

Amphenol SOCAPEX

RFM Series

Rack and Panel Blind Mating Modular Connector
EN45545-2 & NF F 61-032 Qualified



www.amphenol-socapex.com

NOTES

Notes section with horizontal dotted lines for writing.

TABLE OF CONTENT

About Amphenol Socapex	4
Markets and applications	8
RFM Standard	11
General characteristics	12
Arrangements	14
Connector integration	19
How to order	20
Contacts	21
Tools	22
RFM Power	25
General characteristics	26
Monolithic 6 x 60 A	27
200 A Module	29
200 A Module Contacts	30
RFM Quadrax	33
General characteristics	34
Arrangements	35
External dimensions	36
Contacts	37
BUILD YOUR OWN RFM	38

OUR COMPANY



Proven excellence in interconnect solutions

- Since **1947**, Amphenol Socapex has prescribed, designed and manufactured reliable and innovative interconnection solutions for harsh environments, specializing in standard and customized electrical and fiber optic connectors, contacts, accessories and cabling solutions.
- Located in the **Mont Blanc region** of France and Pune in India, Amphenol Socapex serve customers in over 100 countries around the world.
- Amphenol Socapex is part of the leading supplier of interconnect systems **Amphenol**.



1400+
employees



142 M€
Net Sales 2023
70% Export - 30% France



Thyez, **France**
Pune, **India**



Our expertise has no boundaries

Integrated Production in France & India

- 24 000 m² manufacturing capacity on 2 sites
- Design and manufacturing centers in France and India
- State-of-the-art manufacturing technology

Our markets



Defense



**Commercial
Aerospace**



Space



Industry



TECHNOLOGIES & INNOVATION

Engineering Laboratory



Product testing and qualification expertise in many fields:

- Environmental, mechanical, electrical, chemical, climatic skills
- RF and fiber optics expertise

High-Speed Expertise



Strong expertise in high-speed signals

- 3D EM simulation software & EM models
- Time Domain and frequency domain

Materials Expertise



Focus on materials expertise and manufacturing techniques to produce faster, smaller and stronger products

- Advanced technology research and development: polymers, metals, platings, resins ...
- Cutting edge characterizations of interconnects: Radio Frequency, partial discharges ...
- 3D CAD mechanical software, simulation & analysis

Eco-responsibility



Sustainable environment approach, with pro-active management of regulations (REACH / RoHS / Conflict minerals...)

- New materials development, plating, and suitable processes
- Recycling and rational resources consumption

Our workshops



Our workshops located in France & India provide consistent quality adapted to your volume requirements.

Automation & Tooling : Tools for our different activities : molding, machining, assembly

Molding : Solid expertise in thermoplastic elastomer and thermoset molding

Machining : Manufacturing of cylindrical shells and rectangular shells

Screw Machining : Manufacturing of electrical contacts

Plating : Plating with cadmium, nickel, electroless nickel, silver, black zinc nickel, gold

Assembly : Connector and harness assembly (electrical & optical)

Our certifications

Product certifications : MIL-DTL38999, EN3645, EN3155, VG (VG95328, VG95319, VG96944, VG95218, VG96949)



Certified Management System



Certified Management System



Certified Management System



Certified Management System

Our memberships

Member of CMG (Connecting Manufacturing Group) Consortium

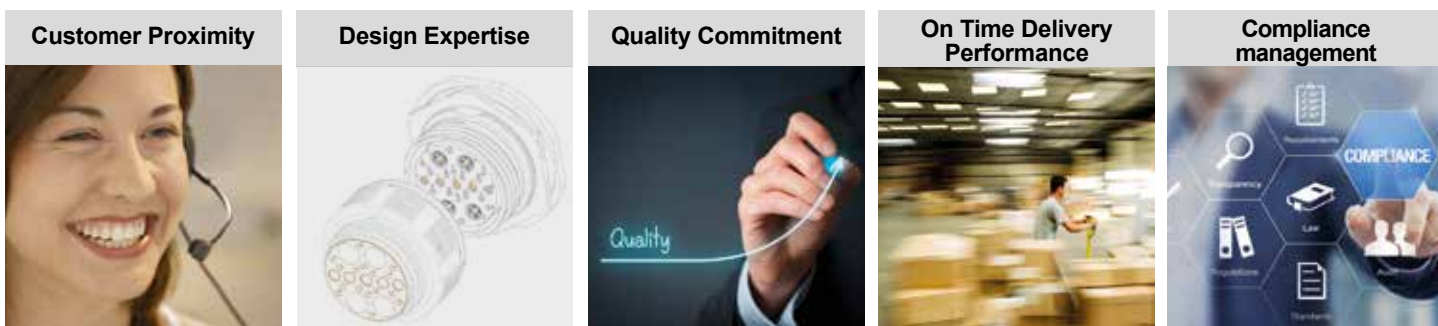


CUSTOMER EXPERIENCE



► We have a strong reputation for helping customers solve their toughest challenges. This approach of serving your needs is ingrained in our company – from our sales team to our product development engineers.

A partner you can trust



Buy our solutions

You can access our solutions through our global network of sales offices or through our distributors.

Field Sales Team :

- 10 in France
- 15 in Europe
- 100+ in North America and rest of the world.
- 5 Business Development Managers supporting local sales force Europe, North America and the rest of the world

- Technical Advisement & Multilingual Customer Service :**
20 people



Worldwide Distribution Network :

Our range of circular connectors, contacts, fiber optic connectors, PCB connectors and accessories are available thru our extensive distribution network.

It includes qualified distributors (QPL approved) for assembling MIL-DTL-38999 & derivatives and PT/451 (VG95328) connectors.

[Check our product inventory](#)



[Product Selectors & 3D Files](#)



NEW



OUR HISTORY

1947 



- Socapex creation in Suresnes, France
- 1st radio connector

1956-57



- Manufacturing unit in Cluses (74), France
- Thomson-CSF becomes primary shareholder

Early 1960's



- 1st board level connectors: HE8
- 1st "licence Bendix" manufactured connectors
- SL Series

1973



- New factory in Thyez (74) France with 250 people, 13 000m²

1975



- Production of 38999 connectors

1986



- Amphenol becomes primary shareholder

1995-96



- Expanded Beam connector CTOS launch
- Headquarters transferred to Thyez

2004



- RJ Field launch, "Award Electronica"

2005 



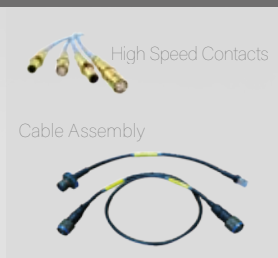
- New factory in Pune, India

2010's



- LuxBeam™ and HDAS launch

2014-2017



- New workshops :
- Cable Assembly & Contact Manufacturing workshop

2019



- Increased manufacturing capacity with 2nd building in Pune, India

2022



- Harness in the box solution launch

Today & tomorrow



- New technologies :
- Investment in automation & technical expertise

- Amphenol SOCAPEX joins the "Convention des Entreprises pour le Climat".
- Our goal: to accelerate our transition to a more sustainable operation.



MARKETS AND APPLICATIONS



Industrial

Automation
Transportation
Nuclear power station
Robotics



C4ISR

Threat detection system
Soldier wearable equipment
Rugged computer & digital radio
Satellite reception unit



Military vehicles

Ground radios shelters
Ground vehicles
Battlefield
Communication systems



Military Avionics & Airframe

Power unit
Aircraft
Radar
Display unit
Flight control system



Missiles & UAVs

Air missiles and UAVs
Ground control station & launchers



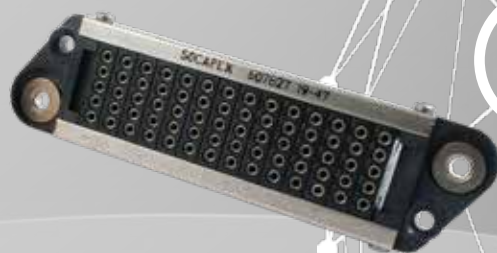
Navy

Navigation guidance



NOTES

Notes section with horizontal dotted lines for writing.



RFM STANDARD



Table of contents

RFM Standard	11
General characteristics	12
Arrangements	14
Connector integration	19
How to order	20
Contacts	21
Tools	22

THE RFM STANDARD SERVES VARIOUS MARKETS, INCLUDING:



- Industrial**
- Railway Racks
- Shelters
- Cabinets
- Power Racks
- Modular equipment
- Automatic assembly machines

GENERAL CHARACTERISTICS - RFM STANDARD

Blind mate modular floating rack connector

Benefits

- Blind mate, floating fixing.
- RoHS Compliant ✓.
- Low insertion forces.
- Male & female contacts can be mounted on both sides.
- Meets NF F 61-032 requirements: vibrations, salt spray, temperature.

