



602/RR SERIES CONNECTORS

MILITARY, AEROSPACE
AND HIGH RELIABILITY
APPLICATIONS



DEUTSCH
MILITARY & AEROSPACE LTD

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INTRODUCTION

The Deutsch RR Series is a range of medium density, circular bayonet coupling connectors designed to meet the critical performance criteria required in Military and Aerospace programmes. This includes styles and layouts that are qualified to Pattern 602 and approved to Panavia standards specification 6432 (TORNADO).

The range is intermateable and intermountable with connectors conforming to the following standards:-

DEF59-35 Pattern 105

MIL-C-26482 Series 2

NAS1599

NFL54125

LN29500

CECC75201.001

MS3476

GENERAL SPECIFICATION

Current Rating

The current rating of any contact within a connector is governed by the heating effect of the current and the ambient temperature. The performance of RR Series connectors at all times exceeds the bunched ratings of the appropriate size wire having insulation equal in temperature rating to that of the connectors. Contact loading should not exceed:-

CONTACT SIZE	RATING
20	7.5 amps
16	20 amps
12	25 amps

Dielectric withstand voltage

SERVICE RATING	SEA LEVEL	70,000ft (22,000m)
1	1,500 VAC R.M.S.	375 VAC R.M.S.
2	2,300 VAC R.M.S.	500 VAC R.M.S.

Temperature

Operating temperature range -65°C to $+200^{\circ}\text{C}$.

Materials and Finishes

DESCRIPTION	MATERIAL	FINISH
Shell	Aluminium Alloy	Cadmium Plate (Olive Drab)
Insulators	Fluorinated Silicone	N/A
Contacts	Copper Alloy	Gold Plate
Coupling Nut	Aluminium Alloy	Cadmium Plate (Olive Drab)
Jam Nut	Aluminium Alloy	Cadmium Plate (Olive Drab)

Wire Sealing Range

SIZE	MIN	MAX
20	0.040"	0.083"
16	0.068"	0.103"
12	1.106"	0.158"

DESIGN FEATURES

The Deutsch RR Series Connectors has evolved around a standardised rear release contact termination system. All the different categories within the RR series are intermateable with previous connector types and use contacts to Pattern 602, with common tools and assembly procedures.

DESIGN BENEFITS

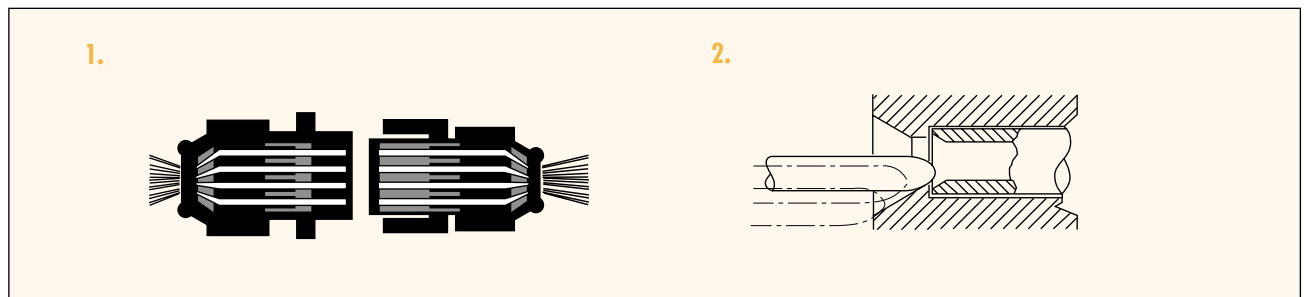
- Simplified operator training — same assembly procedure covers all series
- One operator manual — applicable to all series
- Similar cable accessories for all series. Minimises interface problems
- Improved reliability through simplified design
- Triple seal feature provides environmental protection and maintains performance

FEATURES

1. **Improved contact alignment.** The area forward of the contact shoulder is located to provide positive contact stability in a rigid dielectric. Cable clamps and wire bundling pressures will not cause the contacts to splay.
2. **Hard face socket insert.** Pin contacts are guided into the socket contact by conical shaped lead in chamfers.
3. **Sealing.** 'Cork in bottle' seals afford maximum environmental protection at the critical connector interface, also significantly improves the electrical creepage path between adjacent contacts and shell compared with a flat butt seal.
A static/dynamic seal provides shell to shell sealing and the inserts are bonded to the shell providing greater sealing integrity. The rear fluorosilicone rubber grommet seals out moisture, dust and other contaminants. It also holds the wires firmly in place guarding against damage by severe vibration.
4. Positive mechanical insert retention is provided.
5. Cable accessories have serrations which engage with three projections on the rear of the connector shell preventing rotation and providing positive positioning.

The critical front face of the connectors need never be touched when contacts are being inserted or removed, thus the chances of tearing or scratching the interfacial seals are greatly reduced. It also minimises the possibility of dirt or moisture being introduced. The mated pair of connectors need not be disengaged for rework.

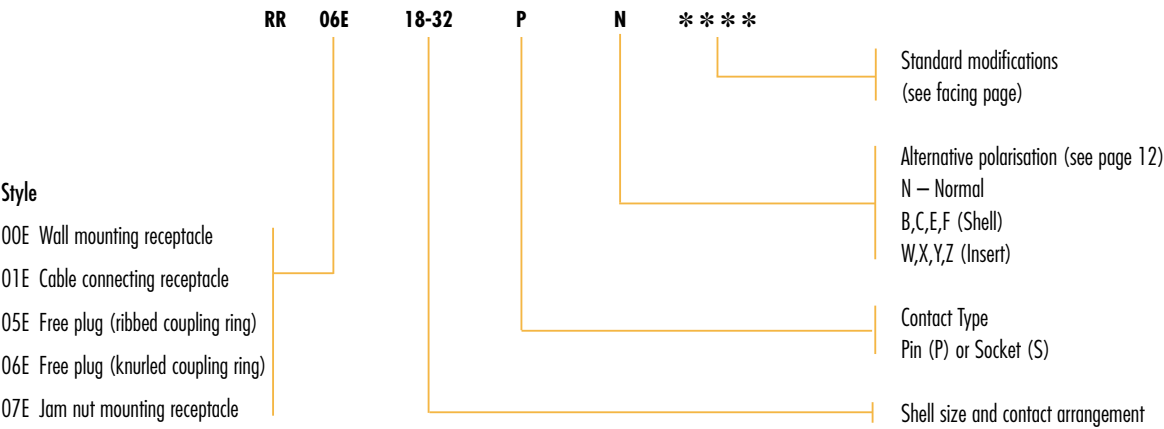
CONTACT ALIGNMENT AND LOCATION FEATURES



PART NUMBER BREAKDOWN

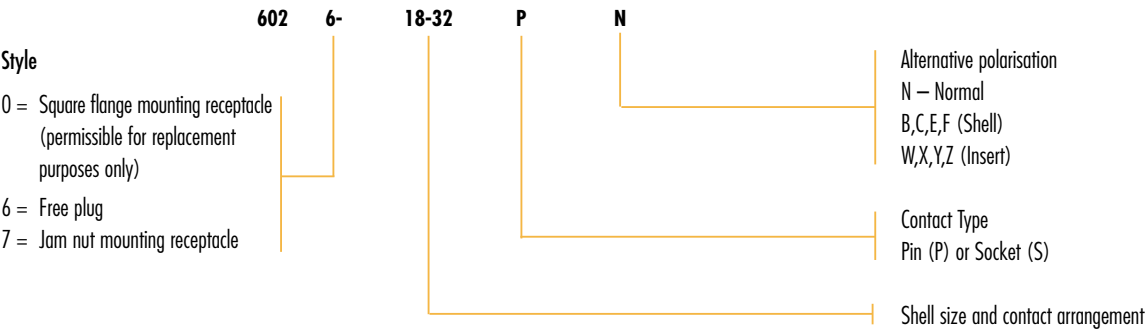
Pat. 602 as well as RR Series part numbers can be used when ordering connectors. The method of prescribing Pat. 602 connectors is as shown. Whether ordered by the RR or the Pat. 602 number, all qualified connectors are shipped with the 602 marking.

