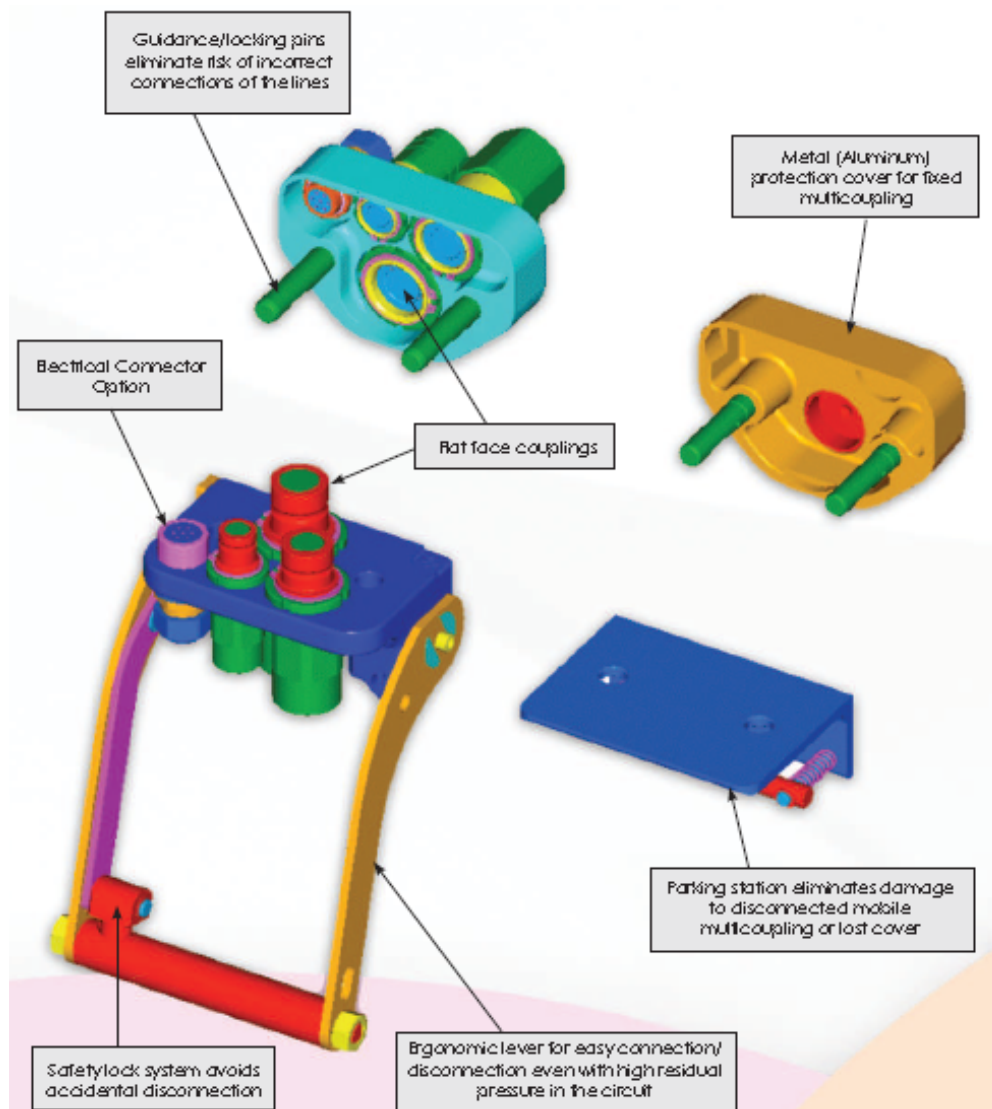


## GR

### Multisysteem

**“GR” is de multi-koppeling die vele mogelijkheden biedt voor aan en afkoppelen van meerdere hydraulische, elektrische en luchtleidingen. Tot en met tien verbindingen kunnen gelijktijdig met één simpele, snelle en veilige handbeweging aan en afgekoppeld worden, zonder daarvoor veel kracht uit te oefenen. De koppelingen kunnen allemaal van hetzelfde type zijn, maar er is ook de mogelijkheid om in één plaat verschillende typen koppelingen te plaatsen. Dit is afhankelijk van de toepassing. Uitswisselbaar: Interne specificaties Stucchi.**

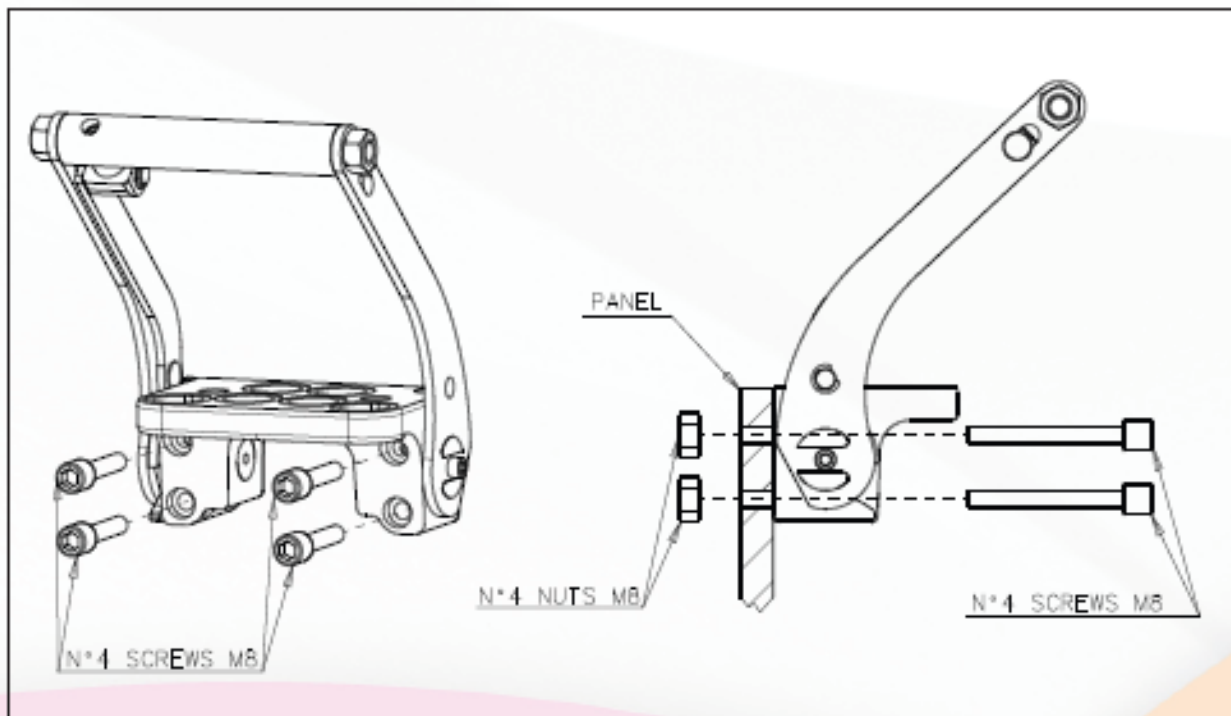


## GR

### Multisysteem

#### Voordelen:

- Snel aan en afkoppelen tot 10 lijnen, zonder de mogelijkheid van verkeerd aan te sluiten.
- Flat face koppelingen zijn makkelijk af te vegen en schoon te houden.
- De "FAP" koppelingen maken het mogelijk onder restdruk koppelen.
- De "FAP" koppelingen worden in de plaat vergrendeld door een seegering of door een schotmoer met een seegering.
- De safety lock op de hendel maakt 1-hands bediening mogelijk
- Compact design
- Makkelijk toe te passen in een bestaand systeem





## GR Multisysteem



### PERFORMANCE

All the Stucchi multicouplings have been tested at their maximum resistance by impulse pressure test. The maximum resistance (N) for each multicoupling model, is indicated in the data sheets below.

The force applied to multicoupling coupled, depends on the number of couplings under pressure at the same time, on their operating pressure and on their size.  
For a correct use of the multicoupling is necessary to verify that the force is not greater to the maximum resistance of the multicoupling.

$$F = [(P1/4 \times S1/4) + (P3/8 \times S3/8) + (P1/2 \times S1/2) + (P5/8 \times S5/8) + (P3/4 \times S3/4) + (P1 \times S1)] \times 9.8$$

F Force applied to multicoupling (N)

P Total amount of operating pressure coupled in the couplings with same size (bar)

S Hydrostatic pushing area coupled (cm<sup>2</sup>)

The operating pressure for a single coupling must not be greater to the maximum operating pressure coupled indicated in table.

Coupling size	Hydrostatic pushing area coupled	Maximum operating pressure coupled for FAP couplings
1/4	S1/4= 0,723 cm <sup>2</sup>	42 Mpa (420 bar)
3/8	S3/8= 1,226 cm <sup>2</sup>	35 Mpa (350 bar)
1/2	S1/2= 1,893 cm <sup>2</sup>	33 Mpa (330 bar)
5/8	S5/8= 2,404 cm <sup>2</sup>	33 Mpa (330 bar)
3/4	S3/4= 3,298 cm <sup>2</sup>	33 Mpa (330 bar)
1	S1= 4,335 cm <sup>2</sup>	30 Mpa (300 bar)

### EXAMPLE:

Max. resistance of GRM6 multicoupling is 23000 N.

To verify if GRM6 multicoupling resists to operating condition of following application:

One line size 3/8 with max. operating pressure coupled of 30 Mpa (300 bar)

One line size 3/8 with max. operating pressure coupled of 15 Mpa (150 bar)

One line size 5/8 with max. operating pressure coupled of 25 Mpa (250 bar)

One line size 5/8 with max. operating pressure coupled of 10 Mpa (100 bar)

One line size 3/4 with max. operating pressure coupled of 20 Mpa (200 bar)

One line size 3/4 with max. operating pressure coupled of 5 Mpa (50 bar)

It is necessary verify that F (force applied to multicoupling) is not greater than max. multicoupling resistance:

P3/8 300 bar + 150 bar 450 bar

P5/8 250 bar + 100 bar 350 bar

P3/4 200 bar + 50 bar 250 bar

F  $[(P3/8 \times S3/8) + (P5/8 \times S5/8) + (P3/4 \times S3/4)] \times 9.8$

F  $[(450 \times 1,226) + (350 \times 2,404) + (250 \times 3,298)] \times 9.8$

F  $[551.7 + 841.4 + 824.5] \times 9.8 = 21732 \text{ N}$

Being F (21732 N) lower than max. multicoupling resistance (23000 N),

the GRM6 multicoupling is suitable for this application.



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# HYDRAULIEK MULTIKOPPELINGEN

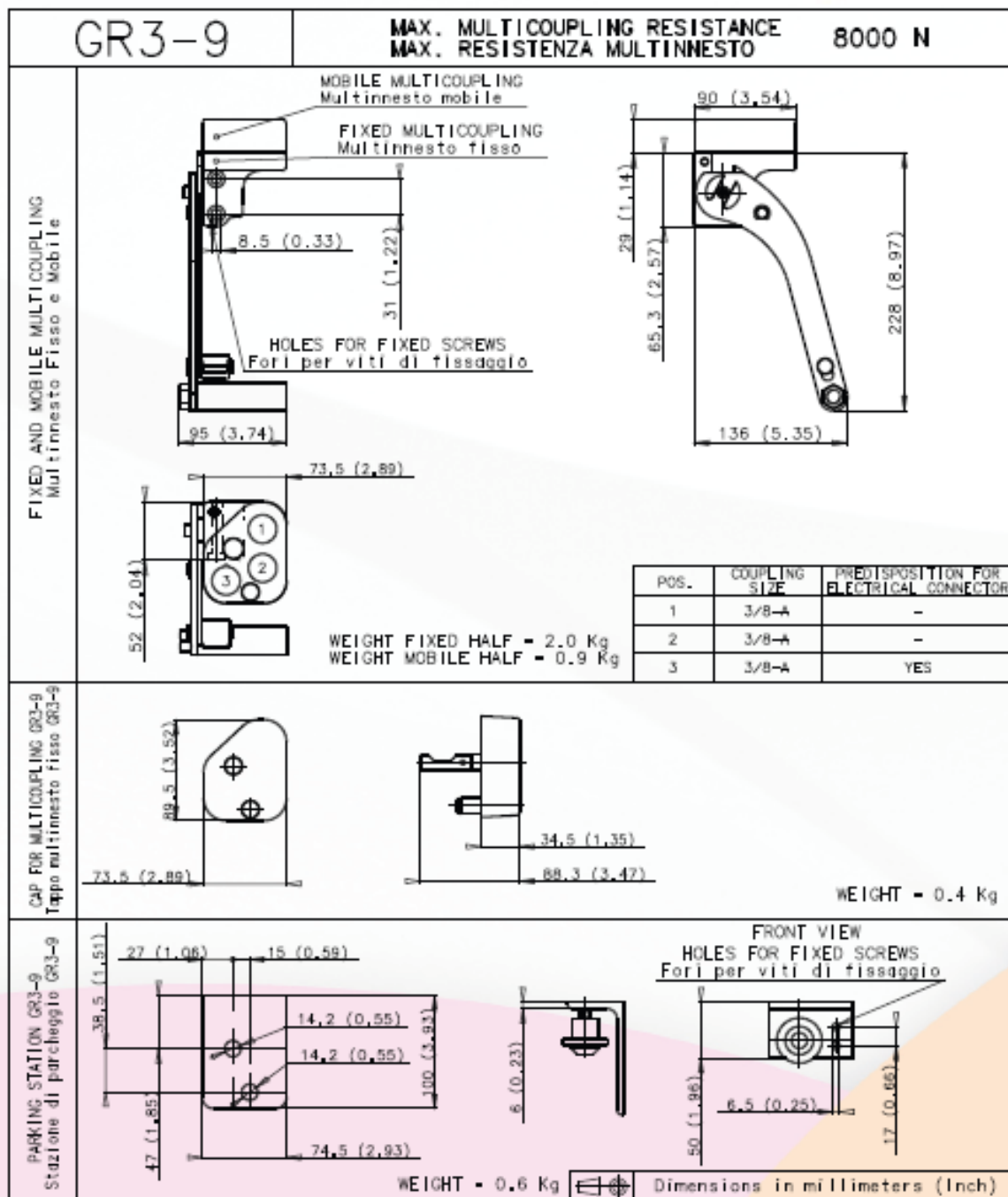
5

## GR

Multisysteem

### GR3-9 MULTICOUPLING

- Three lines size 3/8
- One line predisposed for electrical connector Female EC., Male EC..
- On request other line predisposed for electrical connector





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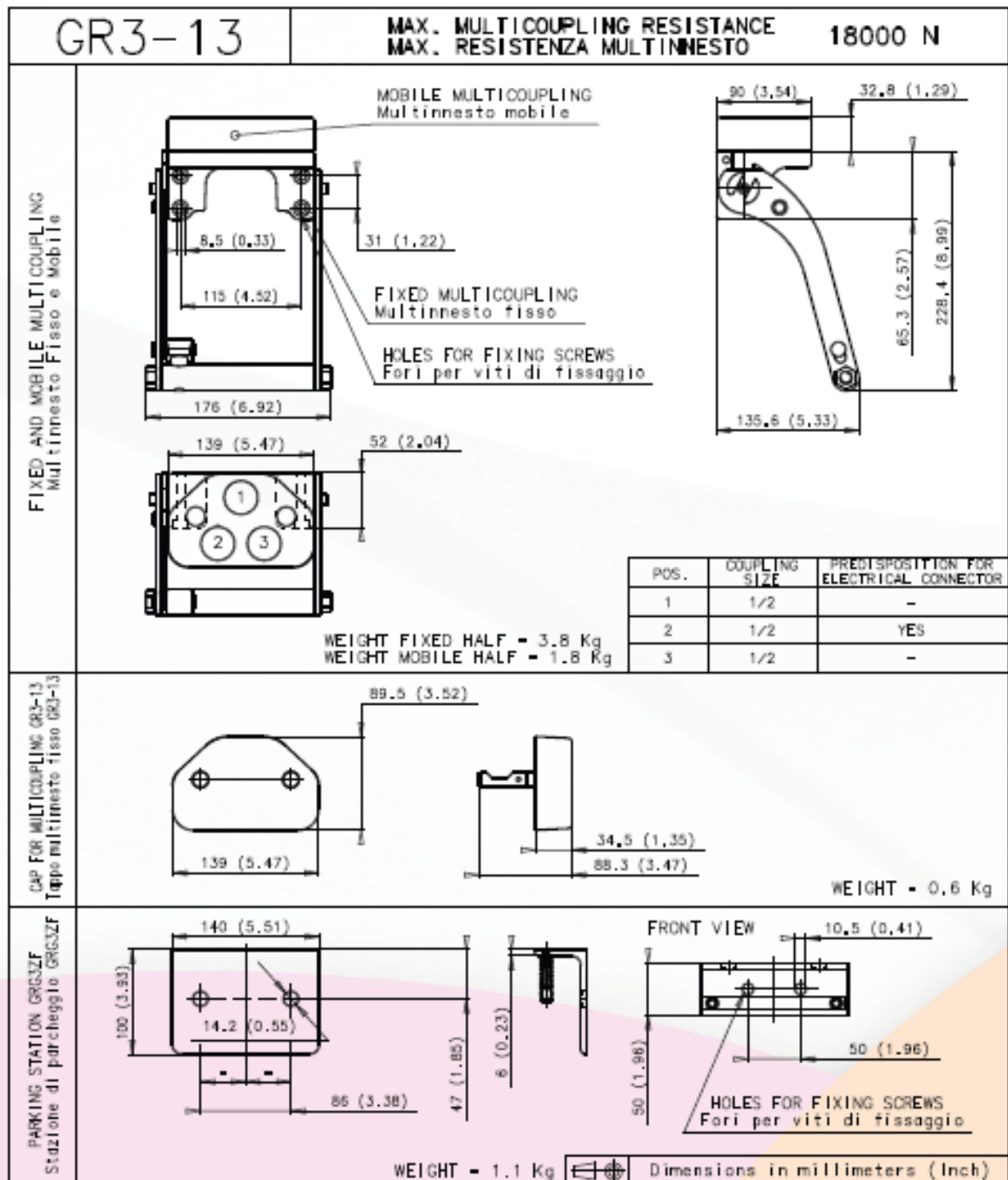
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR3-13 MULTICOUPLING

- Threelines size 1/2
- One line predisposed for electrical connector  
Female EC...-13, Male EC...-13
- On request other line predisposed for electrical connector

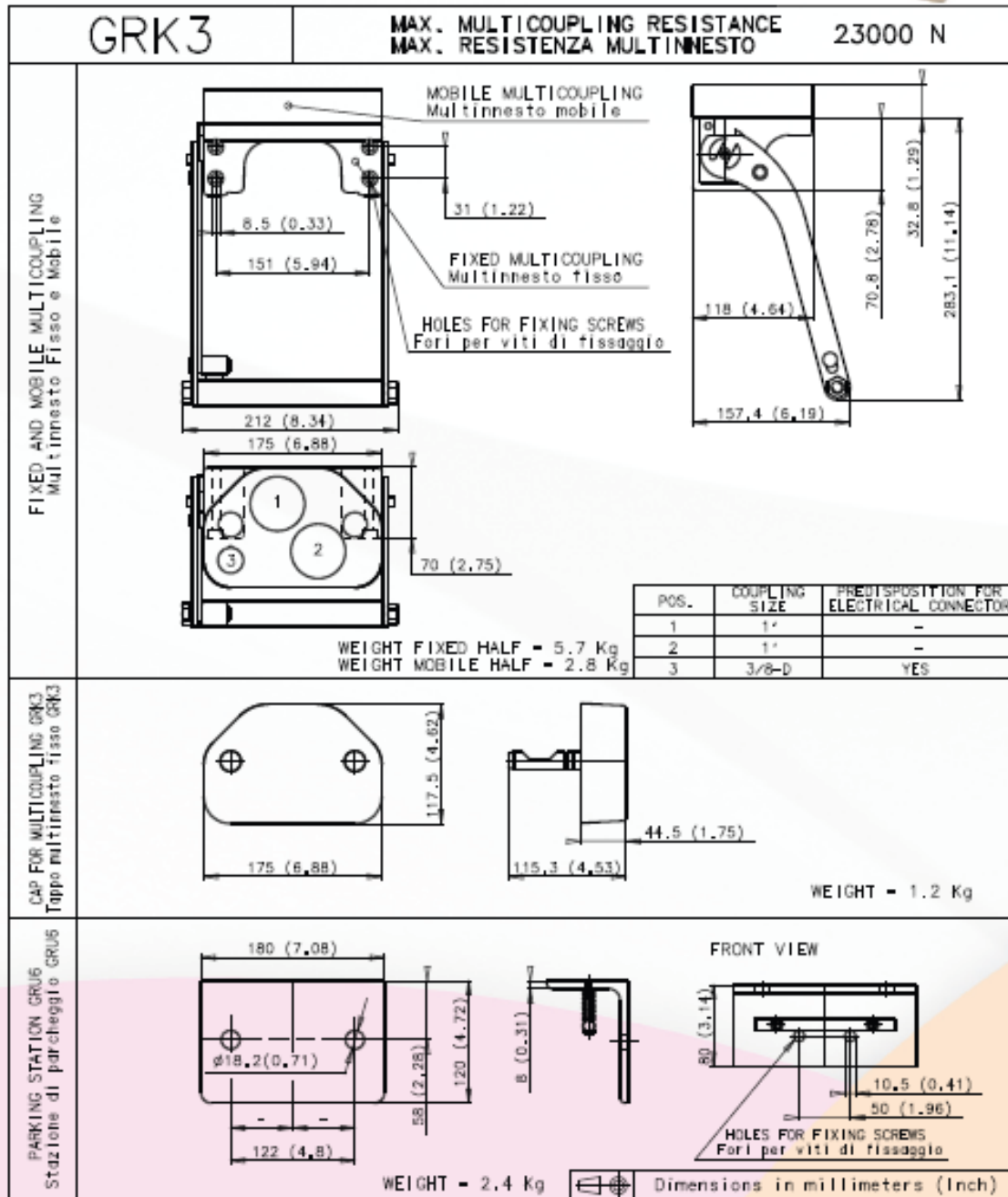




## GR

### GRK3 MULTICOUPLING

- Two lines size 1
- One line size 3/8
- One line predisposed for electrical connector  
Female EC..., Male EC...D