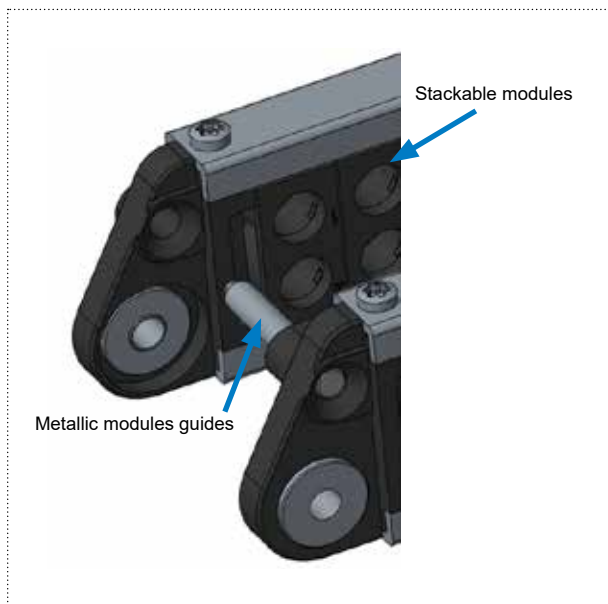


NF F 61-032
Qualified product

GENERAL CHARACTERISTICS	
Qualification	NF F 61-032
Mating cycles	500
Misalignment allowance around each fixing screw	±1,25 mm
Contact type	Crimp contacts
MATERIALS & FINISHES	
Housing & modules	BLACK POLYCARBONATE
Frame	Nickel over aluminium
MAIN ENVIRONMENTALS CHARACTERISTICS	
Temperature range	-55°C to +125°C
Fire behavior	EN 45545-2 HL3 (R22) & I3-F1 NF F16-102
Salt spray	96 hours (following NFC 20711)
Chemical behavior	HCl 1N 5min; NaOH 1N 5min

1.Guiding system

Guiding pin & chamfered holes



2. Floating system

Around the fixing screw



GENERAL CHARACTERISTICS - RFM STANDARD

Module 2 contacts Ø3,5



Module 3 contacts Ø2,5



Module 5 contacts Ø1,5



Long Module 5 contacts Ø1,5

(Plug 2XX & Receptacle 3XX)

Avoid to put heat shrink boots around the contact crimping area.

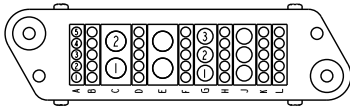


MODULE	5 contacts	3 contacts	2 contacts
MAIN ELECTRICAL VALUES			
Contact diameter	Ø1.5 mm	Ø2.5 mm	Ø3.5 mm
Current (nom.)	8 A	15 A	60 A
Insulation resistance under 500 Vrms	>10³ MΩ		
Contact resistance	<2,5 mΩ	<1 mΩ	<0,80 mΩ
DWV: - Between contacts - Between contacts & ground	1500 Vrms 1600 Vrms	2000 Vrms 2000 Vrms	3000 Vrms 2800 Vrms
Max. Contact mating forces	2 N	4 N	6 N

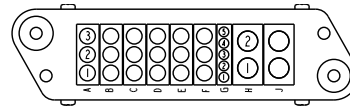
ARRANGEMENTS - RFM STANDARD

View: receptacle, cable connection side.

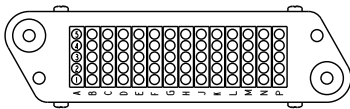
All standardized arrangement from NF F 61-032 are showed. If other arrangements needed, see page 38.



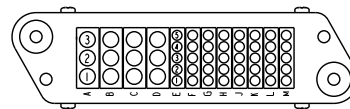
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	1	201	35	6	4
Receptacle	101	301			



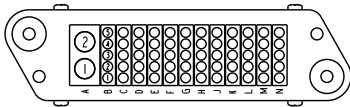
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	6	206	5	18	4
Receptacle	106	306			



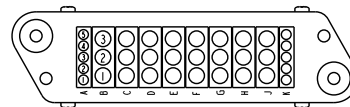
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	2	202	70	-	-
Receptacle	102	302			



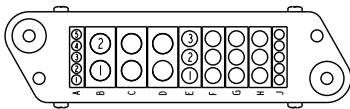
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	7	207	40	12	-
Receptacle	107	307			



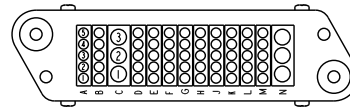
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	3	203	60	-	2
Receptacle	103	303			



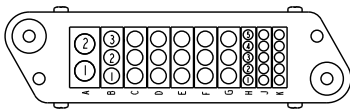
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	8	208	10	24	-
Receptacle	108	308			



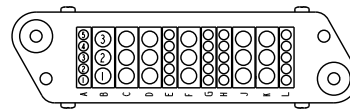
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	4	204	10	12	6
Receptacle	104	304			



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	9	209	55	6	-
Receptacle	109	309			



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	5	205	15	18	2
Receptacle	105	305			



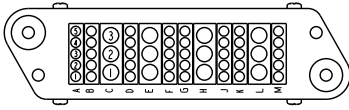
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	10	210	25	18	-
Receptacle	110	310			

* 5 contacts modules (Ø1.5 mm contacts) only are longer

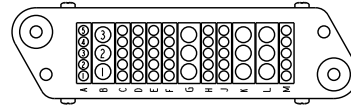
ARRANGEMENTS - RFM STANDARD

View: receptacle, cable connection side.

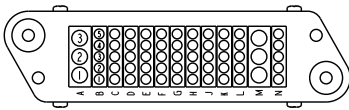
All standardized arrangement from NF F 61-032 are showed. If other arrangements needed, see page 38.



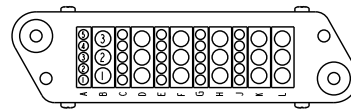
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	11	211		12	-
Receptacle	111	311	40		



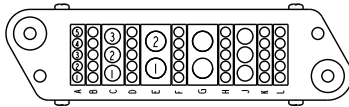
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	16	216		12	-
Receptacle	116	316	40		



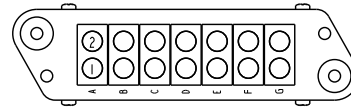
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	12	212		6	-
Receptacle	112	312	55		



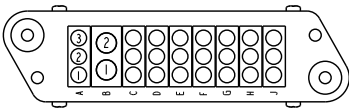
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	17	217		18	-
Receptacle	117	317	25		



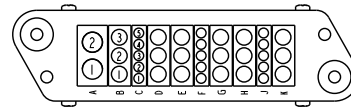
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	13	213		6	4
Receptacle	113	313	35		



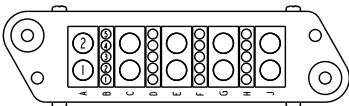
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	18	-	-	-	14
Receptacle	118	-	-	-	



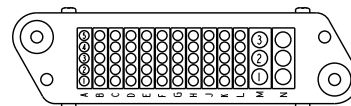
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	14	-	-	24	2
Receptacle	114	-	-		



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	19	219		18	2
Receptacle	119	319	15		



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	15	215		-	10
Receptacle	115	315	20		



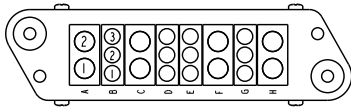
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	20	220		6	-
Receptacle	120	320	55		

* 5 contacts modules (Ø1.5 mm contacts) only are longer

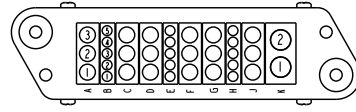
ARRANGEMENTS - RFM STANDARD

View: receptacle, cable connection side.

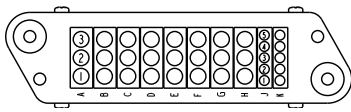
All standardized arrangement from NF F 61-032 are showed. If other arrangements needed, see page 38.



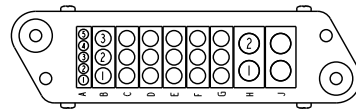
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	21	-	-	12	8
Receptacle	121	-	-		



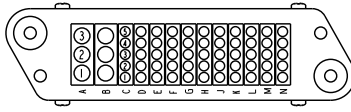
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	26	226	15	18	2
Receptacle	126	326			



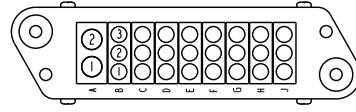
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	22	222	10	24	-
Receptacle	122	322			



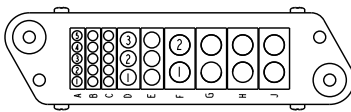
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	27	227	5	18	4
Receptacle	127	327			



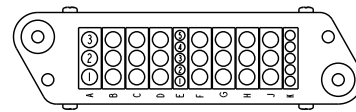
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	23	223	55	6	-
Receptacle	123	323			



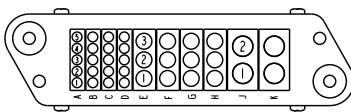
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	28	-	-	24	2
Receptacle	128	-			



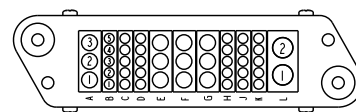
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	24	224	15	6	8
Receptacle	124	324			



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	29	229	10	24	-
Receptacle	129	329			



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	25	225	20	12	4
Receptacle	125	325			



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	30	230	30	12	2
Receptacle	130	330			

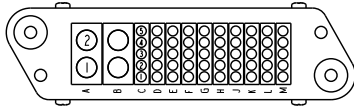
* 5 contacts modules (Ø1.5 mm contacts) only are longer

ARRANGEMENTS - RFM STANDARD

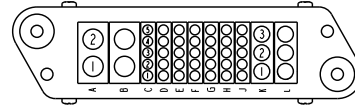
View: receptacle, cable connection side.

All standardized arrangement from NF F 61-032 are showed. If other arrangements needed, see page 38.

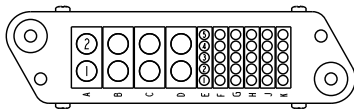
Rep31 is not available.