Series prefix: Identifies Deutsch Miniature Bayonet Coupling Connector designed to meet the requirements of specification EL2112.



RR connectors are supplied with contacts, filler plugs, insertion/extraction tool and grommet nut.

Series prefix: Identifies Pattern 602 connector approved to Ministry of Defence (P.E.) Specification EL2112.
(Consult factory for approved range).



Example: 6026-18-32PN COND B

Connectors designated as above are supplied with contracts only. Filler plugs, insertion/extraction tools, or cable accessories, must be ordered separately.
For alternative methods of ordering refer to “special conditions of procurement” on the facing page.

Connectors available to CECC75201 and MIL-C-26482 - release upon request. For part number cross reference consult Deutsch.

RR STANDARD MODIFICATIONS AVAILABLE

- 1A Supplied less backshell assembly
- 034 Stainless steel shells — electropolished
- 059 Backshell with strain relief and bushing
- 081 90° backshell with strain relief and bushing
- 090 Supplied less contacts
- 3014 Electroless nickel plated finish
- 9441 Less backshell, but with KWIK-TY accessory
- 9443 Less backshell, electroless nickel plated
- 9462 Less backshell, contacts, filler plugs and insertion, extraction tools
- 9466 Less backshell and accessories, but supplied with a precise number of contacts
- 9489 Stainless steel shell, backshell omitted
- 9298 Meets the requirements of PAN6432-1

* For non-standard modifications please contact Deutsch

602 SPECIAL CONDITIONS OF PROCUREMENT

Condition

INCLUDED PARTS	B	C	D	E	F	G
CONTACTS	X	X	X	X	X	X
FILLER PLUGS	X	X	X	X	X	X
INSERTION/EXTRACTION TOOLS	X	X	X	X	X	X
STRAIGHT BACKSHELL CABLE ACCESSORY WITHOUT STRAIN RELIEF		X				
STRAIGHT BACKSHELL CABLE ACCESSORY WITH STRAIN RELIEF			X			
90° BACKSHELL CABLE ACCESSORY WITH STRAIN RELIEF				X		
CABLE ACCESSORY CONFORMING TO U.S. MIL-STANDARD MS5152 TYPE R WITH CADMIUM OLIVE DRAB PLATED FINISH					X	
HEAT SHRINK BOOT ACCESSORY TO MS3158 TYPE R						X

INSERT ARRANGEMENTS

8-33
3 SIZE 20 CONTACTS



10-6
6 SIZE 20 CONTACTS



12-3
3 SIZE 16 CONTACTS



12-10
10 SIZE 20 CONTACTS



8-98
3 SIZE 20 CONTACTS



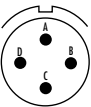
10-98
6 SIZE 20 CONTACTS



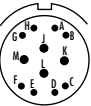
12-8
8 SIZE 20 CONTACTS



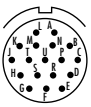
14-4
4 SIZE 12 CONTACTS



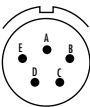
14-12
8 SIZE 20 CONTACTS
4 SIZE 16 CONTACTS



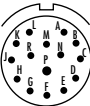
14-18
18 SIZE 20 CONTACTS



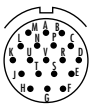
14-5
5 SIZE 16 CONTACTS



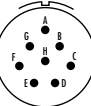
14-15
14 SIZE 20 CONTACTS
1 SIZE 16 CONTACT



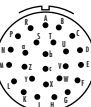
14-19
19 SIZE 20 CONTACTS



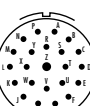
16-8
8 SIZE 16 CONTACTS



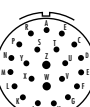
16-26
26 SIZE 20 CONTACTS



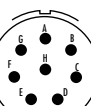
16-23
22 SIZE 20 CONTACTS
1 SIZE 16 CONTACT



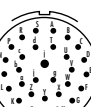
16-99
21 SIZE 20 CONTACTS
2 SIZE 16 CONTACTS



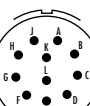
18-8
8 SIZE 12 CONTACTS



18-30
29 SIZE 20 CONTACTS
1 SIZE 16 CONTACT



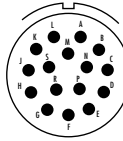
18-11
11 SIZE 16 CONTACTS



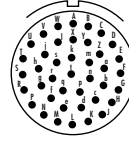
18-32
32 SIZE 20 CONTACTS



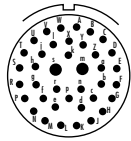
20-16
16 SIZE 16 CONTACTS



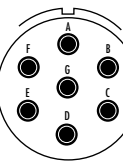
20-41
41 SIZE 20 CONTACTS



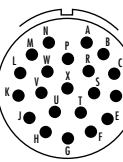
20-39
37 SIZE 20 CONTACTS
2 SIZE 16 CONTACTS



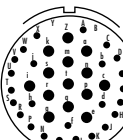
22-7
7 COAX CONTACTS



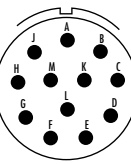
22-21
21 SIZE 16 CONTACTS



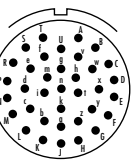
22-41
27 SIZE 20
14 SIZE 16 CONTACTS



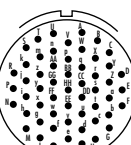
22-12
12 SIZE 12 CONTACTS



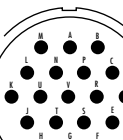
22-36
36 SIZE 20 CONTACTS



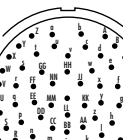
22-55
55 SIZE 20 CONTACTS



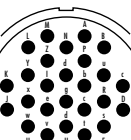
24-19
19 SIZE 12 CONTACTS



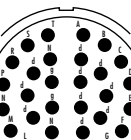
24-61
61 SIZE 20 CONTACTS



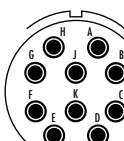
24-31
31 SIZE 16 CONTACTS



24-98
31 SIZE 16 CONTACTS



24-100
10 COAX CONTACTS



Note 1: Size 12 cavity can be used for shielded contacts.

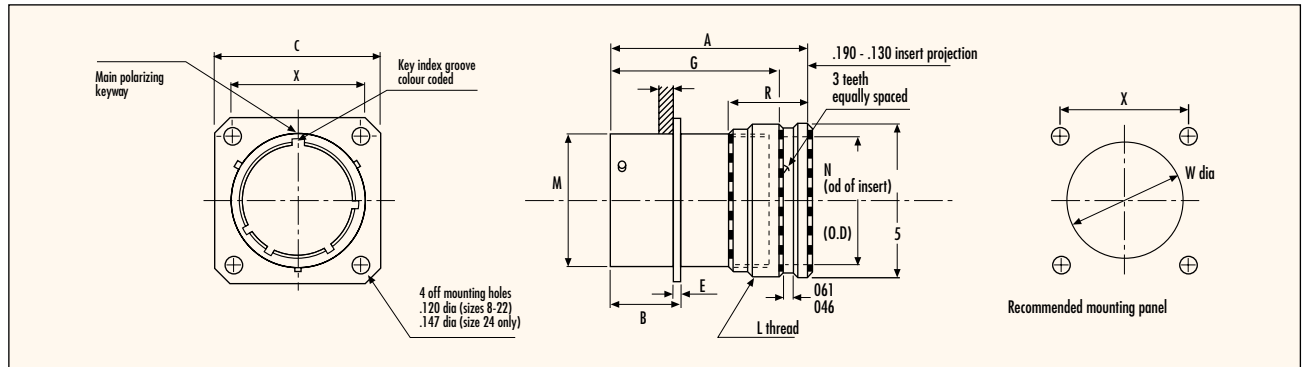
Note 2: Cavity identifications shown are for front face of pin inserts
(socket insert opposite)