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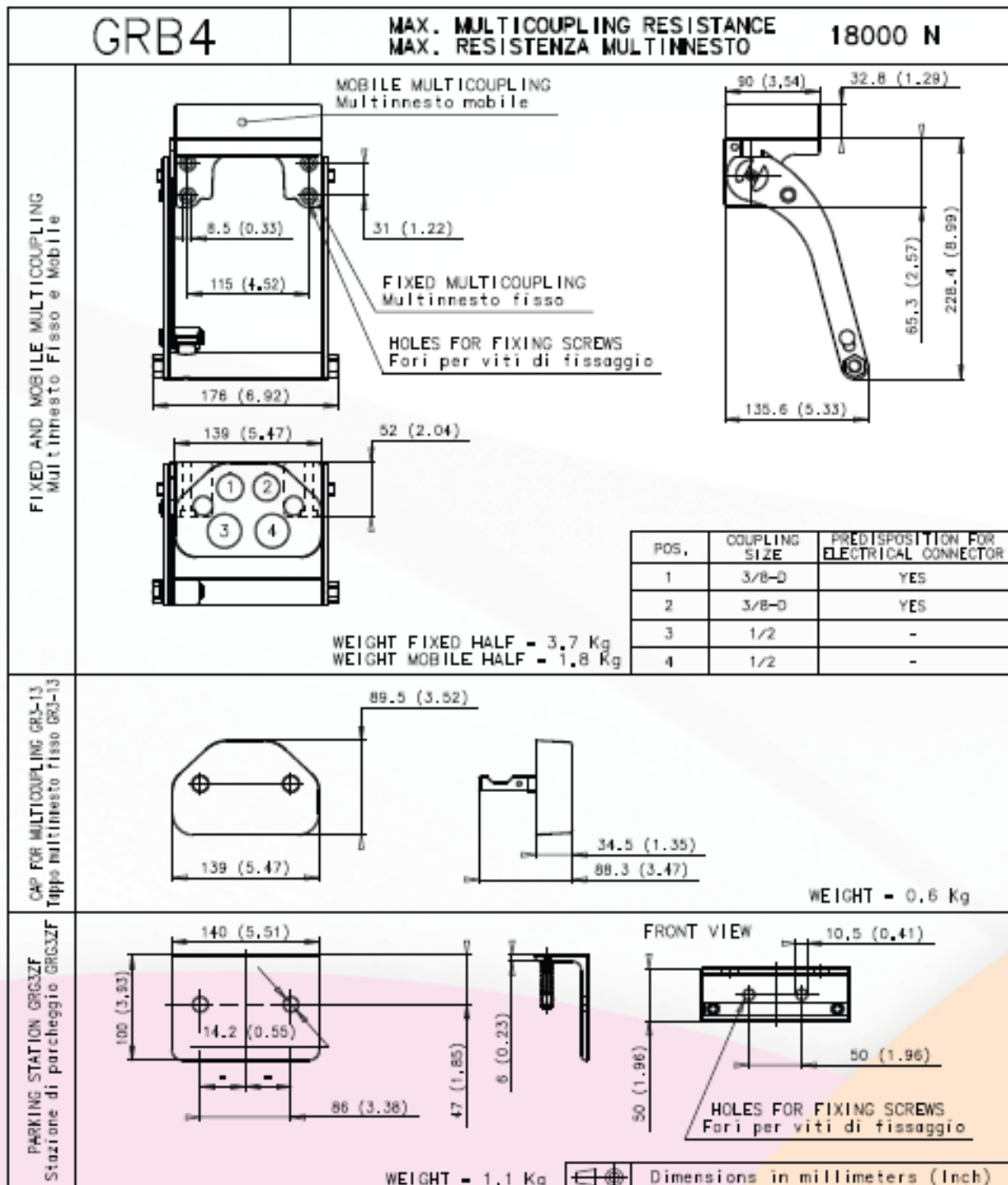
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GRB4 MULTICOUPLING

- Two lines size 1/2
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC..., Male EC...D





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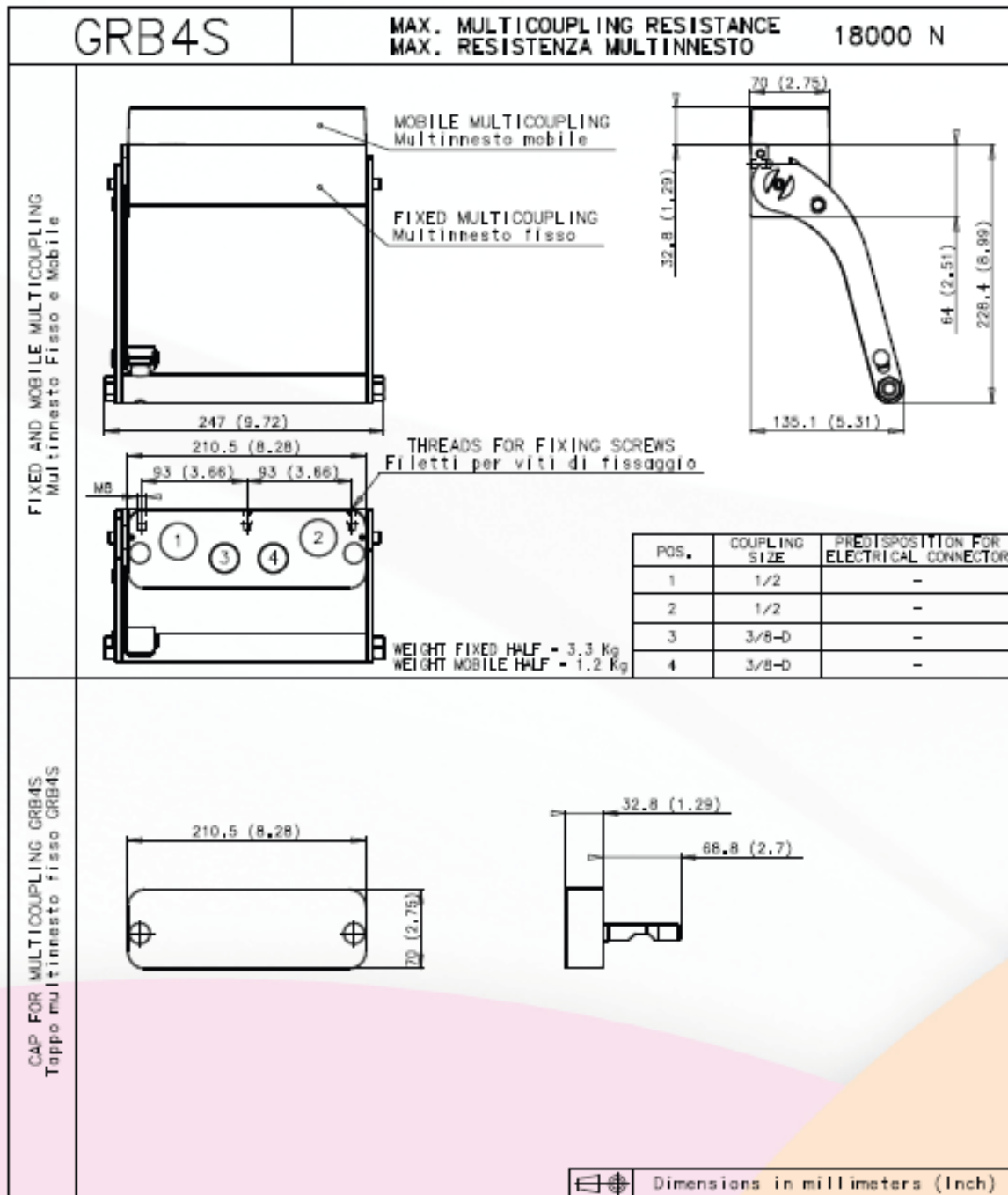
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GRB4S MULTICOUPLING

- Two lines size 1/2
- Two lines size 3/8
- On request lines predisposed for electrical connector







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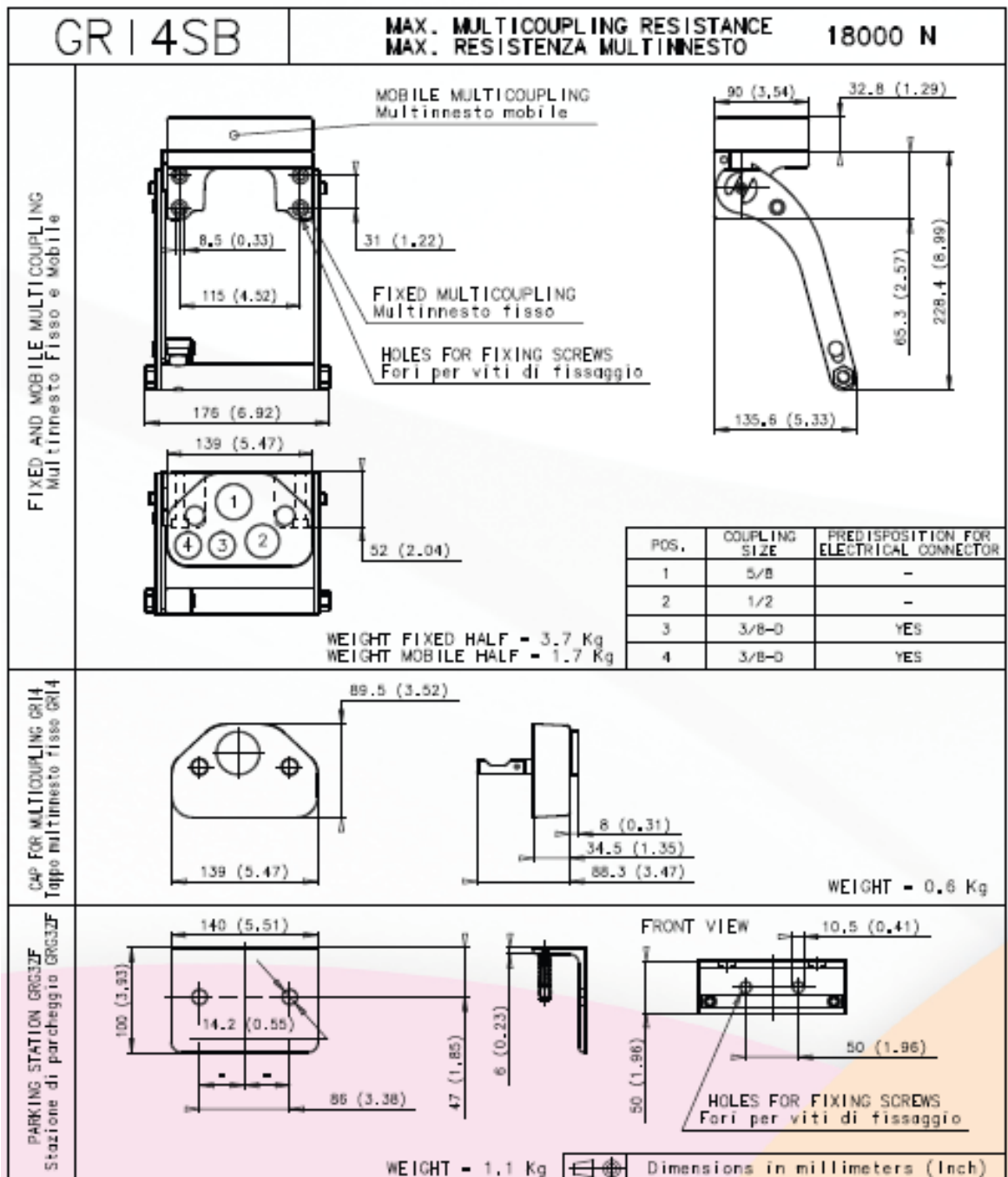
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR14SB MULTICOUPLING

- One line size 5/8
- One line size 1/2
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC..., Male EC...D





Stucchi®

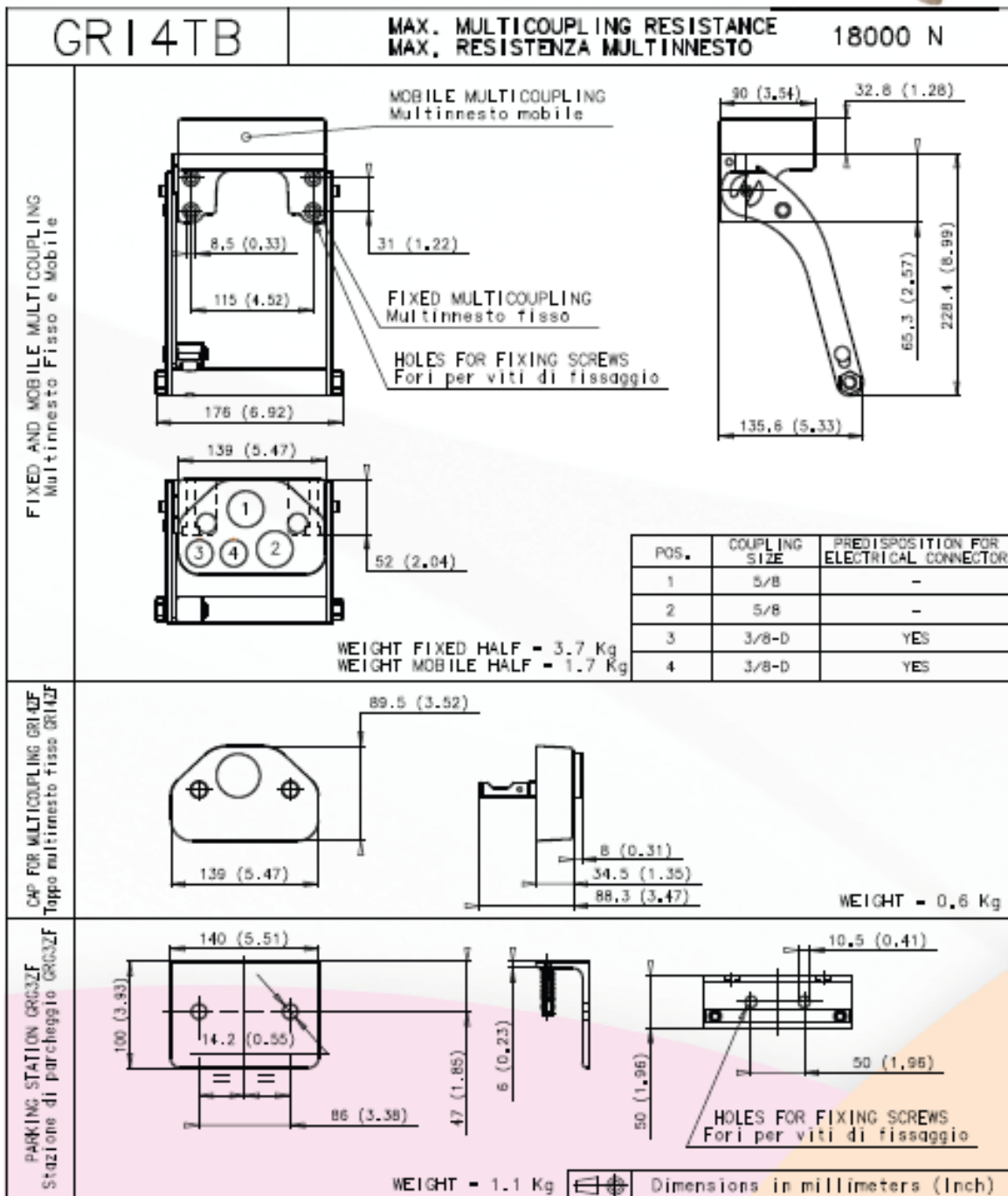
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GRI4TB MULTICOUPLING

- Two lines size 5/8
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC..., Male EC...D





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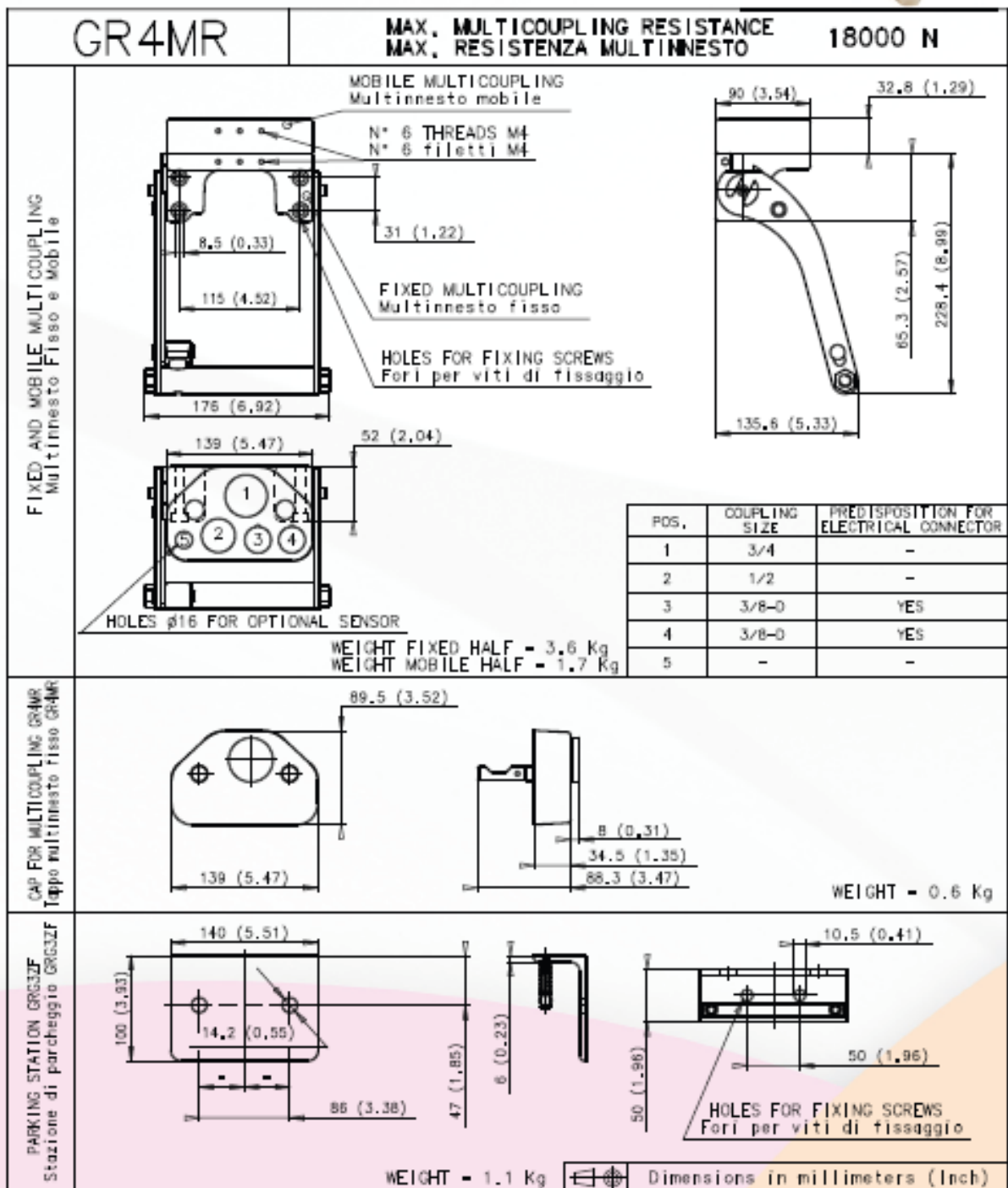
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR4MR MULTICOUPLING

- One line size 3/4
- One line size 1/2
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC... Male EC...D
- One hole for optional sensor

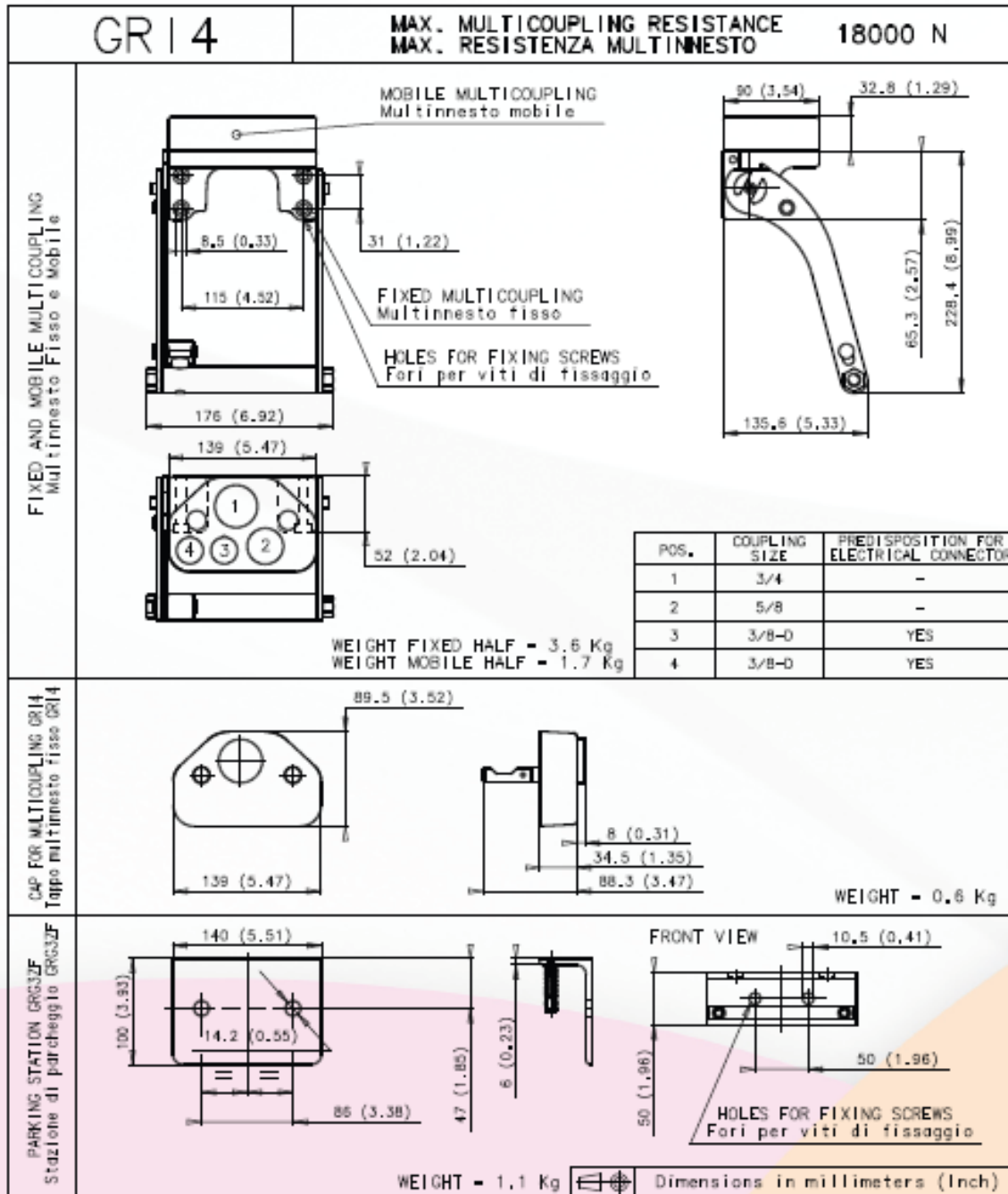
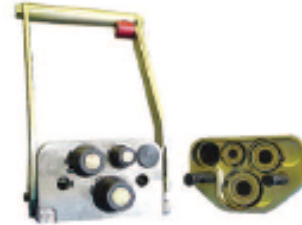




