

MTL IOP range

January 2017

SPECIFICATION

All figures typical at 25°C (77°F) unless otherwise stated

Maximum surge current

20kA (8/20µs waveform) per line

Leakage Current

<1µA @ working voltage

Maximum rated load current

0.675A (5A for IOP HC32)

Loop resistance

IOP32 & IOP32D: 4 ohm

IOP-AC: 1 ohm

IOP HC32: 0 ohm

Bandwidth

6.5 MHz (N/A for IOP HC32)

Attenuation

< -0.3dB @ < 1MHz

-3.0dB @ 6.5MHz

Response time

<1ns

Ambient temperature

Working & Storage

-40°C to +80°C (-40°F to +176°F)

(see also "Approvals" below)

Humidity

5 to 95% RH (non-condensing)

Terminals

2.5mm² (12 AWG)

Electrical connections

Plug/header screw terminal strip

Mounting

T-section DIN-rail (35 x 15mm rail)

Weight

140g approx. (5oz.)

Case flammability

UL94-V0

EMC compliance

BS EN 61326-1:2006

Electrical Safety

BS EN 60950-1:2006+A12:2011

BS EN 61010-1:2010

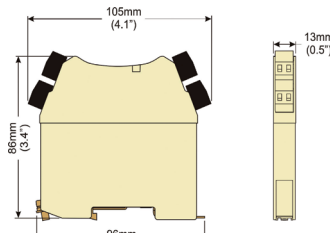


Figure 1 Dimensions

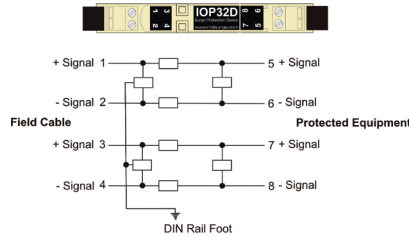


Figure 2 Connection details

Locate the DIN rail foot over one edge of the DIN rail

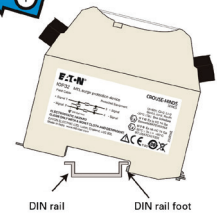


Figure 3 Installation

Push the IOP securely onto the DIN rail



TO ORDER SPECIFY - Order by module, as listed in the specification table below.

Model		IOP32	IOP32D	IOP HC32	IOP-AC
Nominal voltage	U_n	32V	32V	32V	240V
Rated voltage (MCOV)	U_c	36V	36V	36V	275V
Nominal current	I_n	675mA	675mA	5A	1.75A
Nominal discharge current (8/20µs)	i_{sn}	3kA	3kA	3kA	3kA
Max discharge current (8/20µs)	I_{max}	20kA	20kA	20kA	20kA
Lightning impulse current (10/350µs)	I_{imp}	2.5kA	2.5kA	2.5kA	2.5kA
Residual voltage @ i_{sn}	U_p	45V L-L 78V L-G	45V L-L 90V L-G	65V L-L (250V sparkover) 65V L-G	800V L-L 800V L-G
Voltage protection level @ 1kV/µs	U_p	<38V	<38V	<38V	500V
Bandwidth	f_G	6.5MHz	6.5MHz	N/A	N/A
Series resistance	R	2Ω	2Ω	0Ω	0.5Ω
Category tested		A2, B2, C1, C2, C3, D1			
Overstressed fault mode $i_n=3kA$		22kA	22kA	22kA	22kA
Impulse durability (8/20µs)		10kA	10kA	10kA	10kA
Degree of protection		IP20			
AC durability		1Arms, 5T			N/A
Service conditions		80kPa- 160kPa 5% - 95% RH			

Tested in accordance with IEC 61643-21.

HAZARDOUS AREA APPROVALS

Country (Authority)	Standard	Certificate/ File No.	Approved for	Product
Europe (Bassefa)	IEC 60079-0:2011 EN 60079-11:2012	Baseefa12ATEX0066X	Ex ia IIC T4 Ga	IOP32D
Europe (Bassefa)	IEC 60079-0:2011 EN 60079-11:2012	Baseefa06ATEX0036X	Ex ia IIC T4 Ga	IOP32
EU (Eaton)	EN 60079-14:2009 EN 60069-15:2010	MTL06ATEX0132X	Ex n IIC T4 Ga	IOP32D IOP32D
USA (FM)	Class 3600 (1998), Class 3610 (2010), Class 3611 (1999), Class 3615 (1989), Class 3810 incl. Supp 1 (1995-07 (1989-03), ANSI/NEMA 250 (1991), ANSI/ISA 60079-0 (2009), ANSI/ISA 60079-11 (2009), ISA-S12.0.01 (1999)	3011208	IS/I/1/A-D, I/O/AEx ia IIC, I/O/AEx ia IIB, NI/I/2/A-D NI/I/2/IIC	IOP32 IOP32D
Canada (FM)	C22.2 No. 213, 142, 94, 157, 30 ANSI/NEMA 250 CAN/CSA-E79-0, CAN/CSA-E79-11	3025374C	IS/I/1/A-D, I/O/AEx ia IIC, I/O/AEx ia IIB, NI/I/2/A-D NI/I/2/IIC	IOP32 IOP32D



Powering Business Worldwide

Eaton Electric Limited,
Great Marlings, Butterfield, Luton
Beds, LU2 8DL, UK.
Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283
E-mail: mtlenquiry@eaton.com
www.mtl-inst.com

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EUROPE (EMEA):
+44 (0)1582 723633
mtlenquiry@eaton.com

THE AMERICAS:
+1 800 835 7075
mtl-us-info@eaton.com

ASIA-PACIFIC:
+65 6 645 9888
sales.mtlsing@eaton.com

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