Consult Deutsch for availability

SHELL STYLES

WALL MOUNTING RECEPTACLE – RROOE 6020 (LESS BACKSHELL)

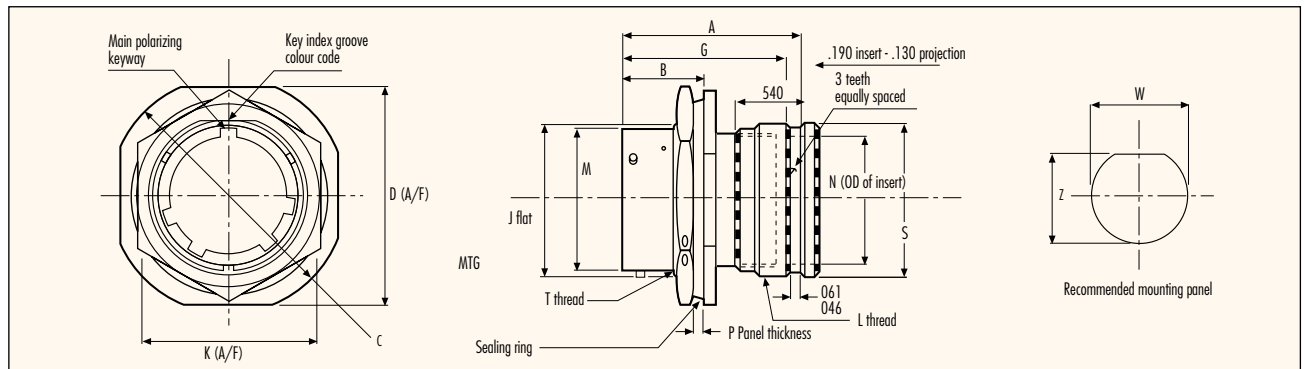
Max. accommodation allowed for panel and screws is: shell sizes 8 – 18 (0.087) shell sizes 20 – 24 (0.212).



PART NUMBER	A MAX	B MAX	C SQ MAX	E ±.016	G MAX	L THREAD - 2A	M ±.003	N MAX	R MAX	S MAX	X ±.005	W ±.005
RROOE-08**P/S*	1.492	.540	.828	.062	1.215	1/2 – 20 UNF	.471	.305	.540	.617	.594	.568
RROOE-10**P/S*	1.492	.540	.954	.062	1.215	5/8 – 24 UNEF	.588	.405	.540	.734	.719	.685
RROOE-12**P/S*	1.492	.540	1.047	.062	1.215	3/4 – 20 UNEF	.748	.531	.540	.858	.812	.864
RROOE-14**P/S*	1.492	.540	1.141	.062	1.215	7/8 – 20 UNEF	.873	.665	.540	.984	.906	.989
RROOE-16**P/S*	1.492	.540	1.234	.062	1.215	1 – 20 UNEF	.998	.790	.540	1.112	.969	1.113
RROOE-18**P/S*	1.492	.540	1.328	.062	1.215	1 1/16 – 18 UNEF	1.123	.869	.540	1.218	1.062	1.238
RROOE-20**P/S*	1.552	.697	1.453	.094	1.275	1 3/16 – 18 UNEF	1.248	.994	.540	1.345	1.156	1.363
RROOE-22**P/S*	1.552	.697	1.578	.094	1.275	1 5/16 – 18 UNEF	1.373	1.119	.540	1.468	1.250	1.488
RROOE-24**P/S*	1.552	.730	1.703	.094	1.275	1 7/16 – 18 UNEF	1.498	1.244	.540	1.593	1.375	1.615

JAM NUT RECEPTACLE – RRO7E 6027 (LESS BACKSHELL)

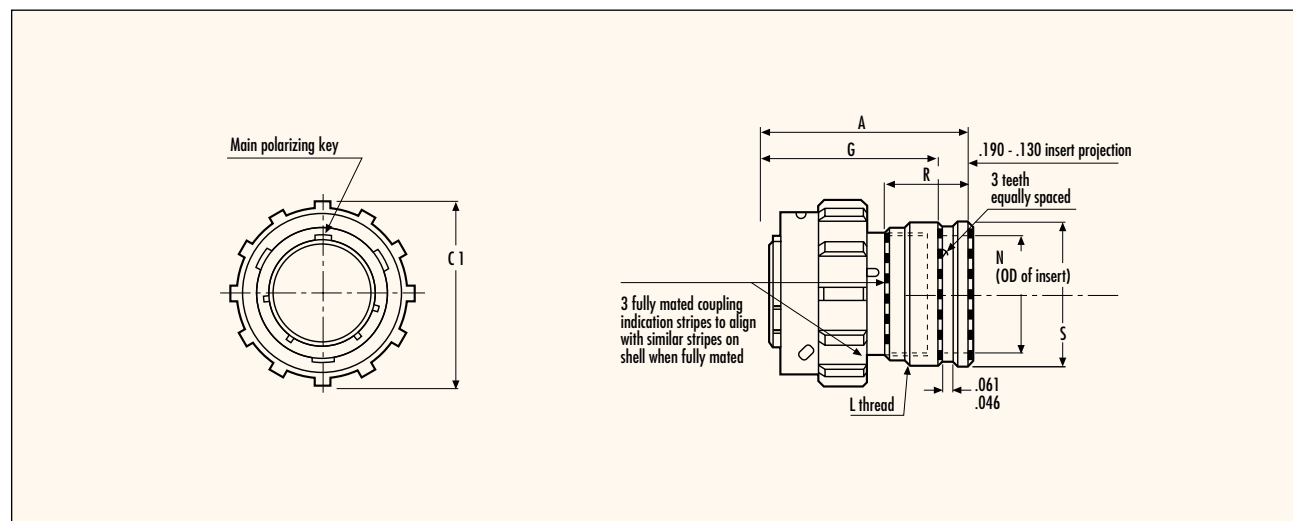
The 'D' flat is for locating purposes. The wrench flats on the flange are provided to aid assembly to the panel.



