

A T E X C e r t i f i e d
Ex-Proof Electric Materials

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ATEX certified
local ex-proof electric
materials

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- ▶ **Ex-Proof Unarmored Cable Glands**
- ▶ **Ex-Proof Armored Cable Glands**
- ▶ **Ex-Proof Galvanized Conduit Unions**
- ▶ **Ex-Proof Flexible & Rigid Conduit Connectors**

- ▶ **Ex-Proof Blind Plugs**
- ▶ **Ex-Proof Sealing Fittings & J.Boxes**
- ▶ **Ex-Proof Nipples & Couplings**
- ▶ **Ex-Proof Adapters & Reductions**

For detailed information and ATEX documents of all our Ex-Proof products, please see our website www.exproof.info.



ATEX; The ATEX directives of the European Union Organizations have been applicable since July 1, 2003, were revised into Directive 2014/34/EU on April 20, 2016. ATEX is a combination of the first syllables of the French words "ATmosphères EXplosives" and means Explosive Atmospheres. The ATEX regulations effective in the European Union countries and recognized in many non-EU countries define the minimum safety requirements for explosive atmospheres, and covers the equipment mentioned here.

Exproof; It is the general name of Equipment and Protective Systems specially produced for use in potentially flammable and explosive areas.

Gas and vapour leaks occur during production, handling, transportation and storage of flammable chemicals and petroleum products (e.g. methane, alcohol, acetylene, natural gas ...) may inevitably react with the oxygen from the atmosphere to form an explosive concentration.

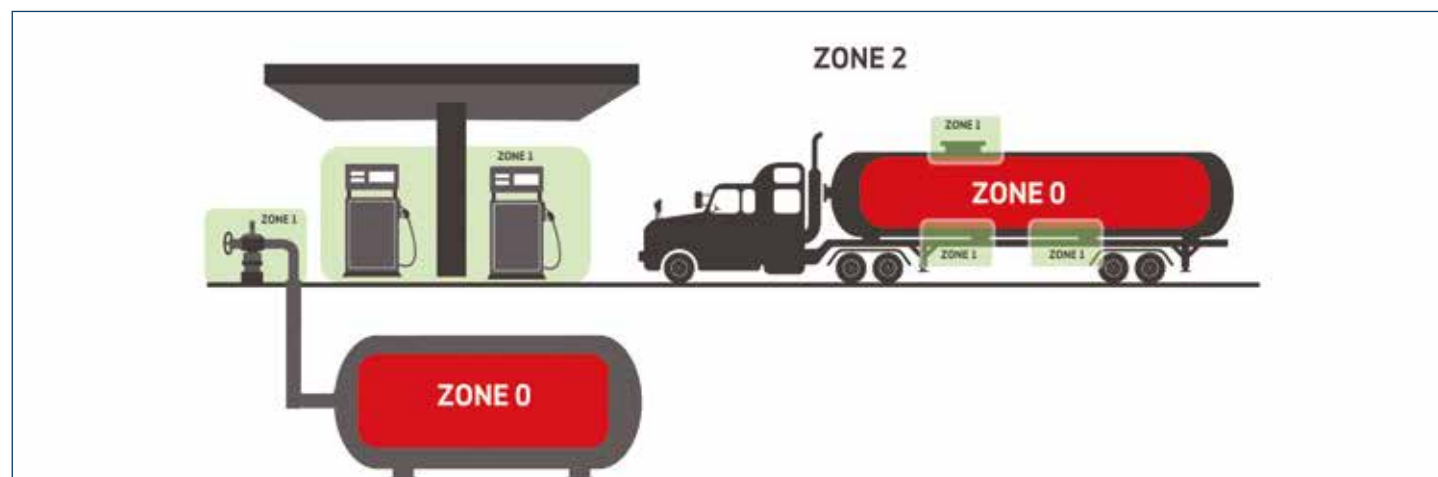
In such a situation, electrical arc, static electricity or excessive surface temperature may lead to an explosion that may endanger property and life safety. The structure and features of electrical equipment designed for use in such hazardous areas varies greatly from those used in normal areas. Such materials are named as Exproof (Flameproof) electrical materials by professionals who use them.

The equipment used in explosive, flammable and inflammable areas is labelled with specific codes. The aim is for the personnel working in hazardous areas to use the right equipment in the right area by paying attention to these codes. The same ex-proof equipment cannot be suitable for using everywhere. Explosions are mainly due to the wrong equipment picked for the area.

Tools from upper categories can be suitable for use in lower category. However, tools designed for lower categories can never be used in upper categories. The Category 1 tools can be comfortably used in **ZONE 0, ZONE 1, and ZONE 2**. However, the Category 2 tools can never be used in ZONE 0.

Hazardous Area Classification Comparison Table

European & IEC Classification	Definition of ZONE or DIVISION	North American Classification
Zone 0 (Gasses) Zone 20 (Dusts)	An area in which an explosive mixture is continuously present or frequently present	Class I Division 1 (Gasses) Class II Division 1 (Dusts)
Zone 1 (Gasses) Zone 21 (Dusts)	An area in which an explosive mixture is likely to occur but not regularly	Class I Division 1 (Gasses) Class II Division 1 (Dusts)
Zone 2 (Gasses) Zone 22 (Dusts)	An area in which an explosive mixture is not likely to occur and if it occurs it will exist only for a short time	Class I Division 2 (Gasses) Class II Division 2 (Dusts) Class III Division 1 (Fibers) Class III Division 2 (Fibers)



