

AC 166 G for 5 kV Ignition Voltage



Customer Information

The economic and safe solution for luminaire installation

Standard complying with requirements

All connectors and cables of our AC 166 series comply with the requirements according to EN 60598-1 with regard to ignition voltages up to 5 kV. This applies to plug and socket connectors with the normally used mechanical coding No. 1 (black-white) and – with self-disconnecting ballasts – for PVC and halogen-free cables with no double insulation.

Mechanical coding no. 3 light red

In practice, it might turn out to be useful to use a different mechanical coding for the connection of ballasts: the light red coding no. 3 which is – same as all other components of the AC 166 series – compatible with the leading market standard.

Ignition cable double insulated

With ballasts that are not self-disconnecting it is essential to use double-insulated ignition cables. In addition, the following recommendations should be obeyed:

Use of fixing screws from an insulating material in case of an ungrounded fixing surface

Use of threaded screws or self-tapping screws with a diameter < 3 mm, if the fixing surface is grounded

There is no need for a warning “5 kV” to be displayed neither on the connectors nor on the cables; upon request, however, we are pleased to submit you a relative offer.

Product series at a glance

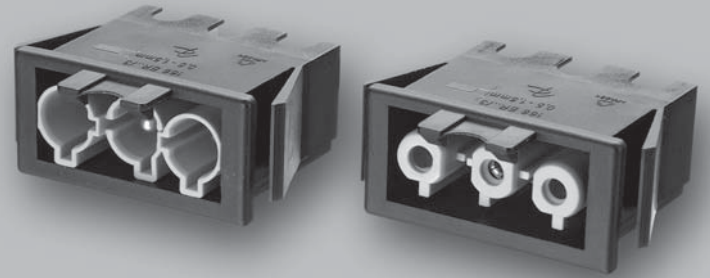
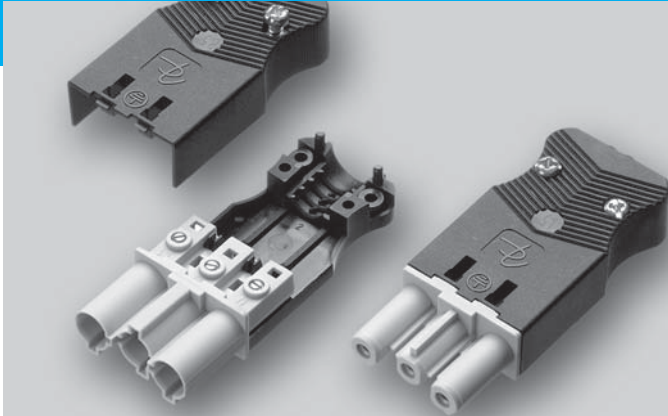
On the following pages, please find a survey of all products of our AC 166 series that are suitable for a specific use with an ignition voltage of 5 kV.

Adels-Contact does also supply low-voltage connectors (series AC 162) as well as luminaire, screw and porcelain connectors for 5 kV according to EN 60598-1. Please also see our main catalogue “The Safe Contact Worldwide”

Further information available at www.adels-contact.de.



AC 166 G 3 pole, ignition voltage 5 kV



Plugs and Sockets, flat

Connection: screw, conductor size 0.5 - 2.5 mm², or clamping spring contacts, 2 clamping units per pole
conductor size 0.5 - 2.5 mm²
solid or flexible, sealed
conductor size 0.5 - 1.5 mm²
flexible with ferrules

Torque screw: ⚙ max. 0.3 Nm conductor
⚙ max. 0.4 Nm strain relief

Stripping length: 7 mm (screw)
8 - 9 mm (clamping spring)

Dismantling length: screw 39 mm (PE), 32 mm (L N)
clamping spring 42 mm (PE), 35 mm (L N)

Important approvals: VDE
Upon request: printing "5 kV", strain relief in light red

Built-in Plugs and Built-in Sockets

Connection: screw, conductor size 0.5 - 2.5 mm², or clamping spring contacts, 2 clamping units per pole
conductor size 0.5 - 2.5 mm²
solid or flexible, sealed
conductor size 0.5 - 1.5 mm²
flexible with ferrules