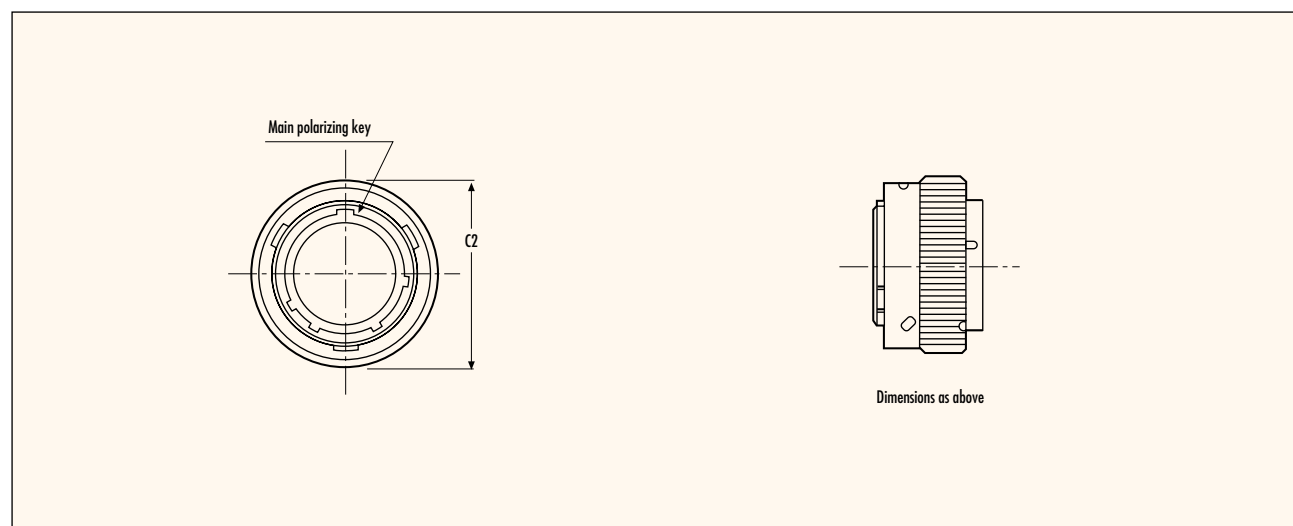
PART NUMBER	A MAX	B MAX	C MAX	D MAX	G MAX	J +.000 -.010	K MAX	L THREAD - 2A	M ±.003	N MAX	P MAX	S MAX	T THREAD - 2A	W ±.005	Z ±.005
RRO7E-08**P/S*	1.492	.707 .691	1.078	.954	1.215	.530	.767	1/2 – 20 UNF	.471	.305	.187 .062	.617	9/16 – 24 UNF	.572	.536
RRO7E-10**P/S*	1.492	.707 .691	1.203	1.078	1.215	.655	.892	5/8 – 24 UNEF	.588	.405	.187 .062	.734	11/16 – 24 UNEF	.697	.661
RRO7E-12**P/S*	1.492	.707 .691	1.391	1.266	1.215	.818	1.079	3/4 – 20 UNEF	.748	.531	.187 .062	.858	7/8 – 20 UNEF	.895	.824
RRO7E-14**P/S*	1.492	.707 .691	1.516	1.391	1.215	.942	1.205	7/8 – 20 UNEF	.873	.665	.187 .062	.984	1 – 20 UNEF	1.010	.948
RRO7E-16**P/S*	1.492	.707 .691	1.641	1.516	1.215	1.066	1.329	1 – 20 UNEF	.998	.790	.187 .062	1.112	1 1/8 – 18 UNEF	1.135	1.072
RRO7E-18**P/S*	1.492	.707 .691	1.766	1.641	1.215	1.191	1.455	1 1/16 – 18 UNEF	1.123	.869	.187 .062	1.218	1 1/4 – 18 UNEF	1.260	1.197
RRO7E-20**P/S*	1.552	.772 .754	1.954	1.828	1.275	1.316	1.579	1 3/16 – 18 UNEF	1.248	.994	.250 .062	1.345	1 3/8 – 18 UNEF	1.385	1.322
RRO7E-22**P/S*	1.552	.772 .754	2.078	1.954	1.275	1.441	1.705	1 5/16 – 18 UNEF	1.373	1.119	.250 .062	1.468	1 1/2 – 18 UNEF	1.510	1.447
RRO7E-24**P/S*	1.552	.772 .754	2.203	2.078	1.275	1.566	1.829	1 7/16 – 18 UNEF	1.498	1.244	.219 .062	1.593	1 5/8 – 18 UNEF	1.635	1.572

FREE PLUG WITH RIBBED COUPLING RING – RR05E

TYPE – RR05E

**FREE PLUG WITH KNURLED COUPLING RING – RR06E 6026 (LESS BACKSHELL)**

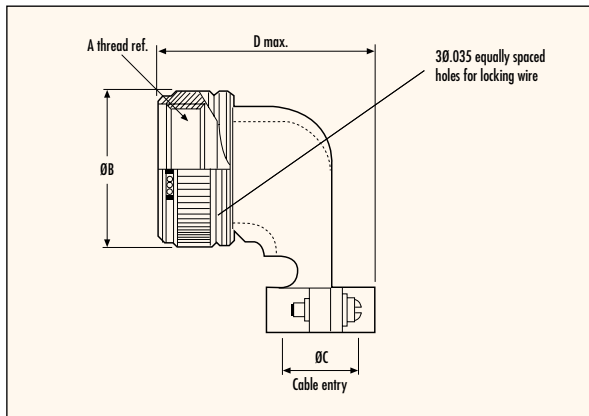
TYPE – RR06E



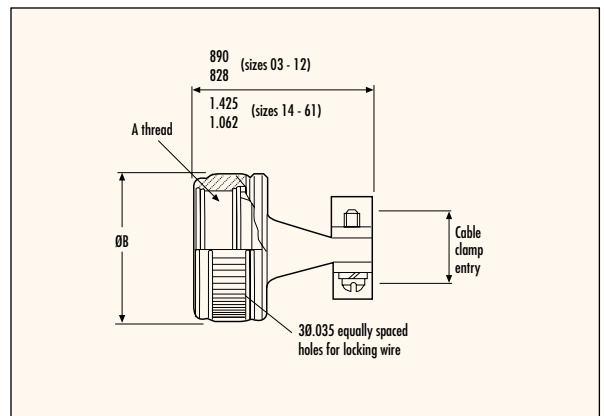
PART NUMBER RR05 or RR06	A MAX	C1 MAX	C2 MAX	G MAX	L THREAD - 2A	N MAX	R MAX	S MAX
RR05E-08*P/S*	1.507	.892	.782	1.230	1/2 – 20 UNF	.305	.540	.617
RR05E-10*P/S*	1.507	1.017	9.26	1.230	5/8 – 24 UNEF	.405	.540	.734
RR05E-12*P/S*	1.507	1.142	1.043	1.230	3/4 – 20 UNEF	.531	.540	.858
RR05E-14*P/S*	1.507	1.267	1.183	1.230	7/8 – 20 UNEF	.665	.540	.984
RR05E-16*P/S*	1.507	1.454	1.305	1.230	1 – 20 UNEF	.790	.540	1.112
RR05E-18*P/S*	1.507	1.563	1.391	1.230	1-1/16-18 UNEF	8.869	.540	1.218
RR05E-20*P/S*	1.507	1.687	1.531	1.230	1-3/16-18 UNEF	.994	.540	1.345
RR05E-22*P/S*	1.507	1.797	1.656	1.230	1-5/16-18 UNEF	1.119	.540	1.468
RR05E-24*P/S*	1.507	1.922	1.777	1.230	1-7/16-18 UNEF	1.244	.540	1.593

STANDARD ACCESSORIES

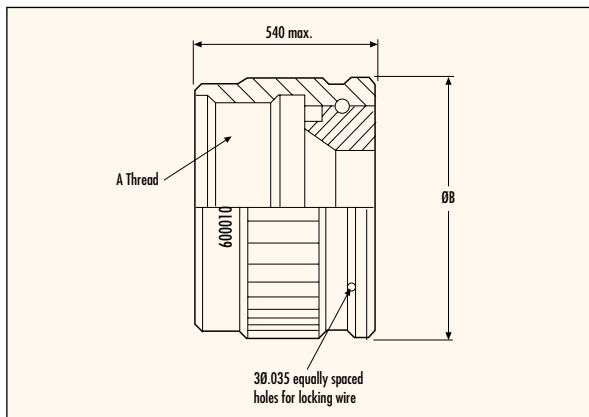
90° BACKSHELL WITH STRAIN RELIEF 600027 – ***¹–***²



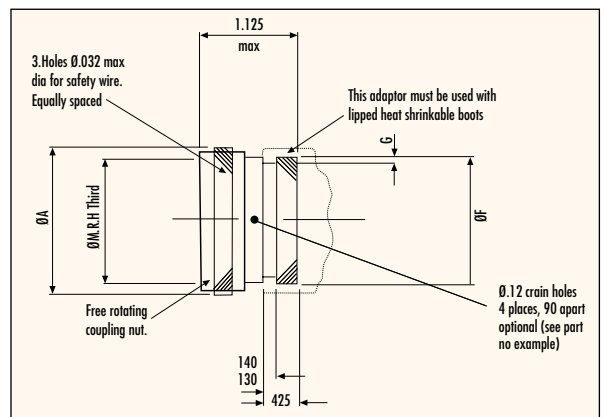
BACKSHELL WITH STRAIN RELIEF 600026 – ***¹–***²