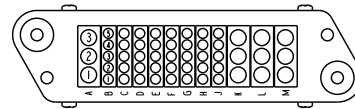
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	32	232			
Receptacle	132	332	55	-	4



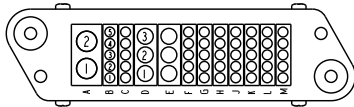
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	37	237			
Receptacle	137	337	35	6	4



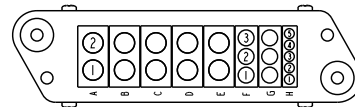
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	33	233			
Receptacle	133	333	30	-	8



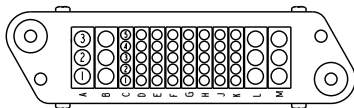
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	38	228			
Receptacle	138	338	40	12	-



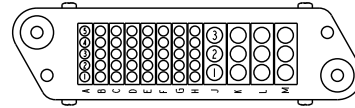
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	34	234			
Receptacle	134	334	45	6	2



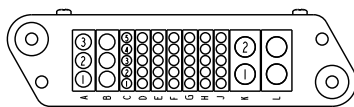
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	39	239			
Receptacle	139	339	5	6	10



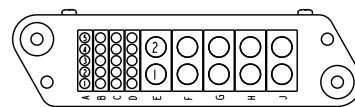
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	35	235			
Receptacle	135	335	40	12	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	40	240			
Receptacle	140	340	45	12	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	36	236			
Receptacle	136	336	36	6	4



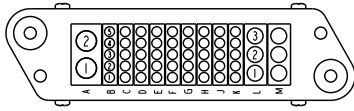
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	41	241			
Receptacle	141	341	20	-	10

* 5 contacts modules (Ø1.5 mm contacts) only are longer

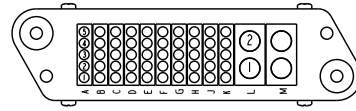
ARRANGEMENTS - RFM STANDARD

View: receptacle, cable connection side.

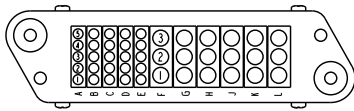
All standardized arrangement from NF F 61-032 are showed. If other arrangements needed, see page 38.



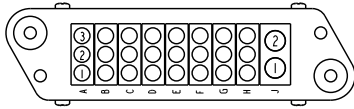
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	42	242	9	6	2
Receptacle	142	342			



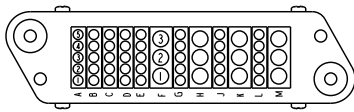
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	47	247			
Receptacle	147	347	50	-	4



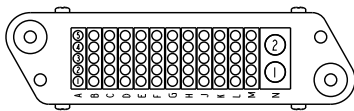
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	43	243			
Receptacle	143	343	25	18	-



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	44	-	-	24	2
Receptacle	144	-			



	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	45	245			
Receptacle	145	345	40	12	-



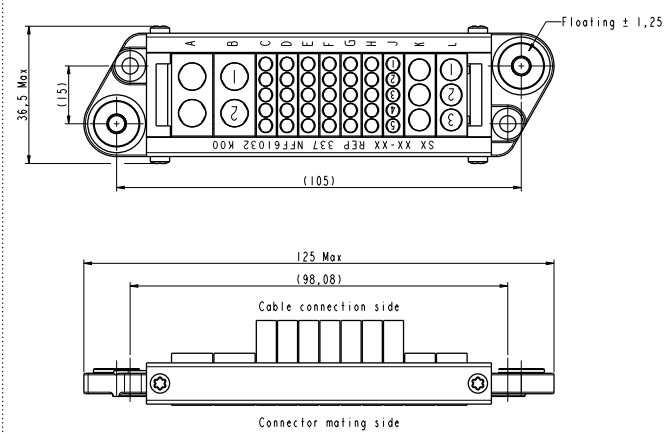
	SHORT	LONG*	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5
Plug	46	246			
Receptacle	146	346	60	-	2

* 5 contacts modules (Ø1.5 mm contacts) only are longer

CONNECTOR INTEGRATION - RFM STANDARD

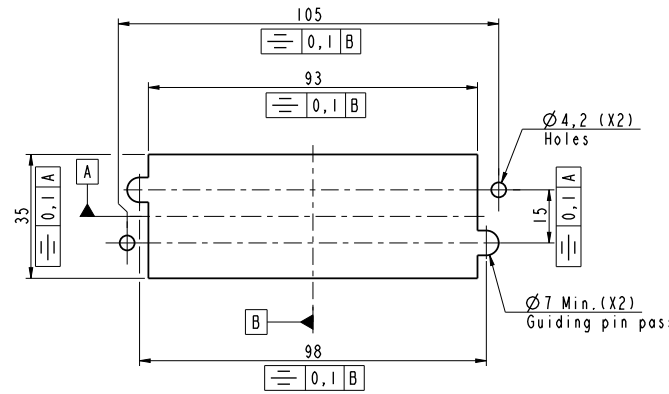
Example arrangement 337 & 237.

External dimension

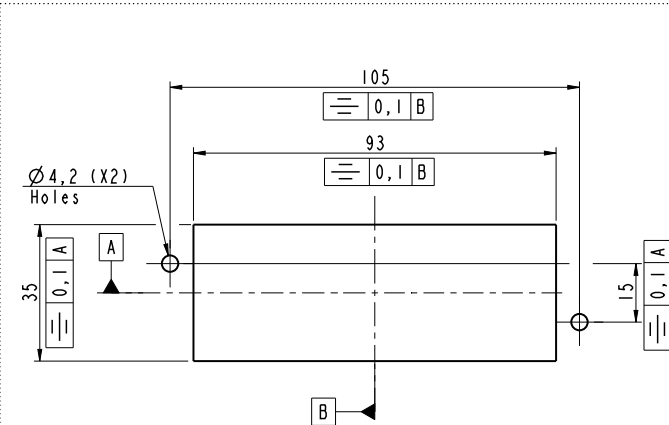
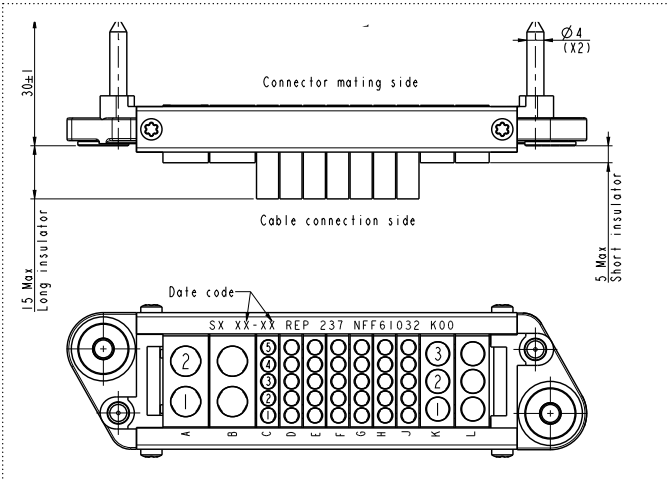


RECEPTACLE

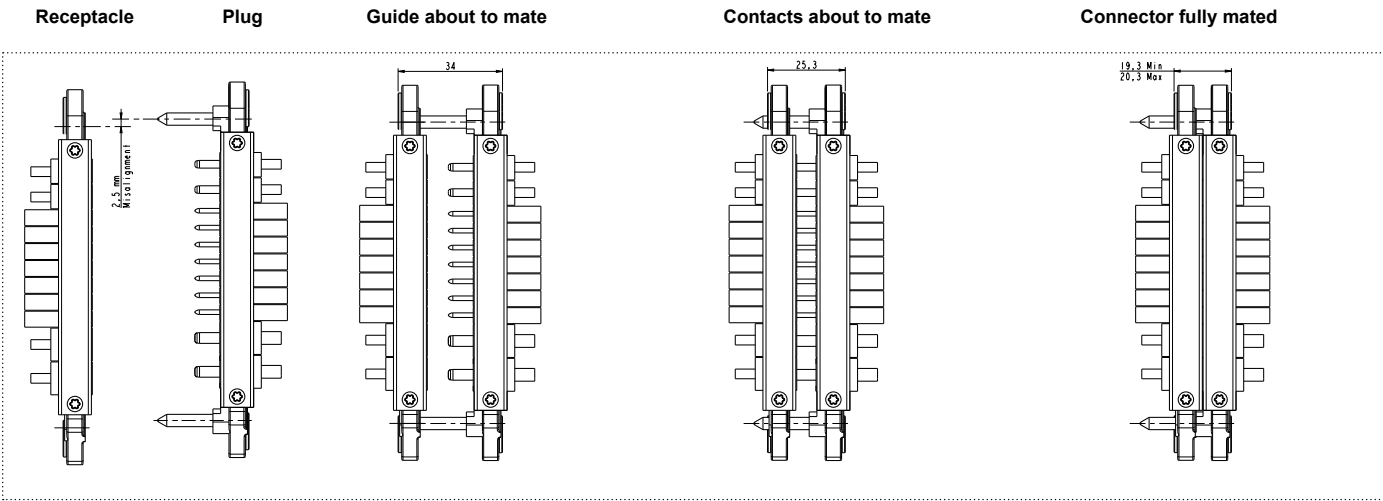
Panel cutout



PLUG



MATING SEQUENCE



All dimensions are in mm

Due to technical modifications, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

HOW TO ORDER - RFM STANDARD

Nota:

Modules cannot be delivered separately. Connectors delivered without contacts, see page 21.

