

INTRODUCTION



Brad® Direct-Link® 750&780 Harsh Duty Unmanaged Switches

1121115

5-Port Modules

1121055

8-Port Modules

Brad Direct-Link switches provide customers with a faster, simpler and more secure Ethernet connection than any other system on the market.

As our world becomes more connected, an increasing number of manufacturers and installers are specifying Ethernet devices for their harsh applications. The Brad family of rugged connectivity products is a leading product line provider of Ethernet infrastructure for Molex.

Protected cabinet Ethernet switch installations away from machinery require long wiring runs, enclosures and glanding. The Molex Direct-Link, harsh-duty, Ethernet switches have been developed to allow customers to convert from traditional in-cabinet to on-machine mounting, moving the switch closer to the machine and thereby reducing cabling.

The Molex Ultra-Lock® system of connectors and cordsets is a major component in the Direct-Link Harsh-Duty Switches line.

Available in 5-port and 8-port versions, the Molex durable switches with push/pull connectors save cabling and reduce installation time and cost compared with existing cabinet installations. They provide easier system maintenance and produce a seal when connected regardless of labour skill. The connections are tested to IP69K ratings to ensure operation through dust, pressure-wash and immersion in water. Mechanical keying and radial seals eliminate the risk for operator error commonly found in other systems.

Slim dimensions are sized to fit standard extrusions for easy mounting. Auto-learning features make each unit truly plug-and-play, suitable for both the novice and expert in network setup.

Operating temperature ratings of -20 to +75°C ensure that networks linked using the harsh-duty switches can run in extreme environments. Coupled with Class 1, Division 2 certification these switches can also be used in Oil and Gas, Mining, and utility applications.



FEATURES AND BENEFITS

- Ultra-Lock® Connection system - faster, simpler and more secure connections than any other system on the market
- NEMA 6 and IP69k rated environmental protection - withstands dust, pressure-wash and submersion in water
- Class 1 Div 2 rated - suitable for Oil and Gas markets where extremely hazardous gases may be present
- Operating temperature to -20 to +75°C - enables installation in extreme temperature applications
- 30mm and 60mm formats with standard hole patterns - allows use of standard extrusion members and mounting holes for installation
- Auto-learning with no software or configuration required - plug-and-play capabilities and less-skilled labour able to install systems

MARKETS AND APPLICATIONS

- Industrial Automation
 - Manufacturing cells
 - Plant-floor data networks
- Machine Builders
 - Robots, CNC, packaging machines, textiles, presses
- Entertainment
 - Theme parks, rides
 - Concerts and carnivals
- Signage and advertising
 - Traffic signs, billboards
- Non-Automotive Transportation
 - Railways, subways, marinas



SPECIFICATIONS



**Brad® Direct-Link® 750&780
Harsh Duty Unmanaged
Switches**

1121115 5-Port Modules
1121055 8-Port Modules

Characteristics and Performance

Switch Type: Unmanaged (Store and Forward)

Ports: 10BaseT/100BaseTx M12

Latency (10Mb): 16µs + frame time
Latency(100Mb): 5µs + frame time

Duplex Operation: Full or half
Mounting: Screw Mount
Power input: Redundant input terminals
Input power(max): 2.0W (DRL-75x), 2.4W (DRL-78x)

Voltage: 9-36VDC (continuous)
Isolation: 1500 VRMS 1 minute
Operating temp: -20 to +75°C
Storage temp: -40 to +85°C
Humidity: 5 – 95% RH non condensing
Dimensions: 176 x 30 x 34 (DRL-75x)
220 x 60 x 37 (DRL-78x)

Weight: 230g (DRL-75x)
580g (DRL-78x)

References

Vibration: 7g (IEC68-2-29)

Shock: 50g (IEC68-2-29)

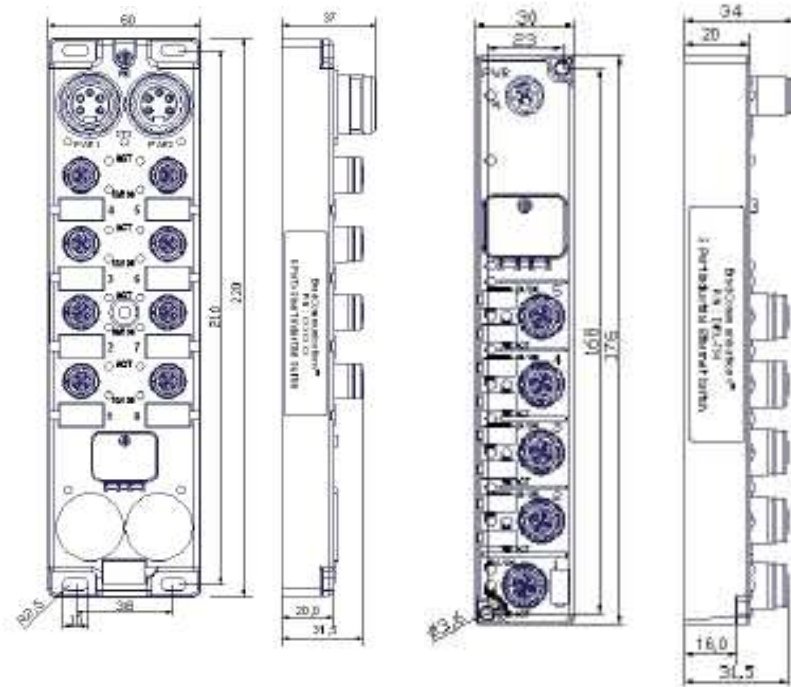
Electrical Safety: EN61010-1 (IEC61010)

