

# HA SERIES

The small HA 3/4 inserts are used whenever space is limited. The HA Series 10-48 inserts now have shortened ground straps. These inserts are unique because the wire cross section can still be up to 2.5 mm<sup>2</sup>. The HA 3-48 screw terminated inserts fit into HA Series Housings. A modified HBE 48 Housing can fit 64 contacts.

The HA Series Housings are compact in shape and utilize fixed levers.

# of Contacts: 3, 4, 10, 16, 32, 48, 64 (+PE)



# Rectangular Connectors HA Series

## TECHNICAL DATA: INSERTS

**Number of Contacts:** 3, 4, 10, 16, 32, 48, 64 (+PE)

**Rated Voltage:**  
VDE: 400V EPIC HA 3-48  
UL: 600V EPIC HA 3/4  
600V EPIC HA 10-48  
CSA: 600V EPIC HA 3-48  
SEV: 250V EPIC HA 3-48

**Rated Current:**  
VDE: 10A EPIC HA 3/4  
10A EPIC HA 10-48  
UL: 10A EPIC HA 3/4  
14A EPIC HA 10-48  
CSA: 10/16 A EPIC HA 3/4  
20A EPIC HA 10-48  
SEV: 10A EPIC HA 3-48

**Pollution Level:** 3

**Dimensioning Transient:** 4 kV (HA 10, 16)

**Termination Type:** Screw termination: 0.5-2.5 mm<sup>2</sup>  
AWG: 20 - 14

**Temperature Range:** -40°C - 125°C

**Contacts:** Copper alloy, silver plated

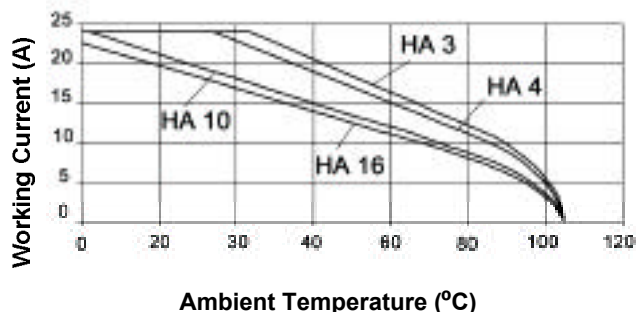
**Contact Resistance:** 1.5-4 mOhm

**Test Voltage:** 2.25 kv (HA 3, 4)

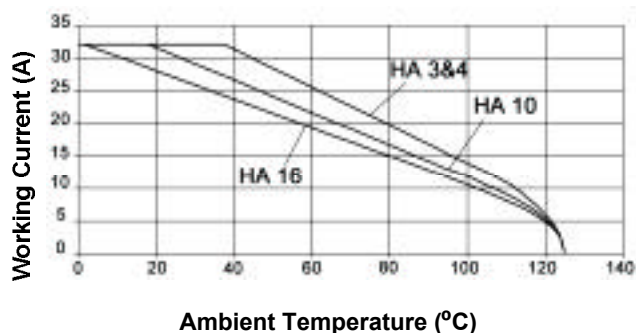
**Mating Cycles:** 100 (higher mating cycles depending on the application)

## TECHNICAL DATA: DERATING CURVES

### HA: 1.5 mm<sup>2</sup> (16 AWG)



### HA: 2.5 mm<sup>2</sup> (14 AWG)



# Rectangular Connectors HA Series

## TECHNICAL DATA: HOUSINGS

### Housings:

**Specifications:** DIN 43652

**Temperature Range:** -40°C to +125°C

**Protection class:** IP 65: HA 3, 10, 16, 32, 48, HBE 48

**Material:** HA 3: Die cast zinc, powder coated/ Thermoplastic flame retardant material rated UL 94 V-0  
HA 10-48, HBE 48: aluminum alloy, powder coated

### STANDARD GREY COATING (NEMA 4)

**PG**



**NPT**



**METRIC**



**DIN 50262**

**HA 3/4:** Die cast zinc, powder coated (Grey)  
Thermoplastic flame retardant material rated UL 94 V-0 (Grey or Black Plastic).

**PG**



**NPT**



**METRIC**



**DIN 50262**

**HA 10 - 48:** Aluminum alloy, powder coated (grey), locking levers and bolts made of zinc plated steel.  
For industrial applications in demanding environments.

### BLACK COATING (NEMA 4X)

**PG**



**NPT**



**METRIC**



**DIN 50262**

**EP:** Environmentally Protected:

HA 10 - 48: Aluminum alloy, powder coated (black), locking levers and bolts made of stainless steel.

For industrial applications in extremely demanding environments with aggressive atmospheres.

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### Comparison of the thread dimensions for split seals of PG thread (DIN 46320)/ Metric thread



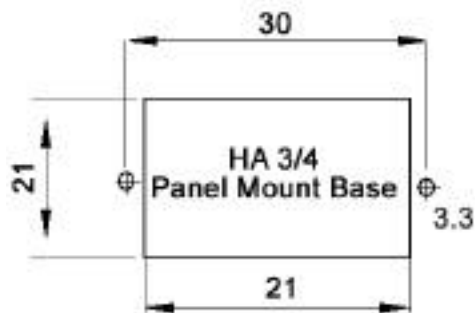


# Rectangular Connectors HA Series

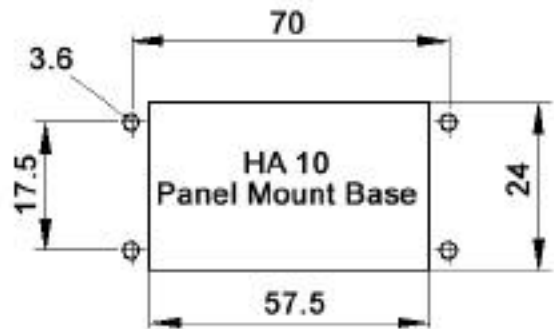
## TECHNICAL DATA: HOUSINGS

### PANEL CUT-OUTS FOR PANEL MOUNT BASES

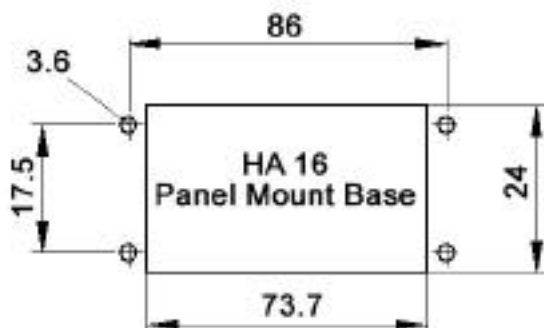
HA 3/4 Inserts fit into



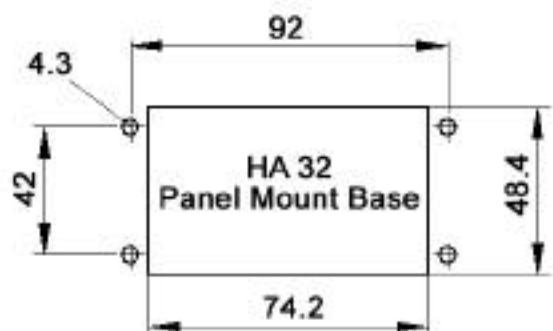
HA 10 Inserts fit into



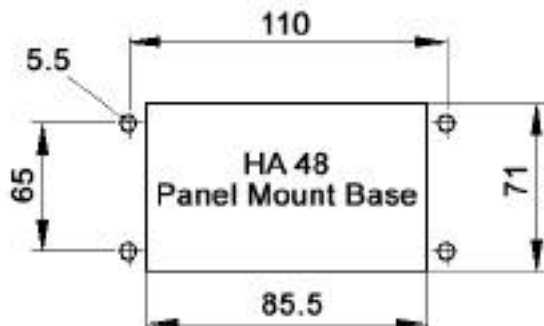
HA 16 Inserts fit into



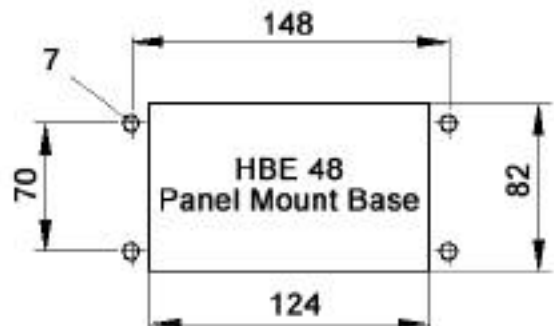
HA 32 Inserts fit into



HA 48 Inserts fit into



HA 64 Inserts fit into



All dimensions are in mm.

