

LS-TYPE series

On stage

The **LS-TYPE** enclosures are the ideal solution for the entertainment industry (lighting system power supply and related mixer and dimmer panels), including theatre stages, film sets, radio and TV studios, discos, trade fair booths, concert halls and night public events, both indoors and outdoors, etc.

All parts are in elegant RAL 9005 black to make them suitable for situations and locations where they should not be visible in the dark.

Functional characteristics

These enclosures can be installed beside stages.

They do not have any bright components that would distract and simple plastic levers that are easy to replace.

- ✔ UL certified for USA and Canada for NEMA 4, NEMA 4X and NEMA 12 degrees of protection (enclosure type ratings) printed on the packaging.
IP65/IP69 degree of protection.



SUM-UP OF MATERIALS USED FOR CH..N - MA..N and MH..N - MF..N LS-TYPE series

- ☐ Made of die cast aluminium alloy
- ☐ Powder-coated with RAL 9005
- ☐ Gaskets in anti-aging, oil resistant, grease resistant and fuel resistant vinyl nitrile elastomer
- ☐ Locking device with levers in black made of plastic
- ☐ Ambient temperature range -40 °C / +125 °C.

CH..N - MA..N and MH..N - MF..N LS-TYPE version

inserts		page:
CDD	24 poles + ⊕	76
CDS	9 poles + ⊕	-
CDSH	9 poles + ⊕	86
CDSH NC	6 poles + ⊕	95
CNE	6 poles + ⊕	110
CSE	6 poles + ⊕	-
CSH	6 poles + ⊕	110
CSH S	6 poles + ⊕	122
CCE	6 poles + ⊕	130
CSS	6 poles + ⊕	148
CT, CTSE (16A) *	6 poles + ⊕	160
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

*) only in the CHIN 06 LCH and CHIN 06 L enclosure

housings with 2 pegs and 1 lever



hoods with 2 pegs

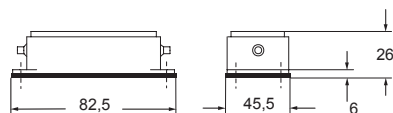


description	part No.	entry M	part No.	entry M
bulkhead mounting housing, with 2 pegs	CHIN 06 LCH			
bulkhead mounting housing, with lever	CHIN 06 L			
surface mounting housing, high construction, with lever	MAPN 06 L32	32		
with pegs, side entry			MHON 06 L25	25
with pegs, top entry			MHVN 06 L25	25
with pegs, side entry, high construction, without adapter ¹⁾			MFON 06 L25	25
with pegs, top entry, high construction, without adapter ¹⁾			MFVN 06 L25	25

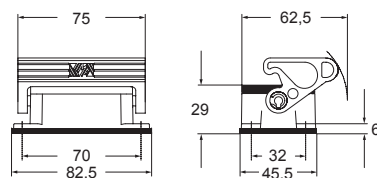
¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

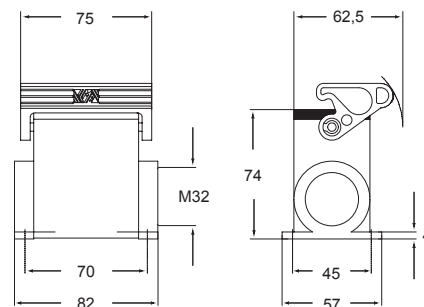
CHIN LCH



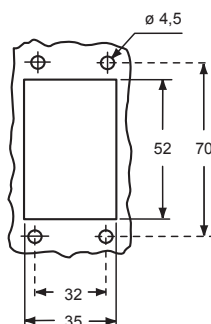
CHIN L



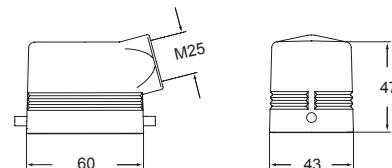
MAPN L32



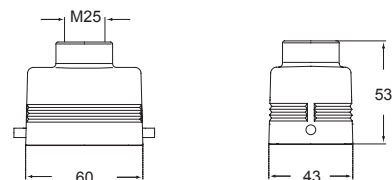
panel cut-out for bulkhead mounting housings
CHIN LCH and CHIN L



