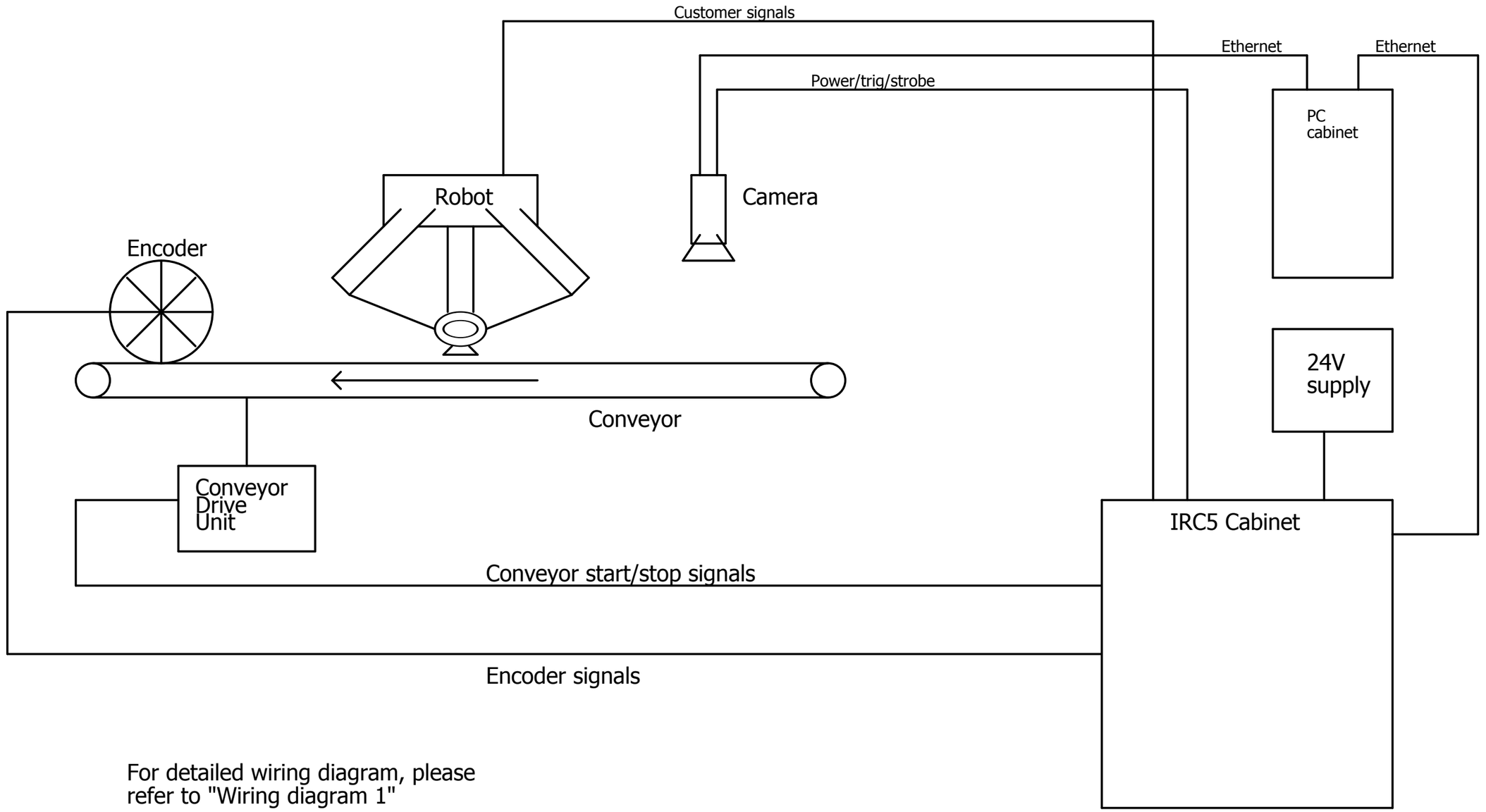



For detailed wiring diagram, please refer to "Wiring diagram 1"

| | | | | | |
|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Block diagram 1<br>1 Robot, 1 Conveyor, 1 Camera | Status: APPROVED 2010-12-16 | Plant: = Location: + Sublocation:+ |
| Prepared by, date: | Approved by, date: | | | Document no. 3HAC024480-008 | Rev. Ind 02 / Page 1 / Next 2 / Total |