## GR

### GR14 MULTICOUPLING

- One line size 3/4
- One line size 5/8
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC... Male EC...D





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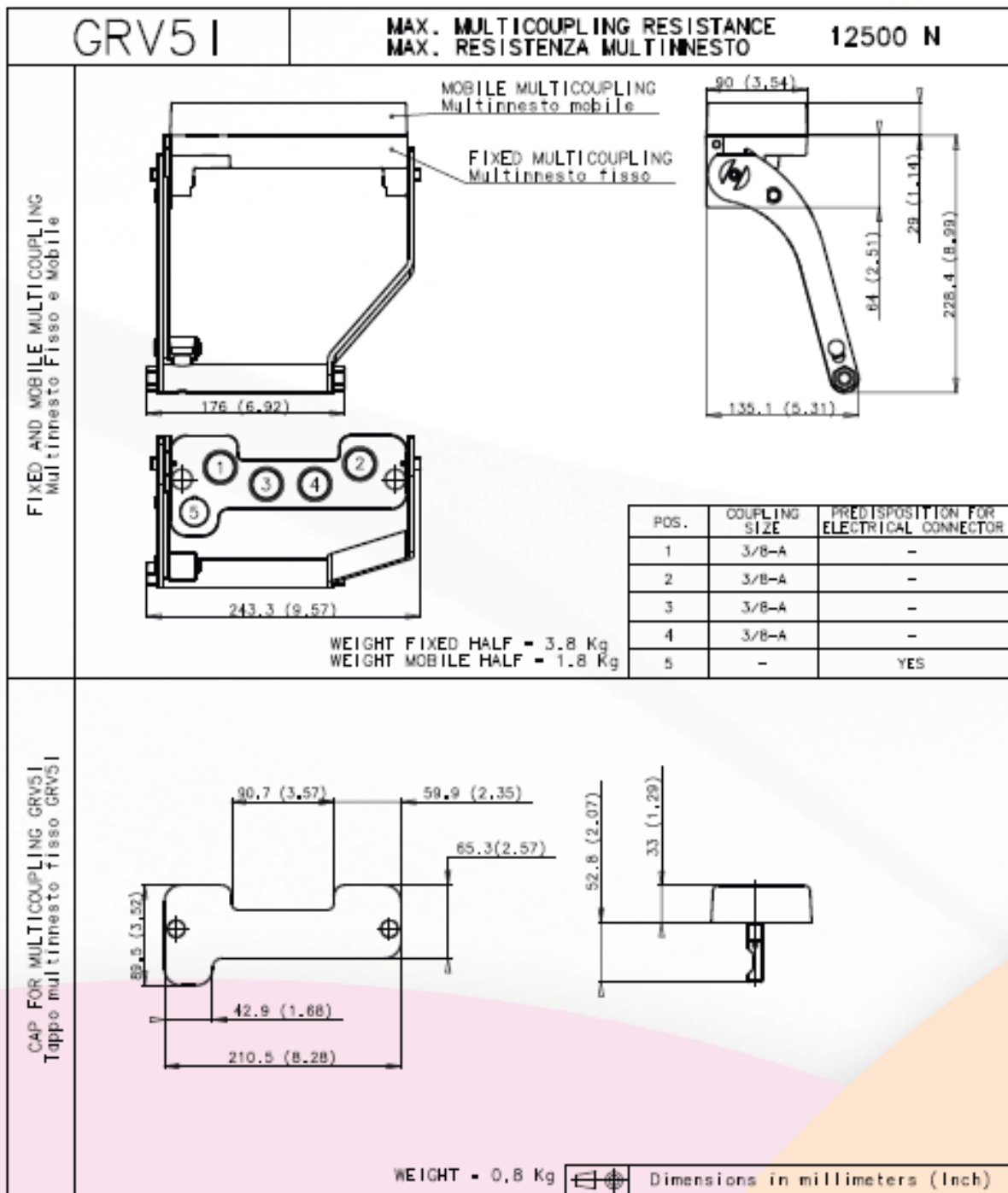
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GRV51 MULTICOUPLING

- To assemble directly on distributor valve  
Wavol SDM143/DIM142, Nimco CV452
- Five lines size 3/8
- One line predisposed for electrical connector  
Female EC., Male EC..





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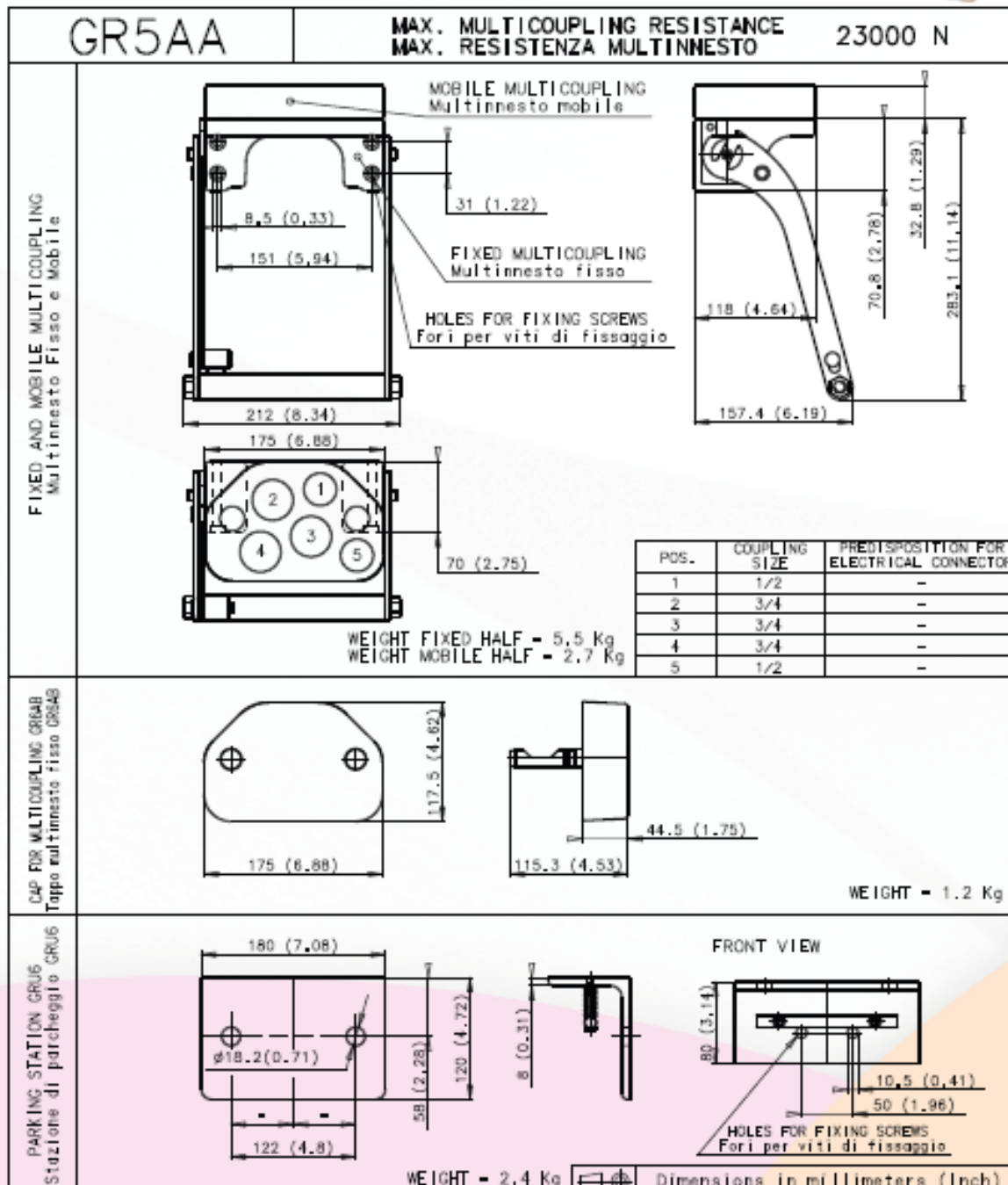
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR5AA MULTICOUPLING

- Threelines size 3/4
- Two lines size 1/2
- On request lines predisposed for electrical connector

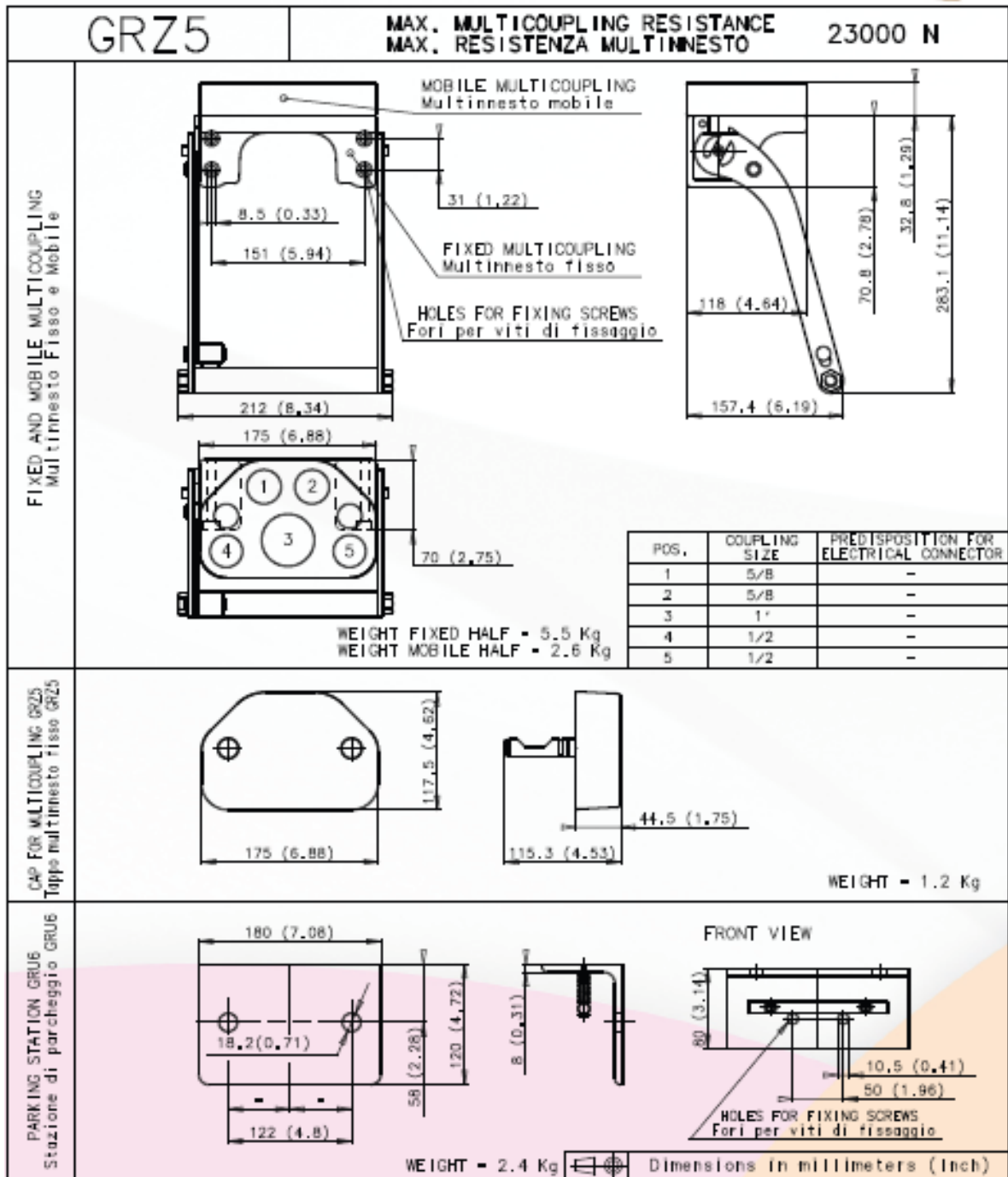




## GR

### GRZ5 MULTICOUPLING

- One line size 1
- Two lines size 5/8
- Two lines size 1/2
- On request lines predisposed for electrical connector

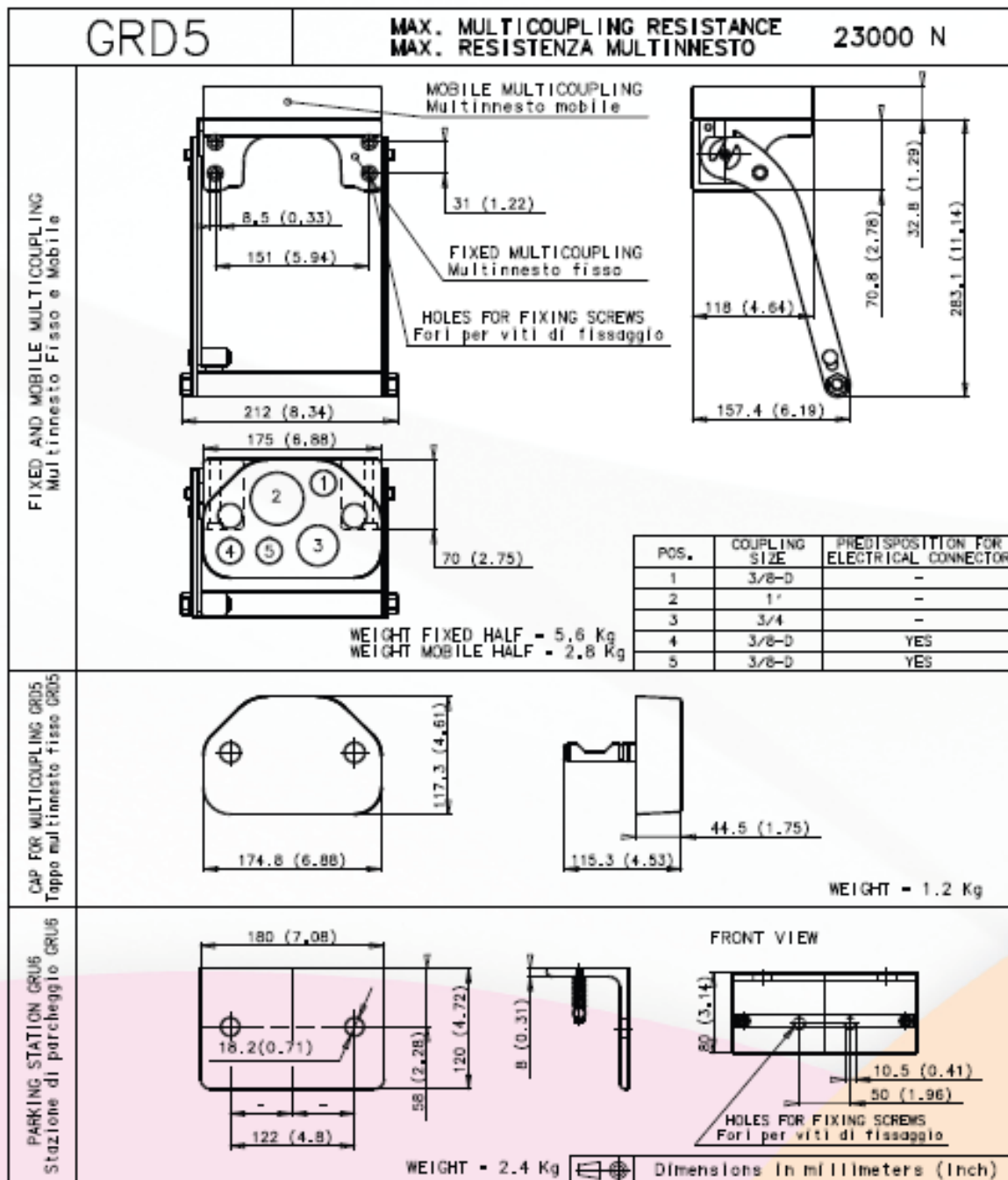




## GR

### GRD5 MULTICOUPLING

- One line size 1
- One line size 3/4
- Three lines size 3/8
- Two lines predisposed for electrical connector  
Female EC., Male EC..D







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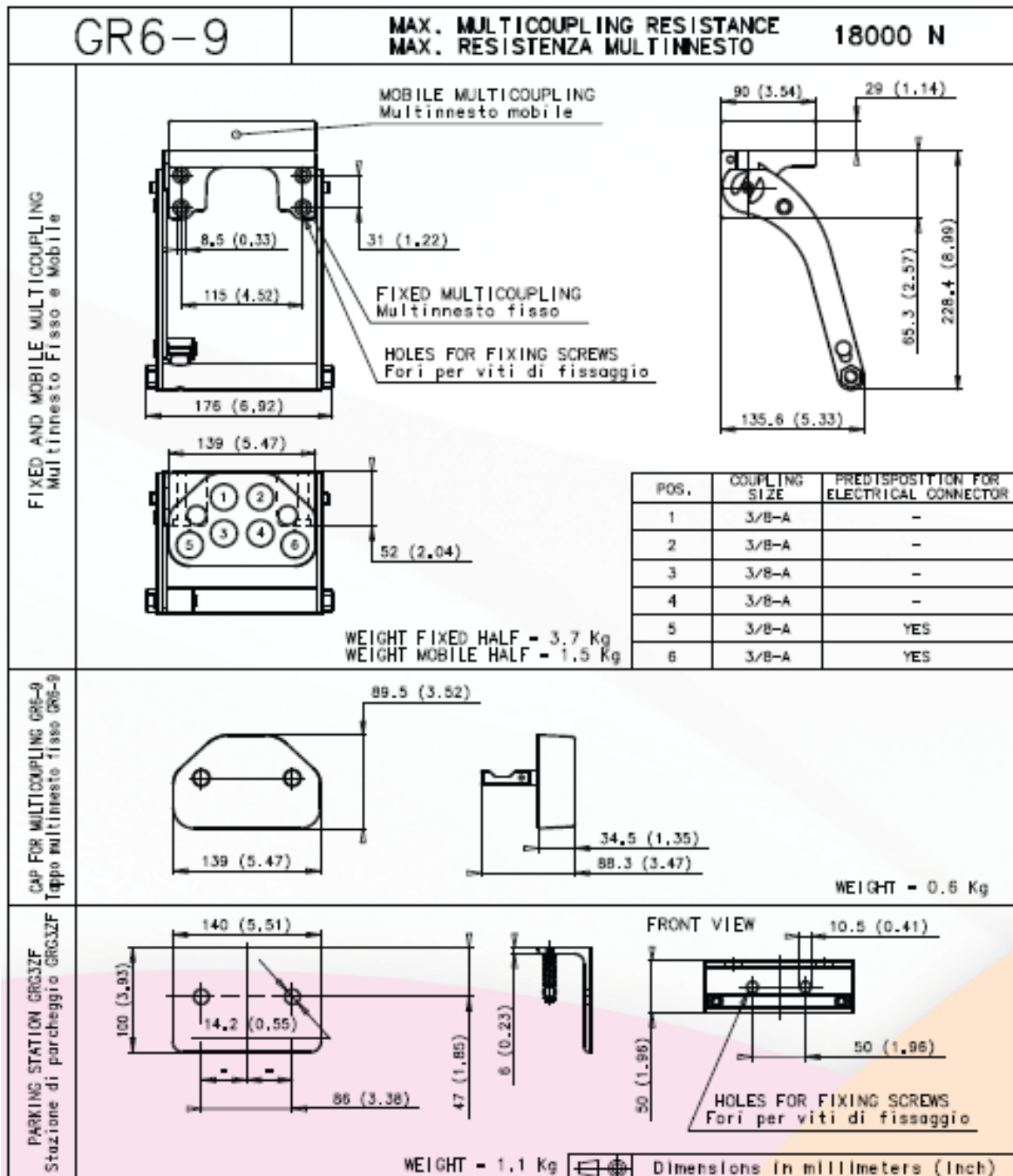
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR6-9 MULTICOUPLING

- Six lines size 3/8
- Two lines predisposed for electrical connector Female EC., Male EC..
- On request others lines predisposed for electrical connector





