



## Main

|                              |                                     |
|------------------------------|-------------------------------------|
| Range of product             | Modicon Premium Automation platform |
| Product or component type    | Motion control module               |
| Product specific application | For stepper motors                  |
| Software designation         | Unity Pro                           |

## Complementary

|                                  |                                                                                                                                                                                                                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O modularity                   | 1 axis                                                                                                                                                                                                                                                                                        |
| Pulse frequency                  | $\leq 187$ kHz                                                                                                                                                                                                                                                                                |
| Power dissipation in W           | 3.8 W                                                                                                                                                                                                                                                                                         |
| Input type                       | Resistive amplifier input<br>Current sink auxiliary input conforming to EN/IEC 61131 type 2                                                                                                                                                                                                   |
| Discrete input logic             | Positive auxiliary input<br>Negative amplifier input                                                                                                                                                                                                                                          |
| Input voltage                    | 5 V 4.5 mA amplifier input<br>24 V 7 mA auxiliary input                                                                                                                                                                                                                                       |
| Input voltage limits             | 19...30 V auxiliary input                                                                                                                                                                                                                                                                     |
| Voltage state 1 guaranteed       | $\geq 11$ V auxiliary input<br>$< 2$ V amplifier input                                                                                                                                                                                                                                        |
| Current state 1 guaranteed       | $> 6$ mA auxiliary input                                                                                                                                                                                                                                                                      |
| Voltage state 0 guaranteed       | $> 3.6$ V amplifier input<br>$\leq 5$ V auxiliary input                                                                                                                                                                                                                                       |
| Current state 0 guaranteed       | $< 2$ mA auxiliary input                                                                                                                                                                                                                                                                      |
| Input impedance                  | 3400 Ohm auxiliary input                                                                                                                                                                                                                                                                      |
| Input immunity                   | 3000...16000 $\mu$ s amplifier input for amplifier fault input<br>3000...10000 $\mu$ s auxiliary input for limit switch, emergency stop and external stop inputs<br>15...30 $\mu$ s amplifier input for loss of step input<br>$< 250$ $\mu$ s auxiliary input for homing cam and event inputs |
| Power supply monitoring          | $> 18$ V auxiliary input at OK state<br>$< 14$ V auxiliary input at fault state                                                                                                                                                                                                               |
| Maximum detection time           | $> 1$ ms auxiliary input from OK to fault state<br>$< 30$ ms auxiliary input from fault to OK state                                                                                                                                                                                           |
| Input compatibility              | With 2-wire/3-wire sensor auxiliary input                                                                                                                                                                                                                                                     |
| Output type                      | RS422, TTL 5 V open collector NPN compatible amplifier output<br>Open collector PNP brake output conforming to EN/IEC 61131-2                                                                                                                                                                 |
| Output differential voltage      | $\pm 2$ V $\leq 100$ Ohm amplifier output                                                                                                                                                                                                                                                     |
| Output short-circuit current     | $< 150$ mA amplifier output                                                                                                                                                                                                                                                                   |
| Permissible common mode voltage  | $\leq 7$ V amplifier output                                                                                                                                                                                                                                                                   |
| Permissible differential voltage | $\leq 12$ V amplifier output                                                                                                                                                                                                                                                                  |
| Output voltage                   | 24 V DC 19...30 V brake output                                                                                                                                                                                                                                                                |
| Nominal output current           | 0.5 A $< 0.3$ mA 0.625 A brake output                                                                                                                                                                                                                                                         |
| Voltage drop                     | $< 1$ V at state on brake output                                                                                                                                                                                                                                                              |
| Switching time                   | $< 0.25$ ms brake output                                                                                                                                                                                                                                                                      |
| Output compatibility             | Positive logic DC inputs (resistance $\leq 15$ kOhm) brake output                                                                                                                                                                                                                             |