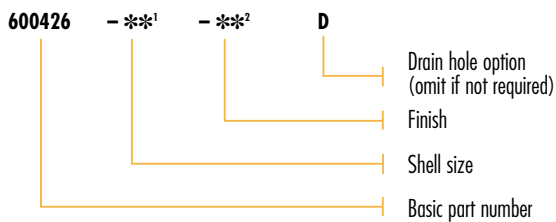
BACKSHELL 600019 – ***¹–***²



HEATSHRINK BOOT ADAPTOR 600426 – ***¹–***²



PART NUMBER EXAMPLE



*** ¹ SHELL SIZE	OVERALL DIAMETER	THREAD SIZE
08	.615	1/2 - 20 UNF - 2B
10	.734	5/8 - 24 UNEF - 2B
12	.858	3/4 - 20 UNEF - 2B
14	.984	7/8 - 20 UNEF - 2B
16	1.112	1 - 20 UNEF - 2B
18	1.218	1 1/16 - 18 UNEF - 2B
20	1.345	1 3/16 - 18 UNEF - 2B
22	1.468	1 5/16 - 18 UNEF - 2B
24	1.593	1 7/16 - 18 UNEF - 2B

*** ²	FINISH
12	Cadmium plated olive drab
58	Electroless nickel
87	Black anodised
12NK	Cad plate olive drab, over nickel plate

PROTECTIVE COVERS

For plug (free)

Knurled, with chain and eyelet	600117 – *** – 12
Knurled, less chain	600116 – *** – 12
Knurled, with nylon cord and eyelet	600118 – *** – 12
Ribbed, with chain and eyelet	600074 – *** – 12
Ribbed, less chain	600076 – *** – 12
Ribbed, with nylon cord and eyelet	600075 – *** – 12

For receptacle (fixed)

Knurled, with chain and eyelet	600115 – *** – 12
Knurled, with chain and anchor ring	600114 – *** – 12
Knurled, less chain	600111 – *** – 12
Knurled, with nylon cord and eyelet	600113 – *** – 12
Knurled, with nylon cord and anchor ring	600112 – *** – 12

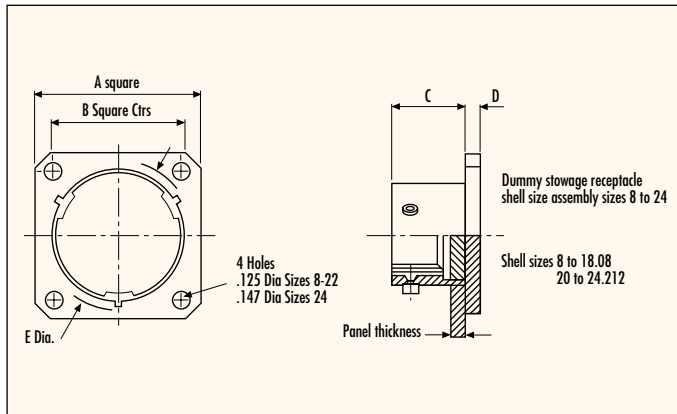
Ribbed, with chain and eyelet	600066 – *** – 12
Ribbed, with chain and anchor ring	600065 – *** – 12
Ribbed, less chain	600068 – *** – 12
Ribbed, with nylon cord and eyelet	600067 – *** – 12
Ribbed, with nylon cord and anchor ring	600073 – *** – 12

*Eyelet for screw fixing, anchor ring for jam nut fixing.

*** = shell size

UNIVERSAL DUMMY RECEPTACLE

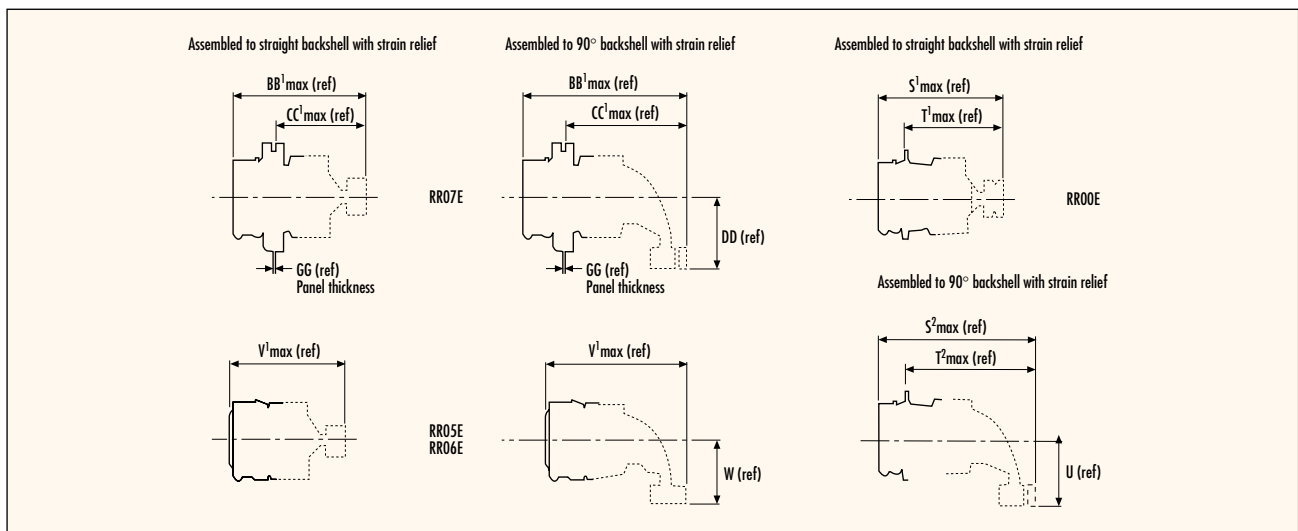
All dimensions are in inches unless stated otherwise



SIZE	PART NO.	A MAX	B ±.005	C MAX	D ±1.10	E DIA +.000 -.015
8	600742 - 8 - *	.828	.594	.491	.078	.562
10	600742 - 10 - *	.954	.719	.491	.078	.679
12	600742 - 12 - *	1.047	.812	.491	.078	.858
14	600742 - 14 - *	1.141	.906	.491	.078	.983
16	600742 - 16 - *	1.234	.969	.491	.078	1.107
18	600742 - 18 - *	1.328	1.062	.491	.078	1.232
20	600742 - 20 - *	1.453	1.156	.587	.110	1.357
22	600742 - 22 - *	1.578	1.250	.587	.110	1.482
24	600742 - 24 - *	1.703	1.375	.620	.110	1.069

*	FINISH
12	CADMIUM PLATE OLIVE DRAB
30	CLEAR CADMIUM
58	ELECTROLESS NICKEL
87	BLACK ANODISED

MAXIMUM DIMENSIONS



SIZE	BB ¹	BB ²	CC ¹	CC ²	DD	GG	S ¹	S ²	T ¹	T ²	U	V ¹	V ²	W
8	1.842	2.115	1.151	1.424	.830	.187 .062						1.857	2.130	.830
10	1.842	2.115	1.151	1.424	.880	.187 .062	1.842	2.115	1.380	1.653	.880	1.857	2.130	.830
12	1.842	2.250	1.151	1.559	.950	.187 .062	1.842	2.250	1.380	1.788	.950	1.857	2.265	.950
14	2.077	2.340	1.386	1.649	1.010	.187 .062	2.077	2.340	1.615	1.878	1.010	2.092	2.335	1.010
16	2.077	2.475	1.386	1.784	1.070	.187 .062	2.077	2.475	1.615	2.013	1.070	2.092	2.490	1.070
18	2.077	2.574	1.386	1.883	1.130	.187 .062	2.077	2.574	1.615	2.112	1.130	2.092	2.589	1.130
20	2.137	2.767	1.383	2.013	1.190	.250 .062	2.137	2.767	1.581	2.211	1.190	2.092	2.722	1.190
22	2.137	2.890	1.383	2.136	1.260	.250 .062	2.137	2.890	1.581	2.334	1.260	2.092	2.845	1.260
24	2.137	3.012	1.383	2.258	1.320	.219 .062	2.137	3.012	1.548	2.423	1.320	2.092	2.967	1.320