# External equipment

Encoder
Customer specific component

24V 0V A B

Conveyor drive unit
Customer specific component

Start
Stop
0V

Camera
Basler scout

Red/Blue/
Grey/Pink/
Violet
Black strobe
Red/
Blue Trigger
Pink 24V I/O
Grey 0V I/O
Yellow 24V power
Green 0V power
Brown 24V power
White 0V power
Shield

Customer
specific component
24V supply

24V
0V

# IRC5
# Cabinet

Customer signals
represent IRB360

XT5.1
1 2 3 4 5 6 7 8 9 10 11 12

X1 1 2 3 4 5 6 7 8 9 10

X2 1 2 3 4 5 6 7 8 9 10

I/O Board DSQC652

X4 10 9 8 7 6 5 4 3 2 1

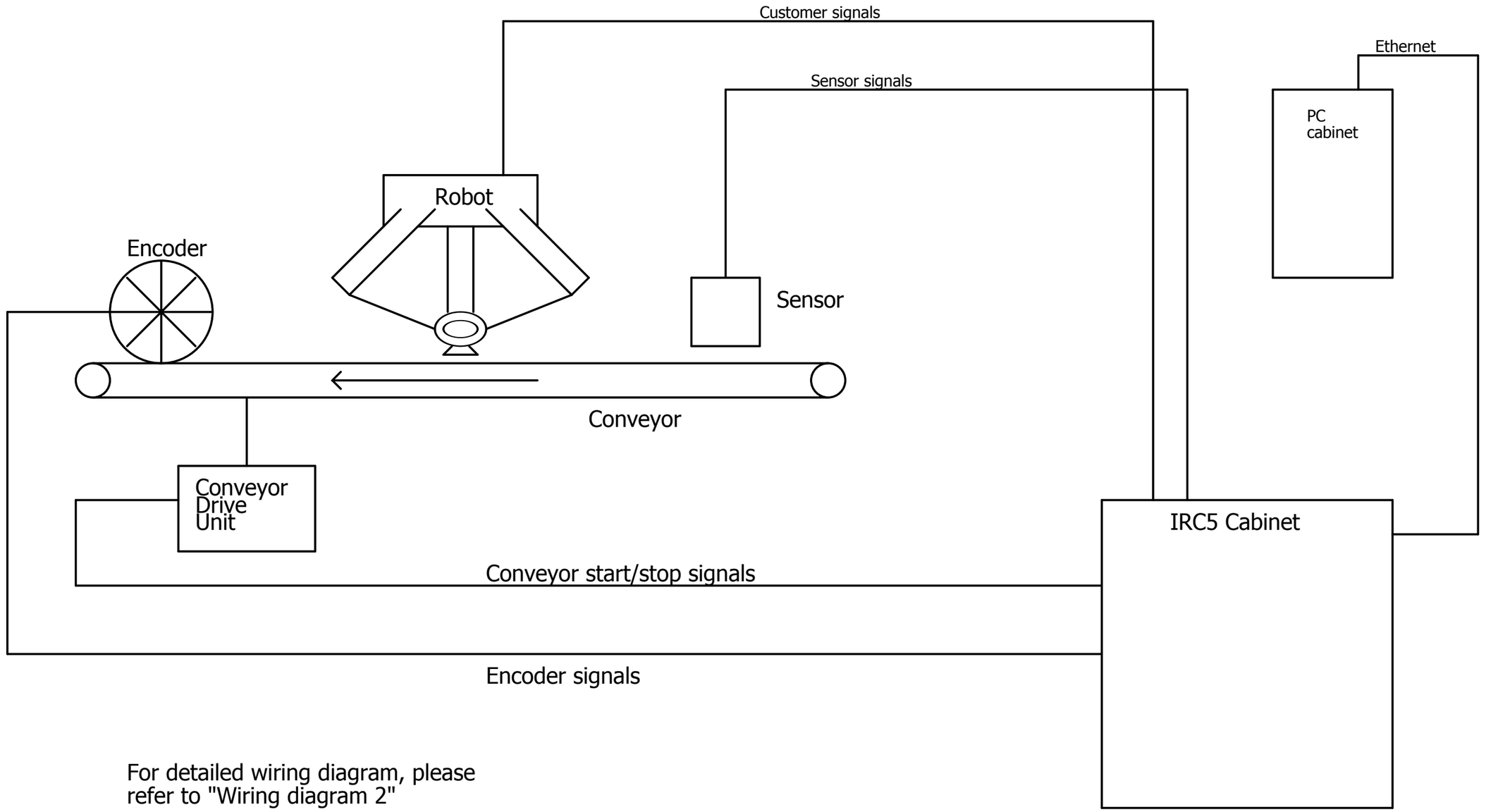
X3 10 9 8 7 6 5 4 3 2 1

XT31
24V 0V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Queue tracking unit DSQC 377x

| | | | | | |
|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Wiring diagram 1<br>1 Robot, 1 Conveyor, 1 Camera | Status: APPROVED 2010-12-16 | Plant: =<br>Location: +<br>Sublocation:+ |
| Prepared by, date: | Approved by, date: | | | Document no.<br>3HAC024480-008 | Rev. Ind 02 |
| | | | | | Page 2<br>Next 3<br>Total |




For detailed wiring diagram, please refer to "Wiring diagram 2"

| | | | | | | |
|---|---|---|---|---|---|---|
| Latest revision: | | | Lab/Office: DMRO SE/ | Block diagram 2<br>1 Robot, 1 Conveyor, 1 Sensor | Status: APPROVED 2010-12-16 | Plant: =<br>Location: +<br>Sublocation:+ |
| Prepared by, date: | Approved by, date: | | | | Document no. 3HAC024480-008 | Rev. Ind 02 / Page 3 / Next 4 / Total |

1 2 3 4 5 6 7 8

# External equipment

Encoder
Customer specific component

24V 0V A B

Sensor, e.g, photo cell

Signal + 0V

Customer specific component
Conveyor drive unit

Start/Stop 0V

# IRC5 Cabinet

Customer signals
represent IRB360

XT5.1

1 2 3 4 5 6 7 8 9 10 11 12

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Queue tracking unit DSQC 377x

