

Control Station and Control Panel: Control Box, DCT1D series

Flameproof and Dust protection by enclosure

Zone 1 & 2 – 21 & 22



Application

DCT1D control boxes are designed for use in hazardous areas classified as Zone 1, Zone 2, Zone 21, and Zone 22.

They are suitable for installation in petroleum refineries, chemical plants, and storage areas where hazardous substances are handled.

The instrument box features a circular or rectangular window and can contain both analog and digital measuring instruments, providing clear indication of the electrical functions performed.

The circuit breakers are suitable for short-circuit and overcurrent protection of service entrance, feeder, branch circuits, lighting circuits, or motor circuits, and also serve as a means of disconnection.

The motor starters are suitable for single-speed, non-reversing starting and stopping of AC squirrel cage induction motors using either direct-on-line or star-delta starting methods.

The circuit breaker panelboards are suitable for the control and distribution of branch circuits such as lighting, receptacles, pumps, or motors.

Specification

- Body, cover : Marine grade copper-free aluminium alloy with polyester powder coated, RAL 7032 (Grey)
(optional offshore painting- acrylic polyurethane coating)
- Bolts : Stainless steel, SS 304
(optional SS 316)
- Sealing (O-ring) : Silicone

Dissipation Power Loss

Cat. No.	Temperature Class			
	T6	T5	T6	T5
	Ta +40°C	Ta +65°C	Ta +40°C	Ta +65°C
DCT1D 685	83	110	37	65
DCT1D 886	105	140	47	82
DCT1D 8126	145	195	65	114
DCT1D 8187	240	320	107	187
DCT1D 9157	218	290	97	170
DCT1D 9207	287	383	128	220
DCT1D 101610	250	333	110	194
DCT1D 11218	310	418	139	244
DCT1D 12127	216	287	95	168
DCT1D 15156	250	333	111	194
DCT1D 151510	316	421	140	245
DCT1D 15198	336	448	149	261
DCT1D 162810	561	749	250	437
DCT1D 20208	456	608	203	355
DCT1D 202410	576	767	256	448
DCT1D 20329	598	797	266	465
DCT1D 203611	609	811	270	473
DCT1D 284411	672	897	299	523

Technical Data

Hazardous Area	Gas	Dust
Zones	1 & 2	21 & 22
Equipment Group/Category	Ex II 2G	Ex II 2D
Symbol of Protection	Ex db IIB+H ₂ T6/T5 Gb	Ex tb IICT85°C/T100°C Db
Certificate	KDB 23 ATEX 0030X IECEx KDB 23.0007X	
Conformity to Standards	EN IEC 60079-0, EN 60079-1, EN IEC 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31	
Ambient Temperature	-40°C to +65°C	
Index of Protection	IP66	
Entry Threads	NPT or Metric threads	
Mounting	Wall mount	
Rated Voltage	Max. 750 V AC, 50/60 Hz	

