

GX20 MDR Control Card



The GX20 MDR Control Card is an AS-Interface (ASI) Slave device used in Conveyor systems for controlling and driving MDR rollers. Each GX20 card can control up to two motors. Compatible rollers include:

- Interroll EC310
- Interroll EC5000 24V AI (20W / 35W / 50W)
- Rulmeca BL3
- Itoh Denki PM500XK
- Itoh Denki PM500XC
- And more

The GX20 allows quick installation of the control system using M8 plugs and snap-on mounting hardware. The device uses vampire connectors for easy connection to the ASI network and Power cables. This allows for significant reductions in installation costs as well as maintenance. The system allows hot-swapping of these cards in case a unit needs to be replaced. The GX20 is housed in a water-protected enclosure (IP64 splash proof rating).

The GX20 MDR Control Card allows up to 8Amp of continuous current and has a built-in resettable fuse for protection against over-current condition. The resettable fuse will automatically reset once the power is cycled and over-current error has been resolved.

The GX20 unit puts out 0-10V analog voltage to set the motor speed. This value is set by the ASI master or gateway via Network Parameters values. The motor direction and on/off state are controlled from network poll data.

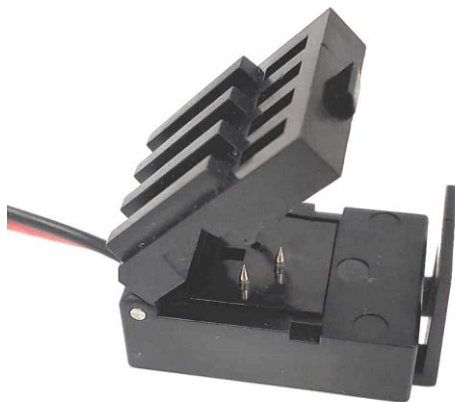


Status LEDs

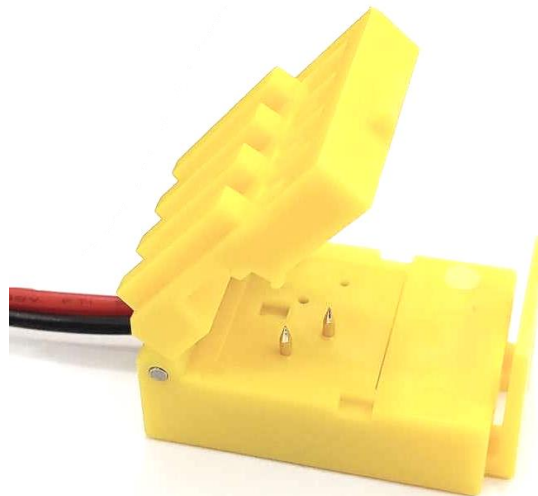
NET	ASI Network status indicator
FAULT	Device fault-state Indicator
IN 1/2	State of connected inputs
MTR 1/2	On/Off State of connected motor
ERR 1/2	Motor Fault States
DIR	Commanded Motor Direction
FUSE	Fuse State Indicated. On = Fuse Tripped because of over current, OFF = No Error

AS-Interface Plugs

Motor Power Wiretap Connector

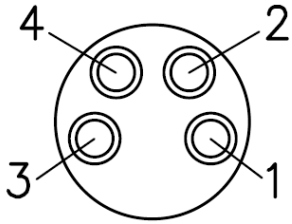


Network Wiretap Connector



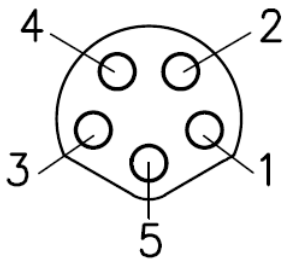
IO Plugs

Digital Input Plugs IN1 and IN2 – M8 4-Pin Female Connectors



PIN	Description
Pin1	+24V
Pin2	N.C.
Pin3	GND
Pin4	Signal, PNP, Active High

Motor Output Plugs MTR1 and MTR2 – M8 5-Pin Female Connectors



PIN	Description
Pin1	+24V
Pin2	Direction
Pin3	GND
Pin4	Fault
Pin5	Speed

Technical Data

Electrical specifications	
Motor Power	18-26 VDC
Network	26.5 ... 32 V from Data Cable
Network operating current	≤ 35 mA

Input	
Number/Type	2 Inputs for 3-wire sensors (PNP), DC
Output	
Number/Type	2 outputs for DC roller motors (MTR1, MTR2)
Supply	From Black Motor Power supply cable
Current	8Amp continuous total card current, Max per motor 3.5A (5Amp < 2 s)
Overload Protection	Resettable Fuse , > 4 Amps for 3 to 5 seconds. Auto recovers on power cycle.
Roller Speed Signal	1.4 ... 11 V at no-load Ri = 4.7 kΩ, RLOAD ≥ 10 kΩ Speed Control via parameter P2:0
Roller Direction Signal	Ri = 5.1 kΩ, RLOAD ≥ 6.8 kΩ
Motor Fault	Digital input NPN, Vtrig = 2 V, Ri = 33 kΩ 0 (no error) Input is Grounded (≥ 0.6 mA) 1 (error) Input is Open Circuit
Directive Conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 62026-2:2013
Standard Conformity	
Degree of protection	EN 60529:2000
Fieldbus standard	EN 62026-2:2013
Input	EN 61131-2:2007
Emitted Interference	EN 61000-6-4:2007
Noise Immunity	EN 61000-6-2:2005, EN 61326-1:2006, EN 62026-2:2013
Ambient Conditions	
Ambient Temperature	-25 ... 65 °C
Storage Temperature	-25 ... 85 °C
Mechanical Specifications	
Degree of Protection	IP64 according to EN 60529
Connection	Flat Data Cable, Power: Insulation piercing technology Yellow flat cable/black flat cable Inputs/outputs: M8 round plug connector in accordance with EN 61076-2-104 Inputs: LF004-GS1-A (4-pin, bushing contacts, screw lock, A-coded) Matching connector: LM004-Gx1-A or similar Outputs: NF005-SS1-B (5-pin, bushing contacts, snap lock, B-coded). Matching connector: NM005-Sx1-B or similar
Mass	250 grams (~1/2 lb)
Mounting	2 clips with Ø 8 mm drill hole
Cable Length	30 inches

Dimension Data

All Dimensions are in millimeters.

