

# Enclosure: Junction Boxes (Empty Enclosure), DER Series

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22

## Application

The DER junction boxes (empty enclosures) are designed for spliced and tapped conductors or connecting of conductor for control and instrument. These boxes are suitable for explosive atmospheres Zone 1, 2 and Zone 21, 22.

## Specification

- Body and cover : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (grey)
- Sealing (O-ring) : Silicone
- Screws : Stainless steel, SUS 304

## Electrical Rating

- Rated voltage : up to 630V.ac
  - Rated current : up to 41A.
- (as per terminal specification)

## Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex II 2G	Ex II 2D
Symbol of Protection	Ex d IIC Gb	Ex tb IIC Db IP66
Certificate	Nemko 12 ATEX 1248 U	
Conformity to Standards	EN 60079-0:2009, EN 60079-1:2007, EN 60079-31:2009	
Ambient Temperature	-20°C to +55°C	
Index of Protection	IP66	
Mounting	Wall type	
Entries	NPT or Metric thread	
Mechanical resistance	≥7Nm. of impact energy	

**Remark:** Certificate with symbol "U" denotes an Ex Component. It indicates that the equipment is incomplete and is not suitable for installation without further evaluation.

## Catalogue Number Logic

DER - ■ - ■ - ■ ■

Series	Enclosure	Outline Diagram	Entries
1	Size 1	C	M0 M16x1.5 N1 Ø1/2" NPT
2	Size 2	L	M1 M20x1.5 N2 Ø3/4" NPT
3	Size 3	T	M2 M25x1.5 N3 Ø1" NPT
		X	M3 M32x1.5 N4 Ø1-1/4" NPT
			M4 M40x1.5 N5 Ø1-1/2" NPT
			M5 M50x1.5 N6 Ø2" NPT
			M6 M63x1.5



## Ordering Requirements

Entries		Outline Diagram for Entries	Enclosure Size	Cat. No.	Volume (dm <sup>3</sup> )	Dissipation Power Loss by use in Temperature Class			
Metric	NPT					Ta 40°C		Ta 55°C	
						T6	T5	T6	T5
M16x1.5	Ø1/2" Ø3/4"		Size 1	DER-1C-M0	0.38	35W.	50W.	21W.	38W.
M20x1.5				DER-1C-M1					
M25x1.5				DER-1C-M2					
				DER-1C-N1					
			Size 2	0.61	DER-2C-M3	40W.	61W.	24W.	43W.
M32x1.5	DER-2C-M4								
M40x1.5	DER-2C-N3								
	DER-2C-N4								
			Size 3	1.17	DER-3C-M5	54W.	79W.	36W.	57W.
M50x1.5	DER-3C-M6								
M63x1.5	DER-3C-N5								
	DER-3C-N6								

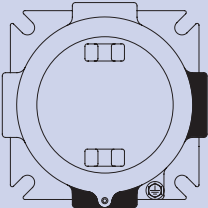
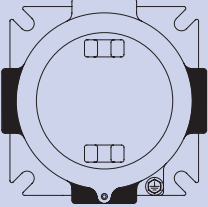
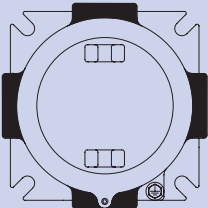
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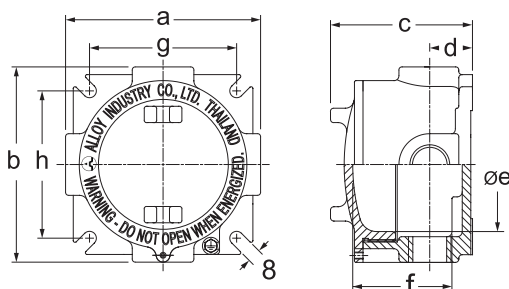
Zone 1 & 2 – 21 & 22



## Ordering Requirements

Entries		Outline Diagram for Entries	Enclosure Size	Cat. No.	Volume (dm <sup>3</sup> )	Dissipation Power Loss by use in Temperature Class					
						Ta 40°C		Ta 55°C			
Metric	NPT					T6	T5	T6	T5		
M16x1.5		<b>L type</b> 2-ways Angle  	Size 1	DER-1L-M0	0.38	35W.	50W.	21W.	38W.		
M20x1.5				DER-1L-M1							
M25x1.5				DER-1L-M2							
	DER-1L-N1										
	Ø1/2"				DER-1L-N2						
	Ø3/4"										
M32x1.5				Size 2	DER-2L-M3	0.61	40W.	61W.	24W.	43W.	
M40x1.5					DER-2L-M4						
					DER-2L-N3						
	Ø1"					DER-2L-N4					
	Ø1-1/4"										
M50x1.5					Size 3	DER-3L-M5	1.17	54W.	79W.	36W.	57W.
M63x1.5		DER-3L-M6									
		DER-3L-N5									
	Ø1-1/2"					DER-3L-N6					
	Ø2"										
M16x1.5		<b>T type</b> 3-ways  			Size 1	DER-1T-M0	0.38	35W.	50W.	21W.	38W.
M20x1.5						DER-1T-M1					
M25x1.5			DER-1T-M2								
	DER-1T-N1										
	Ø1/2"					DER-1T-N2					
	Ø3/4"										
M32x1.5					Size 2	DER-2T-M3	0.61	40W.	61W.	24W.	43W.
M40x1.5				DER-2T-M4							
				DER-2T-N3							
	Ø1"					DER-2T-N4					
	Ø1-1/4"										
M50x1.5					Size 3	DER-3T-M5	1.17	54W.	79W.	36W.	57W.
M63x1.5		DER-3T-M6									
		DER-3T-N5									
	Ø1-1/2"					DER-3T-N6					
	Ø2"										
M16x1.5		<b>X type</b> 4-ways  			Size 1	DER-1X-M0	0.38	35W.	50W.	21W.	38W.
M20x1.5						DER-1X-M1					
M25x1.5			DER-1X-M2								
	DER-1X-N1										
	Ø1/2"					DER-1X-N2					
	Ø3/4"										
M32x1.5					Size 2	DER-2X-M3	0.61	40W.	61W.	24W.	43W.
M40x1.5				DER-2X-M4							
				DER-2X-N3							
	Ø1"					DER-2X-N4					
	Ø1-1/4"										
M50x1.5					Size 3	DER-3X-M5	1.17	54W.	79W.	36W.	57W.
M63x1.5		DER-3X-M6									
		DER-3X-N5									
	Ø1-1/2"					DER-3X-N6					
	Ø2"										

## Dimension



Enclosure Size	Dimension in mm.								Approx. Weight (kgs.)
	a	b	c	d	øe	f	g	h	
Size 1	114	114	83	25	88	58	86	86	0.98
Size 2	124	124	99	34	98	72	96	96	1.65
Size 3	144	144	121	43.5	118	94	123	123	2.35