The enclosure with panel mounted operating devices

Motor starter box



Circuit breaker box



Circuit breaker panelboard

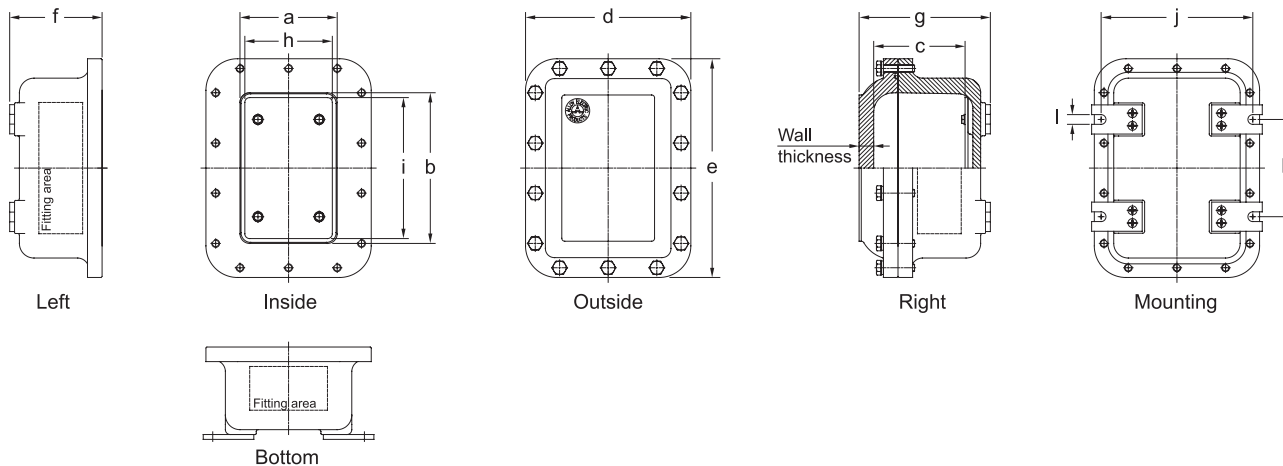


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Dimensions



Cat. No.	Dimensions in mm												Wall thickness	Volume (cm³)	Empty weight (kg)
	Inside			Outside				Equip. plate		Mounting					
	a	b	c	d	e	f	g	h	i	j	k	l			
DCT1D 685	100	155	95	170	225	94	134	85	140	164	100	10	15	1,497	4.8
DCT1D 886	138	138	123	210	210	114	164	125	125	206	100	10	15	2,352	6.5
DCT1D 8126	135	240	120	207	312	114	164	115	220	204	160	12	15	3,958	9.3
DCT1D 8187	136	394	160	208	466	154	204	120	375	204	300	12	15	8,653	15.4
DCT1D 9157	164	314	153	237	387	148	198	145	295	232	230	12	15	7,954	14.7
DCT1D 9207	162	440	164	230	508	158	208	150	420	232	350	12	15	12,116	19.2
DCT1D 101610	174	324	210	263	413	202	260	155	295	244	240	12	18	11,767	19.7
DCT1D 11218	210	450	170	299	539	162	220	190	430	280	350	12	18	16,284	25.1
DCT1D 12127	244	244	155	333	333	147	205	225	225	314	170	12	18	9,339	17.2
DCT1D 15156	300	300	115	389	389	107	165	280	280	370	240	12	18	10,697	20.4
DCT1D 151510	300	300	215	389	389	207	267	280	280	370	240	12	20	19,398	28.0
DCT1D 15198	298	398	165	387	487	157	217	280	380	368	300	12	20	19,928	29.9
DCT1D 162810	330	627	218	423	720	202	279	300	595	406	450	12	22	45,689	59.9
DCT1D 20208	424	424	175	522	522	160	237	405	405	523	290	15	22	32,012	51.7
DCT1D 202410	420	520	209	534	634	194	271	400	500	517	450	15	24	45,646	68.3
DCT1D 20329	410	700	195	532	822	184	262	390	680	514	650	15	26	55,965	90.8
DCT1D 203611	393	798	220	524	929	216	296	373	780	515	680	15	30	68,995	121.0
DCT1D 284411	575	975	223	743	1,143	216	301	555	955	711	800	15	35	127,262	252.0

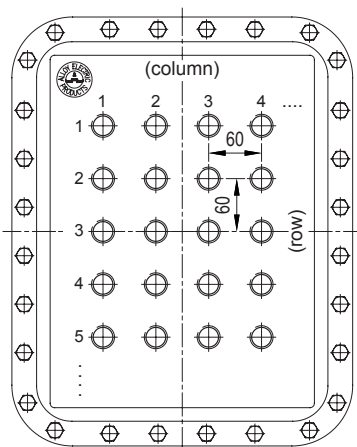
⌀ 6 Mounting feet.