Overall length of mated pair of connectors

Shell sizes 8 – 18:- Sum of overall lengths of plug and receptacle minus 0.276. Shell sizes 20 – 24:- Sum of overall lengths of plug and receptacle minus 0.338

TOOLING, CONTACTS AND FILLER PLUGS

PART NUMBER	STYLE	ENGAGING END		WIRE END		CRIMP TOOL	TURRET HEAD	INSERTION EXTRACTION	FILLER PLUG
		SIZE	COLOUR BAND	AWG SIZE	COLOUR BAND				
600222	PIN	20	—	16/18	BLUE	M22520/1-01	M22520/1-02	M15570-20	600300-20
600225	SOCKET	20	—	16/18	BLUE				
600230†	PIN	20	RED	20	RED				
600233†	SOCKET	20	RED	20	RED				
600220	PIN	20	RED	26/30	BLACK				
600221	SOCKET	20	RED	26/30	BLACK				
600231†	PIN	16	BLUE	16	BLUE	M22520/1-01	M22520/1-02	M15570-16	600300-16
600234†	SOCKET	16	BLUE	16	BLUE				
600223	PIN	16	—	20/24	GREEN				
600226	SOCKET	16	—	20/24	GREEN				
600232†	PIN	12	YELLOW	12	YELLOW	M22520/1-01	M22520/1-02	M15570-12	600300-12
600235†	SOCKET	12	YELLOW	12	YELLOW				
600224	PIN	12	—	16/18	BLACK				
600227	SOCKET	12	—	16/18	BLACK				
600216	SHIELDED PIN	USES SIZE 12 CAVITY				INNER CONTACT		M15570-12	600300-12
600217	SHIELDED SOCKET					MH 800K.269			
						OUTER SLEEVE			
						20055 (UPPER DIE) OR 20053			
600210	COAX PIN	SUITABLE FOR USE WITH COAXIAL CABLES CONFORMING TO MIL-C-17, RG 161/U, RG 174/U, RG 178/U, RG 179/U, RG 187/U, RG 188/U, RG 196/U,				INNER CONTACT		M15570-25	600300-8
600211	COAX SOCKET					MH 800K.30			
						OUTER SLEEVE			
						20055 (UPPER DIE) OR 20053			

† Standard contacts supplied with appropriate 602/RR connector. It is recommended that both unwired contacts and filler plugs be fitted to all unused cavities to meet the prescribed performance requirements of the connector. Unwired contacts can be removed with tool kit M15571 (Nato Stock Number 5120-99-5235533) for sizes 20, 16 and 12. (Filter connectors are available. Consult Deutsch for details).

*Standard contacts supplied with MIL-C-26482 Series 2 connectors

PART NUMBER	SIZE	STYLE	BIN REF	TOOLING
M39029/4-110*	#20	PIN	BR BR BK	AS ABOVE
M39029/5-115*	#20	SOCKET	BR BR GN	"
M39029/4-111*	#16	PIN	BR BR BR	"
M39029/5-116*	#16	SOCKET	BR BR BL	"
M39029/4-113*	#12	PIN	BR BR OR	"
M39029/5-118*	#12	SOCKET	BR BR GY	"

Colour Key

BR = Brown
BK = Black
BL = Blue
OR = Orange
GY = Grey
GN = Green

INSERT AND POLARISATION AVAILABILITY

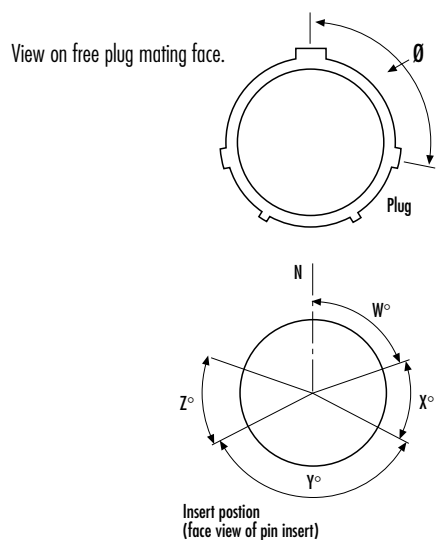
ALTERNATIVE POLARISATION

To prevent inadvertent mismatching of adjacent and otherwise similar connectors, orientation of the insert within the shell or keyways around the shell, is provided.

N.B. Positions A and D are not recommended for new applications due to the possibility of crossmating.

KEY ORIENTATION

SHELL SIZE	Ø				
	NORMAL	B	C	E	F
8	105	—	—	118	82
10	105	85	125	115	85
12	105	89	121	115	85
14	105	91	119	75	120
16	105	93	117	75	120
18	105	95	115	75	120
20	105	95	115	75	120
22	105	97	113	75	120
24	105	97	113	75	120



INSERT ORIENTATION

SHELL SIZE	ORIENTATION				
	ARRANGEMENT	W	X	Y	Z
8	33	90*			
8	98	60*			
10	6	90			
10	98	90	180	240	270
12	3	140	220	180	
12	8	90	112	203	292
12	10	60	155	270	295
14	4	45	—	—	—
14	5	40	92	184	273
14	12	43	90	—	—
14	15	17	110	155	234
14	18	15	90	180	270
14	19	30	165	315	—
16	8	54	152	180	331
16	23	158	270	—	—
16	26	60	—	275	338
16	99	66	156	223	340
18	8	—	—	—	—
18	11	62	119	241	340
18	30	180	193	285	350
18	32	85*	138	222	265
20	16	238	318	333	347
20	39	63	144	252	333
20	41	45	126	225	—
22	7		CONSULT DEUTSCH		
22	12	—	—	—	—
22	21	16	135	175	349
22	36	72	144	216	288
22	41	39	135	264	
22	55	30	142	226	314
24	19	30	165	315	
24	31	90	225	255	
24	61	90	180	270	324
24	98		CONSULT DEUTSCH		
24	100	45	90	135	

***Not preferred:** - It is possible to mate these orientations with the normal.

HERMETIC CONNECTORS

Deutsch Hermetic connectors are extremely robust and reliable, designed for applications and environments that require equipment to be isolated from variations in atmospheric pressure.

A strictly controlled glass to metal sealing process ensures the connectors have a leakage rate better than $3 \times 10^{-7} \text{ cm}^3/\text{hr}$ at 1 bar.

A feature of these connectors is the easy to read permanent black contact markings that are embedded into the compression glass insert. The connectors find a wide range of applications in the commercial, industrial and military fields.