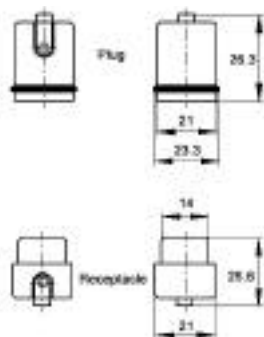
# Rectangular Connectors HA Series

## HA 3 & 4 INSERTS

### HA 3

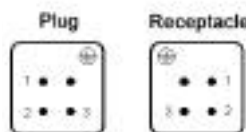


These inserts fit in the HA 3/4 Series Housings which are on the following pages.

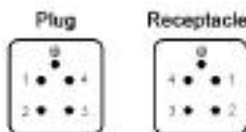


View from cable side

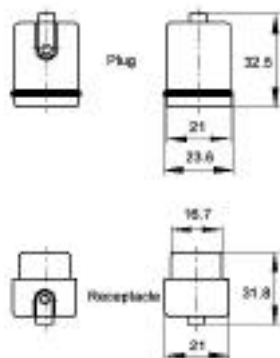
HA 3



HA 4



### HA 4

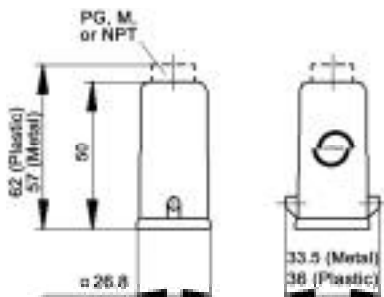


	Plug:	Receptacle:
HA 3	10.4200	10.4210
HA 4	10.4310	10.4320

All dimensions are in mm.

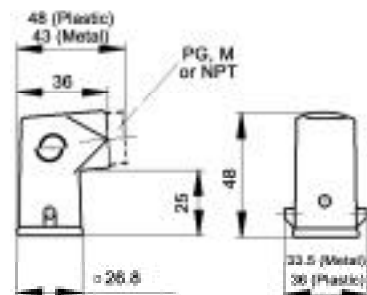
## HA 3 & 4 HOODS WITH SINGLE LEVER BOLTS

### TOP ENTRY



All dimensions are in mm.

### SIDE ENTRY



All dimensions are in mm.

### TOP ENTRY

Material	Size of Entry			Without Cable Gland			With Cable Gland			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Zinc Die Cast	11	1/2"	20	10.5121	10.5121NP	19.5121	10.4265	10.4265NP	19.4265	○	■	▲
Black Plastic	11	1/2"	20	10.4255	10.4255NP	19.4255	10.4267	10.4267NP	-	○	■	▲
Grey Plastic	11	1/2"	20	10.4260	10.4260NP	19.4260	10.4264	10.4264NP	-	○	■	▲

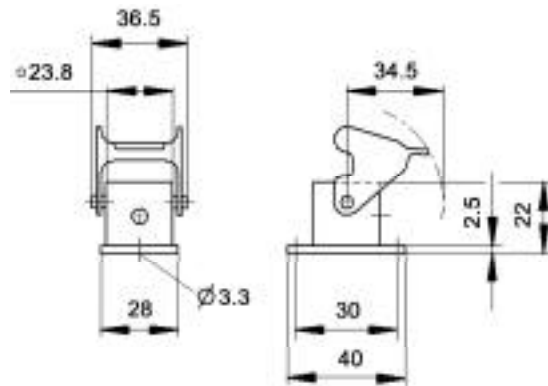
### SIDE ENTRY

Material	Size of Entry			Without Cable Gland			With Cable Gland			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Zinc Die Cast	11	1/2"	20	10.5123	10.5123NP	19.5123	10.4275	10.4275NP	19.4275	○	■	▲
Black Plastic	11	1/2"	20	10.4273	10.4273NP	19.4273	10.6206	10.6206NP	-	○	■	▲
Grey Plastic	11	1/2"	20	10.4270	10.4270NP	19.4270	10.4271	10.4271NP	-	○	■	▲

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# Rectangular Connectors HA Series

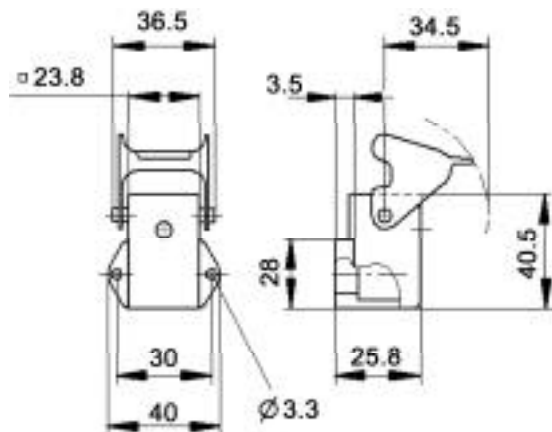
## HA 3 & 4 PANEL MOUNT BASES WITH SINGLE LEVER



All dimensions are in mm.

	Grey Metal	Black Plastic	Grey Plastic
Panel Mount	10.4225	10.4222	10.4220

## HA 3 & 4 ANGLED PANEL MOUNT BASES WITH SINGLE LEVER



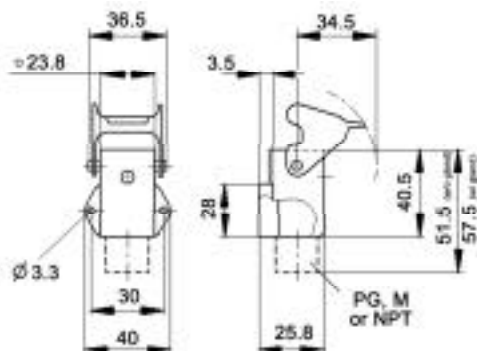
All dimensions are in mm.

	Grey Metal	Black Plastic	Grey Plastic
Angled Panel Mount	10.4235	10.4231	10.4230

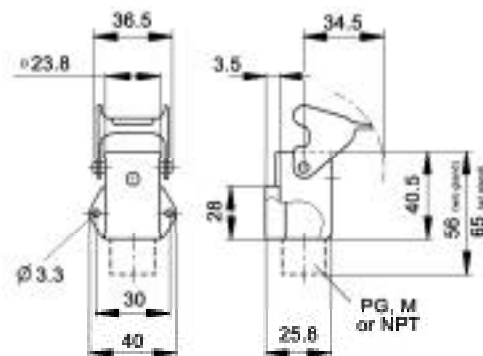
# Rectangular Connectors HA Series

## HA 3 & 4 SURFACE MOUNT BASES WITH SINGLE LEVER

### METAL



### PLASTIC

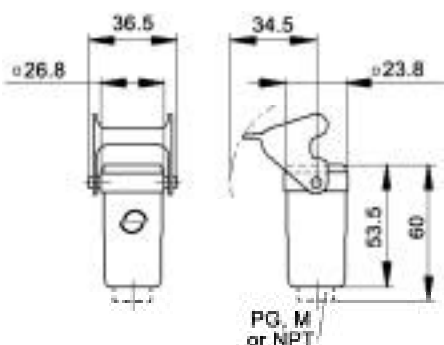


All dimensions are in mm.