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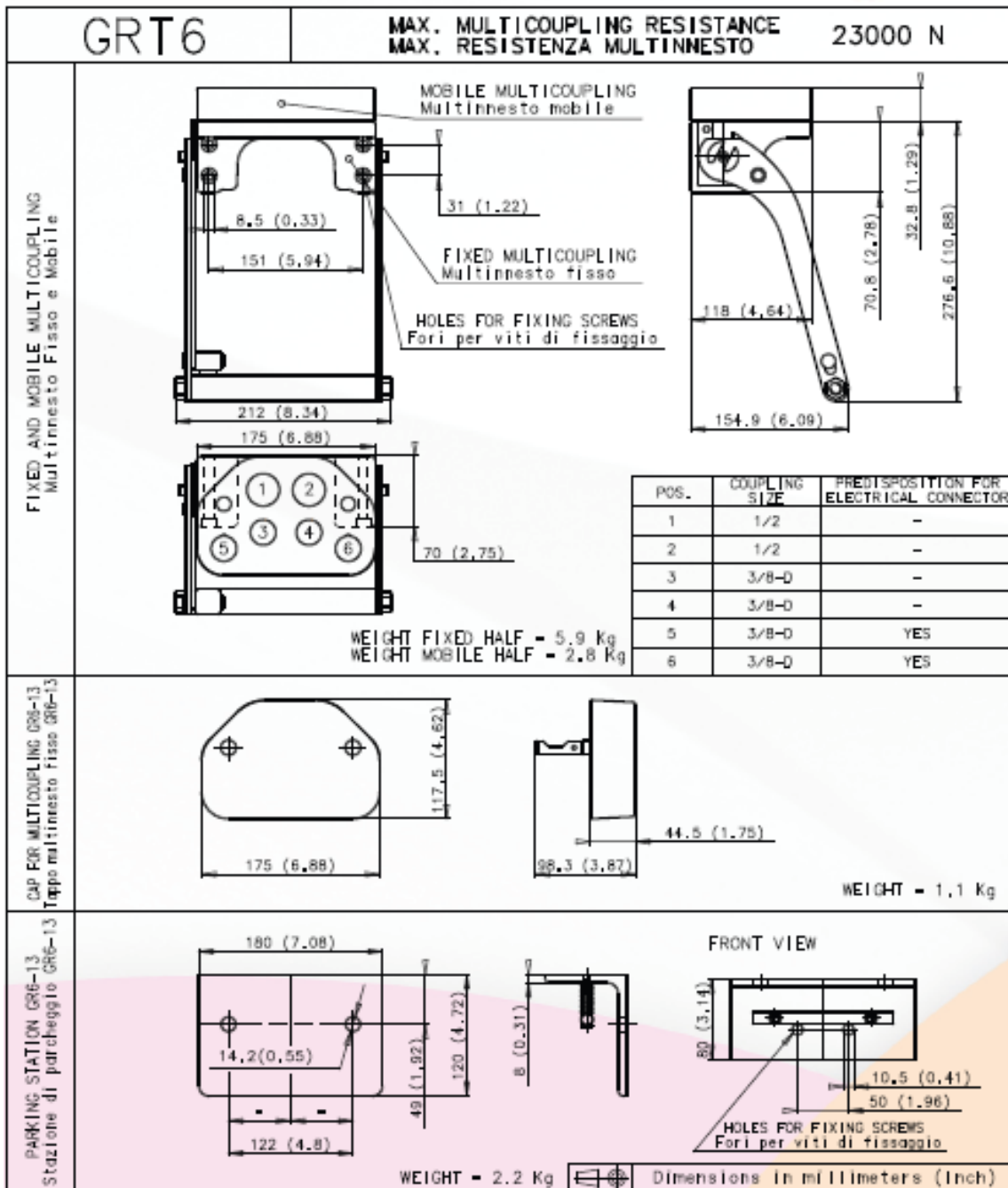
# HYDRAULIEK MULTIKOPPELINGEN

5

GR

## GRT6 MULTICOUPLING

- Two lines size 1/2
- Four lines size 3/8
- Two lines predisposed for electrical connector  
Female EC., Male EC..D
- On request others lines predisposed for electrical connector





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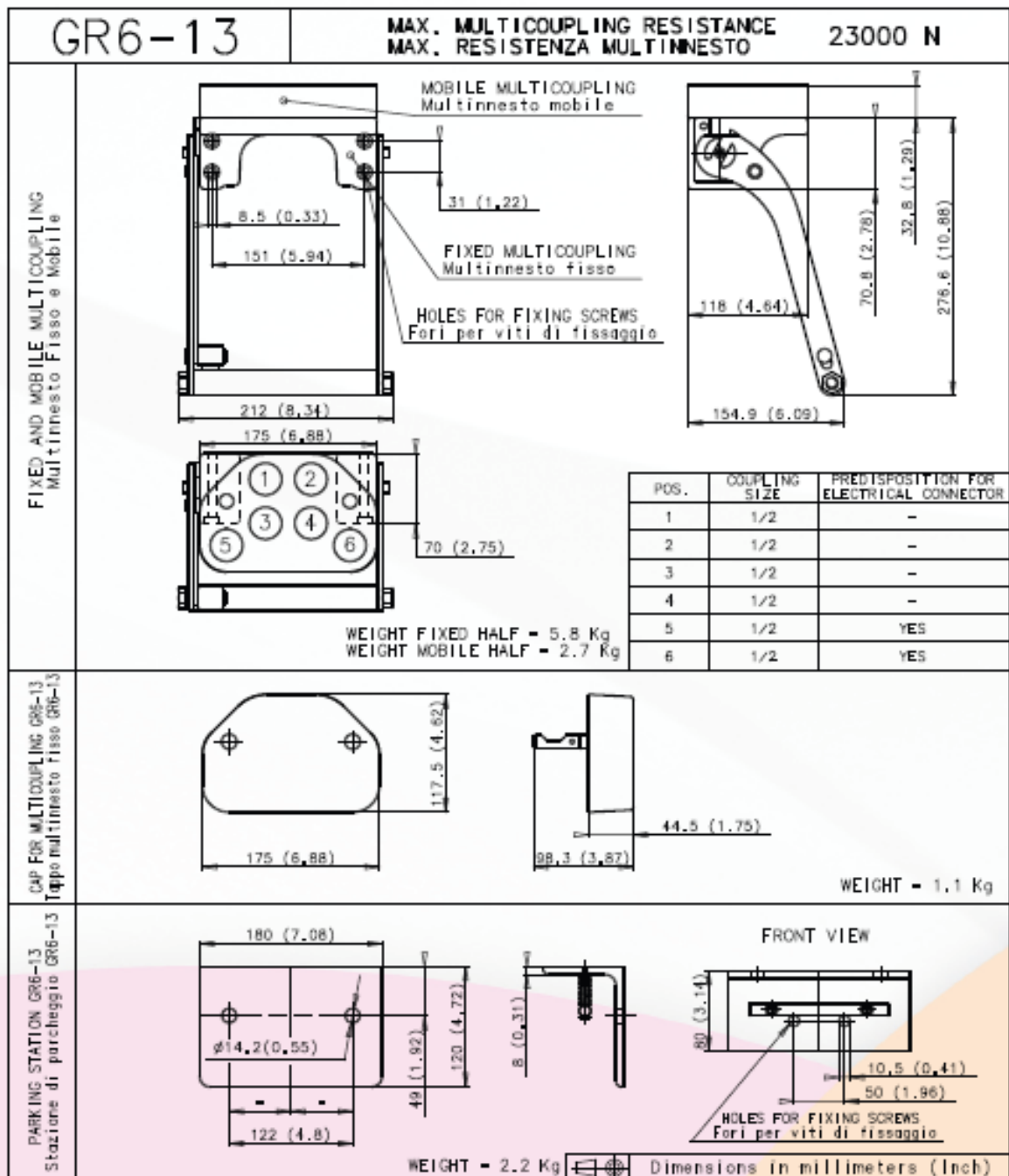
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR6-13 MULTICOUPLING

- Six lines size 1/2
- Two lines predisposed for electrical connector  
Female EC...-13, Male EC...-13
- On request others lines predisposed for electrical connector

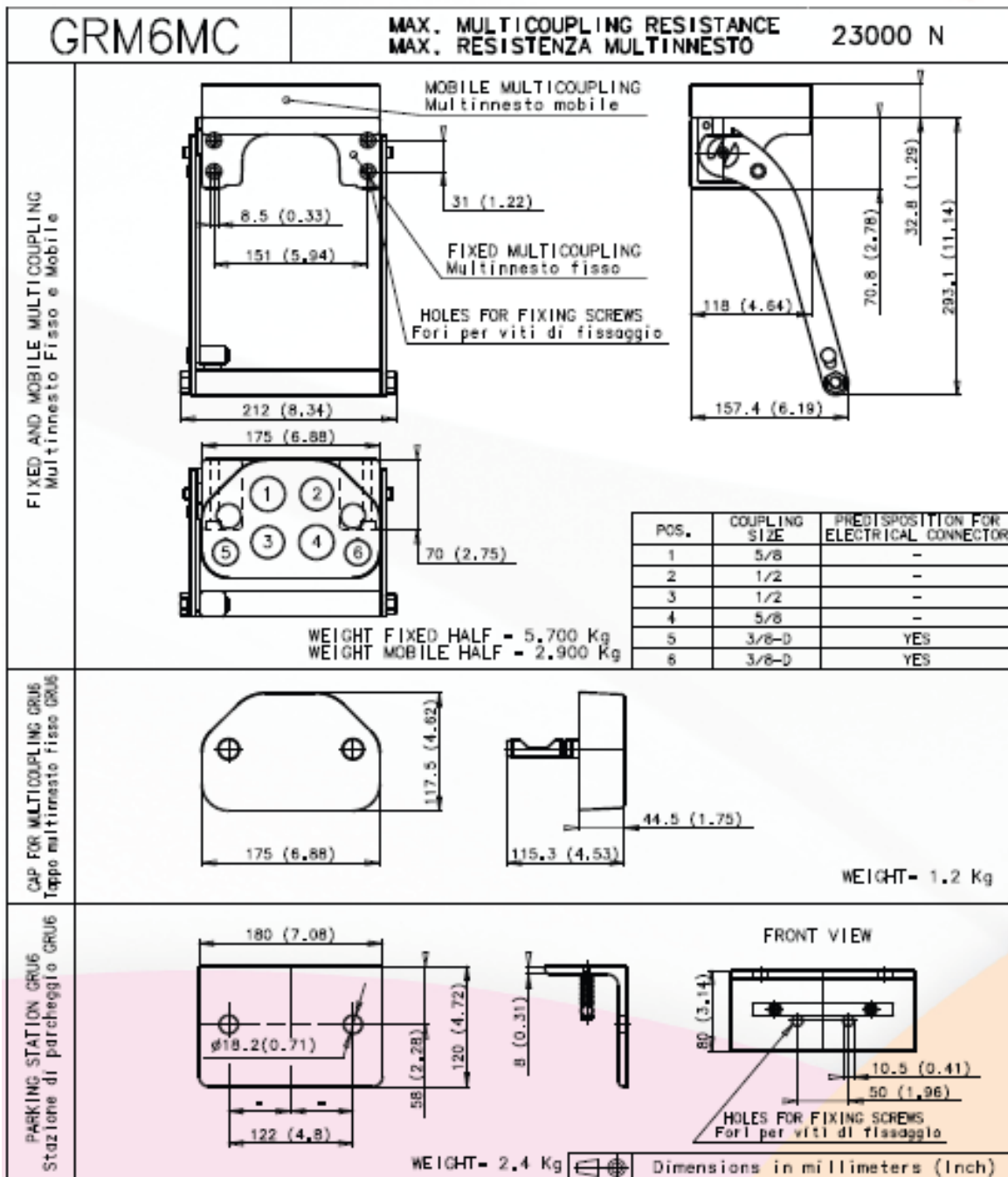




## GR

### GRM6MC MULTICOUPLING

- Two lines size 5/8
- Two lines size 1/2
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC..., Male EC...D
- On request others lines predisposed for electrical connector





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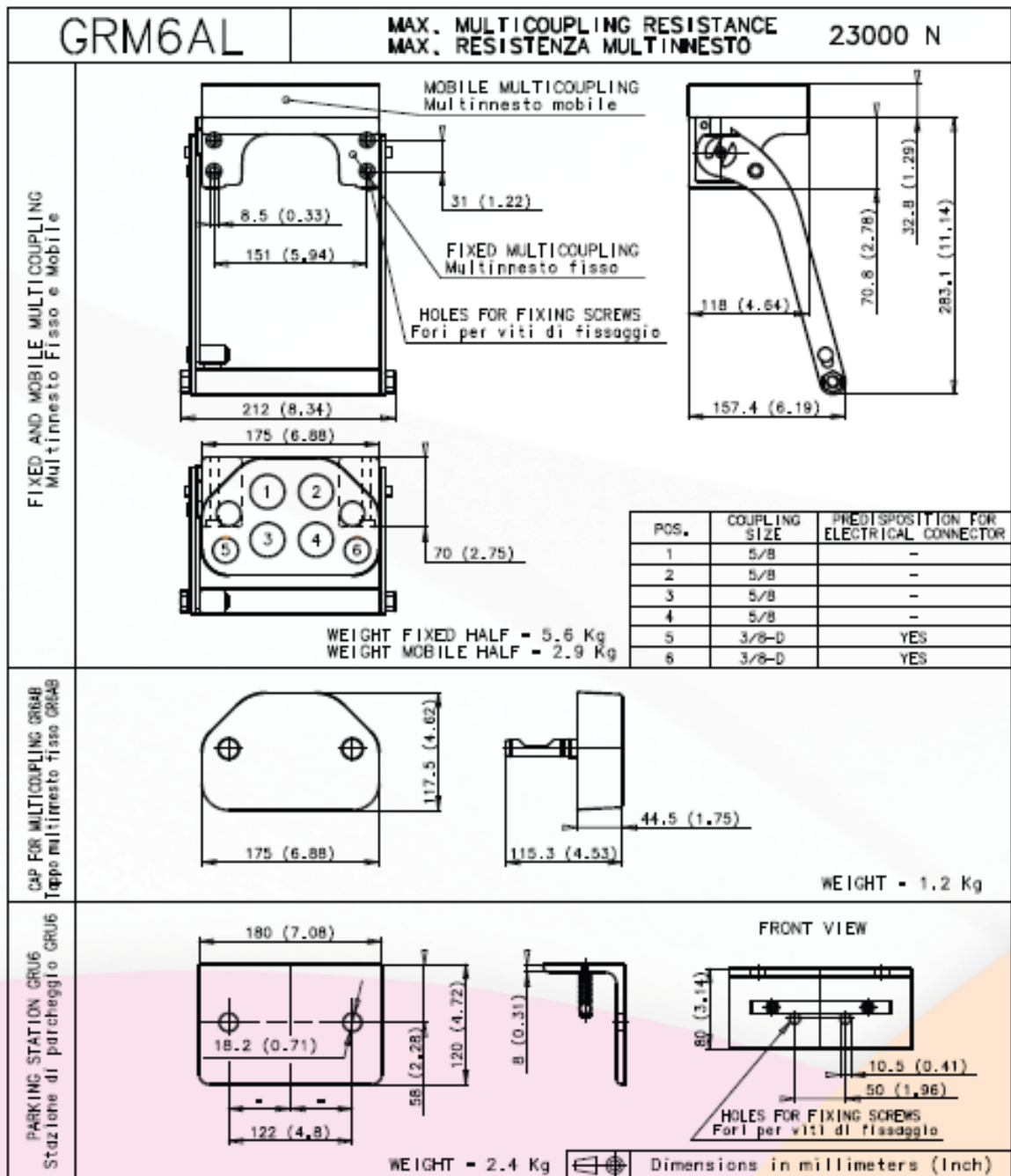
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GRM6AL MULTICOUPLING

- Four lines size 5/8
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC., Male EC..D

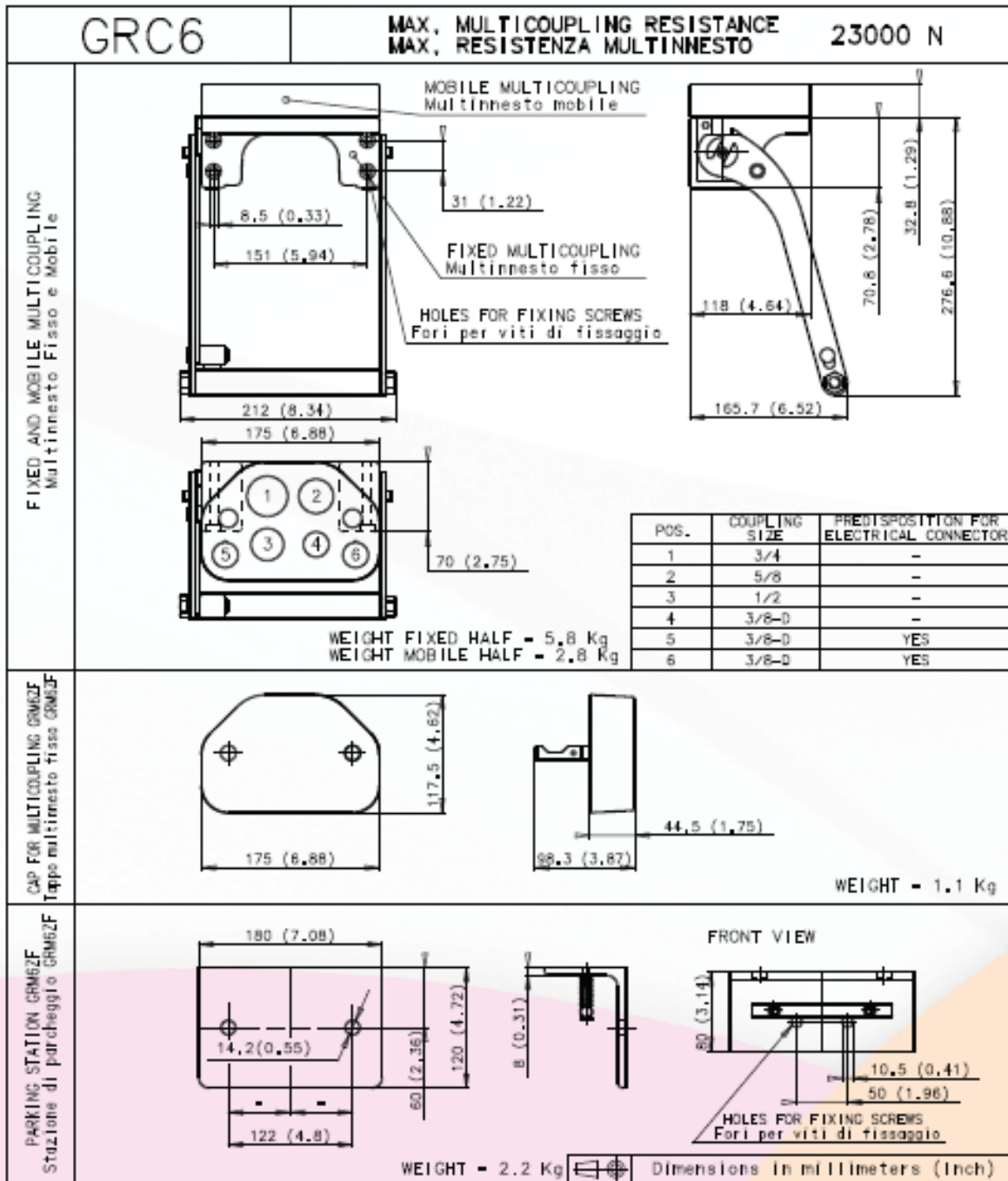




## GR

### GRC6 MULTICOUPLING

- One line size 3/4
- One line size 5/8
- One line size 1/2
- Three lines size 3/8
- Two lines predisposed for electrical connector  
Female EC., Male EC..D
- On request others lines predisposed for electrical connector