XT31

24V 0V

X1 1 2 3 4 5 6 7 8 9 10

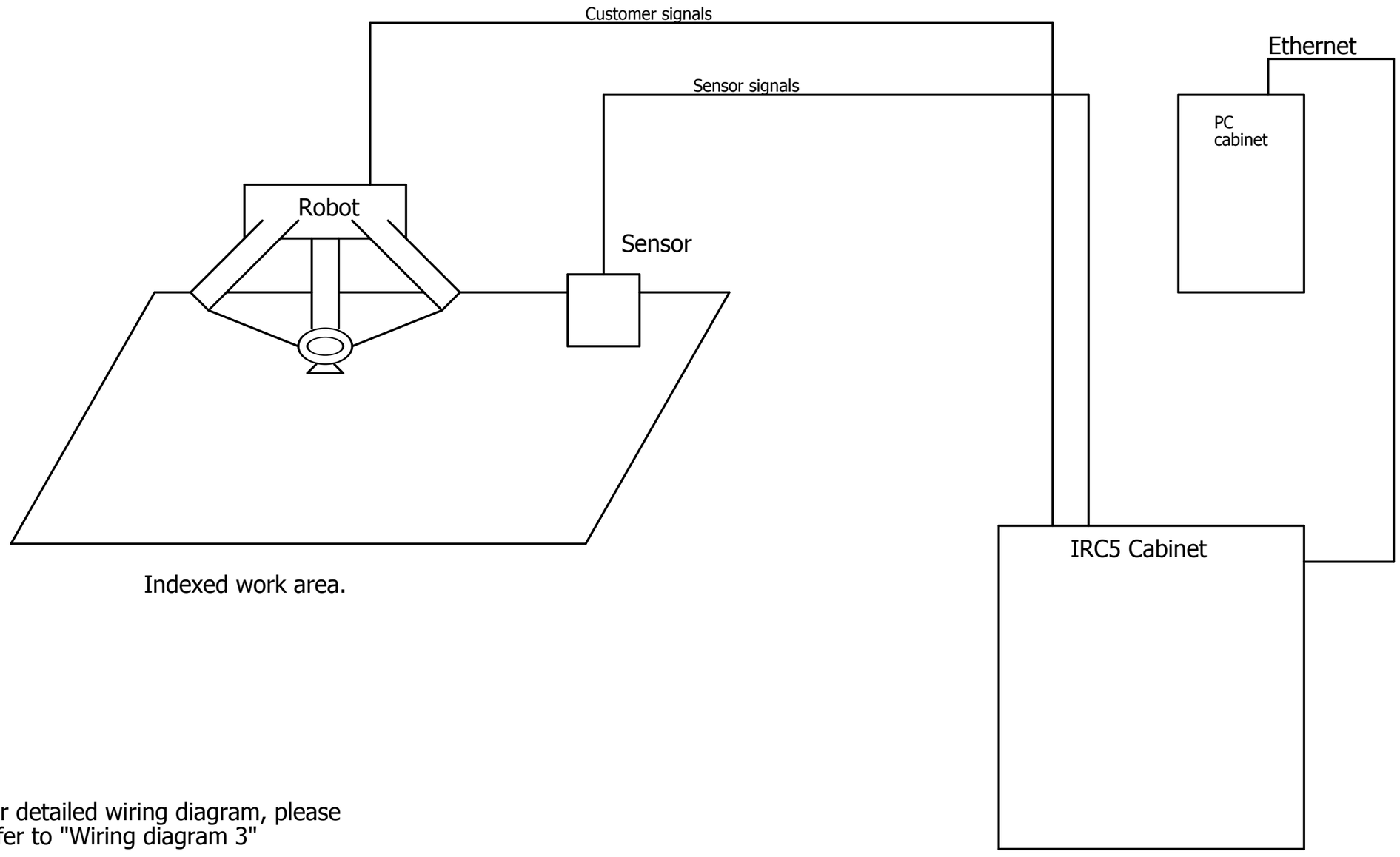
X2 1 2 3 4 5 6 7 8 9 10

I/O Board DSQC652

X4 10 9 8 7 6 5 4 3 2 1

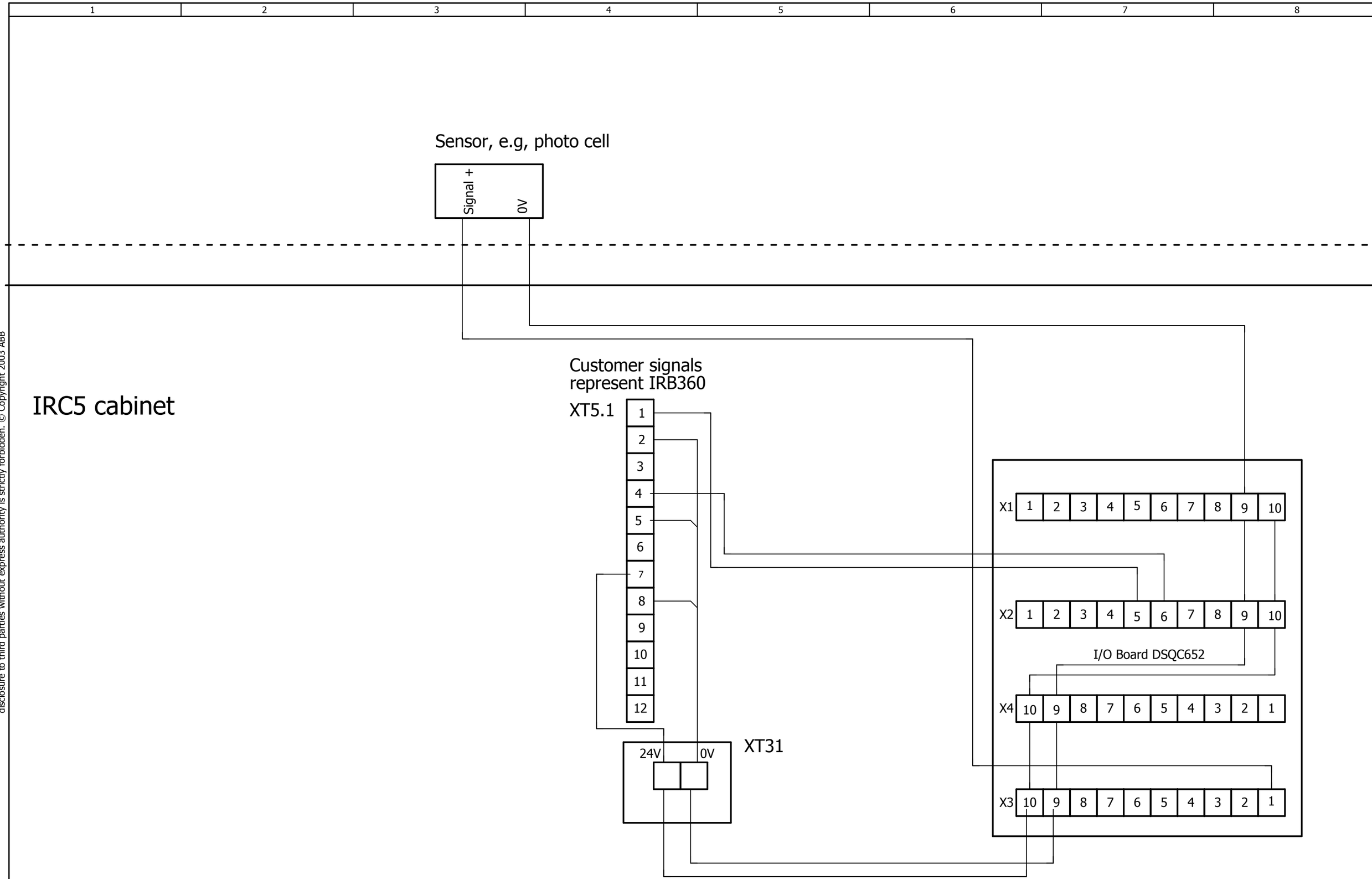
X3 10 9 8 7 6 5 4 3 2 1

| | | | | | |
|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Wiring diagram 2<br>1 Robot, 1 Conveyor, 1 Sensor | Status: APPROVED 2010-12-16 | Plant: =<br>Location: +<br>Sublocation:+ |
| Prepared by, date: | Approved by, date: | | | Document no.<br>3HAC024480-008 | Rev. Ind 02 |
| | | | | | Page 4<br>Next 5<br>Total |