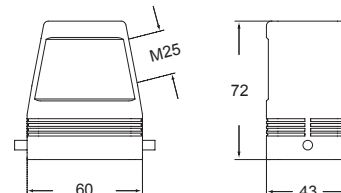
MHON L25



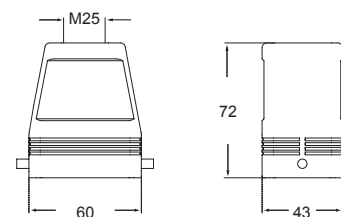
MHVN L25



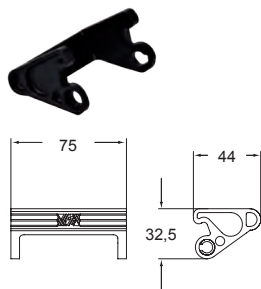
MFON L25



MFVN L25



CR LN
Spare part
lever
for "44.27"
enclosures
with levers



CAUS

Type
4/4X/12





CH..N and MH..N - MF..N LS-TYPE version

inserts		page:
CDD	24 poles + ⊕	76
CDS	9 poles + ⊕	-
CDSH	9 poles + ⊕	86
CDSH NC	6 poles + ⊕	95
CNE	6 poles + ⊕	110
CSE	6 poles + ⊕	-
CSH	6 poles + ⊕	110
CSH S	6 poles + ⊕	122
CCE	6 poles + ⊕	130
CSS	6 poles + ⊕	148
CQE	10 poles + ⊕	168
MIXO	2 modules	262 - 317

hoods with single lever



covers



description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
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with lever and gasket, top entry
with lever and gasket, top entry, high construction,
without adapter ¹⁾

MHVN 06 LG25 25
MFVN 06 LG25 25

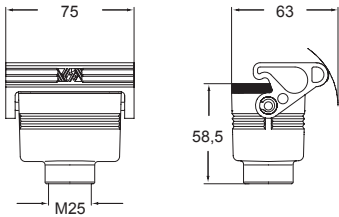
covers with pegs
covers with lever

CHCN 06 L
CHCN 06 LG

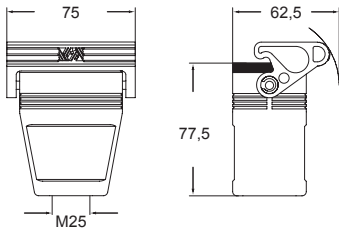
¹⁾ enclosure without adapter, threaded on the enclosure
body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy
polyester powder
- RAL 9005 black self-extinguishing thermoplastic
locking lever

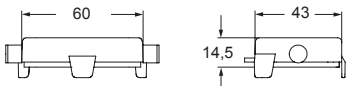
MHVN LG25



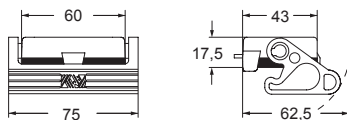
MFVN LG25



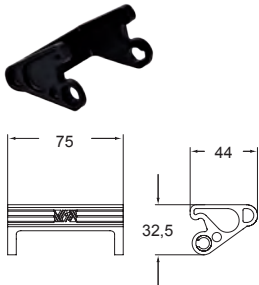
CHCN L



CHCN LG



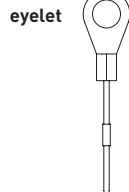
CR LN
Spare part
lever
for “44.27”
enclosures
with levers



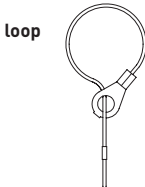
Type
4/4X/12



For fixing
on housings



For fixing
on hoods



CH..N - MA..N and MH..N - MF..N LS-TYPE version

inserts		page:
CDD	42 poles + ⊕	78
CDS	18 poles + ⊕	-
CDSH	18 poles + ⊕	87
CNE	10 poles + ⊕	111
CSE	10 poles + ⊕	-
CSH	10 poles + ⊕	111
CSH S	10 poles + ⊕	123
CCE	10 poles + ⊕	131
CMSH	3+2 (aux) poles + ⊕	136
CMCE	3+2 (aux) poles + ⊕	137
CSS	10 poles + ⊕	149
CT, CTSE (16A) *)	10 poles + ⊕	161
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

*) only in the CHIN 10 CH and CHIN 10 enclosure

housings with 4 pegs and 2 levers



hoods with 4 pegs

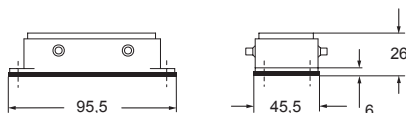


description	part No.	entry M	part No.	entry M
bulkhead mounting housing, with 4 pegs	CHIN 10 CH			
bulkhead mounting housing, with 2 levers	CHIN 10			
surface mounting housing, high construction, with 2 levers	MAPN 10.32	32		
with pegs, side entry			MHON 10.25	25
with pegs, top entry			MHVN 10.25	25
with pegs, side entry, high construction, without adapter ¹⁾			MFON 10.32	32
with pegs, top entry, high construction, without adapter ¹⁾			MFVN 10.32	32

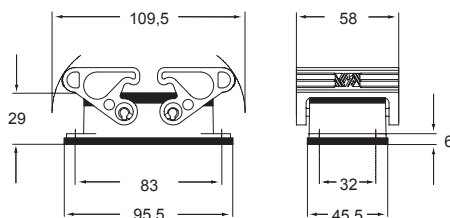
¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