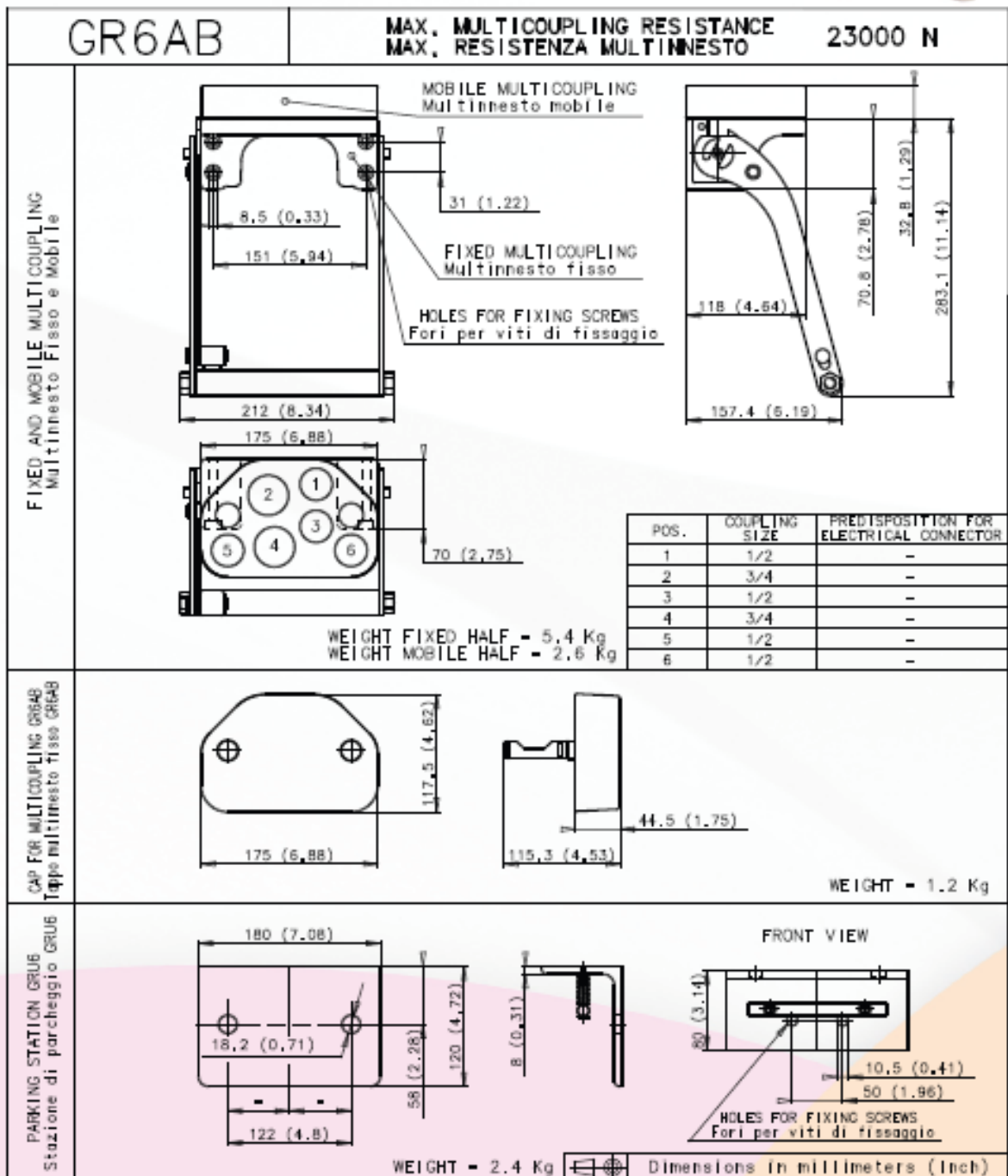


## GR

### GR6AB MULTICOUPLING

Two lines size 3/4

- Fourlines size 1/2
- On request lines predisposed for electrical connector





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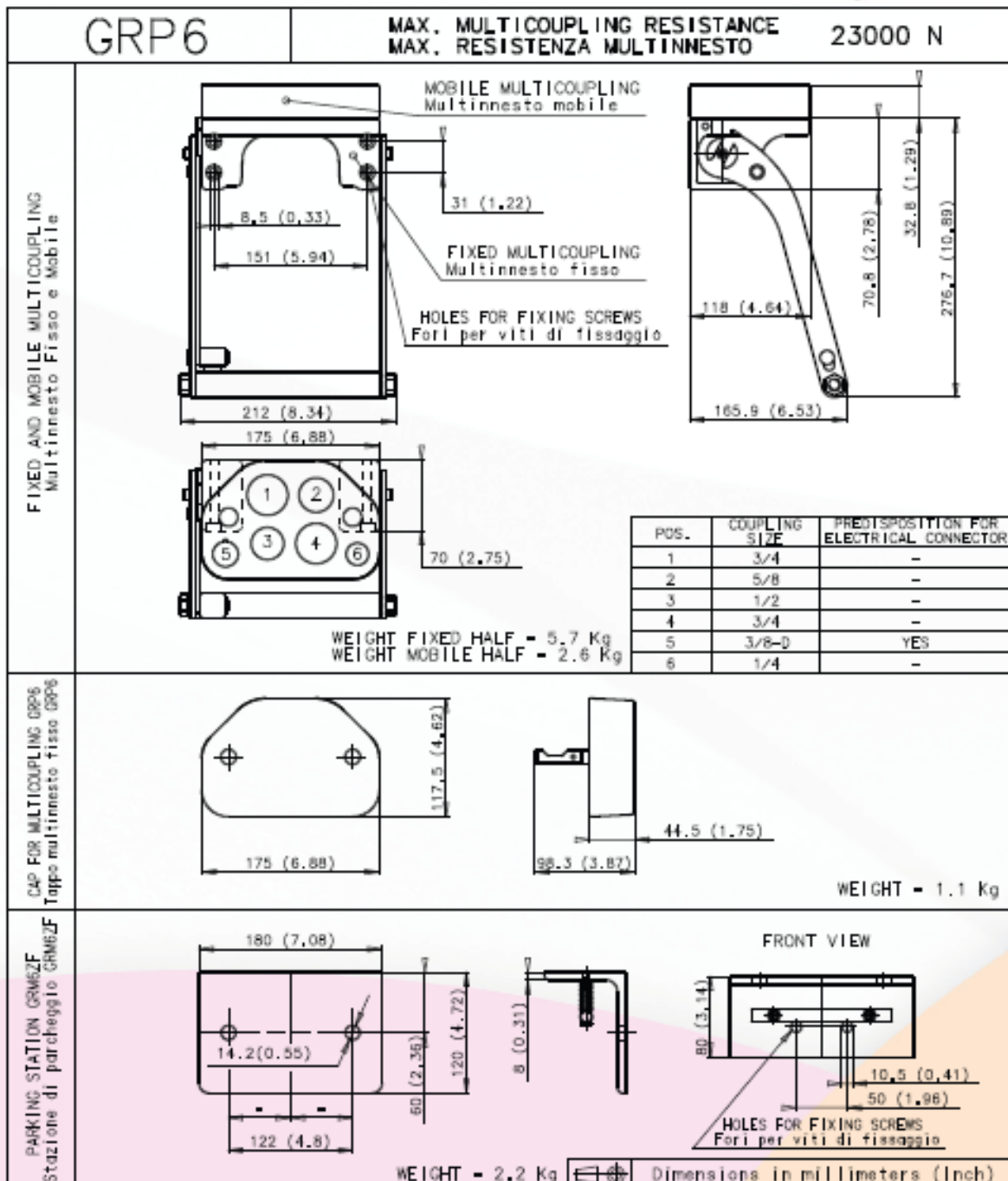
# HYDRAULIEK MULTIKOPPELINGEN

5

GR

## GRP6 MULTICOUPLING

- Two lines size 3/4
- One line size 5/8
- One line size 1/2
- One line size 3/8
- One line size 1/4
- One line predisposed for electrical connector  
Female EC... Male EC...D







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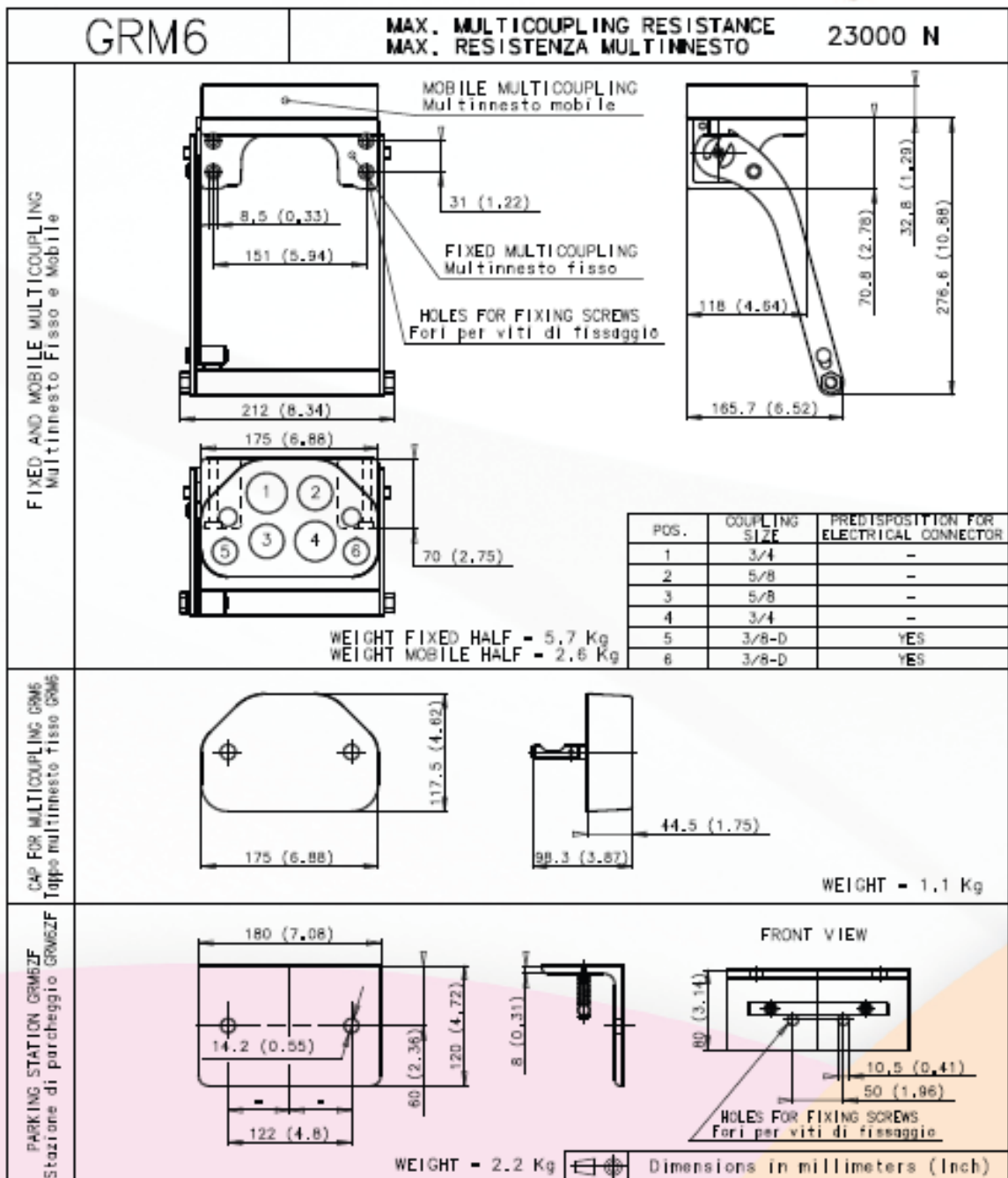
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GRM6 MULTICOUPLING

- Two lines size 3/4
- Two lines size 5/8
- Two lines size 3/8
- Two lines predisposed for electrical connector  
Female EC... Male EC...D





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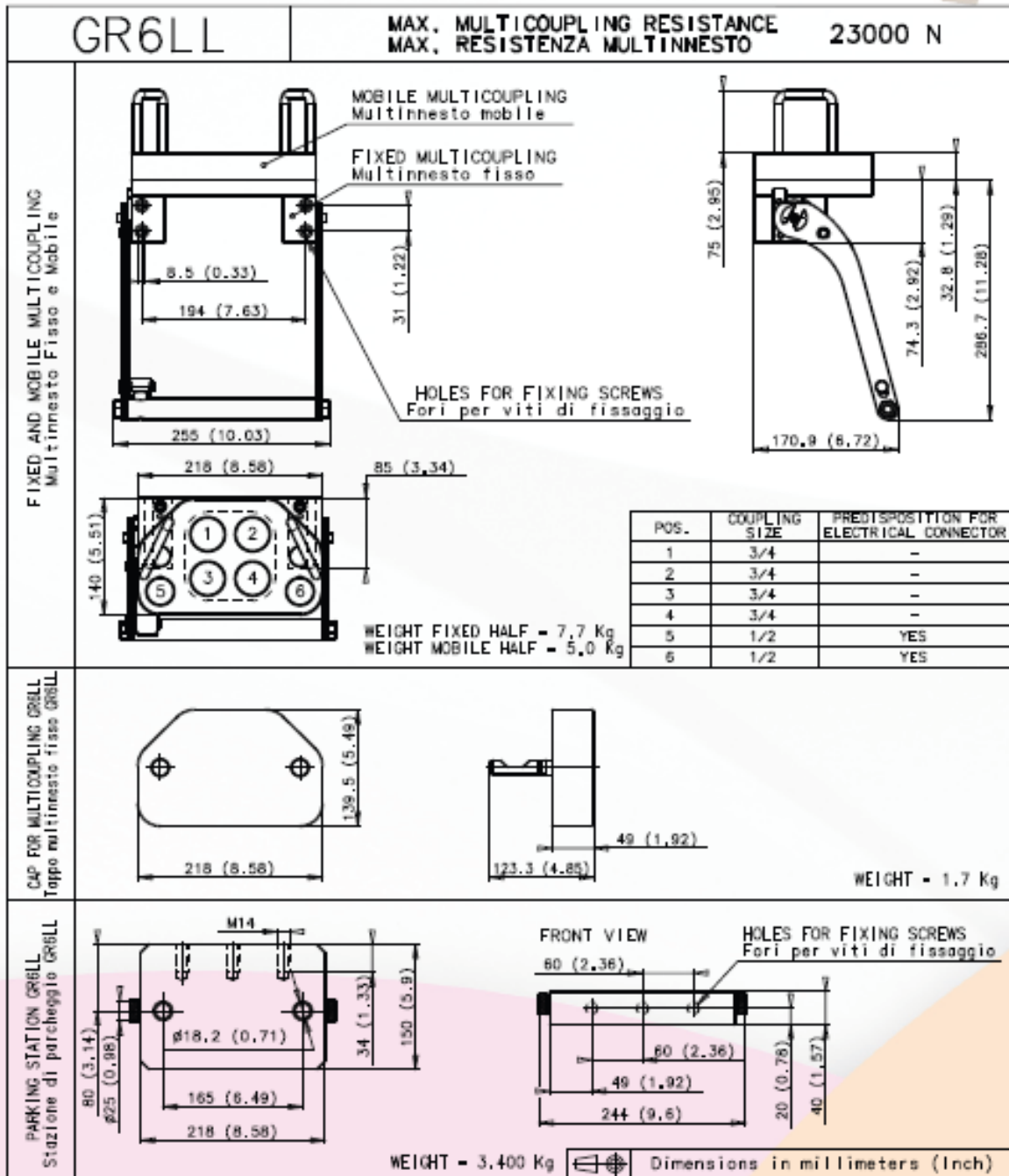
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR6LL MULTICOUPLING

- Fourlines size 3/4
- Two lines size 1/2
- Two lines predisposed for electrical connector  
Female EC...-13, Male EC...-13

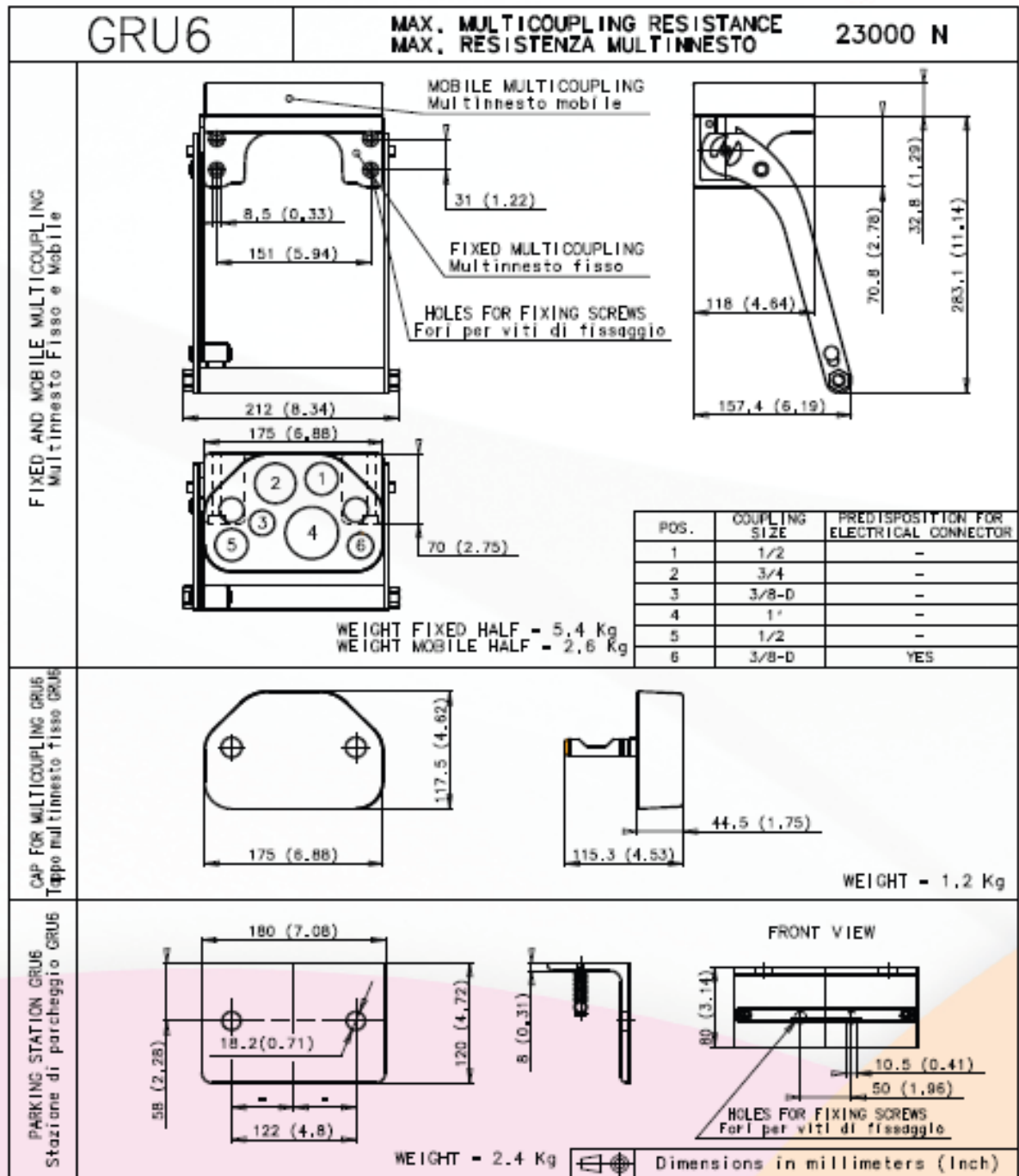




## GR

### GRU 6 MULTICOUPLING

- One line size 1
- One line size 3/4
- Two lines size 1/2
- Two lines size 3/8
- One line predisposed for electrical connector  
Female EC... Male EC...D
- On request others lines predisposed for electrical connector

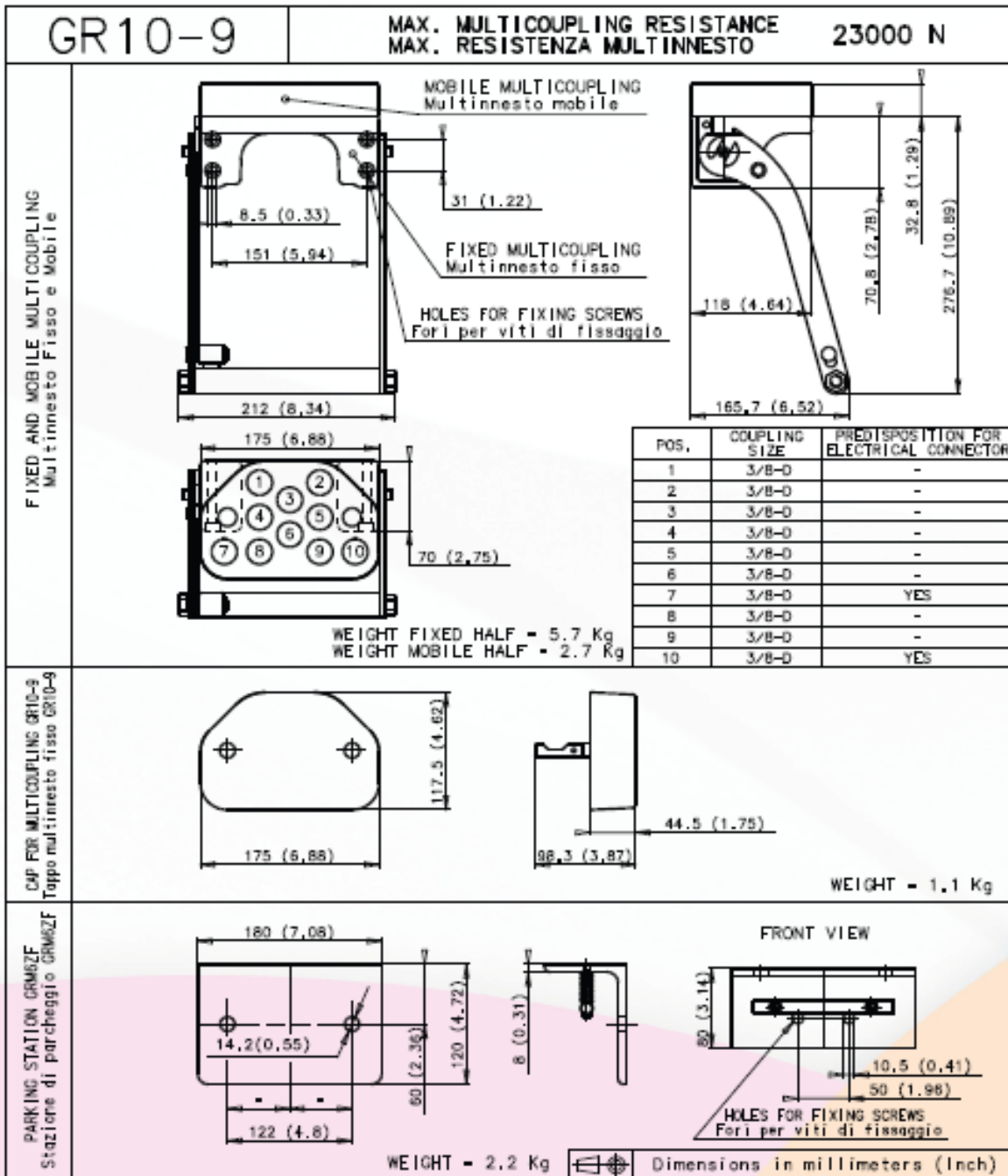




## GR

### GR10-9 MULTICOUPLING

- Ten lines size 3/8
- Two lines predisposed for electrical connector Female EC... Male EC...D
- On request others lines predisposed for electrical connector