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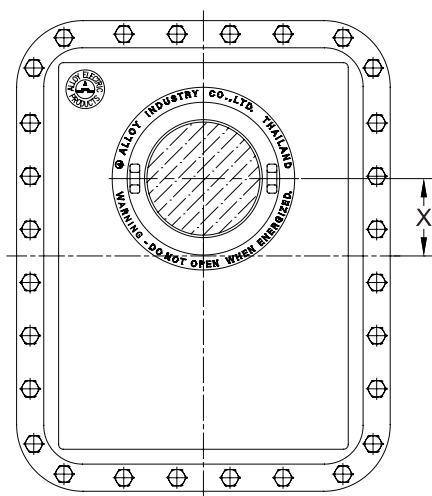
The enclosure with panel mounted operating devices



Cat. No.	Operating devices		Total
	Row	Column	
DCT1D 685	1	1	1
DCT1D 886	1	2	2
DCT1D 8126	3	2	6
DCT1D 8187	5	2	10
DCT1D 9157	4	2	8
DCT1D 9207	6	2	12
DCT1D 101610	4	2	8
DCT1D 11218	6	3	18
DCT1D 12127	3	4	12
DCT1D 15156	4	4	16
DCT1D 151510	4	4	16
DCT1D 15198	5	4	20
DCT1D 162810	9	5	45
DCT1D 20208	5	6	30
DCT1D 202410	7	6	42
DCT1D 20329	10	6	60
DCT1D 203611	12	6	72
DCT1D 284411	14	9	126

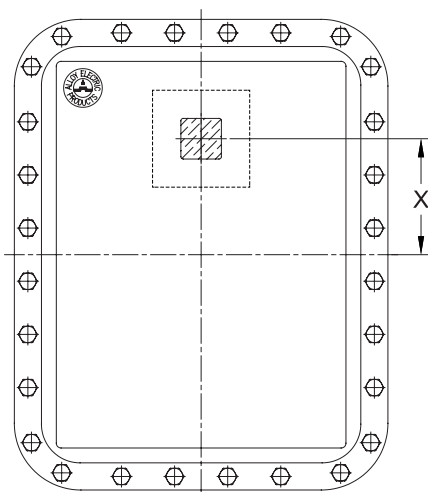
The enclosure with inspection windows

Round type, LGCR series



Cat. No.	X = Maximum center line of Cover to center line of Inspection window (unit : mm)			
	LGCR1-50-M85	LGCR-113	LGCR-217	LGCR-320
DCT1D 685	—	—	—	—
DCT1D 886	0 (center)	—	—	—
DCT1D 8126	50	—	—	—
DCT1D 8187	120	—	—	—
DCT1D 9157	90	—	—	—
DCT1D 9207	150	—	—	—
DCT1D 101610	100	—	—	—
DCT1D 11218	150	100	—	—
DCT1D 12127	50	0 (center)	—	—
DCT1D 15156	80	30	0 (center)	0 (center)
DCT1D 151510	80	30	0 (center)	0 (center)
DCT1D 15198	120	80	50	0 (center)
DCT1D 162810	230	200	170	150
DCT1D 20208	140	100	50	50
DCT1D 202410	190	150	120	100
DCT1D 20329	250	220	200	200
DCT1D 203611	300	270	250	250
DCT1D 284411	400	350	300	300

Rectangular type, LGCS series



Cat. No.	X = Maximum center line of Cover to center line of Inspection window (unit : mm)					
	LGCS-142	LGCS-260	LGCS-383	LGCS-430	LGCS-5120	LGCS-6200
DCT1D 685	—	—	—	—	—	—
DCT1D 886	0 (center)	—	—	—	—	—
DCT1D 8126	50	40	—	—	—	—
DCT1D 8187	120	120	—	—	—	—
DCT1D 9157	80	80	70	—	—	—
DCT1D 9207	150	150	120	—	—	—
DCT1D 101610	90	90	70	—	—	—
DCT1D 11218	150	150	130	—	100	—
DCT1D 12127	50	50	30	50	0 (center)	0 (center)
DCT1D 15156	80	70	60	70	40	0 (center)
DCT1D 151510	80	70	60	70	40	0 (center)
DCT1D 15198	120	120	100	130	80	30
DCT1D 162810	240	230	210	230	200	140
DCT1D 20208	140	120	120	140	100	50
DCT1D 202410	190	180	160	200	150	100
DCT1D 20329	250	250	250	250	230	170
DCT1D 203611	300	300	300	300	280	220
DCT1D 284411	400	400	370	400	350	320