GENERAL SPECIFICATION

Shell material and finish

(RR) Stainless Steel — Electro Polished (460) Mild Steel — Tin on Nickel

Shell sizes

8-24

Usage Wire Gauge

12 to 24 gauge, depending on number and size of contacts

Inserts

Compression glass, continuous dielectric insulator

Glass Strength

Withstands pressure differentials of 1000 lb/in² (69 bar) without loss of electrical quality or leakage

Thermal Shock

No deterioration or failure after 5 cycles at -65°C to +200°C

Operating Temperature

260°C depending on plating limitations

Insulation Resistance

In excess of 5,000 meg-ohms

Air Leakage

Better than $3 \times 10^{-7} \text{ cm}^3/\text{hr}$ at 1 bar

Current Rating

Contact # 20 — 7.4 amps

Contact # 16 — 20 amps

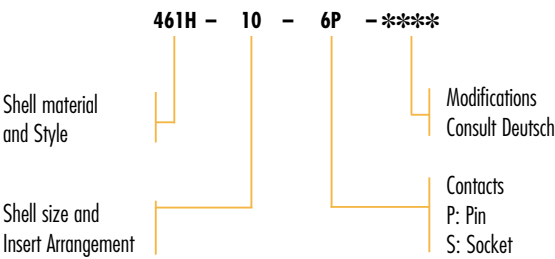
Contact # 12 — 25 amps

Contact Termination

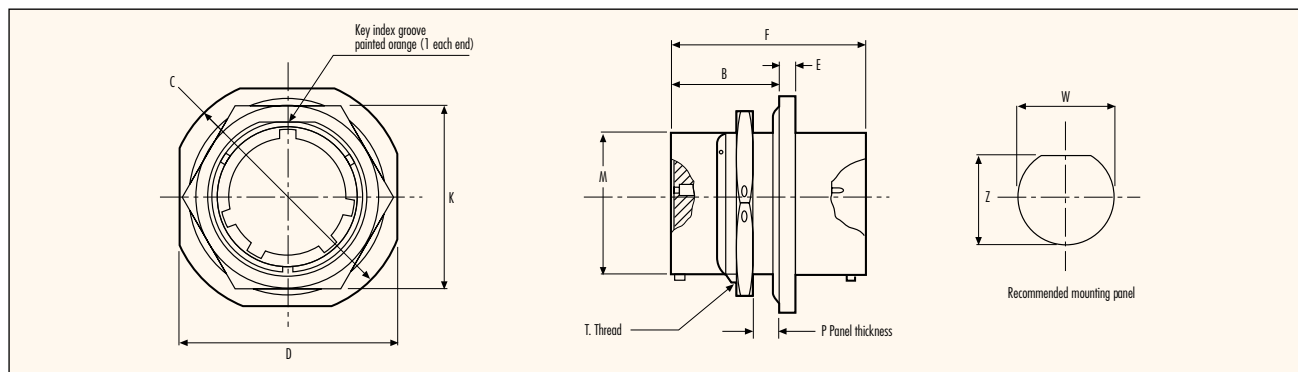
Standard - solder bucket

- PCB (consult Deutsch)

PART NUMBER BREAKDOWN

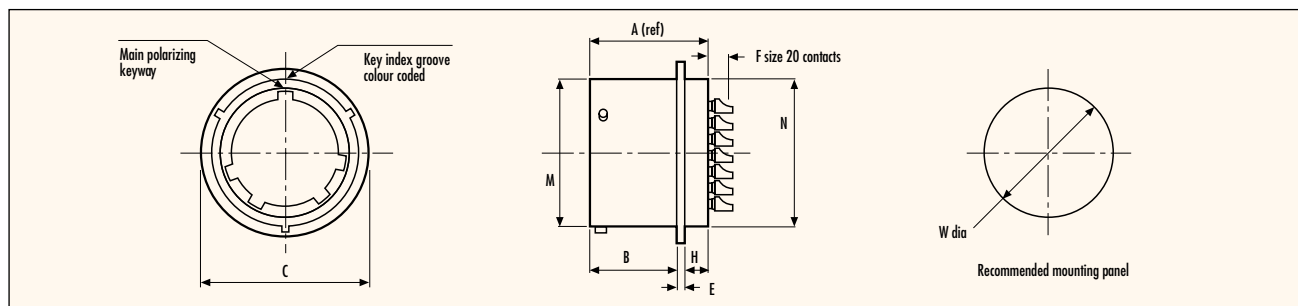


SHELL STYLE	ST. STEEL	MILD STEEL
SOLDER MOUNT RECEPTACLE	RR01H	461H
SQUARE FLANGE RECEPTACLE	RR02H	462H
JAM NUT RECEPTACLE	RR07H	467H
JAM NUT, THRU' BULKHEAD	RR07HTB	467HTB

JAM NUT, THRU' BULKHEAD – RRO7HTB/467HTB

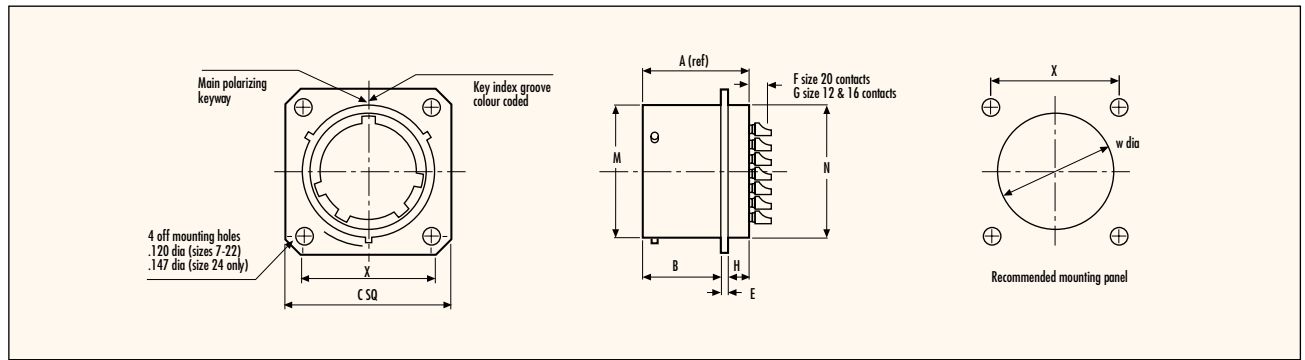
PART NO.	B	C DIA DIA	D MAX	E	F ±.010	K MAX	M DIA ±.003	P	T THREAD 2A	W ±.005	Z ±.005
RRO7HTB/467HTB – 8 – **SP #	.707 .691	1.078	.954	.113 .097	1.238	.767	.471	.062 .187	9/16-24 UNEF	.572	.536
RRO7HTB/467HTB – 10 – **SP #	.707 .691	1.203	1.078	.113 .097	1.238	.892	.588	.062 .187	7/16-24 UNEF	.697	.661
RRO7HTB/467HTB – 12 – **SP #	.707 .691	1.391	1.266	.113 .097	1.238	1.079	.748	.062 .187	7/8-20 UNEF	.895	.824
RRO7HTB/467HTB – 14 – **SP #	.707 .691	1.516	1.391	.113 .097	1.238	1.205	.873	.062 .187	1-20 UNEF	1.010	0.948
RRO7HTB/467HTB – 16 – **SP #	.707 .691	1.641	1.516	.113 .097	1.238	1.329	.998	.062 .187	1/8-18 UNEF	1.135	1.072
RRO7HTB/467HTB – 18 – **SP #	.707 .691	1.766	1.641	.113 .097	1.238	1.455	1.123	.062 .187	1 1/4-18 UNEF	1.260	1.197
RRO7HTB/467HTB – 20 – **SP #	.772 .754	1.954	1.828	.148 .128	1.393	1.579	1.248	.062 .250	1 3/8-18 UNEF	1.385	1.322
RRO7HTB/467HTB – 22 – **SP #	.772 .754	2.078	1.954	.148 .128	1.393	1.705	1.373	.062 .250	1 1/2-18 UNEF	1.510	1.447
RRO7HTB/467HTB – 24 – **SP #	.803 .785	2.203	2.078	.148 .128	1.393	1.829	1.498	.062 .250	1 3/8-18 UNEF	1.635	1.572

† The first letter at the end of the part no. denotes whether pin or socket will be on the hermetic side of the connector. e.g. Part Nos. may read **SP # or **PS#, # keyway orientations only.