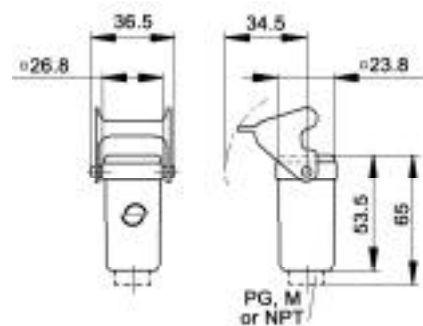
Material	Size of Entry			Without Cable Gland			With Cable Gland			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Zinc Die Cast	11	1/2"	20	10.5127	10.5127NP	19.5127	10.4245	10.4245NP	19.4245	○	□	▲
Black Plastic	11	1/2"	20	10.5117	10.5117NP	19.5118	10.4247	10.4247NP	-	○	□	▲
Grey Plastic	11	1/2"	20	10.4240	10.4240NP	19.4241	10.4242	10.4242NP	-	○	□	▲

## HA 3 & 4 CABLE COUPLER HOODS WITH SINGLE LEVERS

### METAL



### PLASTIC



All dimensions are in mm.

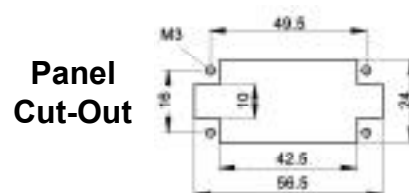
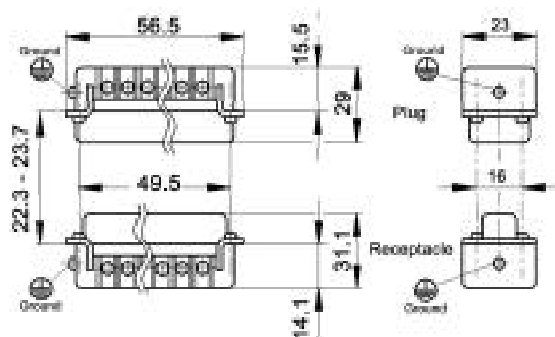
Material	Size of Entry			Without Cable Gland			With Cable Gland			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Zinc Die Cast	11	1/2"	20	10.5129	10.5129NP	19.5129	10.4295	10.4295NP	19.4295	○	□	▲
Black Plastic	11	1/2"	20	10.4292	10.4292NP	19.4292	10.6203	10.6203NP	-	○	□	▲
Grey Plastic	11	1/2"	20	10.4290	10.4290NP	19.4290	10.4291	10.4291NP	-	○	□	▲

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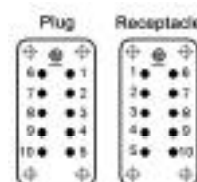


# Rectangular Connectors HA Series

## HA 10 INSERTS



View from cable side



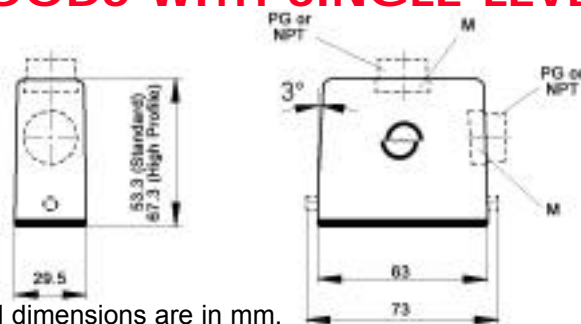
These inserts fit in the HA 10 Series Housings which are on the following pages.

All dimensions are in mm.

	Plug:	Receptacle:
HA 10 with Wire Protection	10.4401	10.4411
HA 10 without Wire Protection	10.4400	10.4410

## HA 10 HOODS WITH SINGLE LEVER BOLTS

TOP ENTRY



SIDE ENTRY



All dimensions are in mm.

### STANDARD PROFILE

Position of Cable Entry	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Top Entry	13.5	1/2"	20	10.4460	10.4460NP	19.4460	-	-	-	Orange	Yellow	Green
	16	1/2"	25	10.4461	10.4461NP	19.4461	70.4610	70.4610NP	79.4610	Orange	Yellow	Green
Side Entry	16	1/2"	20	10.4450	10.4450NP	19.4450	70.4630	70.4630NP	79.4630	Orange	Yellow	Green
	21	3/4"	25	10.4455	10.4455NP	19.4455	-	-	-	Green	Green	Green

### HIGH PROFILE

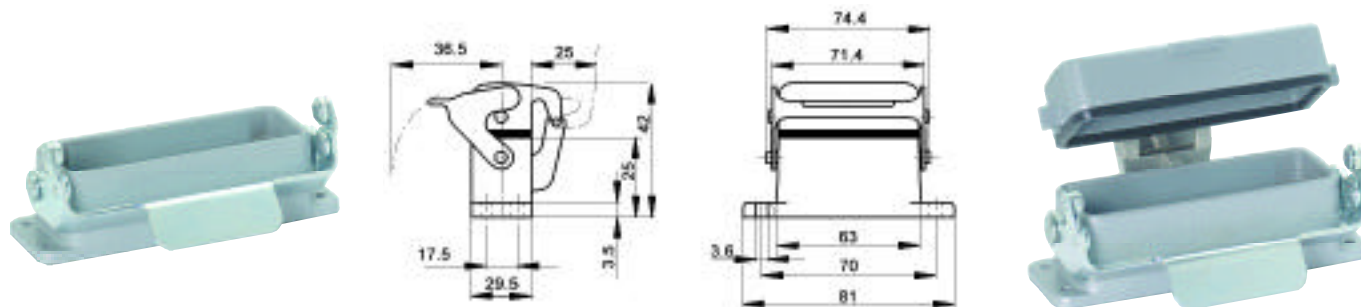
Position of Cable Entry	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Top Entry	16	1/2"	20	70.4602	70.4602NP	79.4602	70.4612	70.4612NP	79.4612	Orange	Yellow	Green
	21	3/4"	25	70.4604	70.4604NP	79.4604	70.4614	70.4614NP	79.4614	Green	Green	Green
Side Entry	16	1/2"	20	70.4622	70.4622NP	79.4622	70.4632	70.4632NP	79.4632	Orange	Yellow	Green
	21	3/4"	25	70.4624	70.4624NP	79.4624	70.4634	70.4634NP	79.4634	Green	Green	Green

Metric hoods do not come with a neck.

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# Rectangular Connectors HA Series

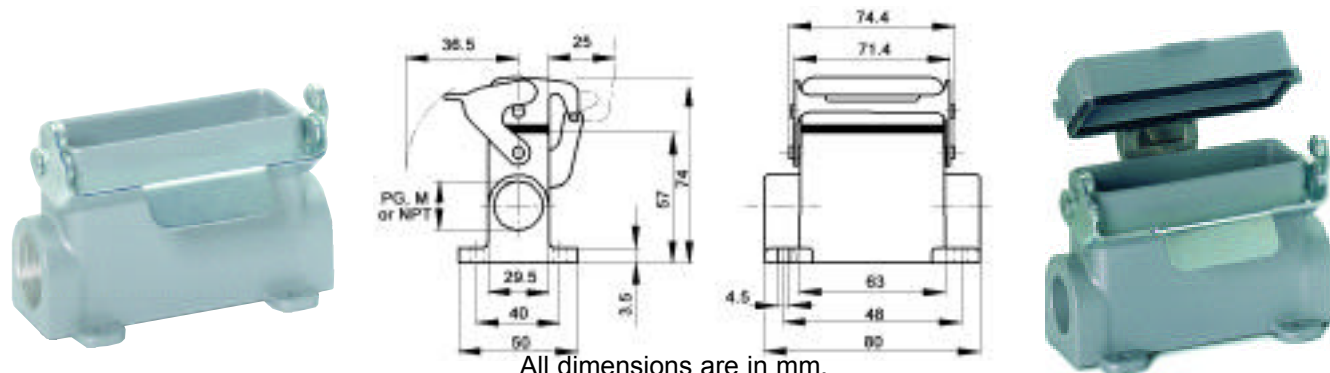
## HA 10 PANEL MOUNT BASES WITH SINGLE LEVER



All dimensions are in mm.

	Standard Grey Coating	Black Coating (NEMA 4X)
Without Dust Cover	10.4420	70.4425
With Dust Cover	70.4440	70.4445

## HA 10 SURFACE MOUNT BASES WITH SINGLE LEVER



All dimensions are in mm.