1.	2.	3.	4.
Series	Connector type	Representation	Layout
RFM	E	REP	302

1. Series name

RFM

2. Connector type

E	Receptacle
F	Plug

3. Representation

REP

4. Layout – Choose from column 1 to 4

PLUG (F)		RECEPTACLE (E)		5CTS module (Ø 1.5 mm)	3CTS module (Ø2.5 mm)	2CTS module (Ø3.5 mm)
SHORT 1	LONG* 2	SHORT 3	LONG* 4			
2	202	102	302	14		
3	203	103	303	12		1
4	204	104	304	2	4	3
5	205	105	305	3	6	1
6	206	106	306	1	6	2
7	207	107	307	8	4	
8	208	108	308	2	8	
9	209	109	309	11	2	
10	210	110	310	5	6	
11	211	111	311	8	4	
12	212	112	312	11	2	
13	213	113	313	7	2	2
14	214	114	314		8	1
15	215	115	315	4		5
16	216	116	316	8	4	
17	217	117	317	5	6	
18	218	118	318			7
19	219	119	319	3	6	1
20	220	120	320	11	2	
21	221	121	321		4	4
22	222	122	322	2	8	
23	223	123	323	11	2	
24	224	124	324	3	2	4
25	225	125	325	4	4	2
26	226	126	326	3	6	1
27	227	127	327	1	6	2
28	228	128	328		8	1
29	229	129	329	2	8	
30	230	130	330	6	4	1

4. Layout – Choose from column 1 to 4

PLUG (F)		RECEPTACLE (E)		5CTS module (Ø 1.5 mm)	3CTS module (Ø2.5 mm)	2CTS module (Ø3.5 mm)
SHORT 1	LONG* 2	SHORT 3	LONG* 4			
32	232	132	332	10		2
33	233	133	333	6		4
34	234	134	334	9	2	1
35	235	135	335	8	4	
36	236	136	336	7	2	2
37	237	137	337	7	2	2
38	238	138	338	8	4	
39	239	139	339	1	2	5
40	240	140	340	8	4	
41	241	141	341	4		5
42	242	142	342	9	2	1
43	243	143	343	5	6	
44	244	144	344		8	1
45	245	145	345	8	4	
46	246	146	346	12		1
47	247	147	347	10		2

*5 contacts modules (Ø1.5 mm contacts) only are longer

CONTACTS - RFM STANDARD

Nota:

All connectors are delivered without contacts. Contacts must be ordered separately.



Pin contacts

Designation	P/N	Current	Admissible Section	Termination
Pin Contact Ø 1,5 mm	30526	8A	0,34 to 1,5 mm ² S1 S2 AWG 22-16	Crimp
Pin Contact Ø 2,5 mm	30517	15A	1,34 to 2 mm ² S4 AWG 16-14	
Pin Contact Ø 3,5 mm	30518	20A	1,34 to 2 mm ² S4 AWG 16-14	
	30532	20A	1,91 to 2,5 mm ² AWG 16-14	
	30533	60A	4 to 10 mm ² AWG 10-8	



Socket contacts

Designation	P/N	Current	Admissible Section	Termination
Pin Contact Ø 1,5 mm*	30521	8A	0,34 to 1,5 mm ² S1 S2 AWG 22-16	Crimp
Pin Contact Ø 2,5 mm	30519	15A	1,34 to 2 mm ² S4 AWG 16-14	
Pin Contact Ø 3,5 mm	30520	20A	1,34 to 2 mm ² S4 AWG 16-14	
	30534	60A	4 to 10 mm ² AWG 10-8	

* Socket Contacts Ø 1,5 mm are equipped with Hyperboloid technology which provide higher performances in harsher environments.

TOOLS - RFM STANDARD

Crimping

	Crimp tool	AWG	Selector position	Turret	Color code	
Contacts Ø1,5 mm 30521 30526	DMC FT8	22	3	DMC SH 463	RED	
	ASTRO TOOL TGV 101	20	4	ASTRO TOOL TGV 202		
		18	5			
		16	6			
Contacts Ø2,5 mm 30517 30519	DMC FT8	16	6	DMC SH 463	BLUE	
	ASTRO TOOL TGV 101	14	7	ASTRO TOOL TGV 202		
Contacts Ø3,5 mm 30520 30518 30532	DMC M317	16	2	DMC TP 805	-	
	ASTRO TOOL TGV 515	14	3	ASTRO TOOL TGV 503	-	
Contacts Ø3,5 mm 30533 30534	DMC M317	10	5	DMC TP 805	-	
	ASTRO TOOL TGV 515	8	8	ASTRO TOOL TGV 503	-	



Insertion / extraction

Nota:

In accordance with the NF F 61 032 standard, extraction tools have to be inserted on the front side of the connector for contact extraction on the rear side of the connector.

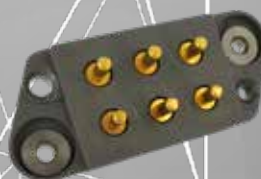
		Contact Ø 1.5	Contact Ø 2.5	Contact Ø 3.5
Insertion	Pin & Socket	DAK32*	DAK126-12A*	DAK87-8*
Extraction	Pin	DAK602*	DAK126-12A*	
	Socket		DAK382*	DAK397*

* DMC tools for sale in distribution.



NOTES

Notes section with horizontal lines for writing.



RFM POWER



Table of contents

RFM Power	25
General characteristics	26
Monolithic 6 x 60 A	27
200 A Module	29
200 A Module Contacts	30

THE RFM SERIES SERVES VARIOUS MARKETS, INCLUDING:



Industrial
Railway Racks (cars batteries)
Battery Racks
Base stations

GENERAL CHARACTERISTICS - RFM

Blind mate modular floating rack with high voltage contacts



Benefits

- Blind mate, floating fixing.
- Low insertion forces.
- High mating / unmating cycles.
- Power contacts – Male & Female contacts can be mounted on both sides.
- Socket contacts 200 Amps are equipped with RADSOK® Technology (see features page 30).
- Modular 2 modules of one crimp contact and monolithic 6 cavities for removable crimp contacts .
- Meets NF F61-032 requirements: vibrations, salt spray, temperature.

	6 x 60 A Monolithic	2 x 200 A Module
MAIN ELECTRICAL VALUES		
Current (nom.)	60 A	200 A
Insulation resistance under 500 Vrms	>10 ³ MΩ	
Contact resistance	<2,5 mΩ	<0.5 mΩ
DVV:		
- Between contacts	1500 Vrms	2600 Vrms
- Between contacts & ground	1600 Vrms	2600 Vrms
Insertion forces per contacts	≤6 N	≤32 N
Pin contact diameter	3.5 mm	8 mm
MAIN ENVIRONMENTALS CHARACTERISTICS		
Temperature range	-55°C to +125°C	
Fire behavior	EN 45545-2 HL3 (R22) & I3-F1 following NF F16-102	
Salt spray	96 hours following NFC 20711	
Chemical behavior	HCl 1N 5min; NaOH 1N 5min	



MONOLITHIC 6 X 60 A - RFM POWER

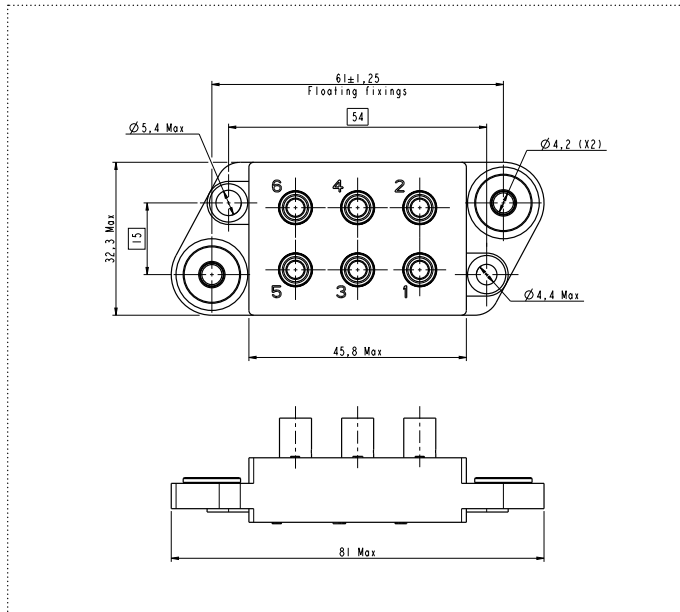
Nota:

Plug or receptacle can be equipped with pins or sockets, the contacts must be ordered separately.

