

IMPACT20 COMPACT I/O MODULES

- IP20 protection
- Efficient
- Cost-effective













FOCUSED ON THE ESSENTIALS

Murrelektronik's Impact20 is the perfect solution when you need a cost-effective application of fieldbus I/O modules in terminal boxes and control panels.

- **Predefined Inputs and Outputs**
 - Helps facilitate configuration
- **Single Channel Diagnostic via LED**
 - Indicates failures on the spot
- **Group Diagnostic via the Bus**
 - Facilitates failure analysis
- **Channel-Related Shut Down**
 - Only the affected channel is shutdown



Impact20 I/O Modules

| | |
|---|--|
|  <p>Impact20-P • Digital I/Os</p>  <p>Page 4.6.1</p> |  <p>Impact20-PNIO • Digital I/Os</p>  <p>Page 4.6.2</p> |
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Impact20-P

DI16



Impact20-P

DI8/DO8 - 2 A

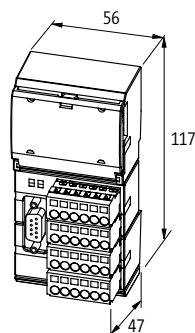
Impact20-P

DO16 - 0.5 A



| Order Data | Art-No. | Art-No. | Art-No. |
|---------------|---------|---------|---------|
| DI16 | 56900 | | |
| DI8/DO8 - 2 A | | 56901 | |
| DO16 - 0.5 A | | | 56902 |

| Connections | | | |
|-------------------------------|---|---|---|
| Fieldbus | SUB-D9 | | |
| Sensor-system/actuator supply | 6 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| I/O ports | 18 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| Fieldbus | | | |
| Operating voltage | 24 V DC (EN 61131-2) | | |
| Operating modes | Sync- and freeze mode are supported | | |
| Transfer rate | to 12 Mbit/s | | |
| Addressing | Rotary switch 3...99 | | |
| Input | | | |
| Sensor supply US | 24 V DC, (EN 61131-2), max. 700 mA per module, (short-circuit and overload protected) | | – |
| Type | for 3-wire sensors or mechanical switches, p-switching (EN 61131-2) | | – |
| Output | | | |
| Switching current per output | – | max. 2 A (short-circuit and overload protected) | max. 0.5 A (short-circuit and overload protected) |
| Total current | – | max. 8 A | |
| Diagnostic | | | |
| Communication status | via LED | | |
| Diagnostic via LED | per module | per module and channel | |
| Diagnostic via BUS | per module | per module and channel | |
| Monitoring - under voltage | yes | | |
| Monitoring - no voltage | yes | | |
| Short circuit and overload | yes | | |
| General data | | | |
| Protection | IP20 | | |
| Temperature range | 0...+55 °C (storage temperature -20...+70 °C) | | |
| Mounting method | DIN-rail mountable (EN 60715) | | |
| Dimension drawing | | | |



| Notes |
|-------|
| |

IMPACT20



Impact20-PN

DI16



Impact20-PN

DI8/DO8 - 2 A

Impact20-PN

DO16 - 0.5 A



| Order Data | Art-No. | Art-No. | Art-No. |
|---------------|---------|---------|---------|
| DI16 | 56920 | | |
| DI8/DO8 - 2 A | | 56921 | |
| DO16 - 0.5 A | | | 56922 |

Connections

| | |
|-------------------------------|---|
| Fieldbus | 2 × RJ45 |
| Sensor-system/actuator supply | 6 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) |
| I/O ports | 18 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) |

Fieldbus

| | |
|-------------------|--------------------------------|
| Operating voltage | 24 V DC (EN 61131-2) |
| Operating modes | Autonegotiation/Auto MDI/MDI-X |
| Transfer rate | to 100 MBit/s Full Duplex |

Input

| | | |
|------------------|---|---|
| Sensor supply US | 24 V DC, (EN 61131-2), max. 700 mA per module, (short-circuit and overload protected) | – |
| Type | for 3-wire sensors or mechanical switches, p-switching (EN 61131-2) | – |

Output

| | | | |
|------------------------------|---|---|---|
| Switching current per output | – | max. 2 A (short-circuit and overload protected) | max. 0.5 A (short-circuit and overload protected) |
| Total current | – | max. 8 A | |

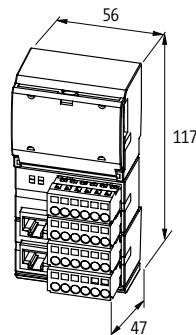
Diagnostic

| | | | |
|----------------------------|------------|------------------------|--|
| Communication status | via LED | | |
| Diagnostic via LED | per module | per module and channel | |
| Diagnostic via BUS | per module | per module and channel | |
| Monitoring - under voltage | yes | | |
| Monitoring - no voltage | yes | | |
| Short circuit and overload | yes | | |