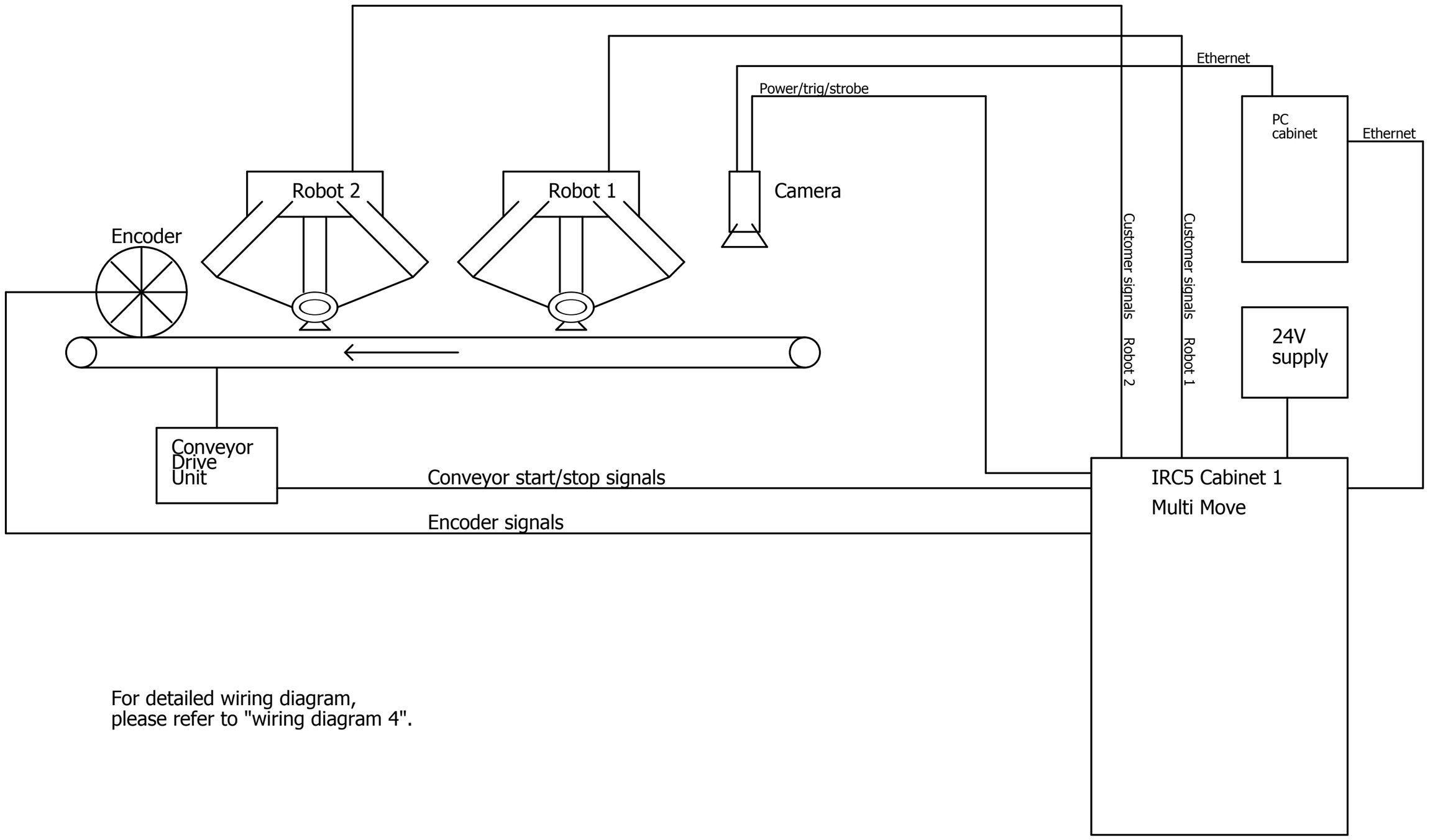



For detailed wiring diagram, please refer to "Wiring diagram 3"

| | | | | | |
|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Block diagram 3<br>1 Robot, 1 Sensor, No conveyor tracking | Status: APPROVED 2010-12-16 | Plant: =<br>Location: +<br>Sublocation:+ |
| Prepared by, date: | Approved by, date: | | | Document no.: 3HAC024480-008 | Rev. Ind: 02 |
| | | | | | Page 5<br>Next 6<br>Total |




| | | | | | |
|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Wiring diagram 3<br>1 Robot, 1 Sensor, No conveyor tracking | Status: APPROVED 2010-12-16 | Plant: =<br>Location: +<br>Sublocation:+ |
| Prepared by, date: | Approved by, date: | | | Document no.: 3HAC024480-008 | Rev. Ind: 02<br>Page 6<br>Next 7<br>Total |




For detailed wiring diagram,
please refer to "wiring diagram 4".

| | | | | | | |
|---|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Block diagram 4<br>2 Robots, 1 Conveyor, 1 Camera<br>Multi move controller<br>E.g ATC and Load balancing | Status: APPROVED 2010-12-16 | Plant: =<br>Location: +<br>Sublocation:+ | |
| Prepared by, date: | Approved by, date: | | | Document no. 3HAC024480-008 | Rev. Ind 02 | Page 7<br>Next 8<br>Total |