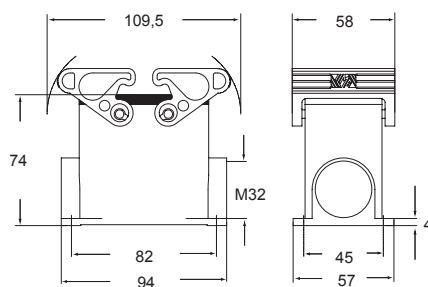
CHIN CH



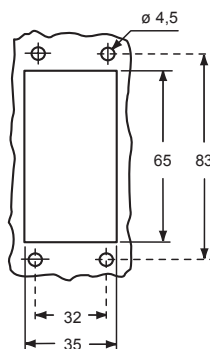
CHIN



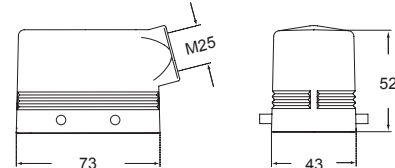
MAPN



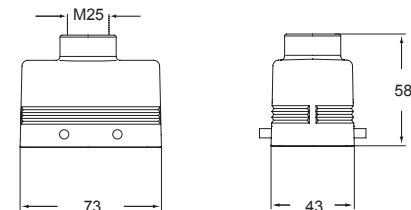
panel cut-out for bulkhead mounting housings
CHIN CH and CHIN



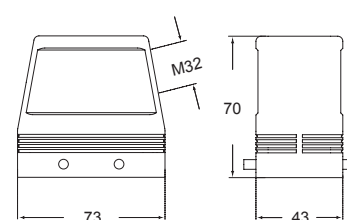
MHON



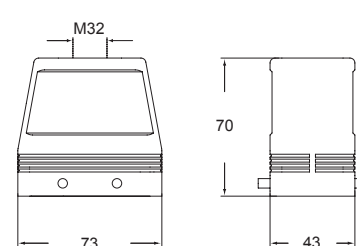
MHVN



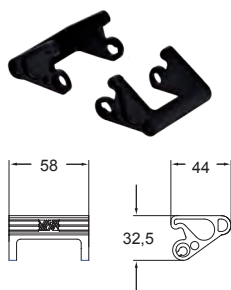
MFON



MFVN



CR LN
Spare part
lever
for "57.27"
enclosures
with levers



CALUS

Type
4/4X/12





CH..N and MH..N - MF..N LS-TYPE version

inserts		page:
CDD	42 poles + ⊕	78
CDS	18 poles + ⊕	-
CDSH	18 poles + ⊕	87
CNE	10 poles + ⊕	111
CSE	10 poles + ⊕	-
CSH	10 poles + ⊕	111
CSH S	10 poles + ⊕	123
CCE	10 poles + ⊕	131
CMSH	3+2 (aux) poles + ⊕	136
CMCE	3+2 (aux) poles + ⊕	137
CSS	10 poles + ⊕	149
CQE	18 poles + ⊕	169
CX	8/24 poles + ⊕	194
MIXO	3 modules	262 - 317

hoods with 2 levers



covers



description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
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with levers and gasket, top entry	MHVN 10 G25	25		
with levers and gasket, top entry, high construction, without adapter ¹⁾	MFVN 10 G220	20 x 2		
with levers and gasket, top entry, high construction, without adapter ¹⁾	MFVN 10 G32	32		

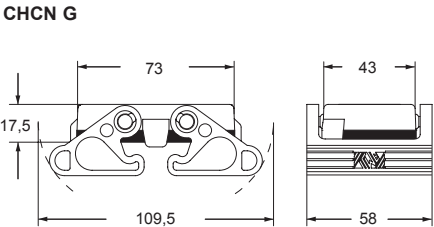
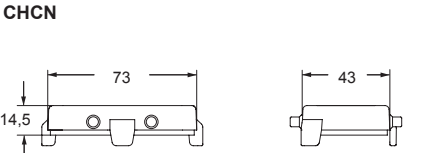
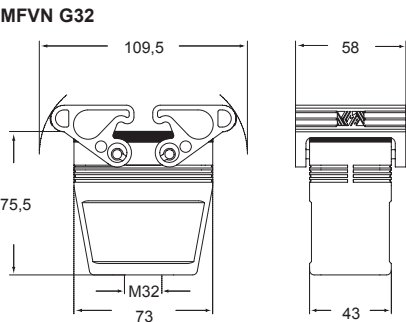
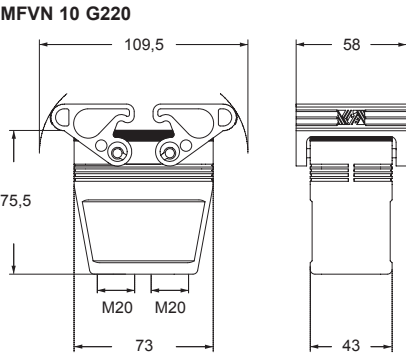
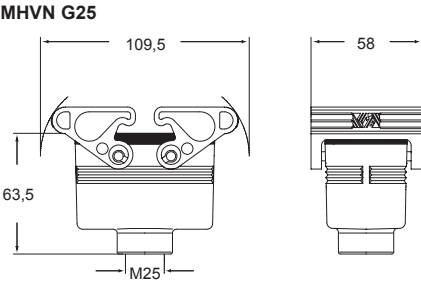
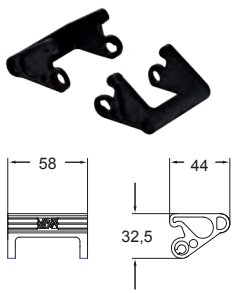
covers with pegs
covers with 2 levers

