

Motor Roller System Module ICA-4IO-2M4-G20-B22A-P18

- Connections for 24 V or 48 V DC roller motors
- Inputs for 2- and 3-wire sensors
- Electronic PNP outputs
- Function indicator for motors, inputs and outputs
- Mounting directly in the support profile

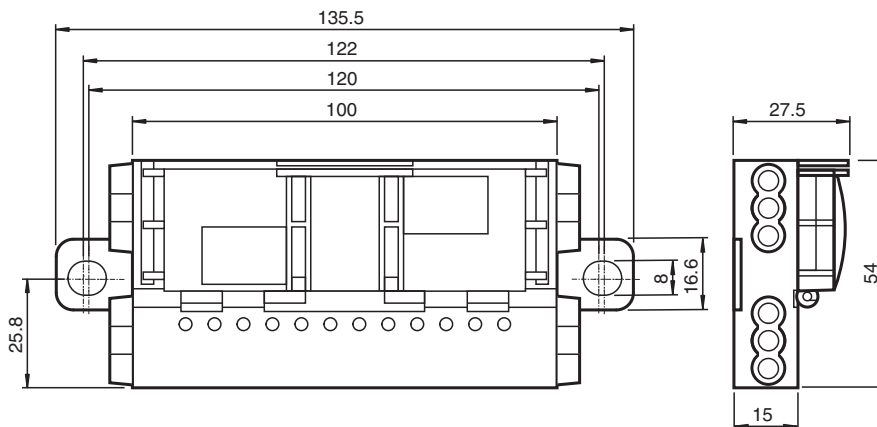
G20 MDR system module with 4 digital inputs/outputs and 2 connections for MDRs



Function

The G20 MDR system module is used to connect up to two DC motor rollers with 24 V or 48 V supply voltage and is compatible with numerous different MDRs on the market. It is connected to an Ethernet G20 MDR controller which is establishing the connection to a higher-level PLC or is directly carrying out the decentralized ZPA logic. The Ethernet G20 MDR controller is offering up to four lines, each enabling the connection of up to 15 G20 MDR system modules. The recognition and addressing of connected system modules is carried out automatically. The compact housing offers integrated cables for Ethernet network connection and the connection of the G20 system module and can easily be mounted directly in the carrier rail. The latching mechanism is enabling power supply via piercing technology of flat cables without the need for special tooling

Dimensions



Technical Data

General specifications

Compatible roller motors

Interroll EC310
Interroll EC5000 24 V AI (20 W / 35 W / 50 W)
Interroll EC5000 48 V AI (20 W / 35 W / 50 W)
Rulmeca BL3
Itoh Denki PM500XK
Itoh Denki PM500XC
PULSEROLLER Senergy-IDC
MTA MRD50 (A interface, 24 V to 40 W)
MTA MRD50 (A interface, 48 V to 44 W)
WWL R-* -H + CE23XX
Conveline RM50
Mambaroll Built-In Drive Roller 50
UniDrive ONE

Indicators/operating means

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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PEPPERL+FUCHS

Technical Data

LED indication		Zone 1: MOT, IO1, IO2, X Zone 2: MOT, IO1, IO2, X L-A, L-B, PWR
Electrical specifications		
Auxiliary voltage	U _{PWR}	18 ... 56 V DC PELV Max. 10 A Current limitation of the supply max. 30 A For UL: Z-type miniature circuit breaker in accordance with UL 1077, max. 20 A, required
Operating voltage	U _B	15 ... 30 V DC, PELV Powered from ICE-EP2-G20-4B22A-P17
No-load supply current	I ₀	≤ 40 mA
Operating current	I _B	max. 3 A
Interface		
Interface type		proprietary system interface
Input		
Number/Type		4 Inputs for 3-wire sensors (PNP), DC (Zone 1: IO1, IO2; Zone 2: IO1, IO2)
Supply		from G20 Motor Roller System Module via L-A
Current loading capacity		200 mA per connection in Zone 1 (IO1, IO2) and Zone 2 (IO1, IO2) , overload and short-circuit protected
Input current		≤ 5 mA (limited internally)
Switching point		Type 3 according to IEC 61131-2
Output 1		
Number/Type		4 electronic outputs, PNP (Zone 1:IO1, IO2; Zone 2: IO1, IO2), overload proof and short-circuit proof
Supply		from G20 Motor Roller System Module via L-A
Current		200 mA per output
Output 2		
Number/Type		2 outputs for DC roller motors (Zone 1: MOT, Zone 2: MOT)
Supply		via U _{PWR}
Current loading capacity		3.5 A (continuous), 5 A (< 2 s), max. 7.5 A (< 0.3 s) per motor Total current (continuous) max. 7 A per device
Overload protection		Fuse 4 A, I ² t = 122.5 A²s per motor
Signal level		Speed: U _S = 0.3 ... 10 V in no-load operation R _i = 5.6 kΩ, R _{LOAD} ≥ 35 kΩ Direction of rotation: Digital output PNP U _D low = high resistance U _D high ≥ 12 V R _i = 5.6 kΩ, R _{LOAD} ≥ 15 kΩ
Fault level		Motor fault: Digital input NPN 0 (no error) ≥ 125 µA 1 (error) ≤ 25 µA
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 EN 55011:2016
Standard conformity		
Degree of protection		EN 60529:2000
Input		EN 61131-2:2007
Emitted interference		EN 61000-6-4:2007
Noise immunity		EN 61000-6-2:2005
Approvals and certificates		
UL approval		
Application		for use in NFPA 79 applications
UL File Number		E223772
Ambient conditions		
Ambient temperature		-25 ... 60 °C (-13 ... 140 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		85 % non-condensing
Climatic conditions		For indoor use only

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Technical Data

Altitude	≤ 5000 m above MSL
Shock and impact resistance	30 g, 11 ms in 6 spatial directions, 3 shocks 10 g, 16 ms in 6 spatial directions, 1000 shocks
Vibration resistance	0.75 mm / 5 g 5 ... 500 Hz
Pollution degree	3
Mechanical specifications	
Degree of protection	IP67 according to EN 60529
Connection	24 V/48 V power (PWR): Piercing technology, black or gray flat cable L-A; L-B: M12 round plug connector in accordance with EN 61076-2-101, LF type (4-pin, socket contacts, screw-locking, A-coded) Mating connector: LM type or similar Inputs/outputs (IO), motors (MOT): M8 round plug connector in accordance with EN 61076-2-104 IO: LF type (4-pin, bushing contacts, screw-locking, A-coded) Female connector: LM type or similar MOT: NF type (5-pin, bushing contacts, snap-locking, B-coded) Female connector: NM type or similar
Mass	310 g
Dimensions	
Height	27.5 mm
Width	131.5 mm
Length	54 mm
Mounting	2 clips with Ø 8 mm drill hole The module must be secured to a solid, continuous surface using the two lugs
Cable length	1.5 m (L-A, L-B) 0.8 m (Zone 1, Zone 2: IO) 0.4 m (Zone 1, Zone 2: MOT)
Note	The flat cable routing is designed for 100 actuation cycles

Wiring Diagram