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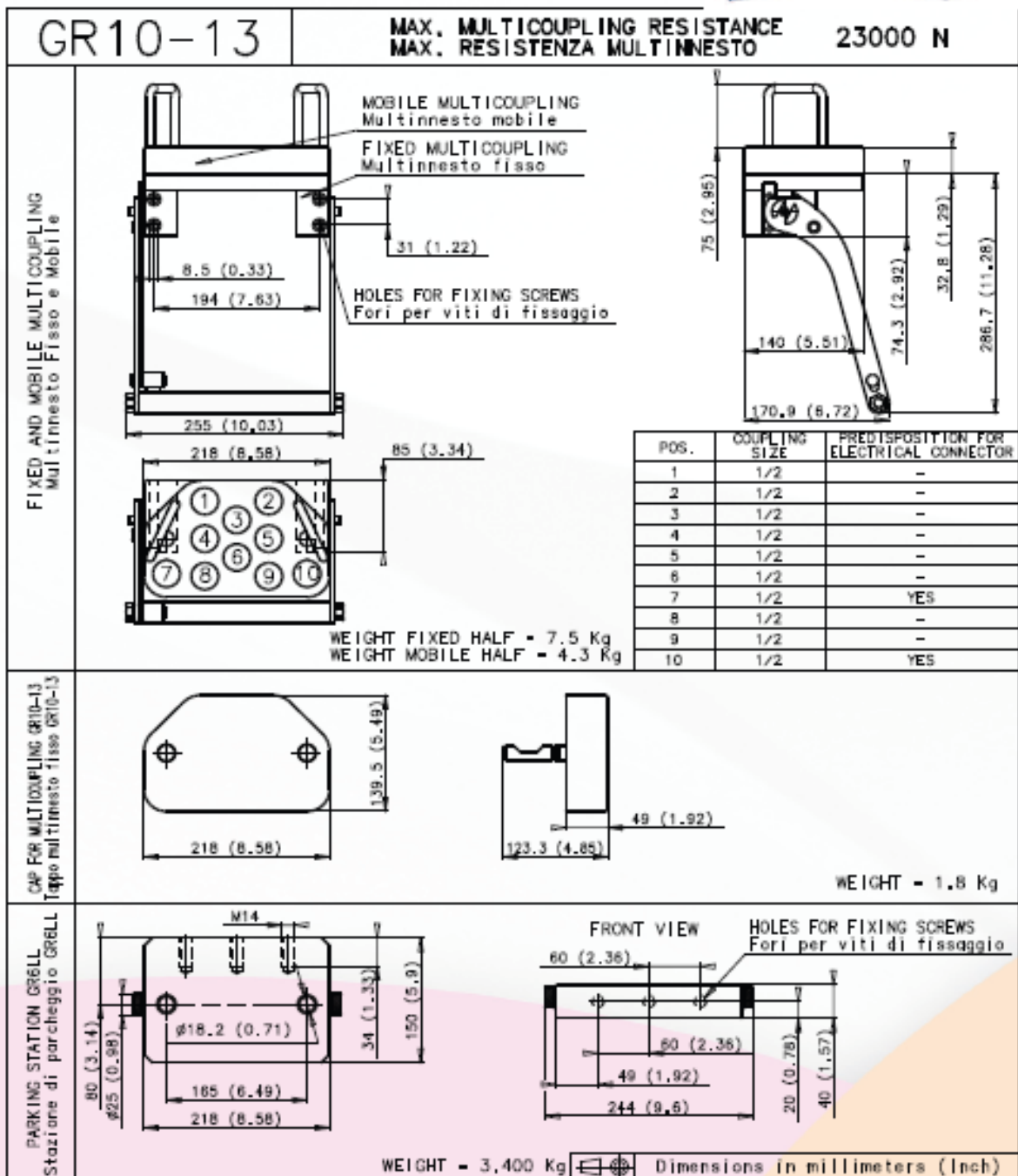
# HYDRAULIEK MULTIKOPPELINGEN

5

## GR

### GR10-13 MULTICOUPLING

- Ten lines size 1/2
- Two lines predisposed for electrical connector  
Female EC...-13, Male EC...-13
- On request others lines predisposed for electrical connector

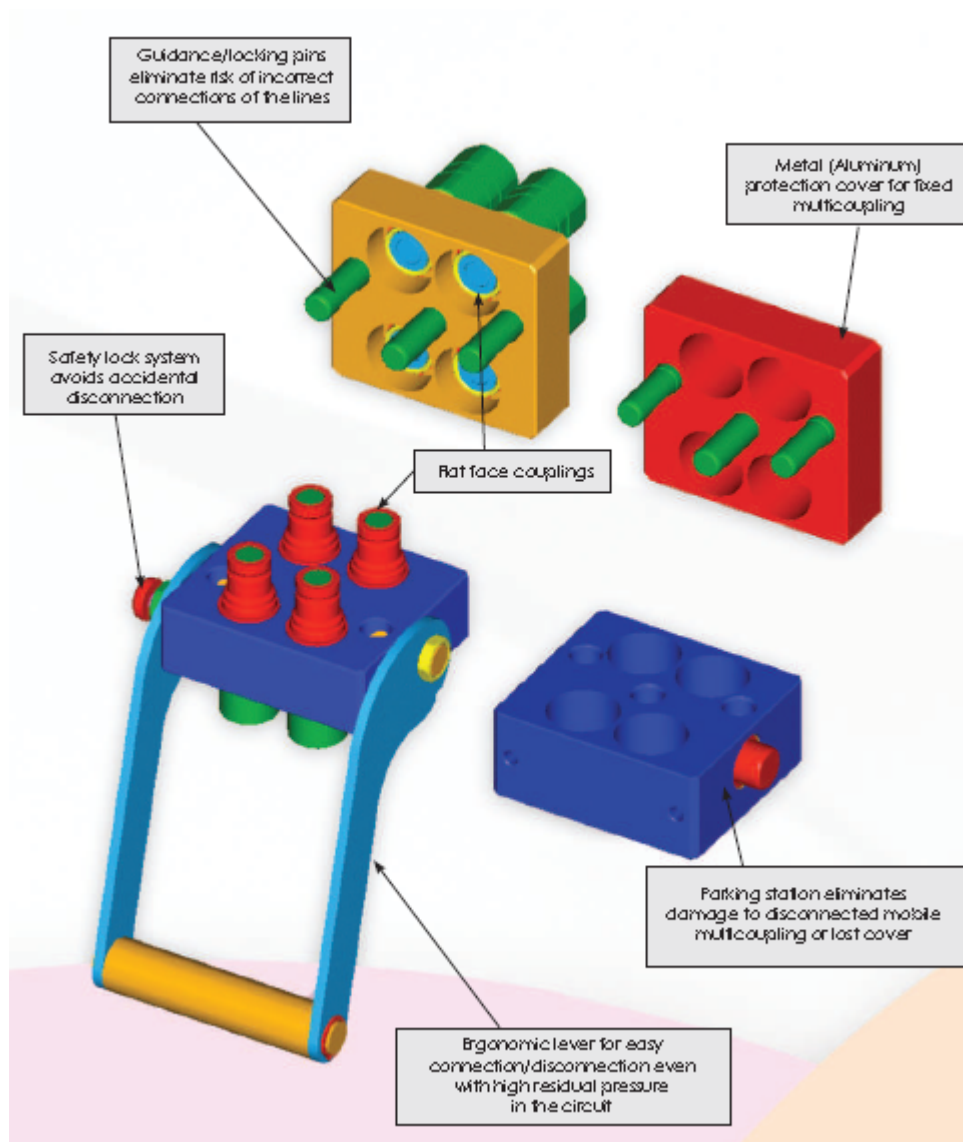


## DP

*“DP” is de compacte multi-koppeling die de oplossing biedt voor toepassing in kleine ruimtes, waar hydraulische, elektrische en lucht aansluitingen gerealiseerd moeten worden.*

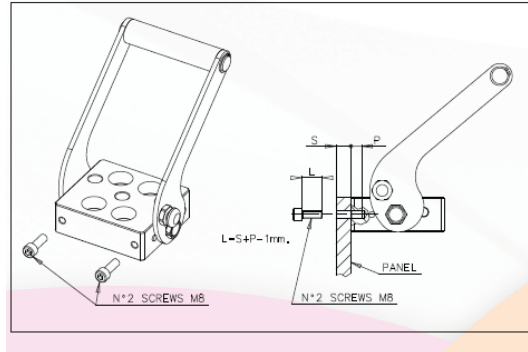
*Tot en met vier lijnen (maat ½” BSP) kunnen gelijktijdig en veilig gekoppeld worden. Simpel en met weinig kracht. De koppelingen kunnen allemaal van hetzelfde type zijn, maar ook verschillend afhankelijk van de toepassing.*

*Uitwisselbaar: Interne specificaties Stucchi.*





## DP



### PERFORMANCE

All the Stucchi multicoplings have been tested at their maximum resistance by impulse pressure test. The maximum resistance (N) for each multicoupling model, is indicated in the data sheets below.

The force applied to multicoupling coupled, depends on the number of couplings under pressure at the same time, on their operating pressure and on their size.

For a correct use of the multicoupling is necessary to verify that the force is not greater to the maximum resistance of the multicoupling.

$F = [(F3/8 \times S3/8) + (F1/2 \times S1/2)] \times 9.8$

F Force applied to multicoupling (N)

P Total amount of operating pressure coupled in the couplings with same size (bar)

S Hydrostatic pushing area coupled (cm<sup>2</sup>)

The operating pressure for a single coupling must not be greater to the maximum operating pressure coupled indicated in table.

Coupling size	Hydrostatic pushing area coupled	Maximum operating pressure coupled for FA P couplings
3/8	S3/8 = 1,226 cm <sup>2</sup>	35 Mpa (350 bar)
1/2	S1/2 = 1,893 cm <sup>2</sup>	33 Mpa (330 bar)

### EXAMPLE:

Max. resistance of DPT2 multicoupling is 10000 N.

To verify if DPT2 multicoupling resists to operating condition of following application:

Oneline size 3/8 with max. operating pressure coupled of 30 Mpa (300 bar)

Oneline size 1/2 with max. operating pressure coupled of 20 Mpa (200 bar)

It is necessary verify that F (force applied to multicoupling) is not greater than max. multicoupling resistance:

F3/8 300 bar

F1/2 200 bar

$F = [(F3/8 \times S3/8) + (F1/2 \times S1/2)] \times 9.8$

$F = [(300 \times 1,226) + (200 \times 1,893)] \times 9.8$

$F = [367,8 + 378,6] \times 9.8 = 7314 \text{ N}$

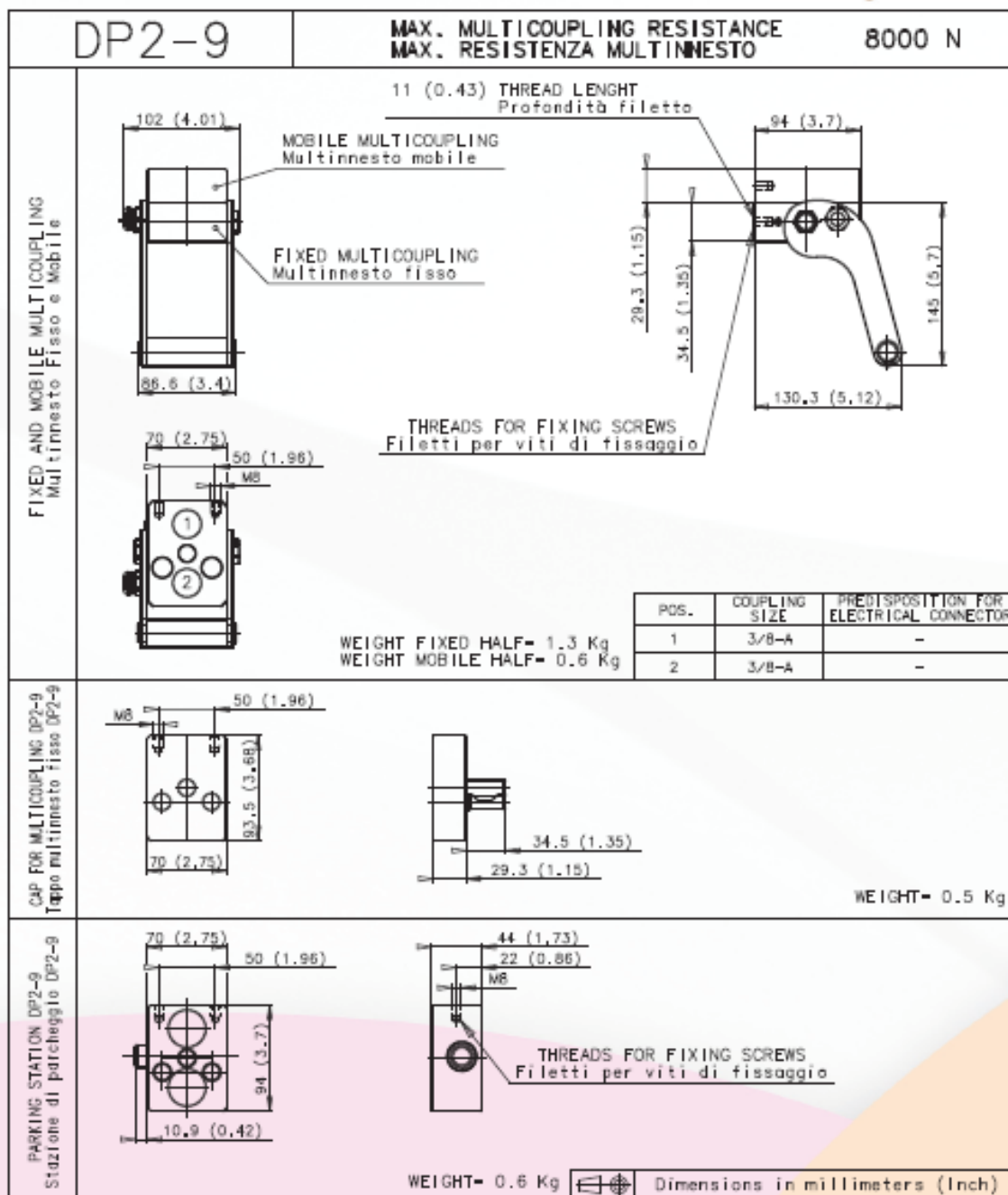
Being F (7314 N) lower than max. multicoupling resistance (10000 N), the DPT2 multicoupling is suitable for this application.



## DP

### DP2-9 MULTICOUPLING

- Twolines size 3/8
- On request one line predisposed for electrical connector







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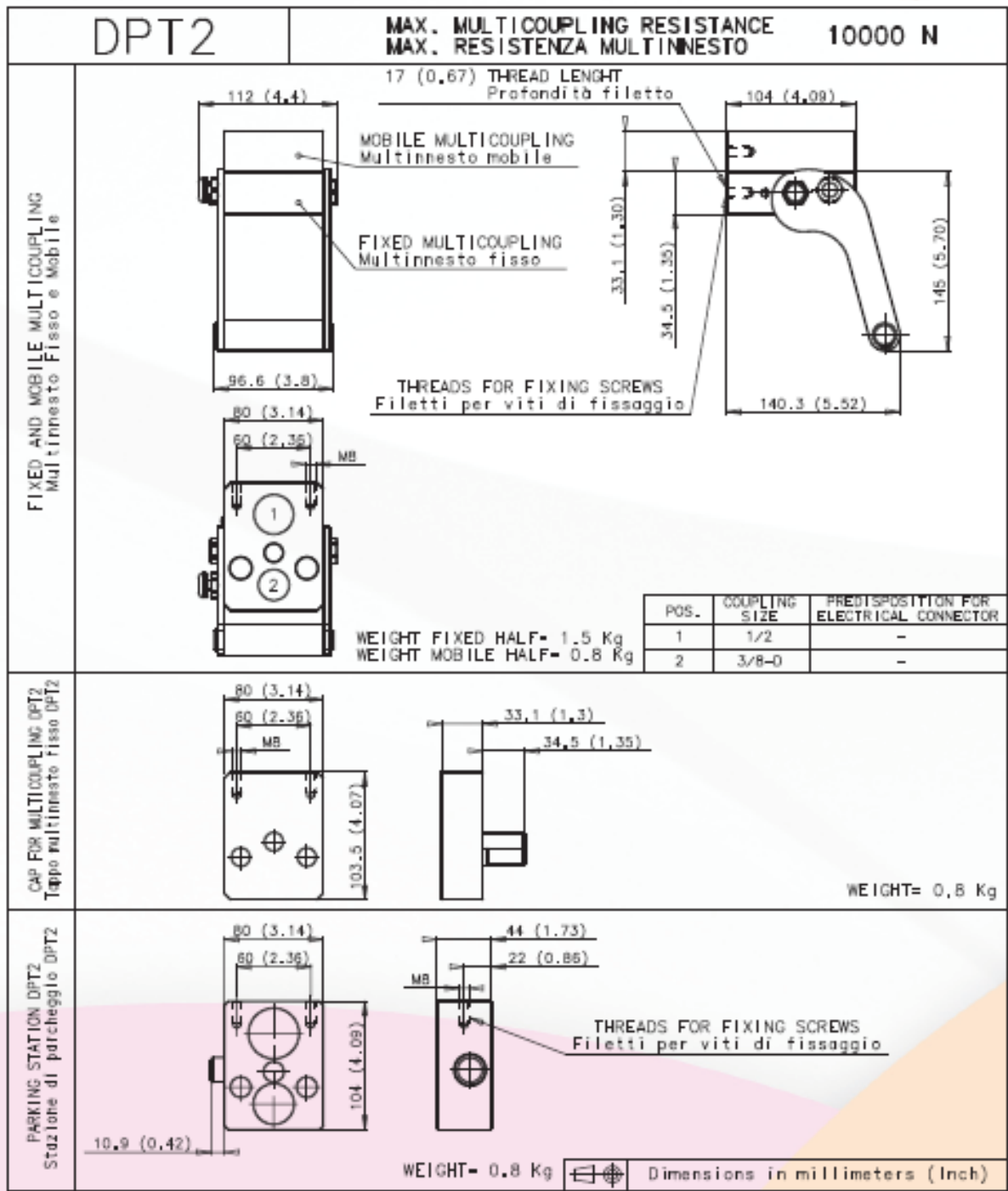
# HYDRAULIEK MULTIKOPPELINGEN

5

## DP

### DPT2 MULTICOUPLING

- One line size 1/2
- One line size 3/8
- On request one line predisposed for electrical connector