General data

| | | | |
|-------------------|---|--|--|
| Protection | IP20 | | |
| Temperature range | 0...+55 °C (storage temperature -20...+70 °C) | | |
| Mounting method | DIN-rail mountable (EN 60715) | | |

Dimension drawing



Notes

IMPACT20

EtherNet/IP™
conformance tested

Impact20-E

DI16



Impact20-E

DI8/DO8 - 2 A

Impact20-E

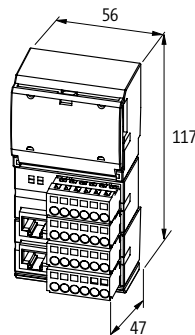
DO16 - 0.5 A

Approvals:

| Order Data | Art-No. | Art-No. | Art-No. |
|---------------|---------|---------|---------|
| DI16 | 56916 | | |
| DI8/DO8 - 2 A | | 56917 | |
| DO16 - 0.5 A | | | 56918 |

| Connections | | | |
|-------------------------------|---|---|---|
| Fieldbus | 2 × RJ45 | | |
| Sensor-system/actuator supply | 6 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| I/O ports | 18 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| Fieldbus | | | |
| Operating voltage | 24 V DC (EN 61131-2) | | |
| Transfer rate | to 100 MBit/s Full Duplex | | |
| Addressing | DHCP, BOOTP or IP address by rotary switch | | |
| Input | | | |
| Sensor supply US | 24 V DC, (EN 61131-2), max. 700 mA per module, (short-circuit and overload protected) | | – |
| Type | for 3-wire sensors or mechanical switches, p-switching (EN 61131-2) | | – |
| Output | | | |
| Switching current per output | – | max. 2 A (short-circuit and overload protected) | max. 0.5 A (short-circuit and overload protected) |
| Total current | – | max. 8 A | |
| Diagnostic | | | |
| Communication status | via LED | | |
| Diagnostic via LED | per module | per module and channel | |
| Diagnostic via BUS | per module | per module and channel | |
| Monitoring - under voltage | yes | | |
| Monitoring - no voltage | yes | | |
| Short circuit and overload | yes | | |
| General data | | | |
| Protection | IP20 | | |
| Temperature range | 0...+55 °C (storage temperature -20...+70 °C) | | |
| Mounting method | DIN-rail mountable (EN 60715) | | |

Dimension drawing



Notes

IMPACT20

EtherCAT

Impact20-EC

DI16



Impact20-EC

DI8/DO8 - 2 A

Impact20-EC

DO16 - 0.5 A

Approvals: PCB CE UL US Listed

| Order Data | Art-No. | Art-No. | Art-No. |
|---------------|---------|---------|---------|
| DI16 | 56912 | | |
| DI8/DO8 - 2 A | | 56913 | |
| DO16 - 0.5 A | | | 56914 |

Connections

| | |
|-------------------------------|---|
| Fieldbus | 2 × RJ45 |
| Sensor-system/actuator supply | 6 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) |
| I/O ports | 18 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) |

Fieldbus

| | |
|-------------------|------------------------------|
| Operating voltage | 24 V DC (EN 61131-2) |
| Operating modes | Autocrossing Autonegotiation |
| Transfer rate | to 100 Mbit/s |
| Addressing | automatic |

Input

| | | |
|------------------|---|---|
| Sensor supply US | 24 V DC, (EN 61131-2), max. 700 mA per module, (short-circuit and overload protected) | – |
| Type | for 3-wire sensors or mechanical switches, p-switching (EN 61131-2) | – |

Output

| | | | |
|------------------------------|---|---|---|
| Switching current per output | – | max. 2 A (short-circuit and overload protected) | max. 0.5 A (short-circuit and overload protected) |
| Total current | – | max. 8 A | |

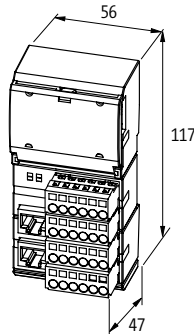
Diagnostic

| | | |
|----------------------------|------------|------------------------|
| Communication status | via LED | |
| Diagnostic via LED | per module | per module and channel |
| Diagnostic via BUS | per module | per module and channel |
| Monitoring - under voltage | yes | |
| Monitoring - no voltage | yes | |
| Short circuit and overload | yes | |

General data

| | |
|-------------------|---|
| Protection | IP20 |
| Temperature range | 0...+55 °C (storage temperature -20...+70 °C) |
| Mounting method | DIN-rail mountable (EN 60715) |