HERMETIC RECEPTACLE SOLDER MOUNT – RRO1H/461H

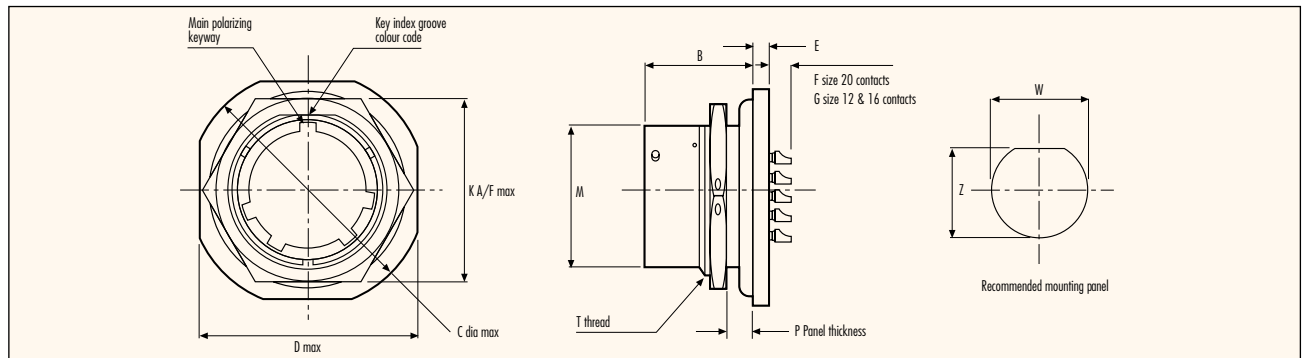
NUMBER	PART MAX	A ±.010 (REF)	B ±.000	C ±.016 -.020	E ±.030 -.005	F ±.030	G ±.020	H ±.003	M ±.003	N ±.005	W	
461H/RRO1H – 08 – *P/S*			.801	.588	.635	.031	.148	.218	.136	.471	.560	.570
461H/RRO1H – 10 – *P/S*			.801	.588	.760	.031	.148	.218	.136	.588	.670	.680
461H/RRO1H – 12 – *P/S*			.801	.588	.854	.031	.148	.218	.136	.748	.779	.789
461H/RRO1H – 14 – *P/S*			.801	.588	.979	.031	.148	.218	.136	.873	.904	.914
461H/RRO1H – 16 – *P/S*			.801	.588	1.104	.031	.148	.218	.136	.998	1.029	1.039
461H/RRO1H – 18 – *P/S*			.801	.588	1.228	.031	.148	.218	.136	1.123	1.154	1.164
461H/RRO1H – 20 – *P/S*			.863	.650	1.322	.031	.148	.218	.136	1.248	1.248	1.258
461H/RRO1H – 22 – *P/S*			.895	.650	1.448	.031	.116	.186	.168	1.373	1.373	1.383
461H/RRO1H – 24 – *P/S*			.895	.650	1.574	.031	.116	.186	.168	1.498	1.498	1.508

HERMETIC RECEPTACLE SQUARE FLANGE MOUNT – RRO2H/462H



PART NUMBER	A MAX	B ±.010	C SQ. MAX	E +.016	F ±.030	G ±.030	H ±.010	M DIA ±.003	N DIA ±.003	W ±.005	X ±.005
462H/RRO2H – 08 – *P/S*	.801	.588	.860	.062	.148	.218	.115	.471	.560	.570	.594
462H/RRO2H – 10 – *P/S*	.801	.588	.954	.062	.148	.218	.115	.588	.670	.680	.719
462H/RRO2H – 12 – *P/S*	.801	.588	1.047	.062	.148	.218	.115	.748	.779	.789	.812
462H/RRO2H – 14 – *P/S*	.801	.588	1.141	.062	.148	.218	.115	.873	.904	.914	.906
462H/RRO2H – 16 – *P/S*	.801	.588	1.234	.062	.148	.218	.115	.998	1.029	1.039	.969
462H/RRO2H – 18 – *P/S*	.801	.588	1.328	.062	.148	.218	.115	1.123	1.154	1.164	1.062
462H/RRO2H – 20 – *P/S*	.863	.650	1.453	.094	.148	.218	.083	1.248	1.248	1.258	1.156
462H/RRO2H – 22 – *P/S*	.895	.650	1.578	.094	.116	.186	.115	1.373	1.373	1.383	1.250
462H/RRO2H – 24 – *P/S*	.895	.650	1.703	.094	.116	.186	.115	1.498	1.498	1.508	1.375

HERMETIC RECEPTACLE JAM NUT MOUNTING – RRO7H/467H



PART NUMBER	B	C DIA MAX	D MAX	E	F ±.030	G ±.030	K MAX	M DIA ±.003	P	T THREAD 2A	W ±.005	Z ±.005
467H/RRO7H – 08 – *P/S*	.707 .691	1.078	.954	.113 .097	.104	.174	.767	.471	.062 .187	9/16-24 UNEF	.572	.536
467H/RRO7H – 010 – *P/S*	.707 .691	1.203	1.078	.113 .097	.104	.174	.892	.588	.062 .187	11/16-24 UNEF	.697	.661
467H/RRO7H – 012 – *P/S*	.707 .691	1.391	1.266	.113 .097	.104	.174	1.079	.748	.062 .187	7/8-20 UNEF	.895	.824
467H/RRO7H – 014 – *P/S*	.707 .691	1.516	1.391	.113 .097	.104	.174	1.205	.873	.062 .187	1-20 UNEF	1.010	0.948
467H/RRO7H – 16 – *P/S*	.707 .691	1.641	1.516	.113 .097	.104	.174	1.329	.998	.062 .187	1 1/8-18 UNEF	1.135	1.072
467H/RRO7H – 18 – *P/S*	.707 .691	1.766	1.641	.113 .097	.104	.174	1.455	1.123	.062 .187	1 1/4-18 UNEF	1.260	1.197
467H/RRO7H – 20 – *P/S*	.772 .754	1.954	1.828	.148 .128	.069	.139	1.579	1.248	.062 .250	1 3/8-18 UNEF	1.385	1.322
467H/RRO7H – 22 – *P/S*	.772 .754	2.078	1.954	.148 .128	.069	.139	1.705	1.373	.062 .250	1 1/2-18 UNEF	1.510	1.447
467H/RRO7H – 24 – *P/S*	.803 .785	2.203	2.078	.148 .128	.069	.139	1.829	1.498	.062 .250	1 5/8-18 UNEF	1.635	1.572

OUR SERVICE TO YOU

Deutsch Ltd. designs, manufactures and markets electrical connectors, fibreoptic connectors, electro-mechanical relays and other associated components and systems. The company also represents other Deutsch group companies in the USA, France, Germany and Israel, marketing their products alongside those manufactured in the UK.

The company is an industry leader. The production of innovative and technologically superior products requires an across-the-board commitment to design, manufacturing and marketing excellence. The philosophies of Total Quality Management are at the cornerstone of that commitment. The most basic of these philosophies is a unique approach to the quality of Deutsch products and service, with the goals of 100% conformity to specification and the achievement of meeting the expectations of our customers through efficient teamwork and competence.

Deutsch Ltd. supplies quality products to the defence, aerospace, transportation and general industrial markets under the following approvals:

• CAA A8-1 • BS EN ISO 9001 • BS9000 • CECC

The company has an extensive portfolio of products and services which include:-

- **Electrical Connectors**

MIL-DTL-38999 / MIL-C-26482

MIL-C-81703 / MIL-C-83723, NAS 1599

ARINC 600, DCM, MIL-C-81511, IN1003, MIL-DTL-83538

MS and QPL connectors and contacts plus many other international types and styles

- **Fibreoptic Connectors and Terminations**

- **Filter Connectors**

- **Glass-to-metal hermetically sealed connectors and assemblies**

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- **Pressure Bungs and Fireseals**

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Broadbridge Heath, Horsham
West Sussex RH12 3JR
Tel +44 (0) 1403 260206
Fax +44 (0) 1403 259760
Email sales@aerco.co.uk
Website www.aerco.co.uk



DEUTSCH
MILITARY & AEROSPACE LTD

A step ahead in technology

Castleham Industrial Estate
4 Stanier Road, St Leonards on Sea
East Sussex TN38 9RF England
Telephone +44(0) 1424 852721
Fax +44(0) 1424 851532
Email milaero@deutsch.co.uk
www.deutschltd.com