CHCN 10
CHCN 10 G

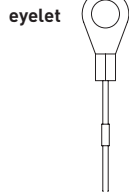
¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

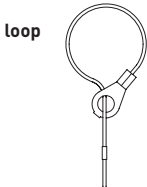
CR LN
Spare part
lever
for “57.27”
enclosures
with levers



For fixing
on housings



For fixing
on hoods



LS-TYPE

CH..N - MA..N and MH..N - MF..N LS-TYPE version

inserts		page:
CD	40 poles + ⊕	70
CDD	72 poles + ⊕	79
CDS	27 poles + ⊕	-
CDSH	27 poles + ⊕	88
CNE	16 poles + ⊕	112
CSE	16 poles + ⊕	-
CSH	16 poles + ⊕	112
CSH S	16 poles + ⊕	124
CCE	16 poles + ⊕	132
CMSH, CMCE	6+2 (aux) poles + ⊕	138 - 139
CSS	16 poles + ⊕	150
CT, CTS (10A) *)	40 poles + ⊕	156
CT, CTSE (16A) *)	16 poles + ⊕	162
CQE	32 poles + ⊕	170
CQEE	40 poles + ⊕	176
CP	6 poles + ⊕	178
CX	6/12, 6/36 and 12/2 poles + ⊕	197 - 199
CX	4/0 and 4/2 poles + ⊕	200 - 201
MIXO	4 modules	262 - 317

*) only in the CHIN 16 CH and CHIN 16 enclosure

housings with 4 pegs and 2 levers



hoods with 4 pegs

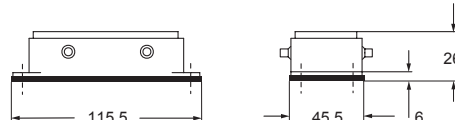


description	part No.	entry M	part No.	entry M
bulkhead mounting housing, with 4 pegs	CHIN 16 CH			
bulkhead mounting housing, with 2 levers	CHIN 16			
surface mounting housing, high construction, with 2 levers	MAPN 16.32	32		
with pegs, side entry			MHON 16.32	32
with pegs, top entry			MHVN 16.32	32
with pegs, side entry, high construction, without adapter ¹⁾			MFON 16.32	32
with pegs, top entry, high construction, without adapter ¹⁾			MFVN 16.32	32

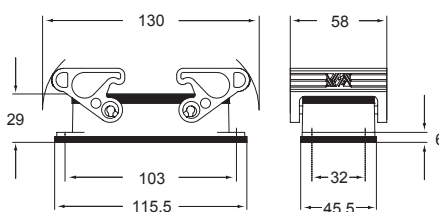
¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

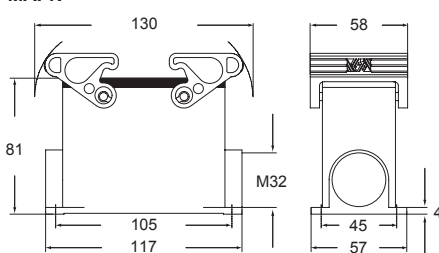
CHIN CH



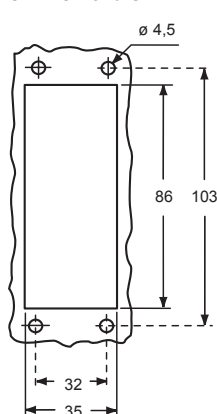
CHIN



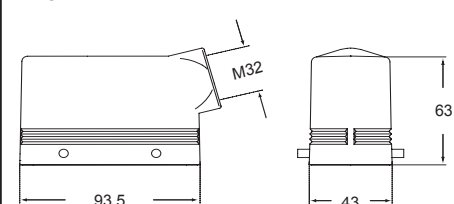
MAPN



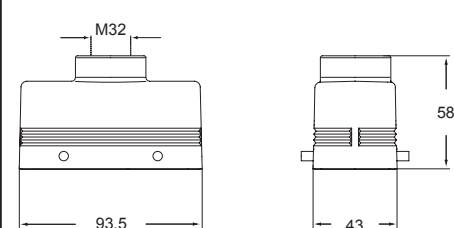
panel cut-out for bulkhead mounting housings
CHIN CH and CHIN