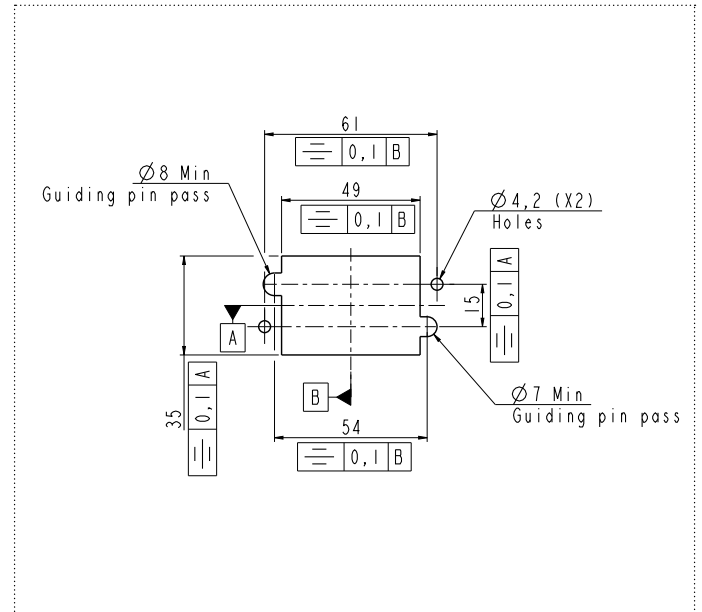


External dimension

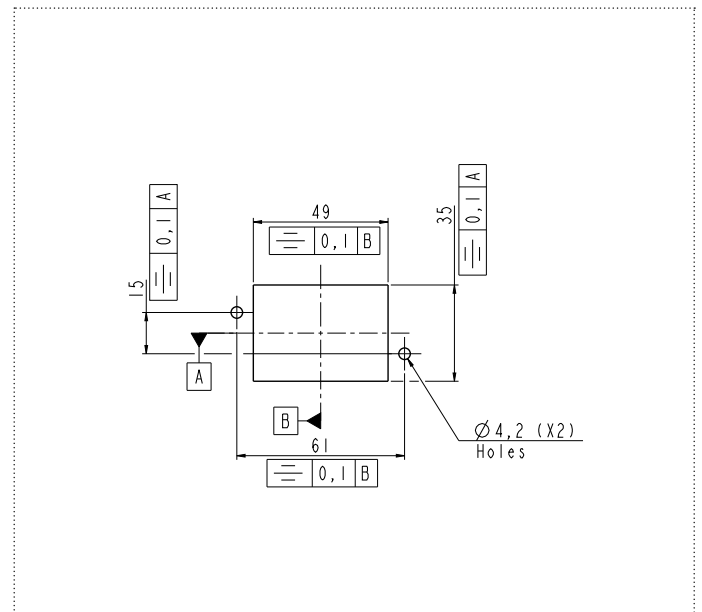
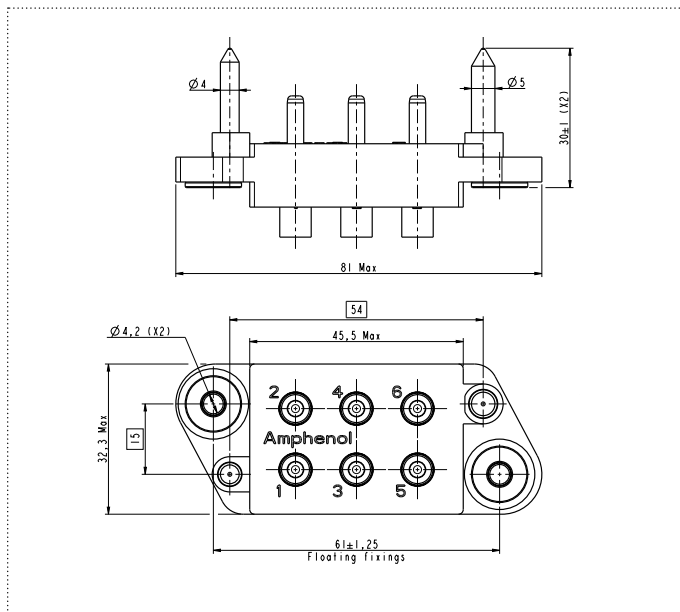
RECEPTACLE P/N 507688



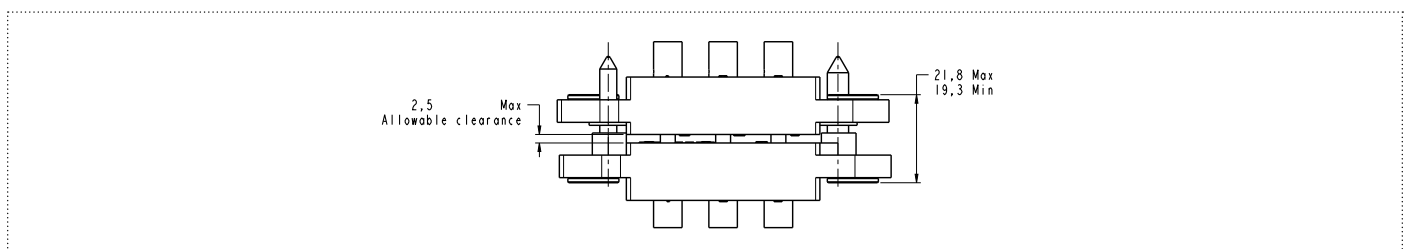
Panel cutout



PLUG P/N 507687



MATED CONNECTORS





All dimensions are in mm

Due to technical modifications, all information provided is subject to change without prior notice
Designed by Amphenol Socapex

Amphenol SOCAPEX

MONOLITHIC 6 X 60 A - RFM POWER

Contacts

	Designation	P/N	Current	Admissible Section	Termination
	Pin Contact Ø 3,5 mm	30501 30533	60A	13 mm² AWG 6 4 à 10 mm² AWG 10-8	Crimp
	Designation	P/N	Current	Admissible Section	Termination
	Socket Contact Ø 3,5 mm	30502 30534	60A	13 mm² AWG 6 4 à 10 mm² AWG 10-8	Crimp

Tools

- Crimping:

	Crimp tool	AWG	Selector position	Turret
Contacts Ø3,5 mm 30501 30502	DMC M317	6	6	DMC TP 805
	ASTRO TOOL TGV 515			ASTRO TOOL TGV 503
Contacts Ø3,5 mm 30533 30534	DMC M317	10 to 8	5 to 8	DMC TP 805
	ASTRO TOOL TGV 515			ASTRO TOOL TGV 503

- Insertion / Extraction

	Contact Ø 3.5 mm	
Insertion	Pin & Socket	DAK590*
Extraction	Pin	DAK126-12A*
	Socket	DAK397*

* DMC tools for sale in distribution



200 A MODULE - RFM POWER

Nota:

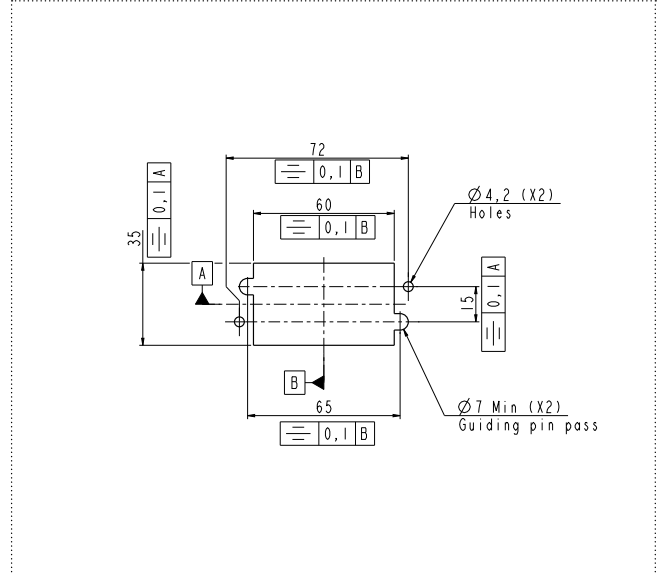
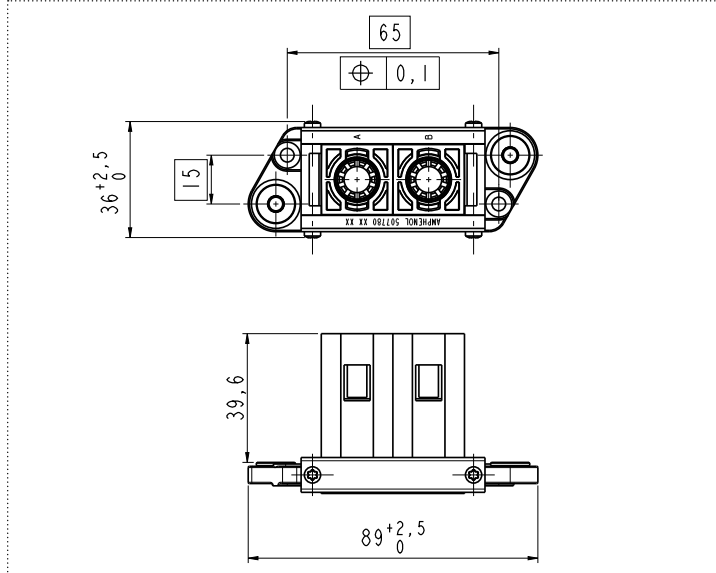
This 200 A module can be used into standard RFM modular connectors.
Plug to be equipped with pin & receptacle with sockets. Contacts must be ordered separately.