### WITHOUT DUST COVER

Number of Entries	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
1 Entry	16	1/2"	20	10.4481	10.4481NP	19.4481	70.4472	70.4472NP	79.4472	●	■	▲
	21	3/4"	25	10.4480	10.4480NP	19.4480	70.4474	70.4474NP	79.4474	●	■	▲
2 Entries	16	1/2"	20	10.4501	10.4501NP	19.4501	70.4482	70.4482NP	79.4482	●	■	▲
	21	3/4"	25	10.4500	10.4500NP	19.4500	70.4484	70.4484NP	79.4484	●	■	▲

### WITH DUST COVER

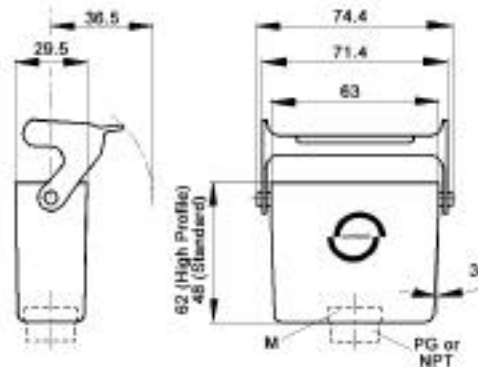
Number of Entries	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
1 Entry	16	1/2"	20	70.4552	70.4552NP	79.4552	70.4572	70.4572NP	79.4572	●	■	▲
	21	3/4"	25	70.4554	70.4554NP	79.4554	70.4574	70.4574NP	79.4574	●	■	▲
2 Entries	16	1/2"	20	70.4562	70.4562NP	79.4562	70.4582	70.4582NP	79.4582	●	■	▲
	21	3/4"	25	70.4564	70.4564NP	79.4564	70.4584	70.4584NP	79.4584	●	■	▲

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# Rectangular Connectors HA Series

## HA 10 CABLE COUPLER HOODS

PG



METRIC

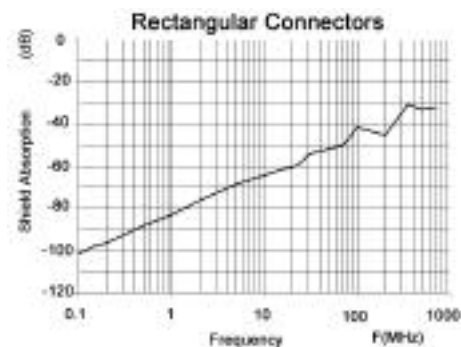


All dimensions are in mm.

Profile	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Standard	13.5	1/2"	20	10.4390	10.4390NP	19.4390	-	-	-	●	■	▲
	16	1/2"	25	70.4500	70.4500NP	79.4500	70.4510	70.4510NP	79.4510	●	■	▲
High	21	3/4"	25	70.4504	70.4504NP	79.4504	70.4514	70.4514NP	79.4514	●	■	▲

Metric hoods do not come with a neck.

## EMC PROTECTION



	PG/NPT	Metric
Panel Mount Base	70.7000	79.7000
Surface Mount & Cable Coupler Hood	70.7020	79.7020

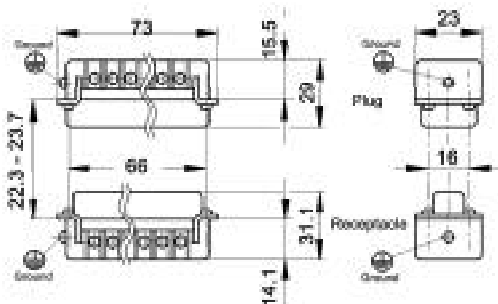
EMC Shielding is retrofittable.

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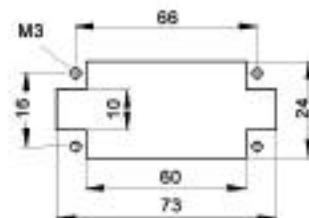


# Rectangular Connectors HA Series

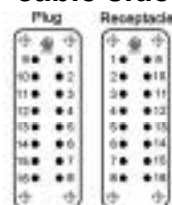
## HA 16 INSERTS



Panel  
Cut-Out



View from  
cable side



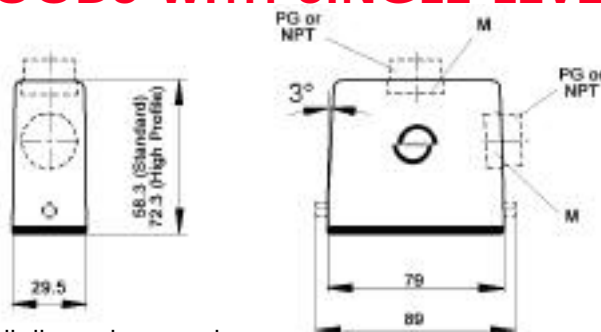
These inserts fit  
in the HA 16  
Series Housings  
which are on the  
following pages.

All dimensions are in mm.

	Plug:	Receptacle:
HA 16 with Wire Protection	10.5300	10.5310
HA 16 without Wire Protection	10.5320	10.5330

## HA 16 HOODS WITH SINGLE LEVER BOLTS

TOP ENTRY



SIDE ENTRY



All dimensions are in mm.

### STANDARD PROFILE

Position of Cable Entry	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	
Top Entry	16	1/2"	20	10.5650	10.5650NP	19.5650	70.4910	70.4910NP	79.4910	PG NPT M
	21	3/4"	25	10.5653	10.5653NP	19.5653	-	-	-	PG NPT M
Side Entry	16	1/2"	20	10.5640	10.5640NP	19.5640	70.4930	70.4930NP	79.4930	PG NPT M
	21	3/4"	25	10.5645	10.5645NP	19.5645	-	-	-	PG NPT M

### HIGH PROFILE

Position of Cable Entry	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	
Top Entry	16	1/2"	20	70.4902	70.4902NP	79.4902	70.4912	70.4912NP	79.4912	PG NPT M
	21	3/4"	25	70.4904	70.4904NP	79.4904	70.4914	70.4914NP	79.4914	PG NPT M
Side Entry	16	1/2"	20	70.4922	70.4922NP	79.4922	70.4932	70.4932NP	79.4932	PG NPT M
	21	3/4"	25	70.4924	70.4924NP	79.4924	70.4934	70.4934NP	79.4934	PG NPT M

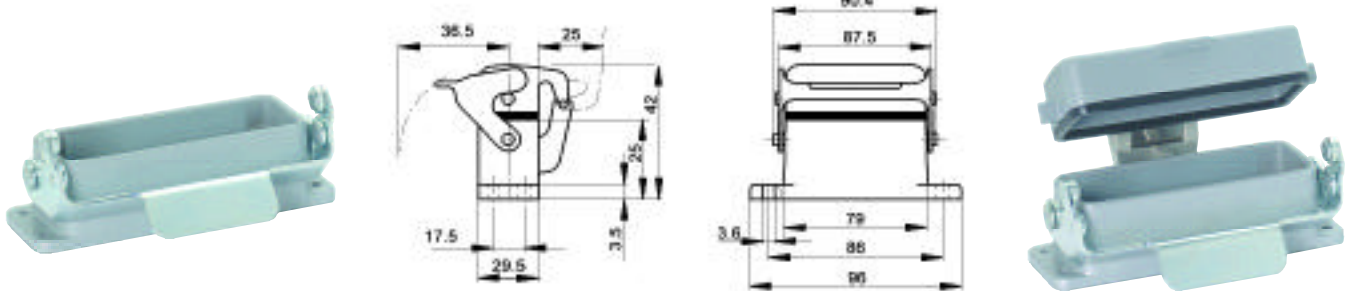
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# Rectangular Connectors HA Series

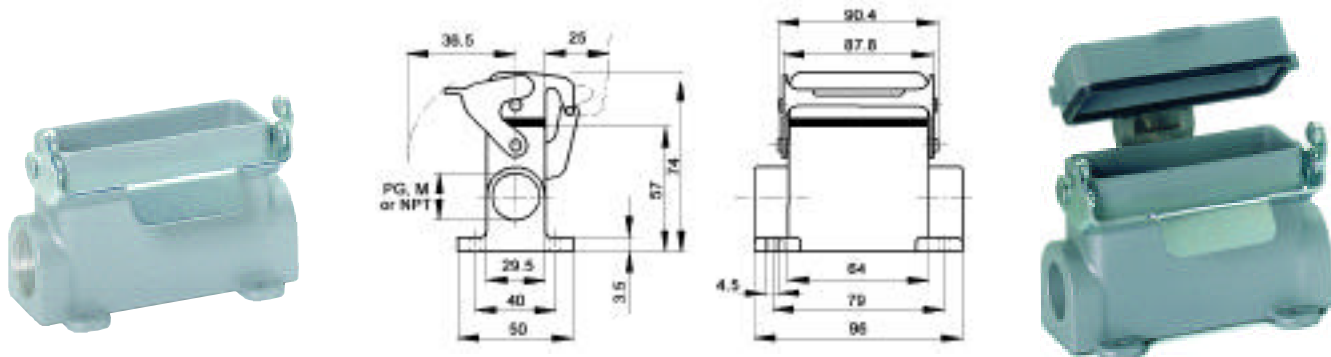
## HA 16 PANEL MOUNT BASES WITH SINGLE LEVER



All dimensions are in mm.

