

Enclosure: Junction Boxes/ Terminal Boxes, DER/ DTR Series



Flameproof Zone 1 & 2 – 21 & 22

Application

The DER junction boxes (empty enclosures) and DTR terminal boxes are designed for taps, splices 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 -40°C to +175°C
Screws : Stainless steel

Electrical Rating

Rated voltage : up to 750V.AC.
Rated current : up to 43A.
(as per terminal specification)

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Conforming to ATEX	Ex II 2G	Ex II 2D
Symbol of Protection ATEX	Ex d IIC Gb	Ex tb IIIC Db
Symbol of Protection IEC		
ATEX Certificate	DER series; Nemko 12 ATEX 1248U DTR series; Nemko 12 ATEX 1249	
T Rating	T6 (Ta 40 °C) T5 (Ta 55 °C)	NA
Surface Temperature	NA	T80°C (Ta 40 °C) T100°C (Ta 55 °C)
Standard	ATEX Directive 2014/34/EU, std. 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	
Terminal	Terminal block for 0.5- 6 mm. ² cable	
Entries	NPT or Metric thread	
Mechanical resistance	≥7Nm. of impact energy	

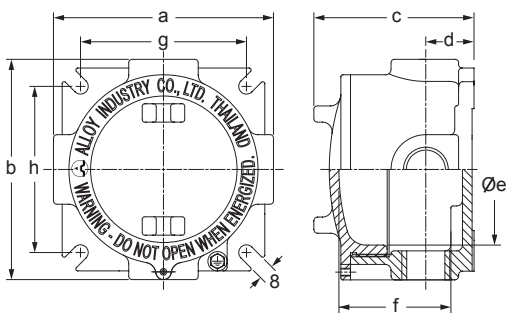
Remark: Certificate with symbol "U" denotes an Ex Component. It indicates that the equipment is incomplete and is not suitable for installation without further evaluation.

Catalogue Number Logic

DER	-	X	X	-	XX
Series		Enclosure Size: 1 = Size 1 2 = Size 2 3 = Size 3	Outline Diagram : C = 2-ways Through-feed L = 2-ways Angle T = 3-ways X = 4-ways		Entries (Bottom): N1 = Ø1/2" NPT N2 = Ø3/4" NPT N3 = Ø1" NPT N4 = Ø1-1/4" NPT N5 = Ø1-1/2" NPT N6 = Ø2" NPT M0 = M16x1.5 M1 = M20x1.5 M2 = M25x1.5 M3 = M32x1.5 M4 = M40x1.5 M5 = M50x1.5 M6 = M63x1.5

DTR	-	X	X	-	XX	□T
Series		Enclosure Size: 1 = Size 1 2 = Size 2 3 = Size 3	Outline Diagram : C = 2-ways Through-feed L = 2-ways Angle T = 3-ways X = 4-ways		Entries (Bottom): N1 = Ø1/2" NPT N2 = Ø3/4" NPT N3 = Ø1" NPT N4 = Ø1-1/4" NPT N5 = Ø1-1/2" NPT N6 = Ø2" NPT M0 = M16x1.5 M1 = M20x1.5 M2 = M25x1.5 M3 = M32x1.5 M4 = M40x1.5 M5 = M50x1.5 M6 = M63x1.5	Terminal Block: 2T = 2-Poles 3T = 3-Poles 4T = 4-Poles 5T = 5-Poles 6T = 6-Poles 8T = 8-Poles 10T = 10-Poles (see terminal selection chart)

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

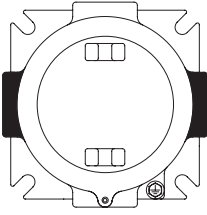
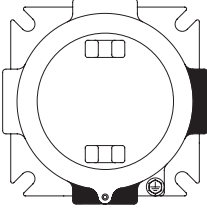
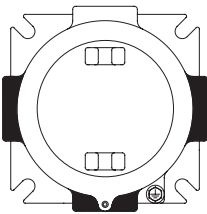
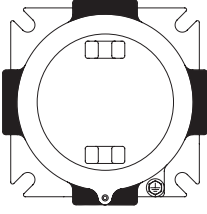


Enclosure: Junction Boxes (Empty), DER Series



**Flameproof
Zone 1 & 2 – 21 & 22**

Selection Table

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

Enclosure: Terminal Boxes, DTR Series



**Flameproof
Zone 1 & 2 – 21 & 22**

Terminal Selection Chart

TB Model	Rated Current	Rated Voltage	Wire Size	Maximum Numbers of Terminals (Respective to the Temperature Class)		
				Size 1 (DTR-1..)	Size 2 (DTR-2..)	Size 3 (DTR-3..)
DR4/6	30A.	275V.	0.5 - 4.0 mm. ²	6-Poles	8-Poles	10-Poles
ZS4	32A.	630V.	0.5 - 4.0 mm. ²	3-Poles	5-Poles	8-Poles
ZS6	41A.	630V.	0.5 - 6.0 mm. ²	–	–	6-Poles