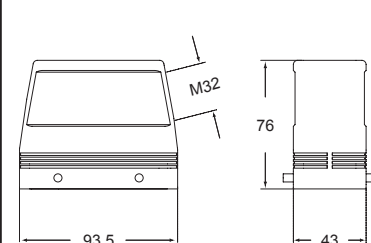
MHON



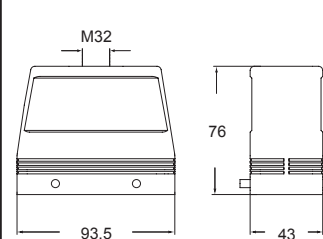
MHVN



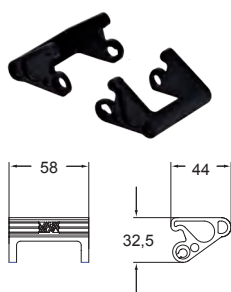
MFON



MFVN



CR LN
Spare part
lever
for "77.27"
enclosures
with levers



CALUS Type
4/4X/12





CH..N and MH..N - MF..N LS-TYPE version

inserts		page:
CD	40 poles + ⊕	70
CDD	72 poles + ⊕	79
CDS	27 poles + ⊕	-
CDSH	27 poles + ⊕	88
CNE	16 poles + ⊕	112
CSE	16 poles + ⊕	-
CSH	16 poles + ⊕	112
CSH S	16 poles + ⊕	124
CCE	16 poles + ⊕	132
CMSH, CMCE	6+2 (aux) poles + ⊕	138 - 139
CSS	16 poles + ⊕	150
CQE	32 poles + ⊕	170
CQEE	40 poles + ⊕	176
CP	6 poles + ⊕	178
CX	6/12, 6/36 and 12/2 poles + ⊕	197 - 199
CX	4/0 and 4/2 poles + ⊕	200 - 201
MIXO	4 modules	262 - 317

hoods with 2 levers



covers



description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
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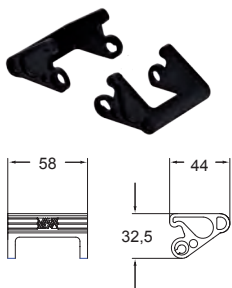
with levers and gasket, top entry	MHVN 16 G32	32		
with levers and gasket, top entry, high construction, without adapter ¹⁾	MFVN 16 G225	25 x 2		
with levers and gasket, top entry, high construction, without adapter ¹⁾	MFVN 16 G32	32		

covers with pegs	CHCN 16			
covers with 2 levers				CHCN 16 G

¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

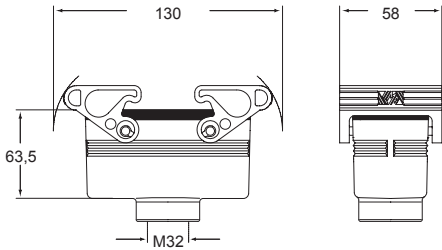
CR LN
Spare part
lever
for “77.27”
enclosures
with levers



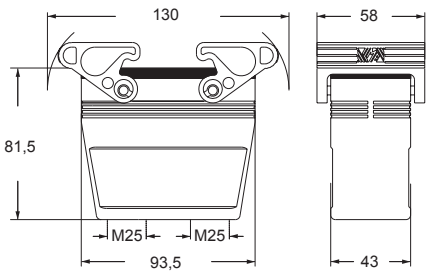
CALUS Type
4/4X/12



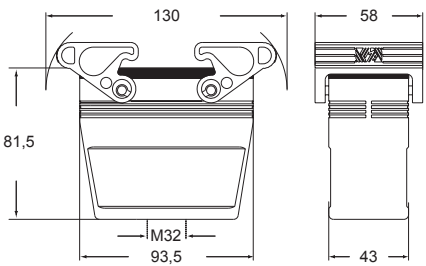
MHVN G32



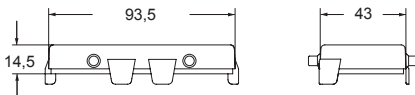
MFVN 16 G225



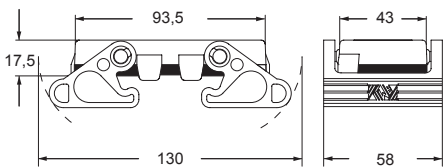
MFVN G32



CHCN

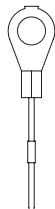


CHCN G



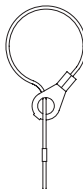
For fixing
on housings

eyelet



For fixing
on hoods

loop



LS-TYPE

CH..N - MA..N and MH..N - MF..N LS-TYPE version

inserts

CD	64 poles + ⊕	72
CDD	108 poles + ⊕	81
CDS	42 poles + ⊕	-
CDSH	42 poles + ⊕	89
CNE	24 poles + ⊕	113
CSE	24 poles + ⊕	-
CSH	24 poles + ⊕	113
CSH S	24 poles + ⊕	125
CCE	24 poles + ⊕	133
CMSH	10+2 (aux) poles + ⊕	140
CMCE	10+2 (aux) poles + ⊕	141
CSS	24 poles + ⊕	151
CT, CTS (10A *)	64 poles + ⊕	157
CT, CTSE (16A *)	24 poles + ⊕	163
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204 and 206
MIXO	6 modules	262 - 317