	Standard Grey Coating	Black Coating (NEMA 4X)
Without Dust Cover	10.4620	70.4725
With Dust Cover	70.4740	70.4745

## HA 16 SURFACE MOUNT BASES WITH SINGLE LEVER



All dimensions are in mm.

### WITHOUT DUST COVER

Number of Entries	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
1 Entry	16	1/2"	20	10.5671	10.5671NP	19.5671	70.4772	70.4772NP	79.4772	●	■	▲
	21	3/4"	25	10.5670	10.5670NP	19.5670	70.4774	70.4774NP	79.4774	●	■	▲
2 Entries	16	1/2"	20	10.5681	10.5681NP	19.5681	70.4782	70.4782NP	79.4782	●	■	▲
	21	3/4"	25	10.5680	10.5680NP	19.5680	70.4784	70.4784NP	79.4784	●	■	▲

### WITH DUST COVER

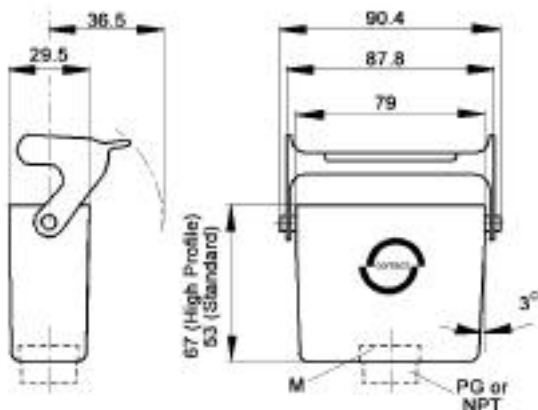
Number of Entries	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
1 Entry	16	1/2"	20	70.4852	70.4852NP	79.4852	70.4872	70.4872NP	79.4872	●	■	▲
	21	3/4"	25	70.4854	70.4854NP	79.4854	70.4874	70.4874NP	79.4874	●	■	▲
2 Entries	16	1/2"	20	70.4862	70.4862NP	79.4862	70.4882	70.4882NP	79.4882	●	■	▲
	21	3/4"	25	70.4864	70.4864NP	79.4864	70.4884	70.4884NP	79.4884	●	■	▲

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# Rectangular Connectors HA Series

## HA 16 CABLE COUPLER HOODS

PG



METRIC

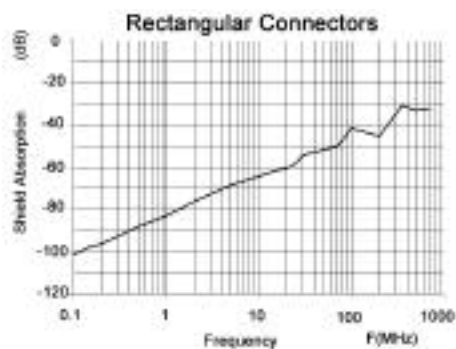


All dimensions are in mm.

Profile	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Standard	16	1/2"	20	10.5630	10.5630NP	19.5630	70.4810	70.4810NP	79.4810	●	■	▲
			25	-	-	19.5632	-	-	-			▲
High	16	1/2"	20	70.4802	70.4802NP	79.4802	70.4812	70.4812NP	79.4812	●	■	▲
	21	3/4"	25	70.4804	70.4804NP	79.4804	70.4814	70.4814NP	79.4814	●	■	▲

Metric hoods do not come with a neck.

## EMC PROTECTION



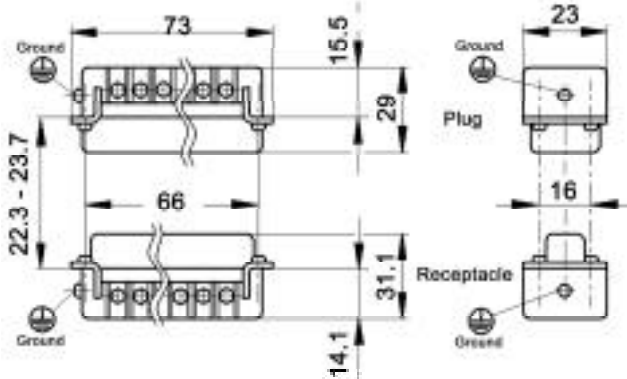
	PG/NPT	Metric
Panel Mount Base	70.7001	79.7001
Surface Mount & Cable Coupler Hood	70.7021	79.7021

EMC Shielding is retrofittable.

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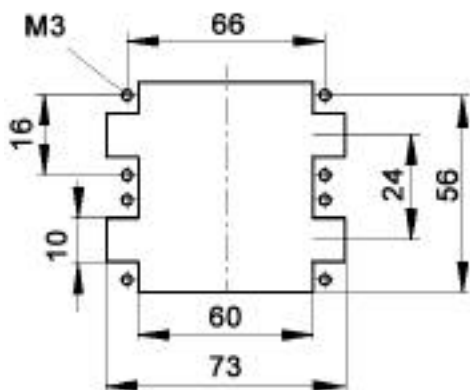
# Rectangular Connectors HA Series

## HA 32 INSERTS

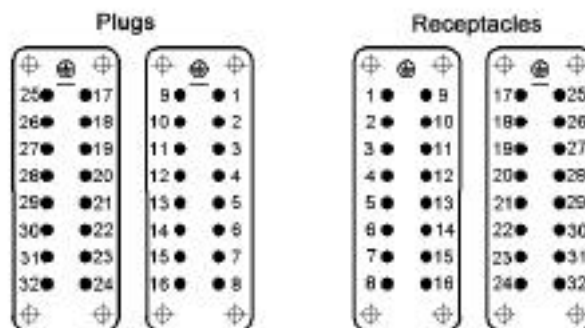


All dimensions are in mm.

### Panel Cut-out



### View from cable side



### 2 Sets of HA 16 Inserts

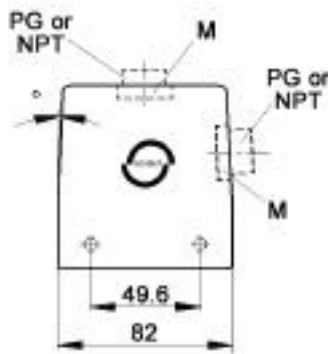
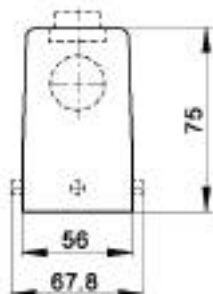
	Plug:	Receptacle:
#1-16: with Wire Protection	10.5300	10.5310
#17-32: with Wire Protection	10.5400	10.5410
#1-16: without Wire Protection	10.5320	10.5330
#17-32: without Wire Protection	10.5420	10.5430

These inserts fit in the HA 32 Series Housings which are on the following pages.