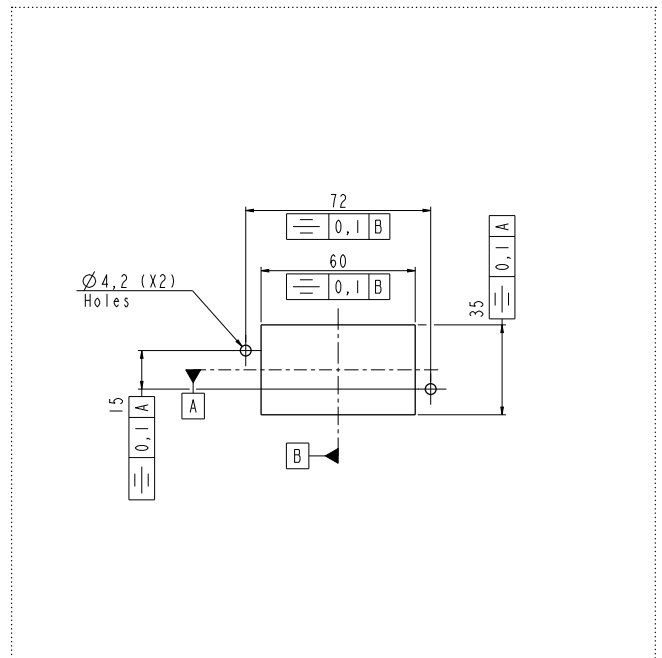
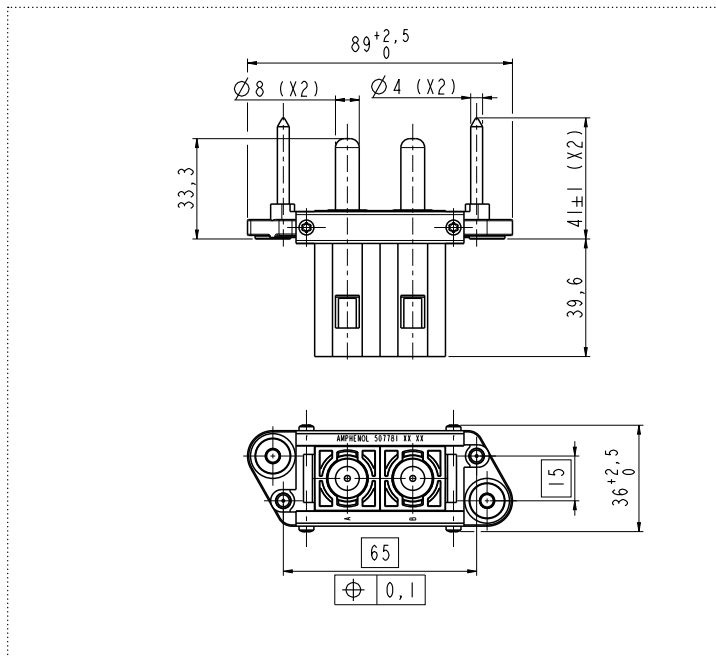
External dimension

RECEPTACLE P/N 507780

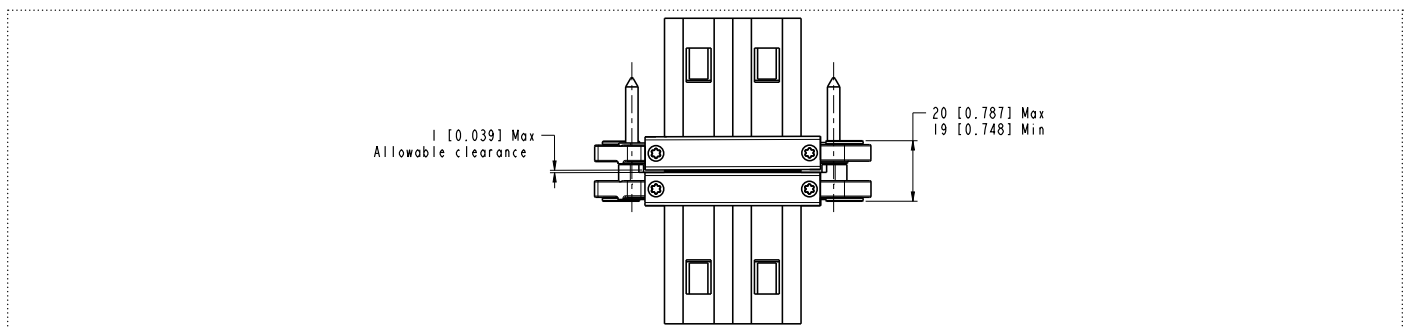
Panel cutout



PLUG P/N 507781



MATED CONNECTORS



All dimensions are in mm

200 A MODULE CONTACTS - RFM POWER

Contacts RADSOK®

P/N	Designation	Current	Admissible Section	Termination
30279	Pin contact Ø 8mm	200A	50 mm² AWG 0	Crimp
30280	Socket contact Ø 8mm			



RADSOK® contacts features:

- Low contact engagement/separation forces.
 - Hyperbolic lamella socket contact.
- Low contact resistance.
 - Large interface area between socket & pin.
- High mating cycle durability.
 - Demonstrated survival of 20,000 mating cycles.



Tools



- Crimping Hydraulic tool (pins and sockets contacts)
P/N: **809947**

- Crimping Dies (pins and sockets contacts)
P/N: **809948**

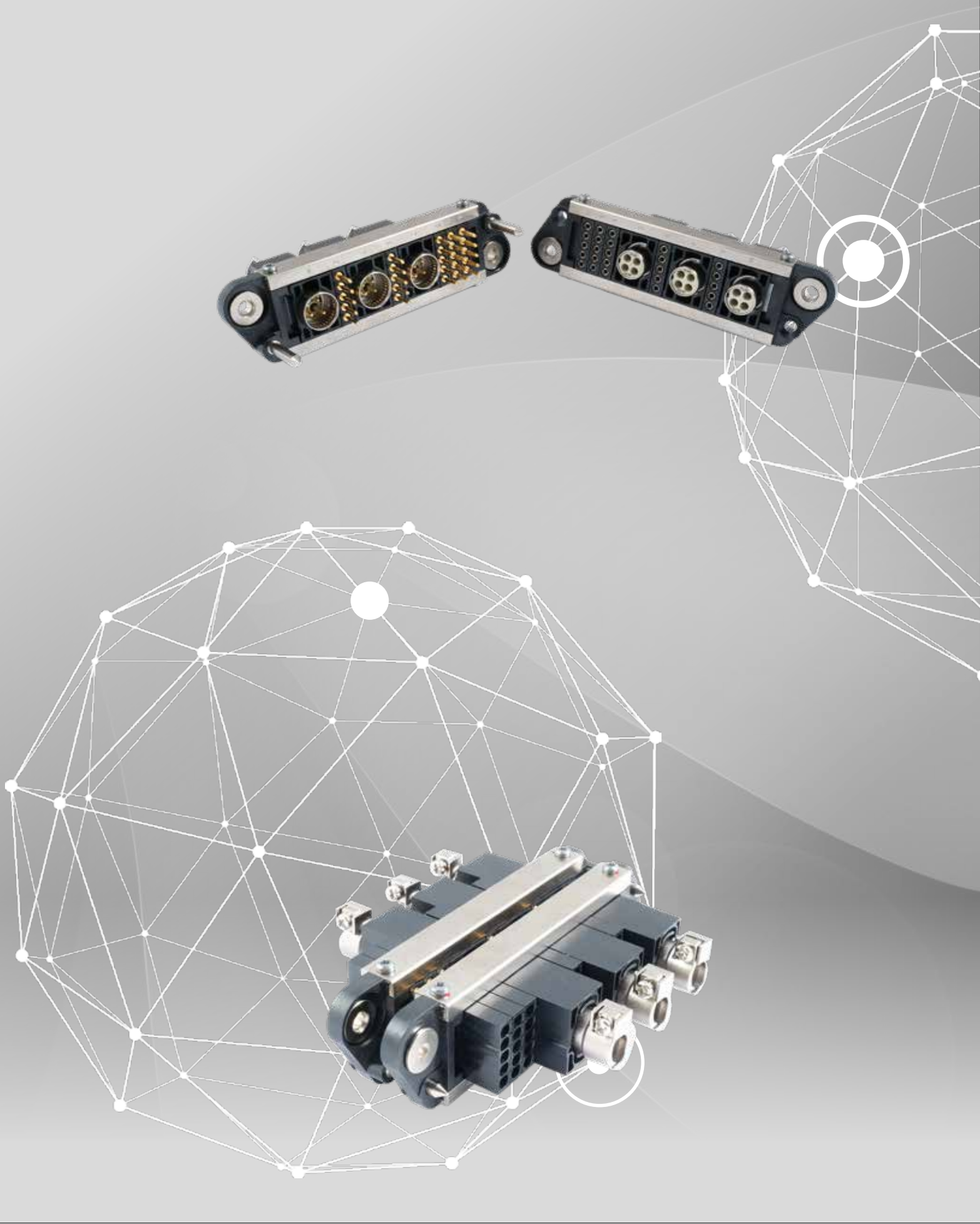


- Removal tool
P/N: **809982**



NOTES

Area for handwritten notes, consisting of multiple horizontal dotted lines.



RFM QUADRAX



Table of contents

RFM Quadrax	33
General characteristics	34
Arrangements	35
External dimensions	36
Contacts	37

THE RFM QUADRAX SERVES VARIOUS MARKETS, INCLUDING:



Industrial
Railway Racks
Shelters
Modular equipment
Automatic assembly machines

GENERAL CHARACTERISTICS - RFM QUADRAX

Blind mate modular floating rack connector

with Quadrax contacts for high speed applications.



Benefits

- Blind mate, floating fixing.
- Male & female signals contacts can be mounted on both sides.
- Low insertion forces.
- Customs available on demand.
- Meets NF F 61-032 requirements: vibrations, salt spray, temperature.

