	Designates main unit's operation mode • RUN : Run program operation • STOP: Stop program operation • PAU / REM: usage of each modules are as follows: - PAUSE : temporary stopping program operation - REMOTE : designates remote driving
⑤	Dip-switch for Cnet I/F	See Chapter 5.
⑥	RS-232C connector	9-pin DIN connector to connect with external devices like KGLWIN
⑦	Expansion connector cover	Connector cover to connect with expansion unit
⑧	Terminal block cover	Protection cover for wiring of terminal block
⑨	Private hook DIN rail	Private part hook for DIN rail

Layout

DR.N 1005-8105




DC+ COM4
LR21
LR22
SS31
PB301
PB302
PB303
SS32
PB304
PB305
PB306
SS33
PB307
PB308
PB309
SS34
PB310
PB311
PB312
COM
3P00
3P01
3P02
3P03
3P04
3P05
3P06
3P07
3P08
3P09
3P0A
3P0B
3P0C
3P0D
3P0E
3P0F
3P10
3P11
PLC
P00 #3 TANK FILL
P01 #3 TANK FULL
P02 #3-1 NOZZLE OFF?ON
P03 #3-1 BLAST
P04 #3-1 AIR BLOW
P05 #3-1 STOP
P06 #3-2 NOZZLE OFF?ON
P07 #3-2 BLAST
P08 #3-2 AIR BLOW
P09 #3-2 STOP
P0A #3-3 NOZZLE OFF?ON
P0B #3-3 BLAST
P0C #3-3 AIR BLOW
P0D #3-3 STOP
P0E #3-4 NOZZLE OFF?ON
P0F #3-4 BLAST
P10 #3-4 AIR BLOW
P11 #3-4 STOP
C COM
TITLE SHOT M/C & BLAST PANEL TANK PLC INPUT DIAGRAM
Sheet 01
CHECKED LEE. S. R
DESIGN LEE. S. R
APPROVED
DRAWN GEO SUNG ENG
HAE WANG INDUSTRIAL MACHINERY CO., LTD
DATE
PROJECTION
SCALE
PROJECT
CHANGE


PLC
#3 LOW TANK V/V
P40
#3 AIR IN,DRAIN V/V
P41
#3 UP TANK V/V
P42
#3 GATE V/V
P43
#3-1 AIR BLOW V/V
P44
#3-1 BLAST V/V
P45
#3-2 AIR BLOW V/V
P46
#3-2 BLAST V/V
P47
#3-3 AIR BLOW V/V
P48
#3-3 BLAST V/V
P49
#3-4 AIR BLOW V/V
P4A
#3-4 BLAST V/V
P4B
COM
C
V/V BOX
3P40
3P41
3P42
3P43
3P44
3P45
3P46
3P47
3P48
3P49
3P4A
3P4B
DL 33
DL 34
DL 35
DL 36
PL 31
PL 32
PL 33
PL 34
PL 35
PL 36
PL 37
PL 38
T41
R41
TITLE
SHOT M/C & BLAST PANEL
TANK PLC OUTPUT DIAGRAM
Sheet 02
CHECKED
LEE. S. R
DESIGN
LEE. S. R
APPROVED
DRAWN
GEO SUNG ENG
DATE
PROJECTION
SCALE
HAE WANG INDUSTRIAL MACHINERY CO., LTD
PROJECT
CHANGE