# Rectangular Connectors HA Series

## HA 32 HOODS WITH DOUBLE LEVER BOLTS

### TOP ENTRY



### SIDE ENTRY

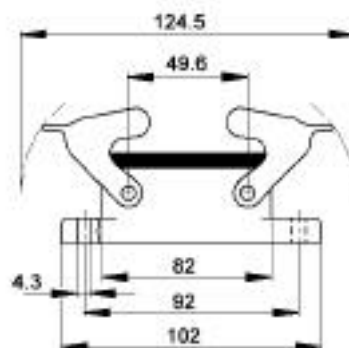
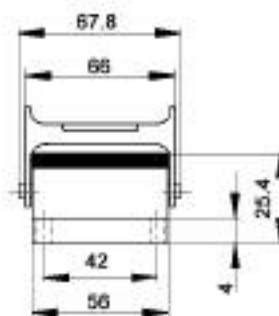


All dimensions are in mm.

Position of Cable Entry	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	
Top Entry	21	3/4"	25	10.5820	10.5820NP	19.5820	70.5212	70.5212NP	79.5212	PG NPT M
	29	1"	32	10.5830	10.5830NP	19.5830	70.5214	70.5214NP	79.5214	PG NPT M
Side Entry	21	3/4"	25	10.5760	10.5760NP	19.5760	70.5232	70.5232NP	79.5232	PG NPT M
	29	1"	32	10.5770	10.5770NP	19.5770	70.5234	70.5234NP	79.5234	PG NPT M

Metric hoods do not come with a neck.

## HA 32 PANEL MOUNT BASES WITH DOUBLE LEVERS



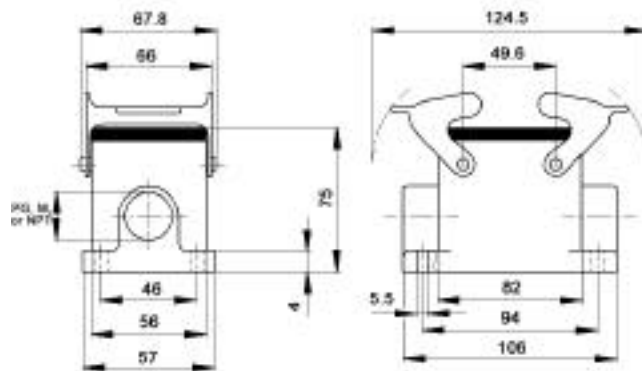
All dimensions are in mm.

Standard Grey Coating	Black Coating (NEMA 4X)
10.4720	70.5025



# Rectangular Connectors HA Series

## HA 32 SURFACE MOUNT BASES WITH DOUBLE LEVERS



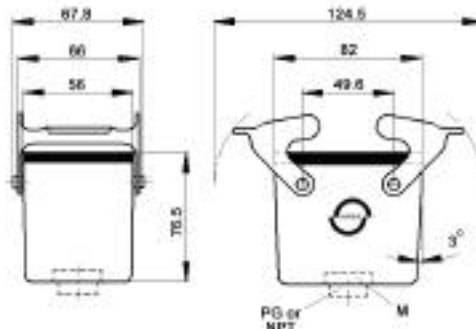
All dimensions are in mm.

Number of Entries	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
1 Entry	21	3/4"	25	10.4740	10.4740NP	19.4740	70.5072	70.5072NP	79.5072	●	■	▲
	29	1"	32	10.4741	10.4741NP	19.4741	70.5074	70.5074NP	79.5074	●	■	▲
2 Entries	21	3/4"	25	10.4820	10.4820NP	19.4820	70.5082	70.5082NP	79.5082	●	■	▲
	29	1"	32	10.4821	10.4821NP	19.4821	70.5084	70.5084NP	79.5084	●	■	▲

Metric bases do not come with a neck.

## HA 32 CABLE COUPLER HOODS WITH DOUBLE LEVERS

PG



METRIC



All dimensions are in mm.

Profile	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Standard	21	3/4"	25	10.5880	10.5880NP	19.5880	70.5110	70.5110NP	79.5110	●	■	▲
	29	1"	32	10.5885	10.5885NP	19.5885	70.5112	70.5112NP	79.5112	●	■	▲

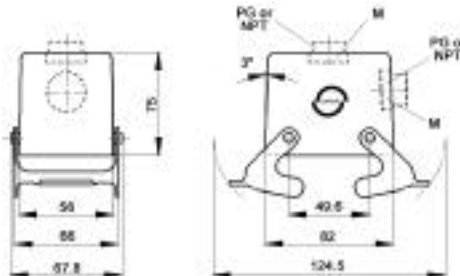
Metric hoods do not come with a neck.

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# Rectangular Connectors HA Series

## HA 32 HOODS WITH DOUBLE LEVERS

TOP ENTRY



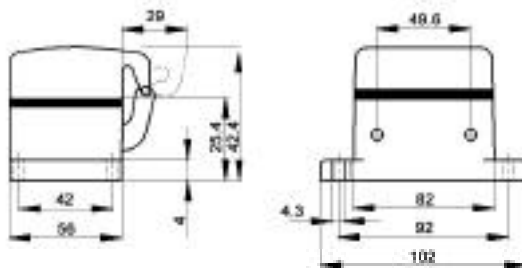
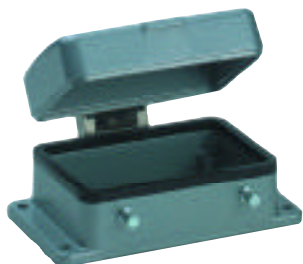
SIDE ENTRY



Position of Cable Entry	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	
Top Entry	21	3/4"	25	10.5840	10.5840NP	19.5840	70.5262	70.5262NP	79.5262	PG NPT M
	29	1"	32	10.5850	10.5850NP	19.5850	70.5264	70.5264NP	79.5264	
Side Entry	21	3/4"	25	10.5780	10.5780NP	19.5780	70.5282	70.5282NP	79.5282	
	29	1"	32	10.5790	10.5790NP	19.5790	70.5284	70.5284NP	79.5284	

Metric hoods do not come with a neck.

## HA 32 PANEL MOUNT BASES WITH DOUBLE LEVER BOLTS



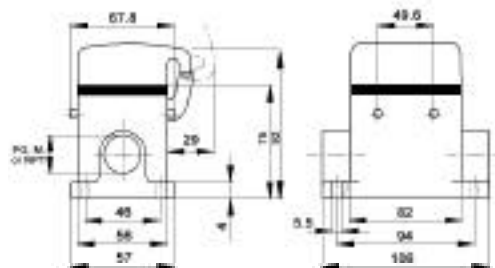
### Standard Grey Coating

With Cover	Without Cover
10.5030	10.4731

### Black Coating (NEMA 4X)

70.5035

## HA 32 SURFACE MOUNT BASES WITH DOUBLE LEVER BOLTS



Metric bases do not come with a neck.

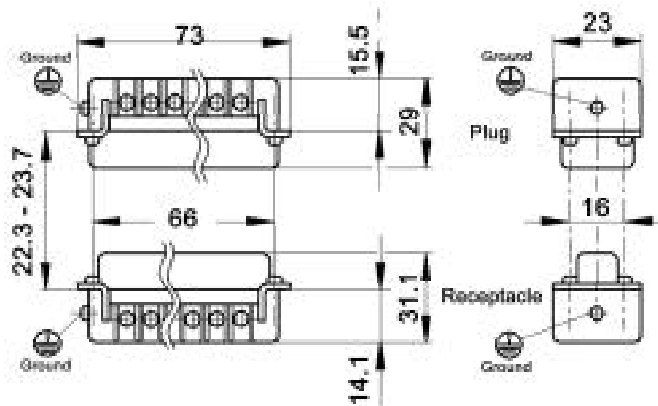
Number of Entries	Size of Entry			Standard Grey Coating			Black Coating (NEMA 4X)			Strain Relief
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG Part #	NPT Part #	Metric Part #	
1 Entry	21	3/4"	25	70.5152	70.5152NP	79.5152	70.5172	70.5172NP	79.5172	PG NPT M
	29	1"	32	70.5154	70.5154NP	79.5154	70.5174	70.5174NP	79.5174	
2 Entries	21	3/4"	25	70.5162	70.5162NP	79.5162	70.5182	70.5182NP	79.5182	
	29	1"	32	70.5164	70.5164NP	79.5164	70.5184	70.5184NP	79.5184	