|                               |                                                                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short-circuit protection      | Thermal tripping via program or automatically brake output                                                                                                                                                                              |
| Output overload protection    | Current limiter brake output                                                                                                                                                                                                            |
| Output overvoltage protection | Zener diode brake output                                                                                                                                                                                                                |
| Reverse polarity protection   | Reverse mounted diode on supply brake output                                                                                                                                                                                            |
| Speed profile path            | Trapezoidal                                                                                                                                                                                                                             |
| Operating mode                | AUTO<br>Direct drive mode<br>Manually<br>OFF                                                                                                                                                                                            |
| Checks                        | Amplifier, limits switches, emergency stop<br>Consistency of commands<br>Correct execution by software position limits, loss of step<br>Sensor power supply<br>Short circuit (one signalling bit per channel)<br>Validity of parameters |
| Optional commands             | Boost<br>Brake                                                                                                                                                                                                                          |
| Local signalling              | 2 LED green axis diagnostics available (CH.)<br>1 LED red internal fault, module failure (ERR)<br>1 LED red external fault (I/O)<br>1 LED green module operating (RUN)                                                                  |
| Electrical connection         | 1 connector SUB-D 15<br>1 connector HE-10 20 pins                                                                                                                                                                                       |
| Current consumption           | 510 mA 5 V DC<br>50 mA DC                                                                                                                                                                                                               |
| Module format                 | Standard                                                                                                                                                                                                                                |
| Product weight                | 0.44 kg                                                                                                                                                                                                                                 |
| Protective treatment          | Conformal coating Humiseal 1A33                                                                                                                                                                                                         |

## Environment

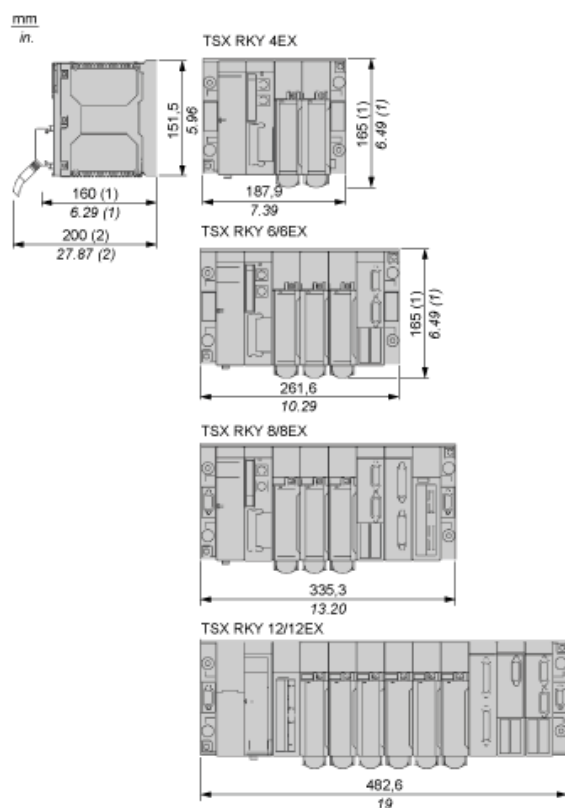
|                                       |                               |
|---------------------------------------|-------------------------------|
| Ambient air temperature for operation | 0...60 °C                     |
| Ambient air temperature for storage   | -25...70 °C                   |
| Relative humidity                     | 5...95 % without condensation |
| Operating altitude                    | <= 2000 m                     |

## Offer Sustainability

|                          |                                                                                                                          |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status | Not Green Premium product                                                                                                |
| RoHS                     | Compliant - since 0847 - Schneider Electric declaration of conformity <a href="#">download declaration of conformity</a> |

## Standard and Extendable Racks for Modules Mounting

### Dimensions of Modules and Racks

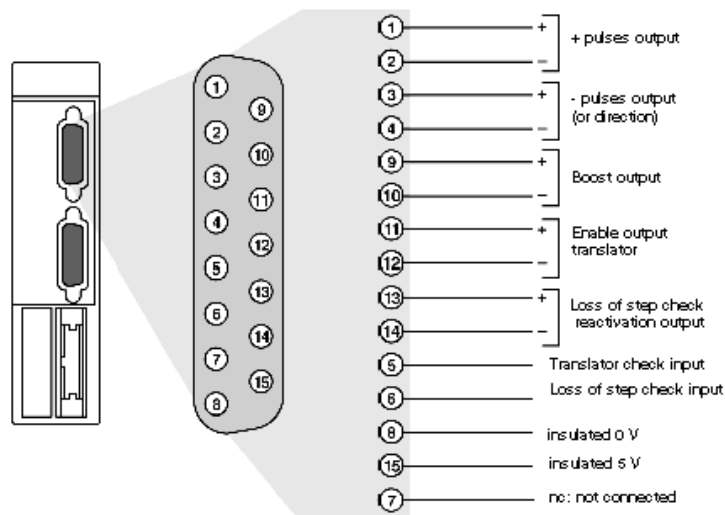


(1) With screw terminal block modules.

(2) Maximum depth for all types of modules and their associated connectors.

## Connection of Translator Signals

### Connector Pinout



## Connection of Sensors/Pre-Actuators

### Connector Pinout