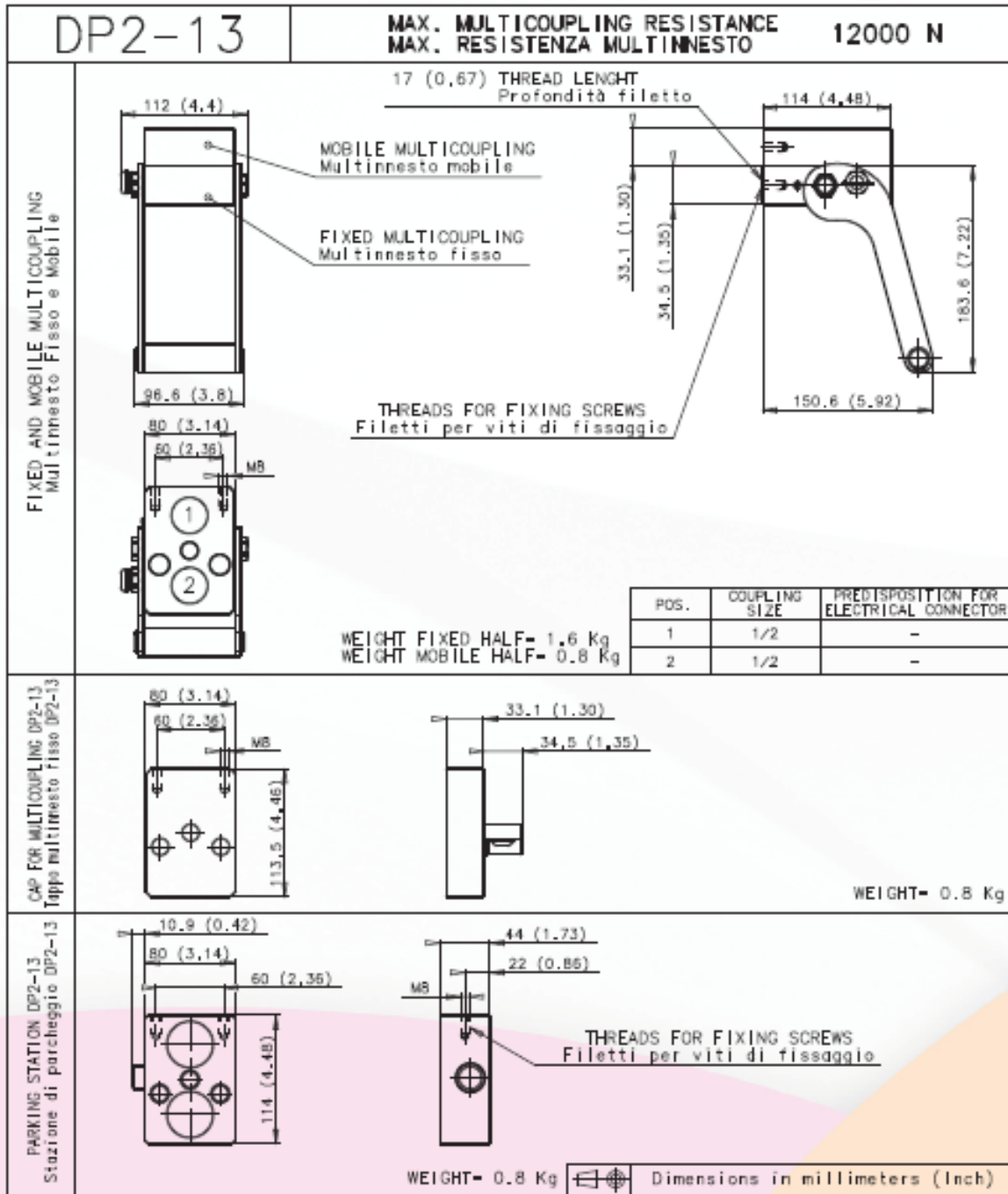




## DP

### DP2-13 MULTICOUPLING

- Twolines size 1/2
- On request one line predisposed for electrical connector

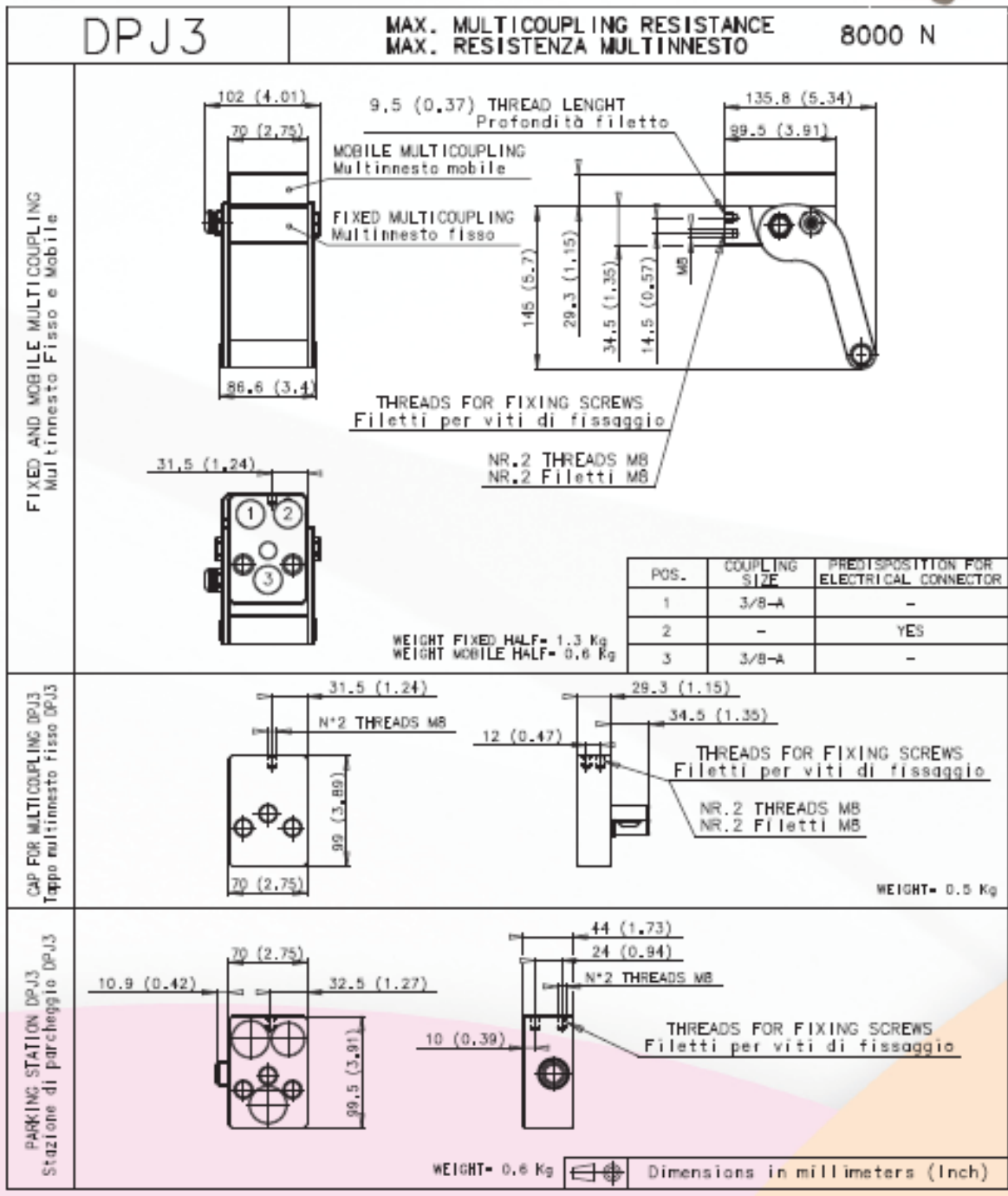




## DP

### DPJ3 MULTICOUPLING

- Two lines size 3/8
- One line for electrical connector  
Female EC., Male EC.J





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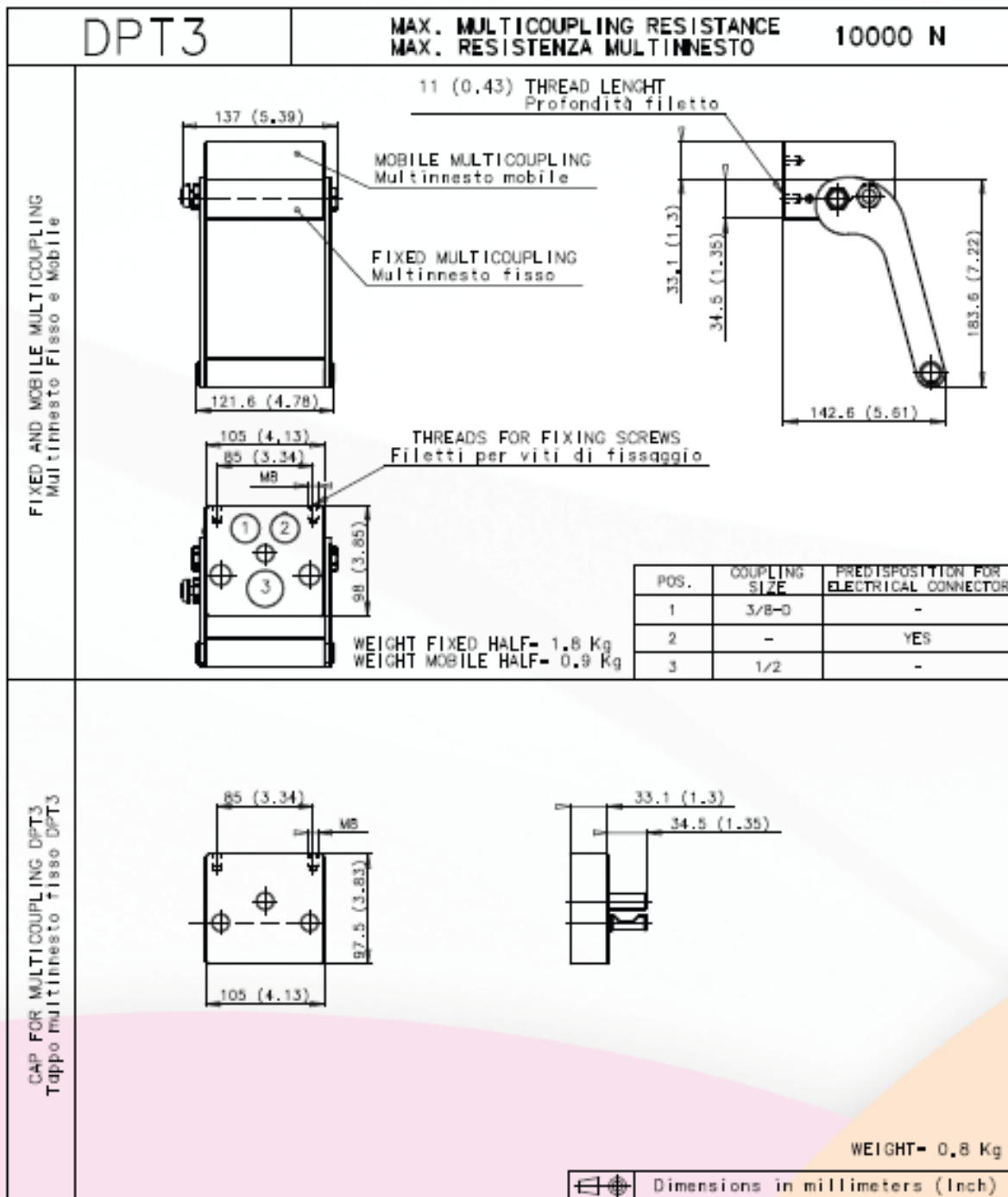
# HYDRAULIEK MULTIKOPPELINGEN

5

DP

## DPT3 MULTICOUPLING

- One line size 1/2
- One line size 3/8
- One line for electrical connector  
Female EC., Male EC., DT

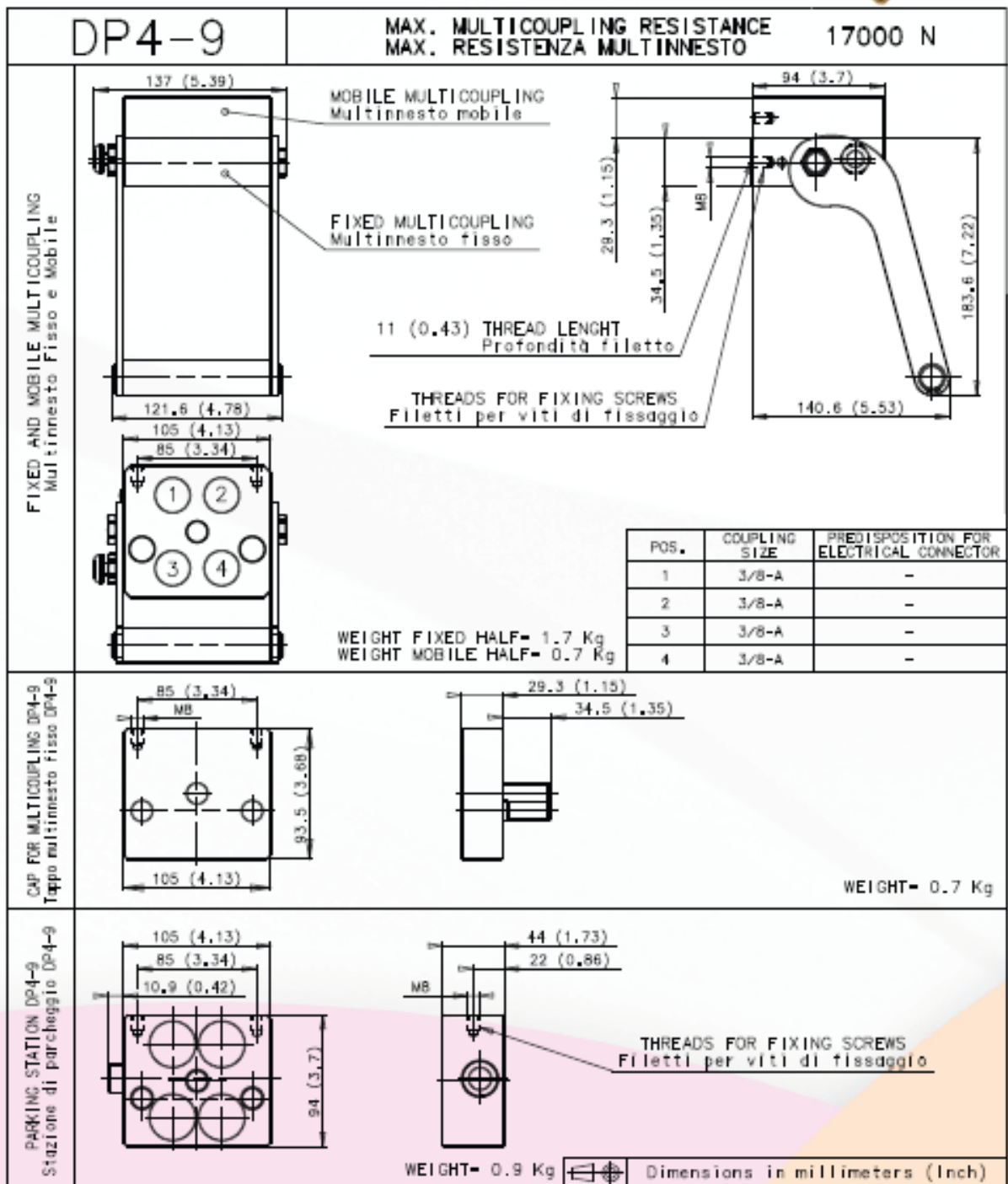




## DP

### DP4-9 MULTICOUPLING

- Four lines size 3/8
- On request lines predisposed for electrical connector

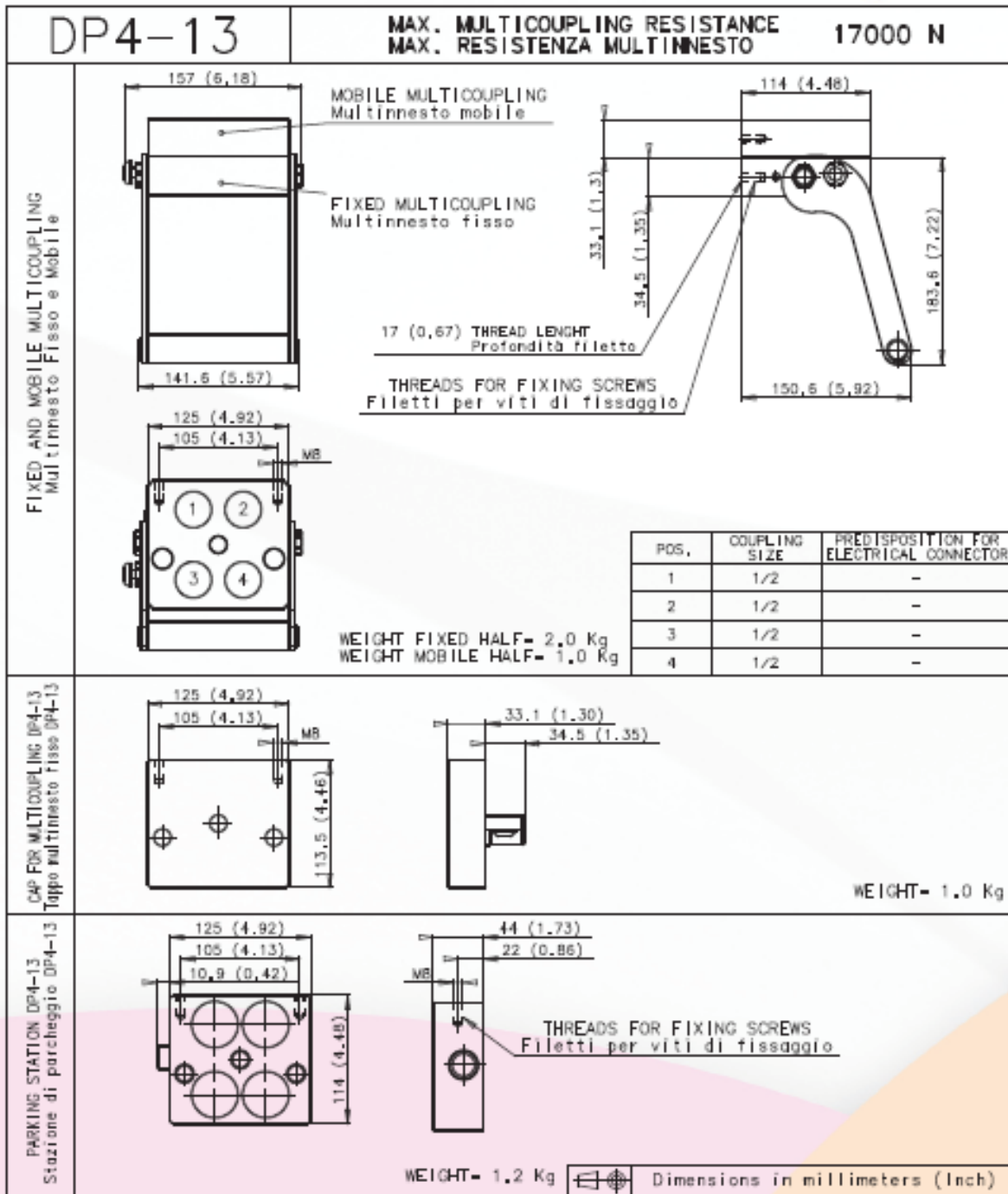




## DP

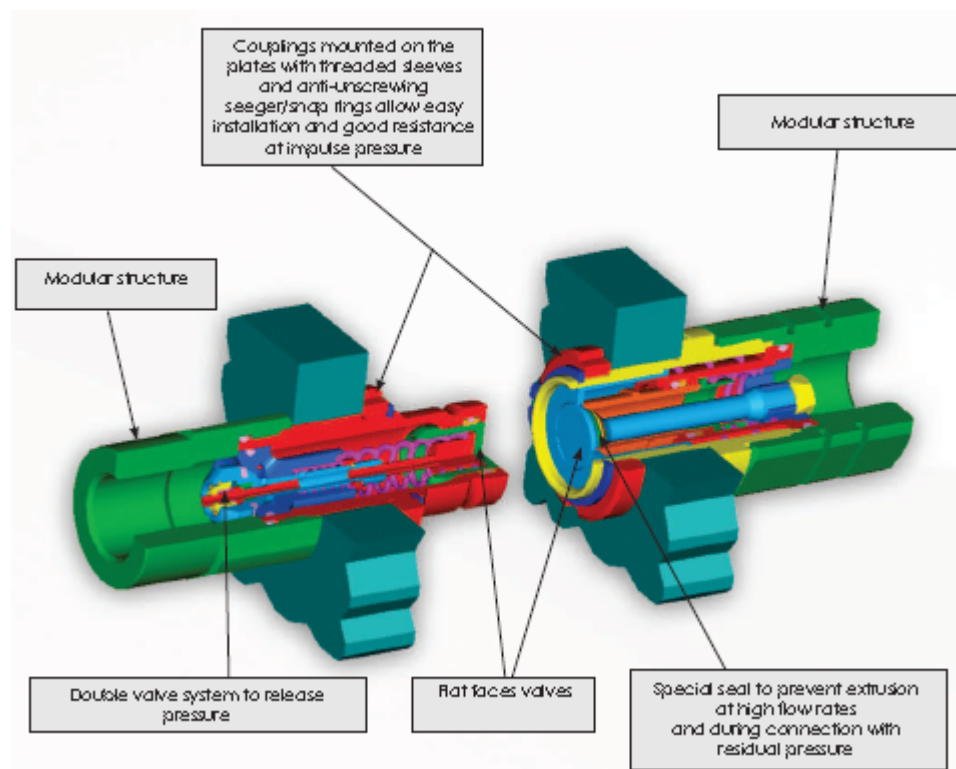
### DP4-13 MULTICOUPLING

- Four lines size 1/2
- On request lines predisposed for electrical connector



## FAP-Z De Fap-z

*Fap-Z is de flatface koppeling serie zonder koppel mechanisme, die gemonteerd worden in multisysteem platen. Ze zijn vervaardigd uit hoogwaardig carbon staal met een zink-ijzer oppervlakte behandeling. Het interne kleppen systeem en de flat face klep maken het mogelijk om veilig te koppelen zelfs met hoge restdruk, en voorkomen het verlies van vloeistof. (er mag geen flow zijn) De koppelingen zijn geborgd met een borgmoer en seegerring. Dit maakt de koppeling geschikt voor toepassingen met sterk wisselende drukken.*





## FAP-Z

### HOW TO USE

- Before connecting clean the flat mating surface of coupling to avoid inclusion of contamination in the circuit.
- Connect and disconnect in according to the instruction of use for multicoupling.

### WARNING !

- Do not use the female coupling disconnected as a cap with high impulse pressure.
- Do not couple-uncouple with flow in the circuit. Connection only allowed with residual pressure.
- Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
- When the couplings are disconnected, it is suggested to use the protection cap and parking station.
- It is important to limit contamination in the circuit to avoid compromising the function of the internal valves.

### PERFORMANCE

Description	Size	ISO Size	Rated flow		Max. flow suggested		Connect* force		Hydraulic pushing area coupled	Spillage *
			l/min	GPM	l/min	GPM	Nm	lbf		
FAP92	3/8		23	6,10	46	12,19	300	67,50	1,226	0,012
FAP132	1/2		45	11,93	90	23,85	320	72,00	1,893	0,020
FAP152	5/8		74	19,61	148	39,22	320	72,00	2,404	0,110
FAP172	3/4		100	26,50	200	53,00	500	112,50	3,298	0,032
FAP212	1		189	50,09	378	100,17	520	117,00	4,335	0,035

Description	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
FAP92	35	5075	35	5075	35	5075	120	17400	120	17400	100	14300
FAP132	33	4785	33	4785	33	4785	120	17400	120	17400	100	14300
FAP152	33	4785	33	4785	33	4785	120	17400	120	17400	100	14300
FAP172	33	4785	33	4785	33	4785	120	17400	120	17400	100	14300
FAP212	30	4350	30	4350	30	4350	100	14300	100	14300	80	11500

Description	Max. residual pressure during connection						Max. residual pressure during disconnection	
	Male Female to drain		Female Male to drain		Male and Female			
	MPa	psi	MPa	psi	MPa	psi	MPa	psi
FAP92	25	3625	25	3625	25	3625	2,5	3625
FAP132	25	3625	25	3625	20	2900	2,0	2900
FAP152	25	3625	25	3625	20	2900	2,0	2900
FAP172	25	3625	25	3625	15	2175	1,5	2175
FAP212	25	3625	25	3625	15	2175	1,5	2175

\* Connect force without residual pressure. The force increase to increasing of internal residual pressure.

\* Spillage is an indicative value of the fluid loss per couple-uncouple cycle without residual pressure.

• Temperature range: Standard seats NBR, PUR, POM from -20 °C to +100 °C ( from -4 °F to +212 °F).

• Tests:

The couplings coupled and the male uncoupled, have been tested at max. operating pressure for 200'000 impulses in according with ISO 7241-2.