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# Rectangular Connectors HA Series

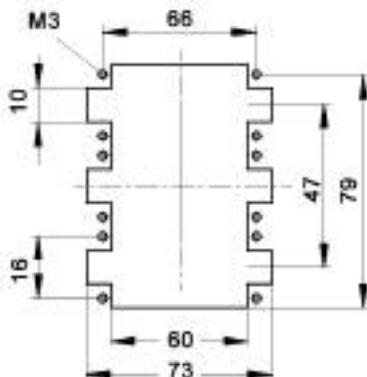
## HA 48 INSERTS

1



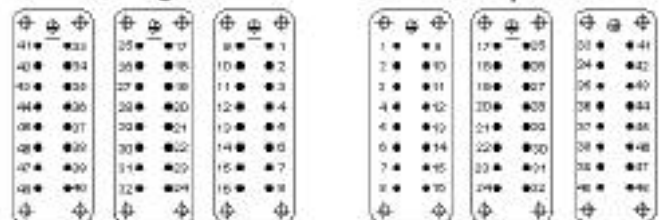
Panel Cut-Out

View from cable side



Plugs

Receptacles



## 3 Sets of HA 16 Inserts

All dimensions are  
in mm.

	Plug:	Receptacle:
#1-16: with Wire Protection	10.5300	10.5310
#17-32: with Wire Protection	10.5400	10.5410
#33-48: with Wire Protection	10.5401	10.5411
#1-16: without Wire Protection	10.5320	10.5330
#17-32: without Wire Protection	10.5420	10.5430
#33-48: without Wire Protection	10.5421	10.5431

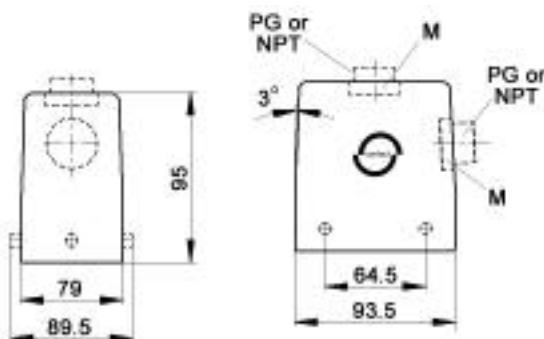
These inserts fit  
in the HA 48  
Series Housings  
which are on the  
following pages.

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# Rectangular Connectors HA Series

## HA 48 HOODS WITH DOUBLE LEVER BOLTS

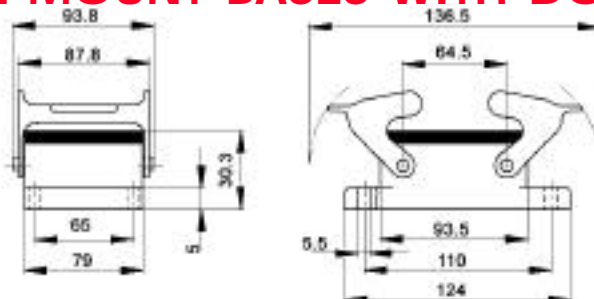


All dimensions  
are in mm.

Position of Cable Entry	Size of Entry			Standard Grey Coating			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Top Entry	29	1"	32	10.6318	10.6318NP	79.6318	●	■	▲
Side Entry	29	1"	32	10.6308	10.6308NP	19.6308	●	■	▲

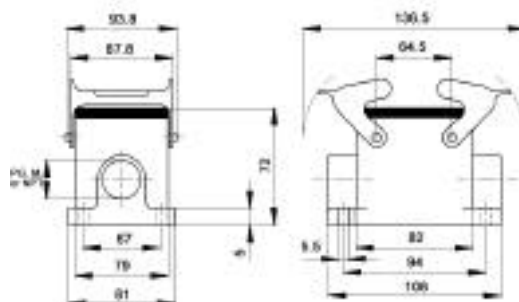
Metric hoods do not come with a neck.

## HA 48 PANEL MOUNT BASES WITH DOUBLE LEVERS



Standard Grey Coating  
10.6255

## HA 48 SURFACE MOUNT BASES WITH DOUBLE LEVERS



Metric bases  
do not come  
with a neck.

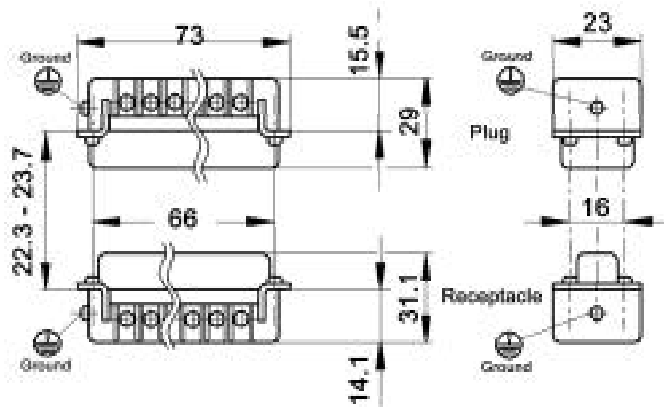
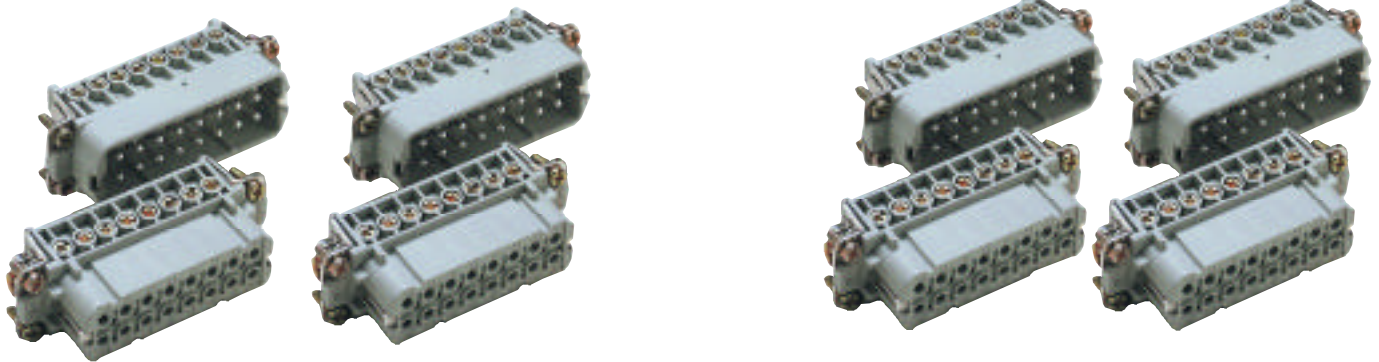
Number of Entries	Size of Entry			Standard Grey Coating			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
1 Entry	29	1"	32	10.6338	10.6338NP	19.6338	●	■	▲
2 Entries	29	1"	32	10.6348	10.6348NP	19.6348	●	■	▲

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# Rectangular Connectors HA Series

## HA 64 INSERTS



### 4 Sets of HA 16 Inserts

All dimensions are  
in mm.

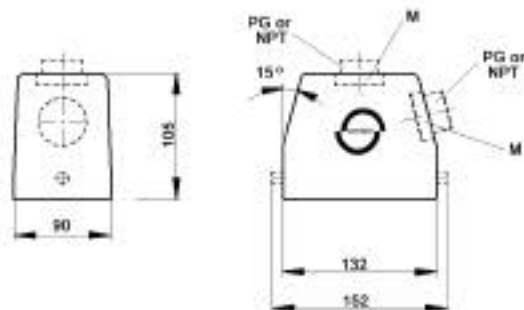
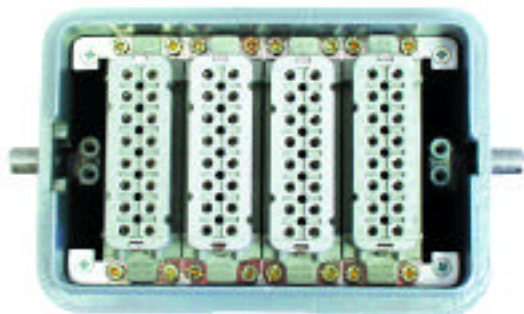
	Plug:	Receptacle:
#1-16: with Wire Protection	10.5300	10.5310
#17-32: with Wire Protection	10.5400	10.5410
#33-48: with Wire Protection	10.5401	10.5411
#49-64: with Wire Protection	10.5405	10.5415

These inserts fit  
in a modified  
HBE 48 Series  
Housings which  
are on the  
following pages.