*) only in the CHIN 24 CH and CHIN 24 enclosure

page:

housings with 4 pegs and 2 levers



hoods with 4 pegs

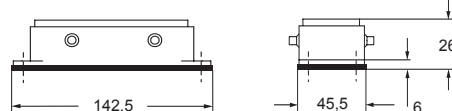


description	part No.	entry M	part No.	entry M
bulkhead mounting housing, with 4 pegs	CHIN 24 CH			
bulkhead mounting housing, with 2 levers	CHIN 24			
surface mounting housing, high construction, with 2 levers	MAPN 24.32	32		
with pegs, side entry			MHON 24.32	32
with pegs, top entry			MHVN 24.32	32
with pegs, side entry, high construction, without adapter ¹⁾			MFON 24.32	32
with pegs, top entry, high construction, without adapter ¹⁾			MFVN 24.32	32

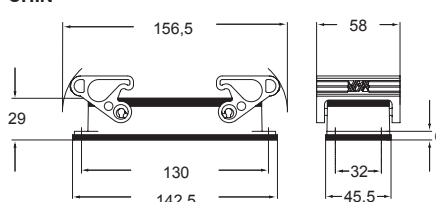
¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

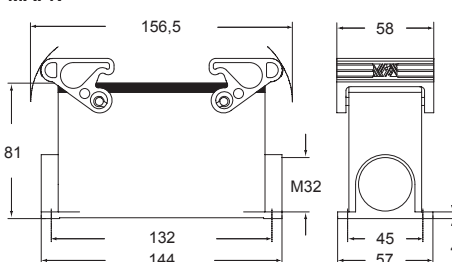
CHIN CH



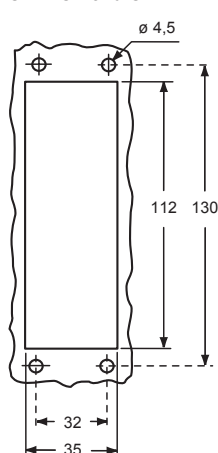
CHIN



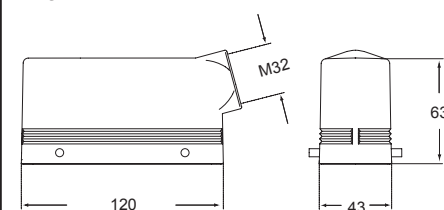
MAPN



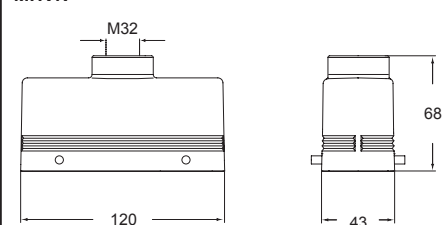
panel cut-out for bulkhead mounting housings
CHIN CH and CHIN



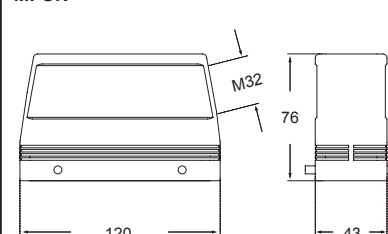
MHON



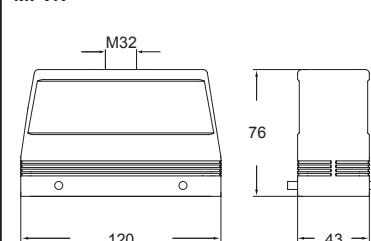
MHVN



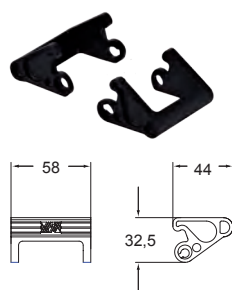
MFON



MFVN



CR LN
Spare part
lever
for "104.27"
enclosures
with levers



CALUS

Type
4/4X/12





CH..N and MH..N - MF..N LS-TYPE version

inserts		page:
CD	64 poles + ⊕	72
CDD	108 poles + ⊕	81
CDS	42 poles + ⊕	-
CDSH	42 poles + ⊕	89
CNE	24 poles + ⊕	113
CSE	24 poles + ⊕	-
CSH	24 poles + ⊕	113
CSH S	24 poles + ⊕	125
CCE	24 poles + ⊕	133
CMSH	10+2 (aux) poles + ⊕	140
CMCE	10+2 (aux) poles + ⊕	141
CSS	24 poles + ⊕	151
CQE	46 poles + ⊕	171
CQEE	64 poles + ⊕	177
CX	4/8 and 6/6 poles + ⊕	204 and 206
MIXO	6 modules	262 - 317