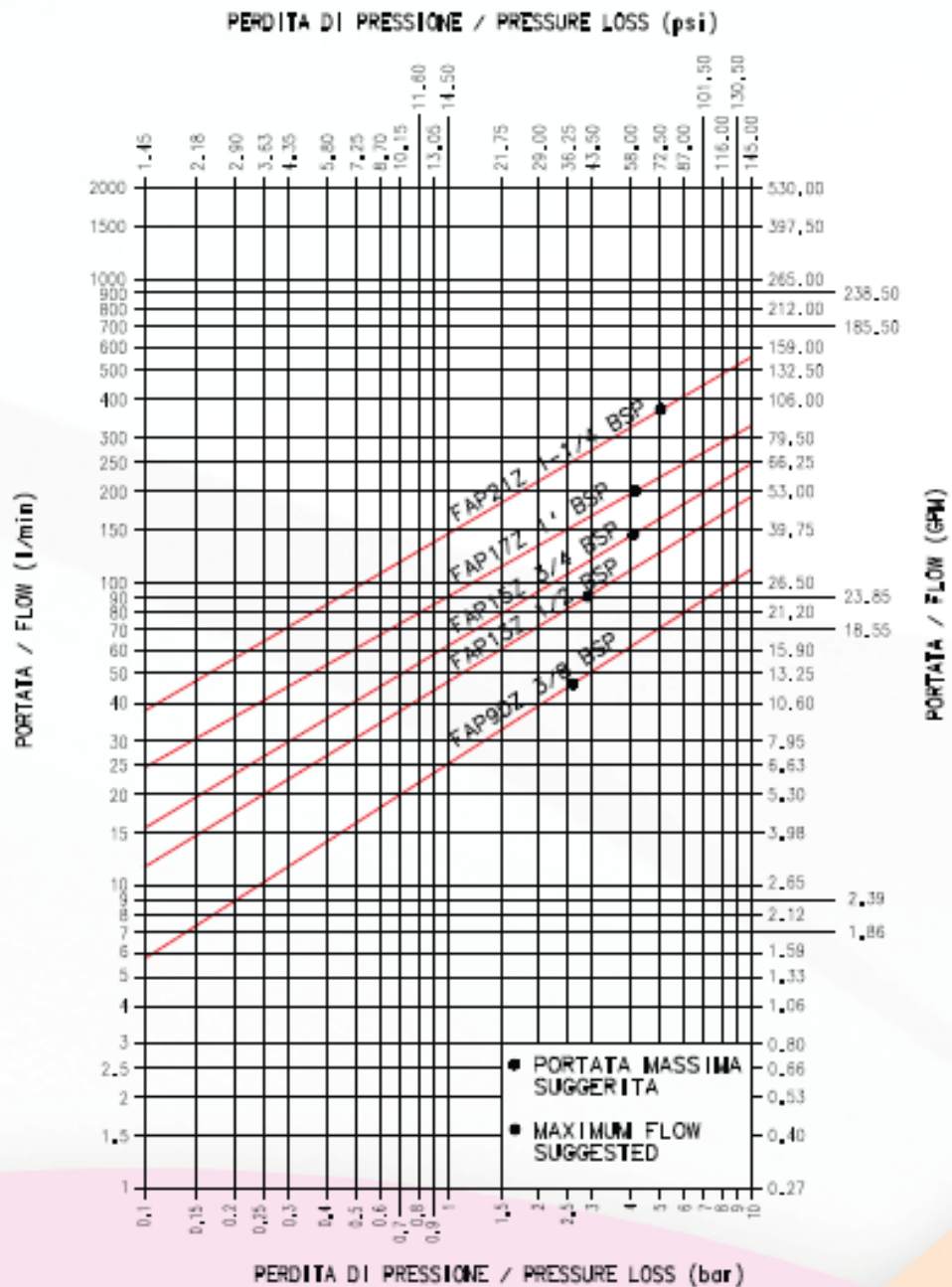
The female uncoupled have been tested for 100'000 impulses.



## FAP-Z

### PRESSURE DROP

TESTS ESEGUITI IN CONFORMITA' A ISO 7241-2  
TESTS IN ACCORDANCE WITH ISO 7241-2

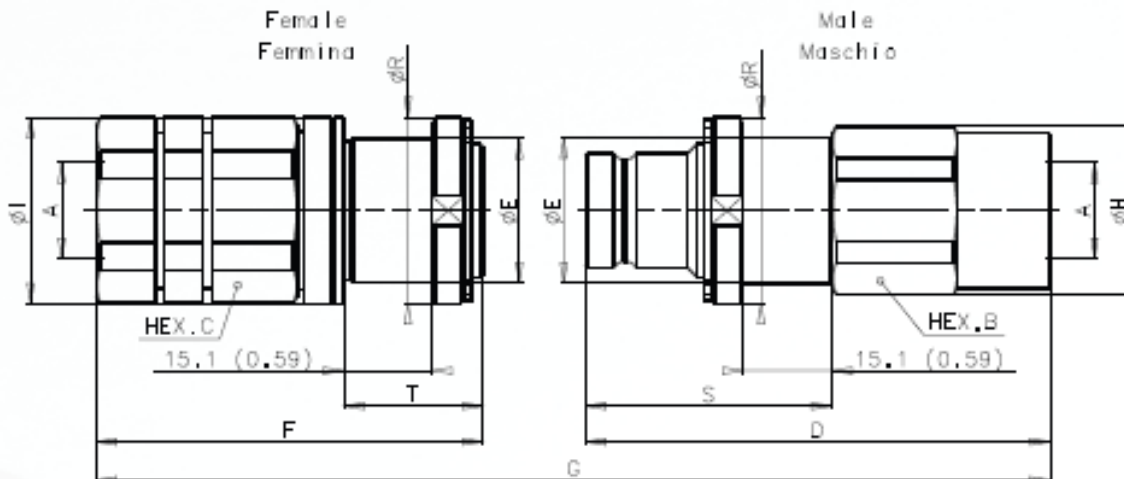


FLUIDO: OLIO ISO VG32  
TEMPERATURA: 40°C  
VISCOSITA': 28.8-35.2 mm<sup>2</sup>/s

FLUID: OIL ISO VG32  
TEMPERATURE: 40°C  
VISCOSITY: 28.8-35.2 mm<sup>2</sup>/s

## FAP-Z

### OVERALL DIMENSIONS



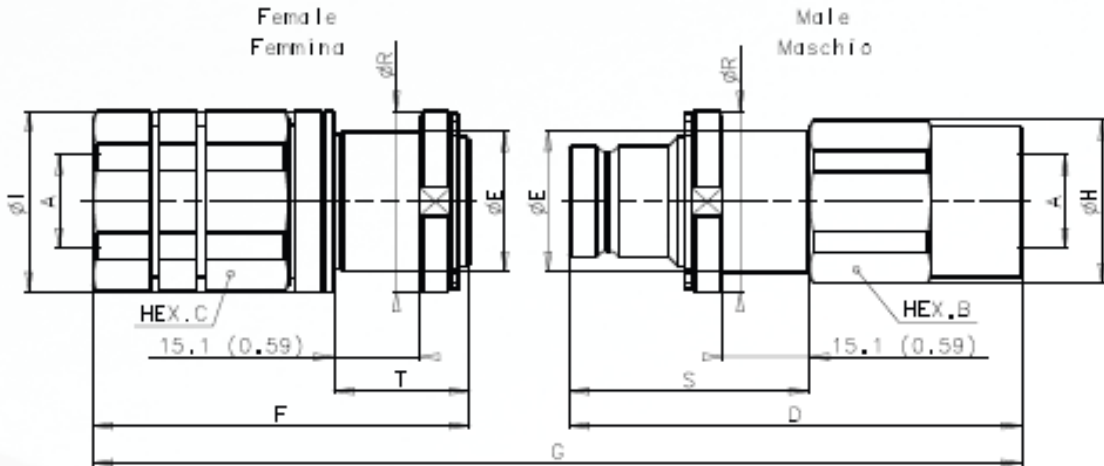
### FEMALE BSPP THREAD (DIN 3852)

Description	A	Unit	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	Unit	Weight					
																							Male	Female				
FAP9A2 3/8 BSP	3/8	mm Inch	27 1,06	30 1,18	30 3,15	25 0,98	66,7 2,63	128,8 5,07	29 1,14	32 1,26	32 1,26	40,3 1,59	22,1 0,87												Kg lb	0,220 0,49	0,255 0,56	
FAP9A2 1/2 BSP	1/2	mm Inch	27 1,06	30 1,18	32,5 3,25	25 0,98	71,7 2,82	136,3 5,37	29 1,14	32 1,26	32 1,26	40,3 1,59	22,1 0,87												Kg lb	0,210 0,46	0,260 0,57	
FAP9O2 3/8 BSP	3/8	mm Inch	27 1,06	30 1,18	30 3,15	25 0,98	66,4 2,62	128,8 5,07	29 1,14	32 1,26	32 1,26	42,4 1,67	24 0,94													Kg lb	0,220 0,49	0,250 0,55
FAP9O2 1/2 BSP	1/2	mm Inch	27 1,06	30 1,18	32,5 3,25	25 0,98	71,4 2,82	136,3 5,37	29 1,14	32 1,26	32 1,26	42,4 1,67	24 0,94													Kg lb	0,210 0,46	0,255 0,56
FAP132 1/2 BSP	1/2	mm Inch	34 1,42	34 1,42	91 3,58	32 1,26	80 3,15	130,2 5,93	38,3 1,52	46 1,57	39,8 1,57	45,4 1,79	23,2 0,93													Kg lb	0,440 0,97	0,445 0,98
FAP132 3/4 BSP	3/4	mm Inch	34 1,42	34 1,42	98,4 3,88	32 1,26	87 3,43	130 5,12	38,3 1,52	46 1,57	39,8 1,57	45,4 1,79	23,2 0,93													Kg lb	0,420 0,93	0,450 0,99
FAP132 3/4 BSP	3/4	mm Inch	34 1,42	41 1,61	95 3,74	34 1,34	88,8 3,42	121,4 4,75	38,3 1,52	44,8 1,76	43,3 1,71	45,8 1,78	23,2 0,93													Kg lb	0,435 0,96	0,575 1,27
FAP172 3/4 BSP	3/4	mm Inch	46 1,81	46 1,81	108,3 4,27	40 1,57	102,4 4,04	134,4 5,29	49,8 1,96	49,8 1,96	49 1,93	51,9 2,04	23,2 0,93													Kg lb	0,820 1,81	0,985 2,17
FAP172 1 BSP	1	mm Inch	46 1,81	46 1,81	108,3 4,27	40 1,57	104,4 4,12	134,4 5,29	49,8 1,96	49,8 1,96	49 1,93	51,9 2,04	23,2 0,93													Kg lb	0,770 1,70	0,935 2,06
FAP212 1 BSP	1	mm Inch	55 2,17	55 2,17	125,5 4,94	52 2,05	111,4 4,39	207,4 8,17	59,8 2,35	59,8 2,35	59 2,32	54,6 2,15	23,2 0,93													Kg lb	1,320 2,91	1,440 3,22
FAP212 1 1/4 BSP	1 1/4	mm Inch	55 2,17	55 2,17	125,5 4,94	52 2,05	112,4 4,43	206,4 8,13	59,8 2,35	59,8 2,35	59 2,32	54,6 2,15	23,2 0,93													Kg lb	1,220 2,69	1,545 3,41



## FAP-Z

### OVERALL DIMENSIONS



### FEMALE NPT THREAD (ANSI B.1.20.3)

Description	A	Unit	B	C	D	E	F	G	H	I	L	S	T	Unit	Weight	
															Male	Female
FAP9A2 3/8NPT	3,8	mm Inch	27 1,06	30 1,18	30 3,15	25 0,98	66,7 2,63	128,8 5,07	29 1,14	32 1,26	32 1,26	40,3 1,59	22,1 0,87	Kg lb	0,220 0,49	0,255 0,56
FAP9A2 1/2NPT	1,2	mm Inch	27 1,06	30 1,18	31,5 3,25	25 0,98	71,7 2,82	134,3 5,37	29 1,14	32 1,26	32 1,26	40,3 1,59	22,1 0,87	Kg lb	0,210 0,46	0,240 0,57
FAP9D2 3/8NPT	3,8	mm Inch	27 1,06	30 1,18	30 3,15	25 0,98	66,7 2,63	128,8 5,07	29 1,14	32 1,26	32 1,26	42,4 1,67	24 0,94	Kg lb	0,220 0,49	0,250 0,55
FAP9D2 1/2NPT	1,2	mm Inch	27 1,06	30 1,18	31,5 3,25	25 0,98	71,7 2,82	134,3 5,37	29 1,14	32 1,26	32 1,26	42,4 1,67	24 0,94	Kg lb	0,210 0,46	0,235 0,56
FAP132 1/2NPT	1,2	mm Inch	35 1,42	35 1,42	38 3,28	32 1,26	80 3,15	150,8 5,93	38,3 1,52	40 1,57	39,3 1,57	45,4 1,79	23,5 0,93	Kg lb	0,440 0,97	0,445 0,98
FAP132 3/4NPT	3,4	mm Inch	35 1,42	35 1,42	38 3,28	32 1,26	87 3,43	160 6,30	38,3 1,52	40 1,57	39,3 1,57	45,4 1,79	23,5 0,93	Kg lb	0,420 0,93	0,430 0,99
FAP132 3/4NPT	3,4	mm Inch	35 1,42	41 1,61	43 3,74	34 1,34	93 3,62	161,4 6,35	38,3 1,52	44,8 1,76	43,3 1,71	45,3 1,78	23,5 0,93	Kg lb	0,435 0,96	0,575 1,27
FAP172 3/4NPT	3,4	mm Inch	45 1,81	45 1,81	48 4,27	40 1,57	101,5 4,00	183,4 7,22	49,3 1,96	49,3 1,96	49 1,93	51,9 2,04	23,5 0,93	Kg lb	0,820 1,81	0,935 2,17
FAP172 1NPT	1	mm Inch	45 1,81	45 1,81	48 4,27	40 1,57	104,5 4,12	184,4 7,34	49,3 1,96	49,3 1,96	49 1,93	51,9 2,04	23,5 0,93	Kg lb	0,770 1,70	0,935 2,06
FAP212 1NPT	1	mm Inch	55 2,17	55 2,17	58 4,94	42 2,05	111,4 4,39	207,5 8,17	59,3 2,35	59,3 2,35	59 2,32	54,5 2,15	23,5 0,93	Kg lb	1,320 2,91	1,540 3,62
FAP212 1 1/4NPT	1 1/4	mm Inch	55 2,17	55 2,17	58 4,86	42 2,05	112,4 4,43	208,8 8,13	59,3 2,35	59,3 2,35	59 2,32	54,5 2,15	23,5 0,93	Kg lb	1,220 2,69	1,345 3,41

## FAP elektrisch

### ELECTRICAL CONNECTORS

In addition to the couplings for fluid energy transmission, it is possible to fit in the multicouplings the electrical connectors for the electric energy transmission. They are suitable for all low tension electronic devices such as instrumentation, signals, solenoid valves etc...

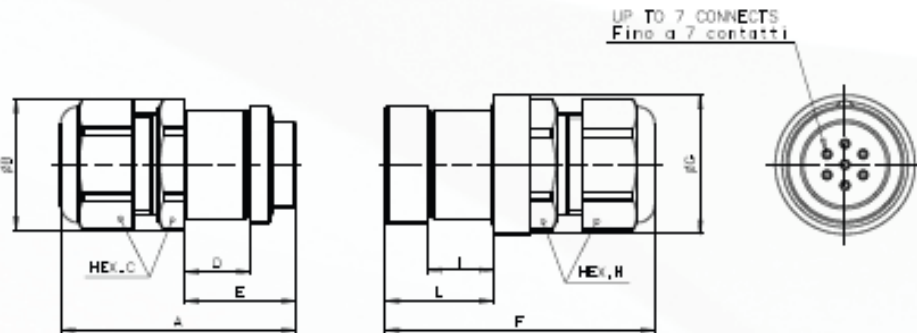


### TECHNICAL FEATURES

- Max. number of contacts: 7
- Contact diameter: 2 mm
- Amperes per each contact: 12 service to 15 max.
- Connection between contact and electrical wire: To crimp
- Contacts guaranteed for 100000 connection disconnection
- Construction material: External bodies in brass nickel plated for a good corrosion resistance  
Internal parts and contacts manufactured by the best specialists.
- Seals: NBR (Nitrile)

FEMALE EC FOR MOBILE MULTICOUPLING  
Femmina EC per multinnesto mobile

MALE EC FOR FIXED MULTICOUPLING  
Maschio EC per multinnesto fisso



Description	Unit	A	B	C	D	E	F	G	H	I	L	Unit	Weight	
													Male	Female
F EC..	mm	23,6	30	27	15	25,3	61,4	31,8	27	15	24,6	Kg	0,950	0,055
M EC..	Inch	2,11	1,18	1,06	0,59	1,00	2,42	1,25	1,06	0,59	0,97	lb	2,09	0,12
F EC..	mm	23,6	30	27	15	25,3	61,4	31,8	27	15	28,4	Kg	0,900	0,055
M EC..D	Inch	2,11	1,18	1,06	0,59	1,00	2,42	1,25	1,06	0,59	1,12	lb	1,98	0,12
F EC.. 13	mm	23,6	34,8	27	15	25,1	61,4	34,8	27	15	28,4	Kg	0,173	0,08
M EC.. 13	Inch	2,11	1,37	1,06	0,59	0,99	2,42	1,37	1,06	0,59	1,12	lb	0,38	0,24
F EC..	mm	23,6	30	27	15	25,3	72,4	30	27	34,5	44,1	Kg	0,950	0,055
M EC..J	Inch	2,11	1,18	1,06	0,59	1,00	2,85	1,18	1,06	1,26	1,74	lb	2,09	0,12
F EC..	mm	23,6	30	27	15	25,3	73,2	30	27	34,5	47,9	Kg	0,990	0,055
M EC..DT	Inch	2,11	1,18	1,06	0,59	1,00	3,00	1,18	1,06	1,26	1,89	lb	2,18	0,12

## FAP

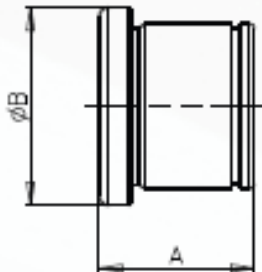
### PLUGS FOR MULTICOUPLINGS HOLES

When the multicoupling chosen has one or more holes where are not fitted the couplings or the electrical connectors, it is important to cover the holes with the proper plugs in order to avoid that the dirt enters inside of the multicoupling.

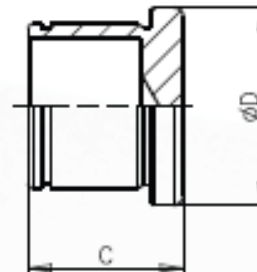
The plugs for multicouplings holes are constructed in black anodizing aluminum.



**PLUG FOR FIXED MULTICOUPLING**  
Tappo per multinnesto fisso



**PLUG FOR MOBILE MULTICOUPLING**  
Tappo per multinnesto mobile



Description	Unit	A	B	C	D	Unit	Weight	
							Fixed half	Mobile half
PLUG FOR FIXED AND MOBILE MULTICOUPLING HOLE SIZE 1/4	mm Inch	23,5 0,93	26,0 1,02	23,5 0,93	26,0 1,02	Kg lb	0,025 0,05	0,017 0,04
PLUG FOR FIXED AND MOBILE MULTICOUPLING HOLE SIZE 3/8	mm Inch	23,5 0,93	30,0 1,18	23,5 0,93	30,0 1,18	Kg lb	0,035 0,08	0,019 0,04
PLUG FOR FIXED AND MOBILE MULTICOUPLING HOLE SIZE 1/2	mm Inch	23,8 0,94	36,0 1,42	23,8 0,94	36,0 1,42	Kg lb	0,055 0,12	0,028 0,06
PLUG FOR FIXED AND MOBILE MULTICOUPLING HOLE SIZE 5/8	mm Inch	23,8 0,94	38,0 1,50	23,8 0,94	38,0 1,50	Kg lb	0,063 0,14	0,030 0,07
PLUG FOR FIXED AND MOBILE MULTICOUPLING HOLE SIZE 3/4	mm Inch	24,5 0,96	45,0 1,77	24,5 0,96	45,0 1,77	Kg lb	0,090 0,19	0,065 0,14
PLUG FOR FIXED AND MOBILE MULTICOUPLING HOLE SIZE 1	mm Inch	24,8 0,98	57,0 2,24	24,8 0,98	57,0 2,24	Kg lb	0,14 0,38	0,085 0,19

## FAP

### SEALS AND RELATIVE TEMPERATURE RANGE

Seal compound	Temperature range Celsius degrees °C	Temperature range Fahrenheit degrees °F
NBR (Nitrile)	-20 +100	-4 +212
VITON	-15 +180	+5 +356
EPDM (Ethylene Propylene)	-40 +150	-40 +302
KALREZ	-25 +300	-13 +572
HNBR	-30 +130	-22 +266
FLUOROSILICONE	-50 +150	-58 +302
SILICONE	-50 +150	-58 +302
NEOPRENE	-40 +100	-40 +212
PTFE (Teflon)	-50 +180	-58 +356

The above temperatures are indicative and can change due to the fluid used.  
For the correct choice of the seal, we suggest you to consult the Stucchi customer service.

### CONVERSION FACTORS FROM INTERNATIONAL SYSTEM (SI) TO ANGLO SAXON SYSTEM (USA)

Characteristics	International system SI	Anglo Saxon system USA	Transformation from SI to USA	Transformation from USA to SI
PRESSURE	Mega Pascal (MPa) 1 MPa = 10 bar	Pound/Square Inch (psi)	1 MPa = 145 psi	1 psi = 0,0069 MPa
FLOW IN HYDRAULIC	Liter per minute (l/min)	Gallon per minute (GPM)	1 l/min = 0,265 GPM	1 GPM = 3,78 l/min
FORCE	Newton (N)	Pound force (lbf)	1 N = 0,225 lbf	1 lbf = 4,44 N
TORQUE	Newton meter (Nm)	Pound force x Foot (lbf ft)	1 Nm = 0,737 lbf ft	1 lbf ft = 1,357 Nm
TEMPERATURE	Celsius degree (°C)	Fahrenheit degree (°F)	°C = (°F - 32) / 1,8	°F = (°C x 1,8) + 32
LENGTH	Millimeter (mm) Meter (m)	Inch (inch) Foot (ft)	1 mm = 0,03937 inch 1 m = 3,28084 ft	1 inch = 25,4 mm 1 ft = 0,3048 m
WEIGHT	Kilogram (kg)	Pound (lb)	1 kg = 2,2046 lb	1 lb = 0,4536 kg