# External equipment

Encoder
Customer specific component

24V 0V A B

Conveyor drive unit
Customer specific component

Start Stop 0V

Camera
Basler scout

Red/Blue/ Grey/Pink/ Violet Black strobe Red/ Blue Trigger Pink 24V I/O Grey0V I/O Yellow 24 power Green 0V power Brown 24V power White 0V power Shield1

Customer
specific component
24V supply

24V 0V

# IRC5
# Cabinet

Signal diode
Nominal current 150mA
Reverse voltage 50V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Queue tracking unit DSQC 377x
For Robot 1

Signal diode
Nominal current 150mA
Reverse voltage 50V

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Queue tracking unit DSQC 377x
For Robot 2

Customer signals
represent IRB360
XT5.1

1 2 3 4 5 6 7 8 9 10 11 12

Customer signals
represent IRB360
XT5.2

1 2 3 4 5 6 7 8 9 10 11 12

XT31

24V 0V

I/O Board DSQC652

X1 1 2 3 4 5 6 7 8 9 10

X2 1 2 3 4 5 6 7 8 9 10

X4 10 9 8 7 6 5 4 3 2 1

X3 10 9 8 7 6 5 4 3 2 1

| | | | | | |
|---|---|---|---|---|---|
| Latest revision: | | ABB Lab/Office: DMRO SE/ | Wiring diagram 4<br>2 Robots, 1 Conveyor, 1 Camera<br>Multi move controller<br>E.g ATC and Load balancing | Status: APPROVED 2010-12-16<br>Document no. 3HAC024480-008 | Plant: =<br>Location: +<br>Sublocation:+<br>Rev. Ind 02<br>Page 8<br>Next 9<br>Total |
| Prepared by, date: | Approved by, date: | | | | |

# Unit mapping of predefined I/O signals DSQC652

| | | | |
|---|---|---|---|
| do Start Cnv 1 | X1:1 | di 1-1 | X3:1 |
| do Start Cnv 2 | X1:2 | di 2-1 | X3:2 |
| do Start Cnv 3 | X1:3 | di 3-1 | X3:3 |
| do Start Cnv 4 | X1:4 | di 4-1 | X3:4 |
| do Trig Vis 1 | X1:5 | di 5-1 | X3:5 |
| do Trig Vis 2 | X1:6 | di 6-1 | X3:6 |
| do Trig Vis 3 | X1:7 | di 7-1 | X3:7 |
| do Trig Vis 4 | X1:8 | di 8-1 | X3:8 |
| 0V | X1:9 | 0V | X3:9 |
| 24V | X1:10 | 24V | X3:10 |

| | | | |
|---|---|---|---|
| do Man Sync 1 | X2:1 | di 9-1 | X4:1 |
| do Man Sync 2 | X2:2 | di 10-1 | X4:2 |
| do Man Sync 3 | X2:3 | di 11-1 | X4:3 |
| do Man Sync 4 | X2:4 | di 12-1 | X4:4 |
| do Vacuum 1 | X2:5 | di 13-1 | X4:5 |
| do Blow 1 | X2:6 | di 14-1 | X4:6 |
| do Vacuum 2 | X2:7 | di 15-1 | X4:7 |
| do Blow 2 | X2:8 | di 16-1 | X4:8 |
| 0V | X2:9 | 0V | X4:9 |
| 24V | X2:10 | 24V | X4:10 |

# Unit mapping DSQC377x

| | |
|---|---|
| 24V (in) | 1 |
| 0V (in) | 2 |
| 24V (out) | 3 |
| 0V (out) | 4 |
| A (in) | 5 |
| B (in) | 6 |
| Start signal (in) | 9 |

# Unit mapping customer signals XT5.1 (IRB360)

| | |
|---|---|
| Vacuum (out) | 1 |
| 0V | 2 |
| Blow (out) | 4 |
| 0V | 5 |
| 24V | 7 |
| 0V | 8 |
| Vaccum sensor (in) | 9 |