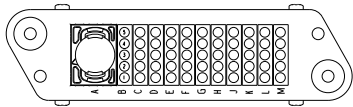
MATERIALS	
Housing and modules	BLACK POLYCARBONATE
Frame	Nickel over aluminium
MAIN ENVIRONMENTALS CHARACTERISTICS	
Temperature range	-55°C to +125°C
Fire behavior	EN45545-2 HL3 (R22) I3-F1 NF F 16102
Salt spray	96 hours following NFC 20711
Chemical behavior	HCl 1N 5min; NaOH 1N 5min

Quadrax module	
MAIN ELECTRICAL VALUES	
Pin diameter	Ø1.6 mm (inner contact)
Current (nom.)	13 A
Insulation resistance under 500 Vrms	≥ 2000 MΩ
Contact resistance	≤ 2.5 mΩ
DWV	AC 1500 Vrms
Attenuation	<0.4dB@100MHz
Crosstalk	>43dB@100MHz

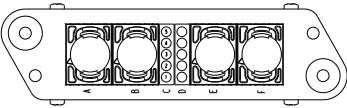


ARRANGEMENTS - RFM QUADRAX

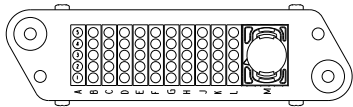
View: receptacle, connection side



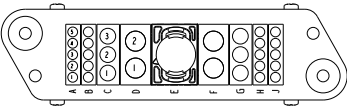
	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508600	55	-	-	1
Receptacle	508601				



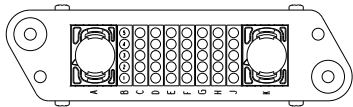
	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508608	10	-	-	4
Receptacle	508609				



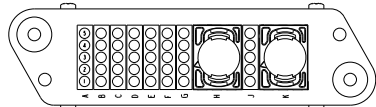
	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508602	55	-	-	1
Receptacle	508603				



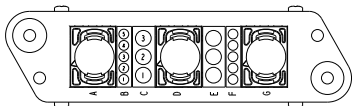
	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508610	20	6	4	1
Receptacle	508611				



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508604	40	-	-	2
Receptacle	508605				



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508612	40	-	-	2
Receptacle	508613				



	P/N	Nb Cts Ø1.5	Nb Cts Ø 2.5	Nb Cts Ø 3.5	Nb Quadrax Cts
Plug	508606	10	6	-	3
Receptacle	508607				

Signal contacts can be equiped on plug or receptacle.
Quadrax contacts:
- Male on plug only
- Female on receptacle only
5 contacts modules (Ø1,5 mm contacts) are only available in long version.

If other configuration needed, please consult us.

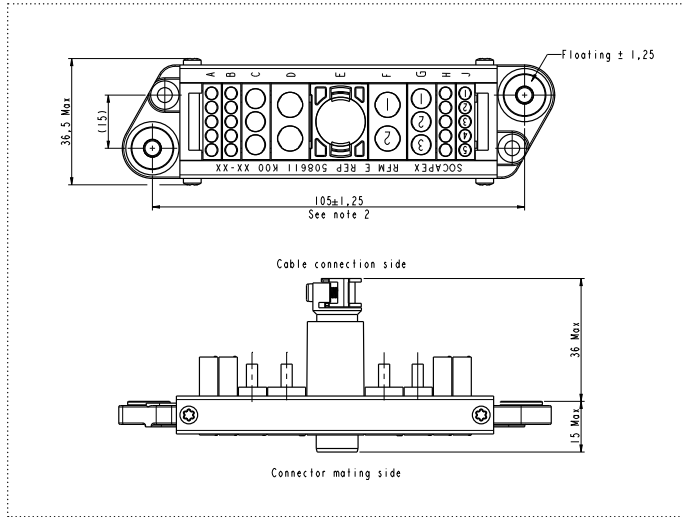
EXTERNAL DIMENSIONS - RFM QUADRAX

Nota:

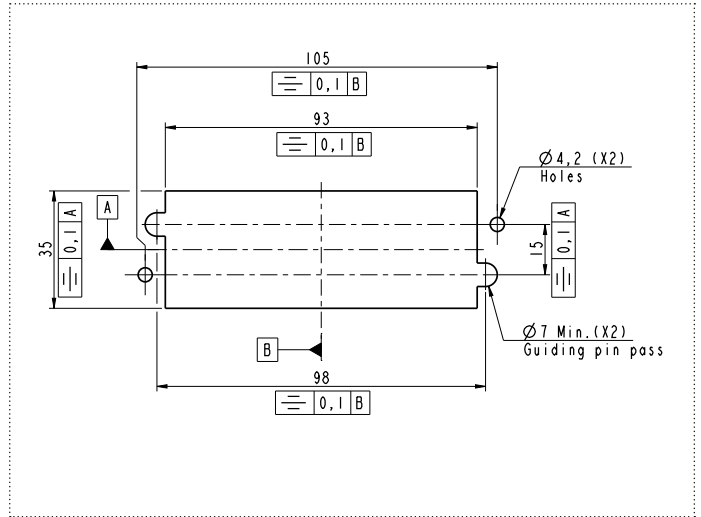
Example arrangement 508611 - 508610

External dimension

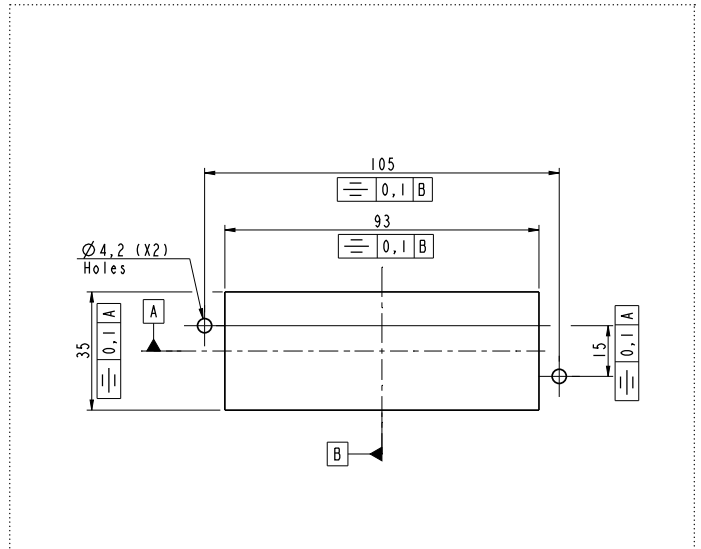
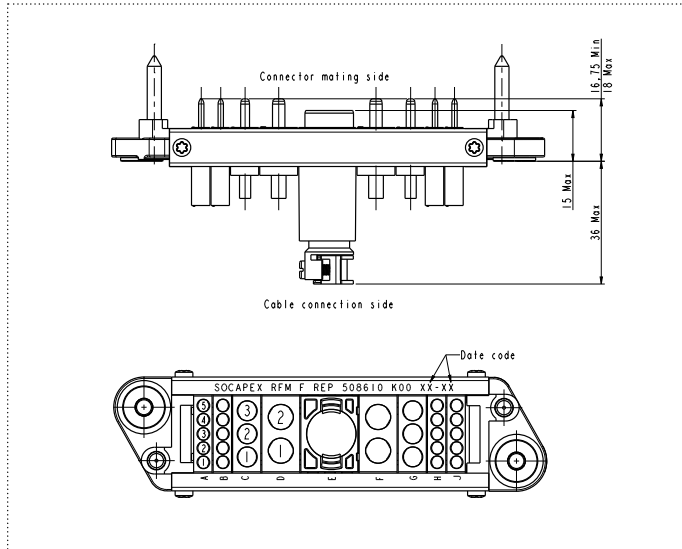
RECEPTACLE



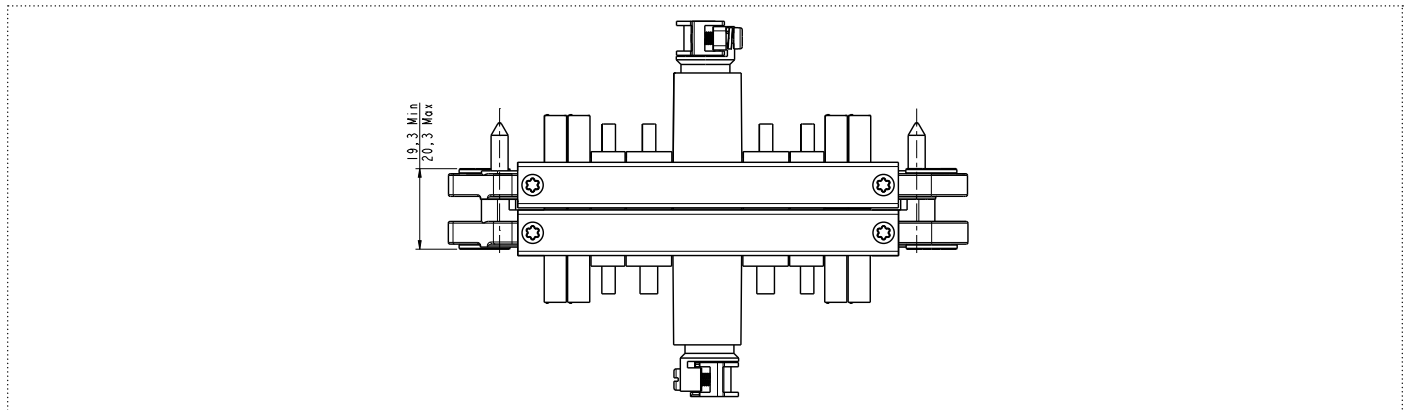
Panel cutout



PLUG



MATED CONNECTORS



All dimensions are in mm

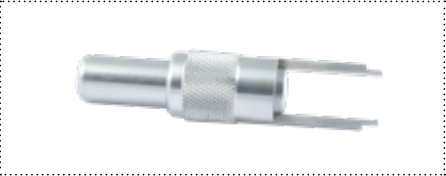
CONTACTS - RFM QUADRAX



Quadrax contact

Body		Inner contact		
P/N	Designation	Admissible section 0.13-0.3mm²	Admissible section 0.3-0.6mm²	Admissible section 0.6-1.5mm²
612089	Male body (with inner pin contacts)	612083	612085	612087
612090	Female body (with inner socket contacts)	612084	612086	612088