hoods with 2 levers



covers



description	part No.	entry M	part No. (with eyelet)	part No. (with loop)
-------------	----------	------------	---------------------------	-------------------------

with levers and gasket, top entry	MHVN 24 G32	32		
with levers and gasket, top entry, high construction, without adapter ¹⁾	MFVN 24 G232	32 x 2		
with levers and gasket, top entry, high construction, without adapter ¹⁾	MFVN 24 G32	32		

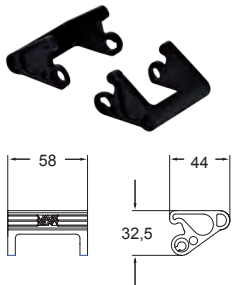
covers with pegs
covers with 2 levers

CHCN 24
CHCN 24 G

¹⁾ enclosure without adapter, threaded on the enclosure body, to be used only with a complete cable gland.

- kiln powder coating with RAL 9005 black epoxy polyester powder
- RAL 9005 black self-extinguishing thermoplastic locking lever

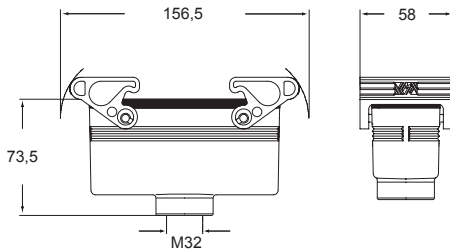
CR LN
Spare part
lever
for “104.27”
enclosures
with levers



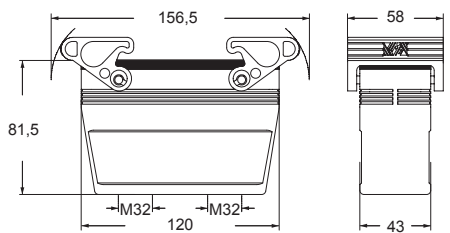
CALUS Type
4/4X/12



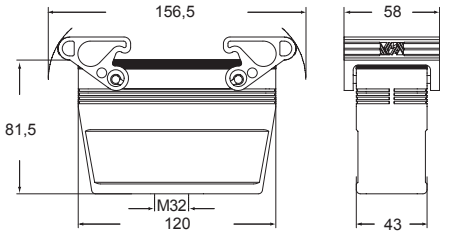
MHVN G32



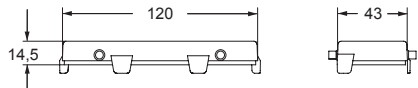
MFVN 24 G232



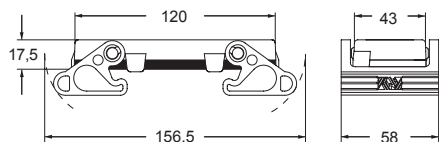
MFVN G32



CHCN

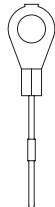


CHCN G



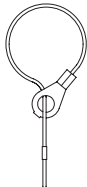
For fixing
on housings

eyelet



For fixing
on hoods

loop

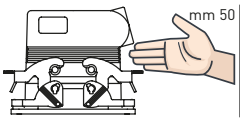
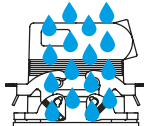
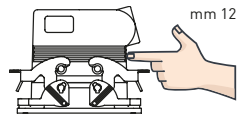
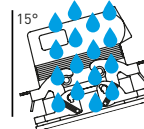
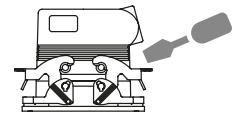
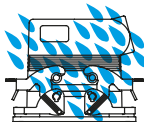
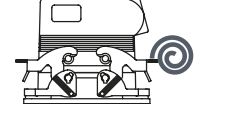
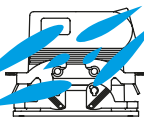
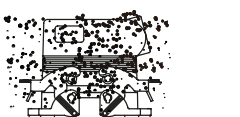
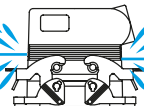
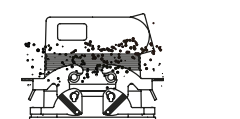
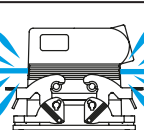
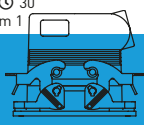
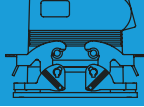
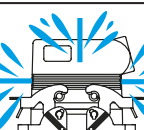


LS-TYPE

THE DEGREE OF PROTECTION

The connector's housing, sealing and locking mechanism protect the connection from external influences such as mechanical shocks, foreign bodies, humidity, dust, water or other fluids such as cleansing and cooling agents, oils, etc. The degree of protection the housing offers is explained in the IEC 60529, DIN EN 60529, standards that categorize enclosures according to foreign body and water protection.