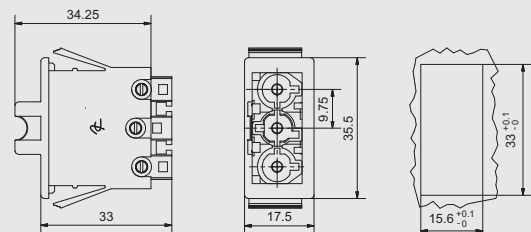
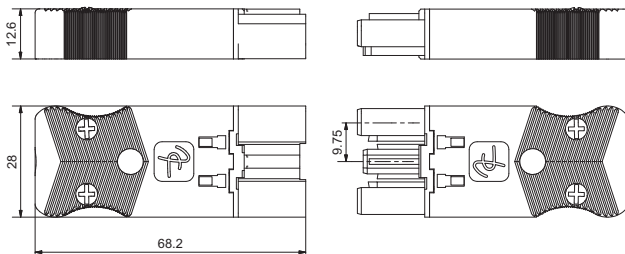
Torque screw: ⚙ max. 0.3 Nm

Stripping length: 7 mm (screw)
8 - 9 mm (clamping spring)

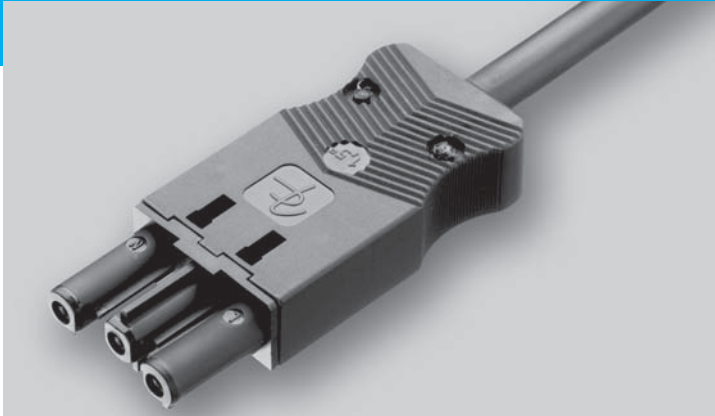
Important approvals: VDE
Upon request: frames light red, frames without interlocking

Description	Item	Order Number	PU
Plugs with Screw Contact			
Coding 1 (L PE N)	AC 166 GSTF/315 black	162463	200
Coding 3 (L PE N)	AC 166 GSTF/315 light red	162463R	200
Plugs with Clamping Spring Contact			
Coding 1 (L PE N)	AC 166 GSTPF/3 black	162563	200
Coding 3 (L PE N)	AC 166 GSTPF/3 light red	162563R	200
Sockets with Screw Contact			
Coding 1 (N PE L)	AC 166 GBUF/315 black	165463	200
Coding 3 (N PE L)	AC 166 GBUF/315 light red	165463R	200
Sockets with Clamping Spring Contact			
Coding 1 (N PE L)	AC 166 GBUPF/3 black	165563	200
Coding 3 (N PE L)	AC 166 GBUPF/3 light red	165563R	200

Description	Item	Order Number	PU
Plugs with Screw Contact for Metal Housings 0.5 - 1.2 mm			
Coding 1 (L PE N)	AC 166 GESTBV/ 3 black	168263S	200
Coding 3 (L PE N)	AC 166 GESTBV/ 3 light red	168263R	200
Plugs with Clamping Spring Contact for Metal Housings 0.5 - 1.2 mm			
Coding 1 (L PE N)	AC 166 GESPBV/ 3 black	168863S	200
Coding 3 (L PE N)	AC 166 GESPBV/ 3 light red	168863R	200
Plugs with Screw Contact for Plastic Housings 1.5 - 2.5 mm			
Coding 1 (L PE N)	AC 166 GESTKV/ 3 black	168463S	200
Coding 3 (L PE N)	AC 166 GESTKV/ 3 light red	168463R	200
Plugs with Clamping Spring Contact for Plastic Housings 1.5 - 2.5 mm			
Coding 1 (L PE N)	AC 166 GESPKV/ 3 black	168163S	200
Coding 3 (L PE N)	AC 166 GESPKV/ 3 light red	168163R	200
Sockets with Screw Contact for Metal Housings 0.5 - 1.2 mm			
Coding 1 (N PE L)	AC 166 GEBUBV/ 3 black	168363S	200
Coding 3 (N PE L)	AC 166 GEBUBV/ 3 light red	168363R	200
Sockets with Clamping Spring Contact for Metal Housings 0.5 - 1.2 mm			
Coding 1 (N PE L)	AC 166 GEBPBV/ 3 black	168963S	200
Coding 3 (N PE L)	AC 166 GEBPBV/ 3 light red	168963R	200
Sockets with Screw Contact for Plastic Housings 1.5 - 2.5 mm			
Coding 1 (N PE L)	AC 166 GEBUKV/ 3 black	168563S	200
Coding 3 (N PE L)	AC 166 GEBUKV/ 3 light red	168563R	200
Sockets with Clamping Spring Contact for Plastic Housings 1.5 - 2.5 mm			
Coding 1 (N PE L)	AC 166 GEBPKV/ 3 black	168963S	200
Coding 3 (N PE L)	AC 166 GEBPKV/ 3 light red	168963R	200