Maximum Number of Terminal Permitted for Load Current

Current (A)	Cross-section in mm. ² DTR1-...				
	1.5	2.5	4	6	10
30			8	16	
10	34	In this area any number of terminals can be added to maximum physical content.			
16	11	22	87		
20	4	13	25		
25		6	14	27	
35	Fitting in this area is not allowed.				27
50	Fitting in this area is not allowed.				8

Current (A)	Cross-section in mm. ² DTR2-...				
	1.5	2.5	4	6	10
30			9	19	
10	39	In this area any number of terminals can be added to maximum physical content.			
16	13	26	102		
20	5	15	29		
25		7	16	32	
35	Fitting in this area is not allowed.				31
50	Fitting in this area is not allowed.				10

Current (A)	Cross-section in mm. ² DTR3-...				
	1.5	2.5	4	6	10
30		2	12	23	
10	48	In this area any number of terminals can be added to maximum physical content.			
16	16	32	125		
20	6	18	36		
25		9	20	39	
35	Fitting in this area is not allowed.				38
50	Fitting in this area is not allowed.				2

Selection Table

Entries	Outline Diagram for Entries	Enclosure Size	Cat. No. *
M16x1.5 M20x1.5 M25x1.5 Ø1/2" NPT Ø3/4" NPT	C type 2-ways Through-Feed 	Size 1	DTR-1C-M0-□ T DTR-1C-M1-□ T DTR-1C-M2-□ T DTR-1C-N1-□ T DTR-1C-N2-□ T
M32x1.5 M40x1.5 Ø1" NPT Ø1-1/4" NPT		Size 2	DTR-2C-M3-□ T DTR-2C-M4-□ T DTR-2C-N3-□ T DTR-2C-N4-□ T
M50x1.5 M63x1.5 Ø1-1/2" NPT Ø2" NPT		Size 3	DTR-3C-M5-□ T DTR-3C-M6-□ T DTR-3C-N5-□ T DTR-3C-N6-□ T

Entries	Outline Diagram for Entries	Enclosure Size	Cat. No. *
M16x1.5 M20x1.5 M25x1.5 Ø1/2" NPT Ø3/4" NPT	L type 2-ways Angle 	Size 1	DTR-1L-M0-□ T DTR-1L-M1-□ T DTR-1L-M2-□ T DTR-1L-N1-□ T DTR-1L-N2-□ T
M32x1.5 M40x1.5 Ø1" NPT Ø1-1/4" NPT		Size 2	DTR-2L-M3-□ T DTR-2L-M4-□ T DTR-2L-N3-□ T DTR-2L-N4-□ T
M50x1.5 M63x1.5 Ø1-1/2" NPT Ø2" NPT		Size 3	DTR-3L-M5-□ T DTR-3L-M6-□ T DTR-3L-N5-□ T DTR-3L-N6-□ T

Entries	Outline Diagram for Entries	Enclosure Size	Cat. No. *
M16x1.5 M20x1.5 M25x1.5 Ø1/2" NPT Ø3/4" NPT	T type 3-ways 	Size 1	DTR-1T-M0-□ T DTR-1T-M1-□ T DTR-1T-M2-□ T DTR-1T-N1-□ T DTR-1T-N2-□ T
M32x1.5 M40x1.5 Ø1" NPT Ø1-1/4" NPT		Size 2	DTR-2T-M3-□ T DTR-2T-M4-□ T DTR-2T-N3-□ T DTR-2T-N4-□ T
M50x1.5 M63x1.5 Ø1-1/2" NPT Ø2" NPT		Size 3	DTR-3T-M5-□ T DTR-3T-M6-□ T DTR-3T-N5-□ T DTR-3T-N6-□ T

Entries	Outline Diagram for Entries	Enclosure Size	Cat. No. *
M16x1.5 M20x1.5 M25x1.5 Ø1/2" NPT Ø3/4" NPT	X type 4-ways 	Size 1	DTR-1X-M0-□ T DTR-1X-M1-□ T DTR-1X-M2-□ T DTR-1X-N1-□ T DTR-1X-N2-□ T
M32x1.5 M40x1.5 Ø1" NPT Ø1-1/4" NPT		Size 2	DTR-2X-M3-□ T DTR-2X-M4-□ T DTR-2X-N3-□ T DTR-2X-N4-□ T
M50x1.5 M63x1.5 Ø1-1/2" NPT Ø2" NPT		Size 3	DTR-3X-M5-□ T DTR-3X-M6-□ T DTR-3X-N5-□ T DTR-3X-N6-□ T

* Replace □ with number of terminals (see terminal selection chart)