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# IBS RL 480 MLR R DIO6/1-LK2MBD


Order No.: 2734497



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2734497>

Electromechanical reversing load motor starter for INTERBUS; fiber optic technology with 2 Mbaud, inputs (24 V DC), integrated motor protection relay (220 V AC to 480 V AC; 8 A, maximum), sensor connection via 5-pos. M12 female connectors, rugged metal housing, IP67 protection

## Commercial data

GTIN (EAN)	 4 017918 974190
Note	Made-to-order
sales group	K525
Pack	1 pcs.
Customs tariff	85389091
Catalog page information	Page 415 (AX-2009)

<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

## Technical data

### Interface

Fieldbus system	INTERBUS
Name	Remote bus
Type of connection	Fiber optics
Transmission speed	2 MBaud

#### Power supply for module electronics

Supply voltage	24 V DC
Supply voltage range	18.5 V DC ... 32 V DC (including ripple)
Ripple	3.6 V <sub>pp</sub>
Current consumption	Typ. 90 mA (plus power supply for sensors)

#### Mains connection

Name	Mains connection
Type of connection	POWER-COMBICON with silver contacts
Designation connection point	Terminal strip; X11 and X12
Number of positions	4
Permissible conductor cross section	2.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Operating voltage	230 V AC ... 480 V AC ± 10% (conductor voltage)
Max. current carrying capacity	20 A

#### Motor starter, output

Type of connection	POWER-COMBICON
Number	1
Designation connection point	X10
Number of positions	8
Pg screw connection	Pg16
Operating voltage	230 V AC ... 480 V AC
Frequency range	50 Hz ... 60 kHz
Nominal current range	Parameterizable 0.2 A ... 8 A (observe derating)
Utilization category	On the basis of AC 3
Switching rate	5 cycles per minute, maximum
Motor startup time	1 s

#### Motor monitoring

Parameterization	Via INTERBUS
Overspeed tripping	≥ 40 A (after 1 second at I <sub>nom</sub> > 3.6 A)

#### Motor starter, brake

Continuous load current	max. 1 A
Type of contact	Mechanical relay contact
Connection method	POWER-COMBICON terminal strips
Connection voltage	12 V AC/DC ... 480 V AC/DC

### Digital inputs

Input name	Digital inputs
Number of inputs	6
Type of connection	M12 male connector
Connection method	3, 4-wire
Number of positions	5
Input voltage	24 V DC (DIN EN 61131-2)
Input voltage range "0" signal	0 V ... 5 V
Input voltage range "1" signal	11 V ... 30 V
Typical input current per channel	5 mA (for $U_{S1} = 24$ V)
Filter time	3 ms
Power supply for sensors	$U_{INI} = U_{S1}$ minus 1 V 50 mA Protected against inductive reverse voltages, electronically protected against short-circuiting

### Digital outputs

Number of outputs	1
Type of connection	M12 male connector
Number of positions	5
Output current	0.5 A
Minimum output voltage with nominal current	$U_{S1}$ minus 2 V
Type of protection	Electronic short-circuit/overload protection

### General data

Width	185.1 mm
Height	193 mm
Depth	138 mm
Weight	3.8 kg
Mounting type	Wall mounting
Ambient temperature (operation)	0 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Permissible humidity (operation)	100 %
Permissible humidity (storage/transport)	95 % (no condensation)
Air pressure (operation)	860 hPa ... 1080 hPa (up to 1500 m above mean sea level)
Air pressure (storage/transport)	660 hPa ... 1080 hPa (up to 3500 m above mean sea level)
Degree of protection	IP67, when screwed together
Protection class	I, IEC 61140, EN 61140, VDE 0140-1
Air and creepage distances	According to EN 50178: 1998

Diagnosics messages	Mains failure, phase failure, blown fuse Error message in diagnostic code (bus) and display by means of the E LED on the motor starter
	Motor connector not plugged in, motor temperature exceeded, thermistor line short-circuited Error message in diagnostic code (bus) and display by means of the E LED on the motor starter
	Sensor supply failure Error message in diagnostic code (bus) and display by means of the E LED on the motor starter
	Failure of the actuator supply Error message in diagnostic code (bus) and display by means of the E LED on the motor starter
	Motor overcurrent Error message in diagnostic code (bus) and display by means of the E LED on the motor starter
	Output stage cannot be controlled Error message in diagnostic code (bus) and display by means of the E LED on the motor starter
	Module error during self test Message to the master

#### Certificates / Approvals



Certification

CUL Listed, UL Listed, VDE-PZI

#### Accessories

Item	Designation	Description
<b>Assembly</b>		
2731128	IBS RL AP	Mounting plate for Ruggedline devices

#### Cable/conductor

2820000	IBS PWR/5	Power supply cable, gray, welding-splash-resistant in standard applications, 5 x 1.5 mm <sup>2</sup> , sold by the meter
2731775	IBS PWR/5HD/F	Power supply cable, gray, welding-splash-resistant in standard applications, 5 x 1.5 mm <sup>2</sup> , highly stranded, sold by the meter
2733029	IBS RL CONNECTION-LK	Assembled cable jumper as a short connection between two INTERBUS Rugged Line devices with fiber optic bus connectors and power supply, approximately 30 cm
2744319	PSM-LWL-KDHEAVY-980/1000	Polymer fiber cable, duplex 980/1000 µm, medium-weight version for permanent indoor installation, by the meter, without connector

2744322	PSM-LWL-RUGGED-980/1000	Polymer fiber cable, duplex, 980 µm/1000 µm, heavy version for permanent indoor installation, sold by the meter without connectors
2744335	PSM-LWL-RUGGED-FLEX-980/1000	Polymer fiber cable, duplex 980/1000 µm, heavy-weight, highly flexible version for flexible conduit applications, by the meter, without connector

#### General

2740504	IBS RL MLR PLSET R-8A	Accessory set comprising: connectors and PG screw connections
2743705	IBS RL SYS PRO UM	User manual, German, for configuring and installing the Rugged Line product range, only available as a download.

#### Handheld operator panel

2837006	IBS HVO/M12	Handheld operator panel, for INTERBUS motor starters and INTERBUS variable frequency drives in IP54 protection
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#### Marking

2732729	IBS RL MARKER-SET	Set of 50 small and 50 large metal marking labels
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#### Plug/Adapter

2725040	IBS RL 24 ADAP-LK/T	INTERBUS Rugged Line adapter for converting the fiber optic remote bus to a copper wire remote bus
2725037	IBS RL 24 ADAP-T/LK	INTERBUS Rugged Line adapter for converting the copper wire remote bus to a fiber optic remote bus
2731076	IBS RL PLUG-LK/POF	Connector for the fiber optic bus with polymer fiber cable and for the power supply with screw connection method

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