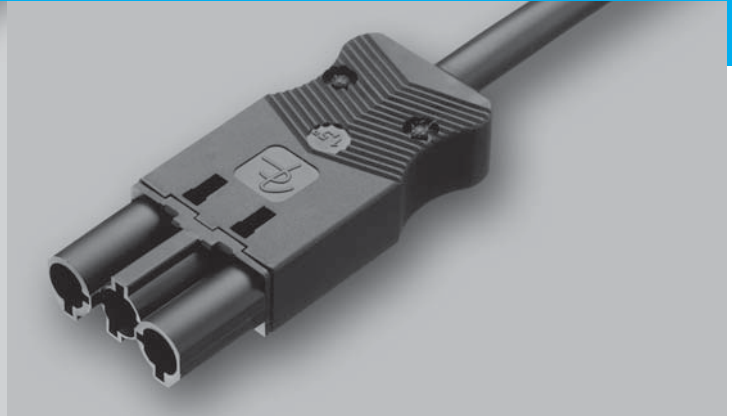


AC 166 G 3 pole, ignition voltage 5 kV



Connecting Cables with Socket

Stripping length: 7 mm
 Dismantling length: 39 mm
 Important approvals: VDE
 Upon request: printing "5 kV", strain relief light red, wire ends sealed (LV),
 different stripping / dismantling lengths

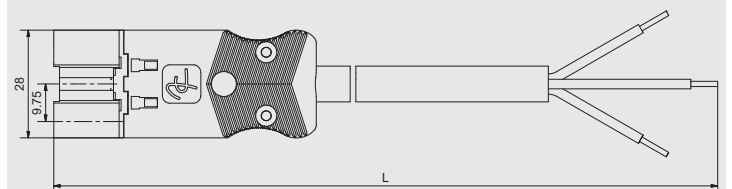
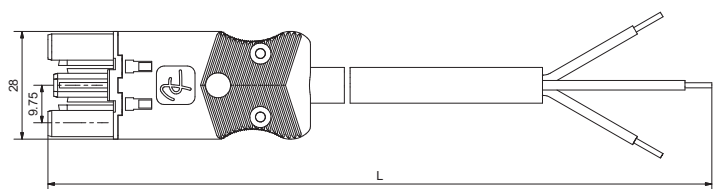


Connecting Cables with Plug

Stripping length: 7 mm
 Dismantling length: 39 mm
 Important approvals: VDE
 Upon request: printing "5 kV", strain relief light red, wire ends sealed (LV),
 different stripping / dismantling lengths