Insertion / extraction tools



Extraction tool – Quadrax contact
RFM ODE Q



Extraction tool – Inner contacts
RFM ODE Q4

Crimping tools



Crimp tool
M22520/1-01 (DMC AF8)



Turret
DMC UH2-5

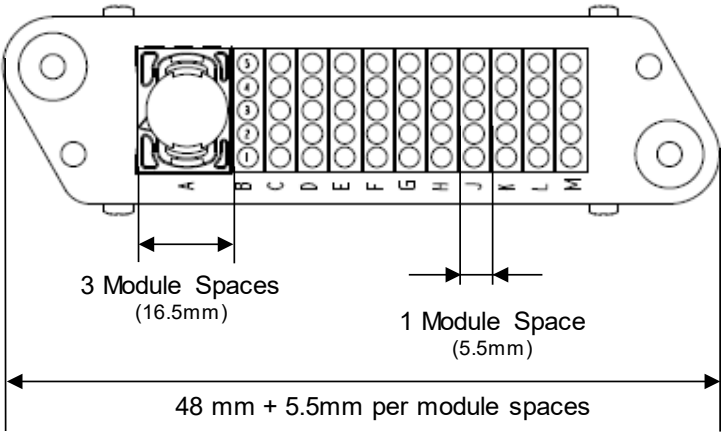
For Quadrax contact crimping method, see datasheet DOC-001022-ANG.

BUILD YOUR OWN - RFM CUSTOM POSSIBILITES

Build your RFM following your needs !

Add the appropriate modules you need, using up to the 14 module spaces available.

Receptacle view (cable connection side)



	Modules				
	5 contacts	3 contacts	2 contacts	Quadrax	200 A
Contact diameter	Ø1.5 mm	Ø2.5 mm	Ø3.5 mm	Ø1.6 mm (inner contact)	Ø8 mm
Current (nom.)	8 A	15 A	60 A	13 A	200 A
Module space	1	1.5	2	3	4
Contact mating forces	2 N	4 N	6 N	35 N	32 N

For others contact types, or styles please consult Amphenol SOCAPEX.

ABOUT AMPHENOL

Founded in 1932, **Amphenol** is one of the largest manufacturers of interconnect products in the world. The company designs, manufactures, and markets electrical, electronic, and fiber optic connectors, interconnect systems, and coaxial and specialty cables.

Amphenol has a diversified presence as a leader in high growth areas of the interconnect industry and provides solutions for customers in the automotive, broadband, industrial, information technology and data communications, military and aerospace, mobile devices, and mobile networks markets.

More info on www.amphenol.com

Amphenol
ENABLING THE ELECTRONICS REVOLUTION

Europe

FRANCE	Amphenol AIR LB	2 rue Clément Ader, ZAC de Wé - 08110 Carignan	+33 3 24 22 78 49
FRANCE	Amphenol SEFEE	Z.I. des Cazes – BP243 - 12402 Saint-Affrique Cedex	+33 5 65 98 11 00
GERMANY	Amphenol AIR LB GMBH	Am Kleinbahnhof 4 - 66740 Saarlouis	+49 6831 981 00
ITALY	Amphenol EUROPEAN SALES OPERATIONS	Via Barbaiana n.5 - 20020 Lainate - Milano	+39 293 254 214
UNITED KINGDOM	Amphenol INVOTEC	Unit 1-3, Hedging Lane Industrial Estate, Dosthill - Tamworth, B77 5HH	+44 1827 263 000
UNITED KINGDOM	Amphenol IONIX SYSTEMS	Prospect House, Taylor Business Park, Risley, Warrington, WA3 6HP	+44 1 942 685 200
UNITED KINGDOM	Amphenol LTD	Thanet Way, Whitstable - KENT, CT53JF	+44 1227 773 200
UNITED KINGDOM	Amphenol MARTEC	St Augustines Business Park, Swalecliffe Whitstable - Kent CT5 2QJ	+44 1227 793 733

North America

CANADA	Amphenol CANADA	605 Milner avenue - Toronto, Ontario	+1 416 291 0647
USA	Amphenol AEROSPACE OPERATIONS	40-60 Delaware street - Sidney, NY 13838	+1 800 678 0141
USA	Amphenol BORISH TECHNOLOGIES	4511 East Paris AVE - Grand Rapids, MI 49512	+1 616 554 9820
USA	Amphenol FSI	1300 Central Expwy N, Suite 100 - Allen, TX 75013	+1 214 547 2400
USA	Amphenol GRIFFITH ENTERPRISES	6000 East Coury Drive - Cottonwood, AZ 86326	+1 928 634 3685
USA	Amphenol NEXUS TECHNOLOGIES	50 Sunnyside Avenue - Stamford, CT 06902	+1 203 327 7300
USA	Amphenol PCD	72 Cherry Hill Drive - Beverly, MA. 01915	+1 978 624 3400
USA	Amphenol PRINTED CIRCUIT	Board Technology, 91 Northeastern Boulevard - Nashua, NH 03062	+1 603 324 4500
USA	Amphenol SV MICROWAVE	2400 Centrepark West Drive - West Palm Beach, FL	+1 561 840 1800
USA	Amphenol TIMES MICROWAVE	358 Hall Avenue - Wallingford, CT 06492	+1 800 867 2629

Asia

CHINA	Amphenol PCD CO.	Building 21, 1 st Liao Keng Industrial Zone, Shi Yan Street - Bao An District - Shenzhen 518108	+86 755 8173 8000/8286
INDIA	Amphenol INTERCONNECT INDIA	105 Bhosari Industrial Area - Pune 411 026	+91 20 27120363
JAPAN	Amphenol JAPAN	471-1, Deba, Ritto-City - Shiga 520 3041	+81 77 553 8501
KOREA	Amphenol DAESHIN	558 SongNae-Dong SoSa-Gu, Bucheon-city, Kyunggi-Do - 420-130	+81 32 610 3830/3845
SINGAPORE	Amphenol EAST ASIA	26/F, Railway Plaza, 39 Chatham Road South, Tsim Sha Tsui, Kowloon, Hong Kong	+65 6294 2128

Other Areas

AFRICA	Amphenol AFRICA	30 Impala Rd - Sandton 2146	+27 82 410 5179
ARGENTINA	Amphenol ARGENTINA	Av. Callao 930 2do piso Oficina B "Plaza" C1023 - AAP Buenos Aires	+54 11 4815 6886
AUSTRALIA	Amphenol AUSTRALIA PTY	2 Fiveways Blvd., Keysborough - Melbourne - Victoria 3173	+61 3 8796 8888
BRAZIL	Amphenol DO BRAZIL	Rua Diogo Moreira, 132, 20 andar, rooms 2001-2-3	+55 11 3815 1003
ISRAEL	Amphenol BAR-TEC	3 Hagavish Street, K fir-Barkan Bldg. East Industrial Zone - Kfar-Sava, 44102	+972 9 764 4100
MEXICO	Amphenol OPTIMIZE	Carretera Internacional Km 6.5, Col. Parque Industrial, Nogales, Sonora, C.P. 84094	+52 631 311 160
NEW ZEALAND	Amphenol PHITEK	Level 4, 2 Kingdon Street, Newmarket, Auckland 1023	+64 9 524 2984
RUSSIA	Amphenol RUSSIA	Yaroslavskaja Street 8 - 129164 Moscow	+7 495 937 6341
TURKEY	Amphenol TURKEY	Sun Plaza 15 Kat: 15 Maslak Hah. Bilim Sok. No.5 - Sisli/Istanbul, 34398	+90 212 367 92 19

Amphenol SOCAPEX

Amphenol Socapex

948, promenade de l'Arve BP29
74311 Thyez Cedex - France
+33 (0)4 50 89 28 00
contact@amphenol-socapex.fr
www.amphenol-socapex.com



For Technical Support

+33 (0)4 50 89 28 49
technicalsupport@amphenol-socapex.fr

To buy our products

+33 (0)4 50 90 28 00
contact@amphenol-socapex.fr
www.amphenol-socapex.com/amphenol/sales
Request a quote online at www.amphenol-socapex.com/quotation_request

Documentation

www.amphenol-socapex.com/documentation
To order a paper version of our catalogs, send an e-mail to communication@amphenol-socapex.fr

Check our product inventory



Product Selectors & 3D Files



NEW



www.amphenol-socapex.com

Follow Amphenol Socapex on social media :



This catalog uses paper from managed forests, PEFC & FSC labels, and is printed by a printer certified "Imprim'Vert®"

We reserve the right to modify our products in any way we deem necessary.
Any duplication is prohibited, unless approved in writing.

Designed by Amphenol Socapex
PDF ONLY - January 2024