EMI emissions: FCC part 15, ICES 003, EN55011 Class A (DRL-78x), Class B (DRL-750)

EMC immunity: EN61326, EN61000-4-4, EN61000-4-5, EN61000-4-2; 8Kv contact/16Kv Air (DRL-75x) 4Kv contact/8Kv Air (DRL-78x)

UL: File number - pending

Hazardous Rating: Class 1 Division 2 certification



ORDERING INFORMATION

| Order No. | Material Number | Description | # of Ports | Power | Samples |
|-------------|-----------------|-------------------------------------|------------|---------------------|---------|
| 1121115001 | DRL-750 | IP67 Fast Ethernet Unmanaged Switch | 5 | M12 | 6201 |
| 1121055002 | DRL-780 | IP67 Fast Ethernet Unmanaged Switch | 8 | Mini-Change (5-pin) | 6201 |
| Coming soon | DRL-781 | IP67 Fast Ethernet Unmanaged Switch | 8 | Mini-Change (4-pin) | 6201 |

www.molex.com/link/directlink750-780.html

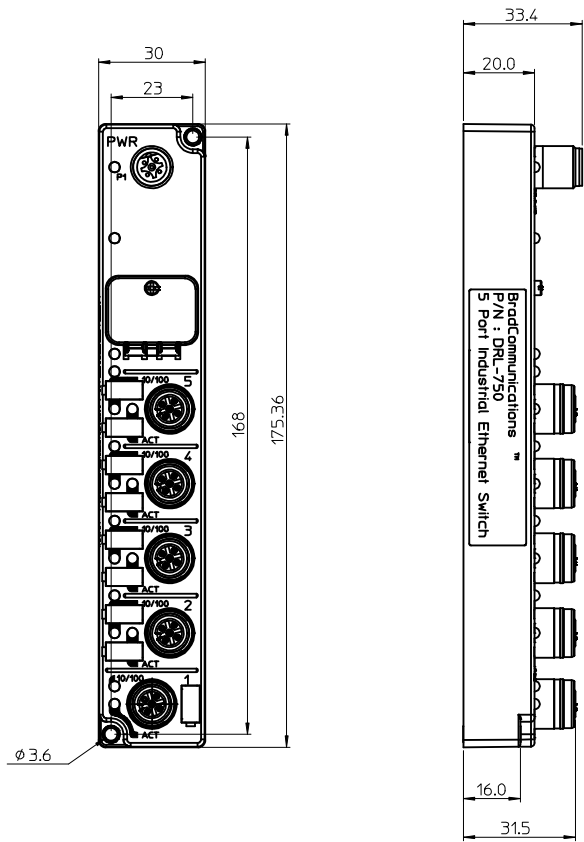
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| ORIGINAL RELEASE EC NO: WEL2009-0283 DRAWN: DMAYER, WEU 2009/03/09 CHKD: 2009/03/11 APPR: EFOLAN 2009/03/11 REV: A | QUALITY SYMBOLS $\nabla=0$ $\nabla=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>\pm ---</td> <td>\pm ---</td> </tr> <tr> <td>3 PLACES</td> <td>\pm ---</td> <td>\pm ---</td> </tr> <tr> <td>2 PLACES</td> <td>\pm ---</td> <td>\pm ---</td> </tr> <tr> <td>1 PLACE</td> <td>\pm ---</td> <td>\pm ---</td> </tr> </tbody> </table> | | mm | INCH | 4 PLACES | \pm --- | \pm --- | 3 PLACES | \pm --- | \pm --- | 2 PLACES | \pm --- | \pm --- | 1 PLACE | \pm --- | \pm --- | DIMENSION STYLE MM ONLY | SCALE 1:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION |
|--|---|--|--|----|------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|---------|-----------|-----------|-----------------------------------|---------------------|-------------------------------|------------------------|
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| 1 PLACE | \pm --- | \pm --- | | | | | | | | | | | | | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | DRAWN BY D. CARTON | DATE 2009/3/14 | TITLE 30 MM SPORT UNMANAGED SWITCH DRL 750 | | | | | | | | | | | | | | | | | | |
| | APPROVED BY EFOLAN | DATE 2009/3/14 | MOLEX INCORPORATED | | | | | | | | | | | | | | | | | | |
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