Dimension drawing



Notes

IMPACT20

CANopen

Impact20-C

DI16



Impact20-C

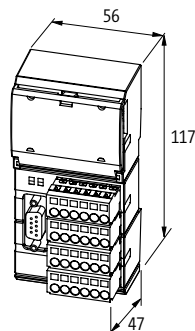
DI8/DO8 - 2 A

Impact20-C

DO16 - 0.5 A

Approvals:

| Order Data | Art-No. | Art-No. | Art-No. |
|-------------------------------|---|---|---|
| DI16 | 56904 | | |
| DI8/DO8 - 2 A | | 56905 | |
| DO16 - 0.5 A | | cCSAus | 56906 |
| Connections | | | |
| Fieldbus | SUB-D9 | | |
| Sensor-system/actuator supply | 6 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| I/O ports | 18 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| Fieldbus | | | |
| Operating voltage | 24 V DC (EN 61131-2) | | |
| Operating modes | Polling; change of state; Cyclic | | |
| Transfer rate | max. 1 Mbit/s | | |
| Addressing | Rotary switch 1...99 | | |
| Input | | | |
| Sensor supply US | 24 V DC, (EN 61131-2), max. 700 mA per module, (short-circuit and overload protected) | | – |
| Type | for 3-wire sensors or mechanical switches, p-switching (EN 61131-2) | | – |
| Output | | | |
| Switching current per output | – | max. 2 A (short-circuit and overload protected) | max. 0.5 A (short-circuit and overload protected) |
| Total current | – | max. 8 A | |
| Diagnostic | | | |
| Communication status | via LED | | |
| Diagnostic via LED | per module | per module and channel | |
| Diagnostic via BUS | per module | per module and channel | |
| Monitoring - under voltage | yes | | |
| Monitoring - no voltage | yes | | |
| Short circuit and overload | yes | | |
| General data | | | |
| Protection | IP20 | | |
| Temperature range | 0...+55 °C (storage temperature -20...+70 °C) | | |
| Mounting method | DIN-rail mountable (EN 60715) | | |
| Dimension drawing | | | |



| Notes |
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IMPACT20



Impact20-DN

DI16



Impact20-DN

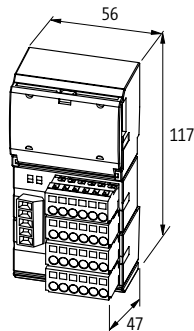
DI8/DO8 - 2 A

Impact67-DN

DO16 - 0.5 A



| Order Data | Art-No. | Art-No. | Art-No. |
|-------------------------------|---|---|---|
| DI16 | 56908 | | |
| DI8/DO8 - 2 A | | 56909 | |
| DO16 - 0.5 A | | | 56910 |
| Connections | | | |
| Fieldbus | 5 × pluggable spring clamp terminals | | |
| Sensor-system/actuator supply | 6 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| I/O ports | 18 × spring clamp plug-in terminals, max. 2.5 mm ² (max. 12 A) | | |
| Fieldbus | | | |
| Operating voltage | 24 V DC (EN 61131-2) | | |
| Operating modes | Polling; change of state; Cyclic | | |
| Transfer rate | 125 kBit/s; 250 kBit/s; 500 kBit/s | | |
| Addressing | Rotary switch 0...63 | | |
| Input | | | |
| Sensor supply US | 24 V DC, (EN 61131-2), max. 700 mA per module, (short-circuit and overload protected) | | – |
| Type | for 3-wire sensors or mechanical switches, p-switching (EN 61131-2) | | – |
| Output | | | |
| Switching current per output | – | max. 2 A (short-circuit and overload protected) | max. 0.5 A (short-circuit and overload protected) |
| Total current | – | max. 8 A | |
| Diagnostic | | | |
| Communication status | via LED | | |
| Diagnostic via LED | per module | per module and channel | |
| Diagnostic via BUS | per module | per module and channel | |
| Monitoring - under voltage | yes | | |
| Monitoring - no voltage | yes | | |
| Short circuit and overload | yes | | |
| General data | | | |
| Protection | IP20 | | |
| Temperature range | 0...+55 °C (storage temperature -20...+70 °C) | | |
| Mounting method | DIN-rail mountable (EN 60715) | | |
| Dimension drawing | | | |



| Notes |
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| Labeling accessories | | Art-No. |
|---|--|---------|
|  | Label-sheet Quantity: 40 pcs. | 56113 |
| | Label plates 20 × 8 mm (20 pieces per plate) | 55318 |
| Connection accessories | | Art-No. |
|  | Potential terminal block brown/brown/blue/blue | 56109 |
| | blue/yellow | 56110 |
| | blue/yellow/brown/blue | 56111 |
| | | |