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# Rectangular Connectors HA Series

## HA 64 HOODS WITH SINGLE LEVER BOLTS

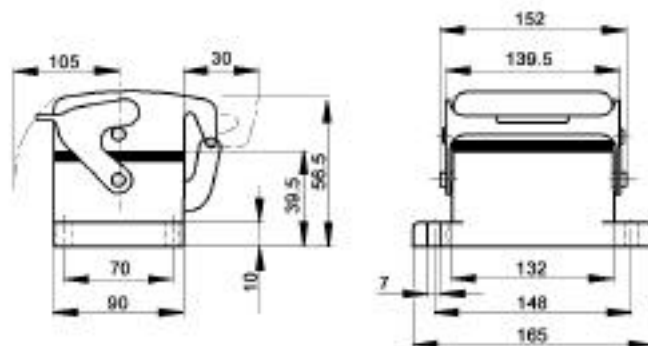
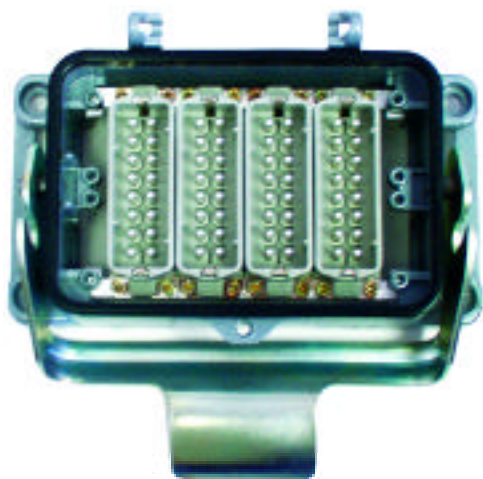


All dimensions are in mm.

Position of Cable Entry	Size of Entry			Standard Grey Coating			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
Top Entry	29	1"	32	10.1550-HA	10.1550NP-HA	19.1550-HA			
	36	1 1/4"	40	10.1560-HA	10.1560NP-HA	19.1560-HA			
	42	1 1/2"	50	10.1570-HA	-	19.1570-HA			
Side Entry	29	1"	32	10.1580-HA	10.1580NP-HA	19.1580-HA			
	36	1 1/4"	40	10.1590-HA	10.1590NP-HA	19.1590-HA			
	42	1 1/2"	50	10.1600-HA	-	19.1600-HA			

Metric hoods do not come with a neck.

## HA 64 PANEL MOUNT BASES WITH SINGLE LEVER



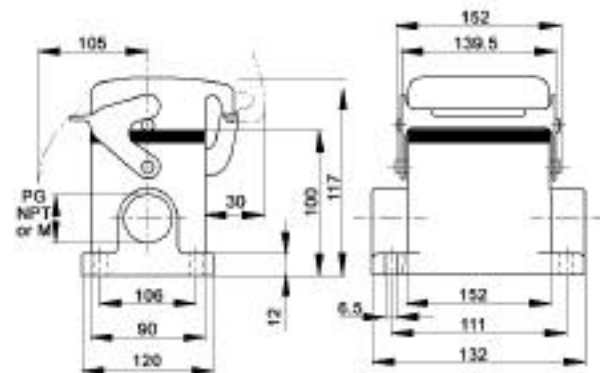
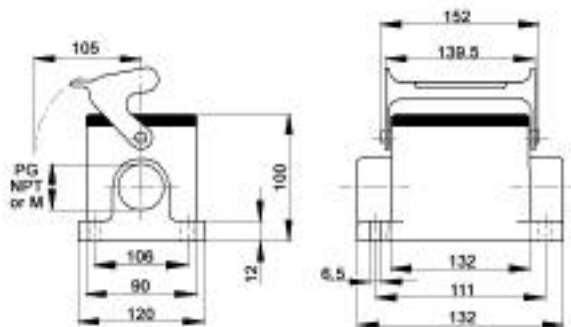
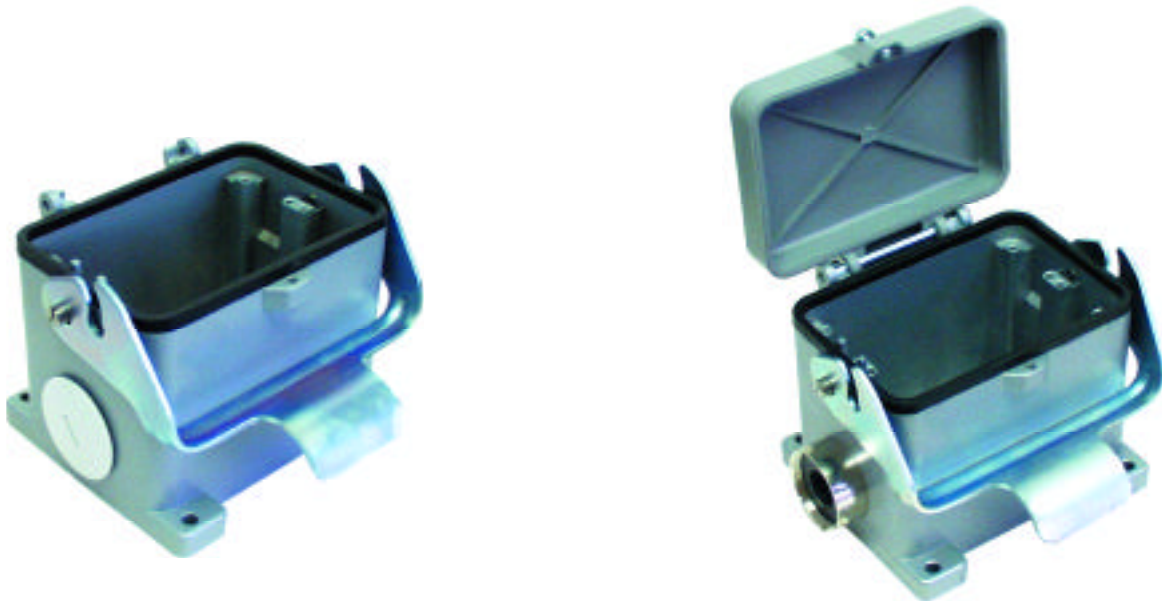
All dimensions are in mm.

Without Dust Cover	With Dust Cover with hold down screws and no dust cover bolts	With Dust Cover with hold down screws and dust cover bolts
10.1610-HA	10.1520-HA	10.1525-HA

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# Rectangular Connectors HA Series

## HA 64 SURFACE MOUNT BASES WITH LEVERS



All dimensions are in mm.

Position of Cable Entry	Size of Entry			Standard Grey Coating			Strain Relief		
	PG	NPT	Metric	PG Part #	NPT Part #	Metric Part #	PG	NPT	M
2 Entries	29	1"	32	10.1660-HA	10.1660NP-HA	19.1660-HA	●	■	▲
	36	1 1/4"	40	10.1661-HA	10.1661NP-HA	19.1661-HA	●	■	▲
1 Entry	29	1"	32	10.1650-HA	10.1650NP-HA	19.1650-HA	●	■	▲
	36	1 1/4"	40	10.1651-HA	10.1651NP-HA	19.1651-HA	●	■	▲
2 Entries with dust cover	29	1"	32	10.1680-HA	10.1680NP-HA	19.1680-HA	●	■	▲
	36	1 1/4"	40	10.1681-HA	10.1681NP-HA	19.1681-HA	●	■	▲
1 Entry with dust cover	29	1"	32	10.1670-HA	10.1670NP-HA	19.1670-HA	●	■	▲
	36	1 1/4"	40	10.1671-HA	10.1671NP-HA	19.1671-HA	●	■	▲

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