The following table shows the **IP (Ingress Protection) Ratings Guide**.

FIRST Index figure	Degree of protection SOLIDS		SECOND Index figure	Degree of protection WATER	
0		No protection	0		No protection
1		Protected against access to hazardous parts with the back of a hand and protected against solid foreign objects of Ø 50 mm and greater	1		Protected against vertically falling water drops
2		Protected against access to hazardous parts with a finger - protected against solid foreign objects of Ø 12,5 mm and greater	2		Protected against vertically falling water drops when enclosure tilted up to 15° (on either side of the vertical)
3		Protected against access to hazardous parts with a tool - protected against solid foreign objects of Ø 2,5 mm and greater	3		Protected against spraying water (at an angle up to 60° on either side of the vertical)
4		Protected against access to hazardous parts with a wire - protected against solid foreign objects of Ø 1,0 mm and greater	4		Protected against splashing water from any direction
5		Protected against access to hazardous parts with a wire dust-protected (no harmful dust deposit)	5		Protected against water jets from any direction
6		Protected against access to hazardous parts with a wire dust-tight (total protection against dust)	6		Protected against powerful water jets from any direction (similar to sea waves)
RATING EXAMPLE IP 65			7		Protected against the effects of temporary immersion in water at a maximum depth of 1 metre for 30 min
			8		Protected against the effects of continuous immersion in water at depth and/or duration upon agreement, more severe than for numeral 7
			9		Protected against high pressure and temperature water jets from any direction

Description according to IEC 60529

CHANGEOVER FROM PG THREADS TO METRIC

After 31st December 1999, the German safety standard DIN VDE 0619 (1987-09) and the standards it refers to - DIN 46319 for dimensions with metric threads and DIN 46320 (T1-T4), DIN 46255 and DIN 46259 for dimensions with Pg threads (Pg = Panzerrohr-Gewinde: literally "threads for armoured pipes") - were withdrawn and European standard EN 50262 "Metric cable glands for electrical installations" has been in force since 1st January 2000.

This standard defines the new sizes with metric threads for cable glands according to EN 60423 and establishes the safety prescriptions.

Conversely, it does not specify the dimensions, such as the size of the tightening wrench, the diagonal dimension, or the dimensions of the tightness seals, as was the case in the withdrawn DIN for Pg cable glands.

The standard came definitively into force on 1st April 2001, when the contrasting national standards were withdrawn.

It is valid in all member countries of CENELEC (European Electrical Standardisation Committee) and its publication has led to a broadening of the supply of enclosures for multi-pole connectors for industrial use, to include new enclosure versions with cable entry suitable for metric cable glands.

NOTE – In 2016 the new EN 62444:2013 standard "Cable glands for electrical installations" replaced the former to cover only cable gland with metric thread whose range is now M6 through M110 (previously up to M75).

Cable gland producers have introduced the new metric series to add to the Pg size series, to gradually replace the latter type. The transitional period indicated in the new standard should have ended on 1st March 2001, after which date the use of cable entry devices with Pg thread and, as a result, enclosures with Pg thread, should have ended in new installations. Nevertheless, both the cable entry devices and the relevant enclosures with Pg thread, may continue to be used as spare parts. For the mandatory **CE** marking of these items, observance of the safety conditions specified by the Low Voltage Directive is sufficient, however adherence to the safety requirements of EN 62444 provides presumption of conformity.

To distinguish hoods and surface-mounting housings with metric entries from the relevant Pg versions (identified with a C pre-code), the ILME metric types are identified with an M pre-code. The transposition table below indicates the correspondence rule adopted in most cases by ILME for creating the new metric versions.

Pg → metric transposition table

Pg	Metric
Pg 11	M20
Pg 13.5	M20
Pg 16	M20
Pg 21	M25
Pg 29	M32
Pg 36	M40
Pg 42	M50

Cable diameter for use with ILME cable glands

Ø in mm	Metric thread				
Series	20	25	32	40	50
AS M..P	6 - 12,5	10 - 18	14 - 24	15 - 24	23 - 30
AS M..E	8 - 12,5	13,5 - 18	17 - 24	—	—
AG M..T	6 - 8 - 10	11 - 14 - 17	19 - 21 - 24	26 - 29 - 32	35 - 38 - 41
AG M..I	5 - 12,5	9 - 18	14 - 25	18 - 32	24 - 38,5
AG M..R	6 - 8 - 10	11 - 14 - 17	19 - 21 - 24	—	—

For more information, please refer to the technical catalogue on www.ilme.com