Description	Item	Order Number	PU
Cable 1.5 mm² PVC (H05VV-F)			
0.3 metre	AC 166 ALCGB/315 030 black	16576303	200
	AC 166 ALCGB/315 030 light red	16573303	200
0.5 metre	AC 166 ALCGB/315 050 black	16576305	225
	AC 166 ALCGB/315 050 light red	16573305	225
x metres	AC 166 ALCGB/315 x00 black	165763x0	
	AC 166 ALCGB/315 x00 light red	165733x0	
Cable 1.5 mm² halogen-free (H05Z1Z1-F)			
0.3 metre	AC 166 ALCGB/315 030 H05Z1Z1 black	96576303	200
	AC 166 ALCGB/315 030 H05Z1Z1 light red	96573303	200
0.5 metre	AC 166 ALCGB/315 050 H05Z1Z1 black	96576305	225
	AC 166 ALCGB/315 050 H05Z1Z1 light red	96573305	225
x metres	AC 166 ALCGB/315 x00 H05Z1Z1 black	965763x0	
	AC 166 ALCGB/315 x00 H05Z1Z1 light red	965733x0	
Ignition Cable 1.0 mm² H05SS-F			
0.3 metre	AC 166 ALCGB/310 030 H05SS black	99976303	200
	AC 166 ALCGB/310 030 H05SS light red	99973303	200
0.5 metre	AC 166 ALCGB/310 050 H05SS black	99976305	225
	AC 166 ALCGB/310 050 H05SS light red	99973305	225
x metres	AC 166 ALCGB/310 x00 H05SS black	999763x0	
	AC 166 ALCGB/310 x00 H05SS light red	999733x0	

Description	Item	Order Number	PU
Cable 1.5 mm² PVC (H05VV-F)			
0.3 metre	AC 166 ALCGS/315 030 black	16276303	200
	AC 166 ALCGS/315 030 light red	16273303	200
0.5 metre	AC 166 ALCGS/315 050 black	16276305	225
	AC 166 ALCGS/315 050 light red	16273305	225
x metres	AC 166 ALCGS/315 x00 black	162763x0	
	AC 166 ALCGS/315 x00 light red	162733x0	
Cable 1.5 mm² halogen-free (H05Z1Z1-F)			
0.3 metre	AC 166 ALCGS/315 030 H05Z1Z1 black	96276303	200
	AC 166 ALCGS/315 030 H05Z1Z1 light red	96273303	200
0.5 metre	AC 166 ALCGS/315 050 H05Z1Z1 black	96276305	225
	AC 166 ALCGS/315 050 H05Z1Z1 light red	96273305	225
x metres	AC 166 ALCGS/315 x00 H05Z1Z1 black	962763x0	
	AC 166 ALCGS/315 x00 H05Z1Z1 light red	962733x0	
Ignition Cable 1.0 mm² H05SS-F			
0.3 metre	AC 166 ALCGS/310 030 H05SS black	99966303	200
	AC 166 ALCGS/310 030 H05SS light red	99963303	200
0.5 metre	AC 166 ALCGS/310 050 H05SS black	99966305	225
	AC 166 ALCGS/310 050 H05SS light red	99963305	225
x metres	AC 166 ALCGS/310 x00 H05SS black	999663x0	
	AC 166 ALCGS/310 x00 H05SS light red	999633x0	





Technical Information

www.adels-contact.de

Applicable Standards

EN 61984

Connectors – safety requirements and tests

EN 61535

Installation couplers intended for permanent connection in fixed installations

EN 60598

Luminaires – requirements and tests

Current Rating

16 A / 250 V / 400 V

Plastic Material

Polyamide 6/6

Flammability rating to UL 94: V-2

Continuous working temperature 100 °C, short-time temperature 160 °C

Metal

Contacts: brass, plated

Clamping screws: steel, zinc plated, chromed

Cables

H05VV-F (PVC) and H05Z1Z1-F (halogen-free)

Continuous working temperature 70 °C

Voltage rating: 300 V / 500 V, ignition voltage 5 kV

H05SS-F double-insulated ignition cables

Continuous working temperature 180 °C

Voltage rating: 300 V / 500 V, ignition voltage 10 kV

Wire ends with ferrules

Protection Class

IP 20

IP 40 – when plugged-in

Approvals

For current approvals, please see the relative data sheets of each item on our website.

- Terminal Blocks and Connectors for Luminaires of Superior Quality
- Screw and Screwless Connectors for Ballasts
- Mains Supply Connectors for Electrical Appliances
- Transformer Connectors
- Print Connectors for Electronic Applications
- Connecting Systems for Building Technology

ADELS
contact

Adels-Contact
Elektrotechnische Fabrik
GmbH & Co. KG

Buchholzstraße 40-46
51469 Bergisch Gladbach · Germany

Phone: +49 2202 9534-0
Fax: +49 2202 9534-88
E-Mail: info@adels-contact.de
Internet: www.adels-contact.de