Gas Groups Comparison Table

Typical Gases	European & IEC Gas Groups	North American Gas Groups
Methane	I	-
Acetylene	IIC	A
Hydrogen	IIC	B
Ethylene	IIB	C
Propane	IIA	D
Metal Dust	-	E
Coal Dust	-	F
Grain Dust	-	G

Temperature Classification Comparison Table

Temperature Classification		Maximum Surface Temperature
European & IEC	North American	
T1	T1	450°C
T2	T2	300°C
	T2A	280°C
	T2B	260°C
	T2C	230°C
	T2D	215°C
T3	T3	200°C
	T3A	180°C
	T3B	165°C
	T3C	160°C
T4	T4	135°C
	T4A	120°C
T5	T5	100°C
T6	T6	85°C

Electrical equipment in hazardous areas

Electrical installations in dangerous areas (flammable-explosive environments) are detailed in the TSE EN 60079-14 standard. Products that have either ATEX or TSE certification are deemed suitable for use in ex-proof electrical installations in hazardous areas.

Choosing the right equipment is as important as calculating Temperature Classes and Gas Groups, and designing an electrical installation.

Cables connected to electrical equipment in hazardous areas feature cable glands or cable conduits that ensure environmental safety.

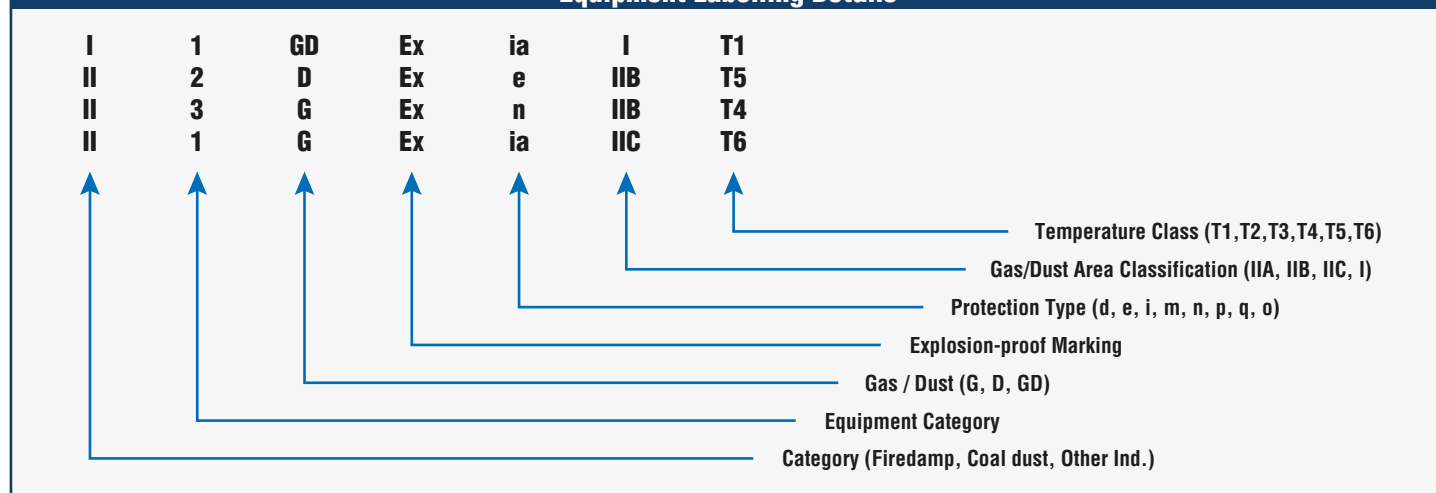
Selection of ex-proof cable gland (**M-VEN type ex-proof unarmoured or M-MER type ex-proof armoured cable glands**), and the type and the size of the cable and the junction box of the ex-proof equipment (**GWR-SKX-DMD type GRP terminal boxes, EJB cast distribution cabinets**) must comply with the relevant protection class.

Cables to be used in installation should be protected against mechanical damage, corrosion, chemicals, and heat. In cases where it cannot be protected, cables must be enclosed safely in **IMC or RSC (I.T.C.C / Prostar)** conduits. IMC or RSC conduit provides great convenience, especially if more than one cable is connected to ex-proof equipment. In order to ensure environmental safety a proper installation must feature the special **MCK-1000** sealing resin with **EYS or EZS ex-proof stoppers, M-BMF, M-BMM, M-BFF ex-proof galvanized conduit unions, NP.. ex-proof nipple, SPH.. ex-proof stainless flexible conduits**.

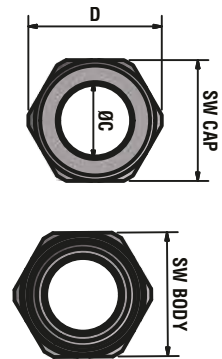
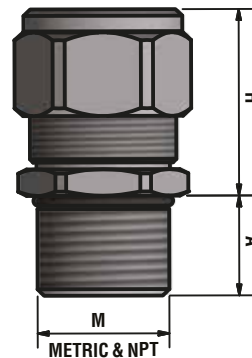
Note: According to ATEX, cables and rigid conduit are not considered a source of breakdown. **Therefore, there is no cable and conduit named as an ex-proof. Only SPH type spiral hoses can be used as Ex-Proof conduits.**

MSM Engineering Ltd. Co., has ATEX certification, **EAC and IEP** (Energy Petroleum Institute) certificates, and therefore, complies with the **2014/34/EU** directive for the Ex-proof (explosion proof) cable glands, conduit unions and fittings such as reducers, adapters, etc. the company manufactures.

Equipment Labelling Details



M-VEN TYPE EX-PROOF UNARMoured CABLE GLANDS



Technical Details

Type	Unarmoured Cable Glands Metric & NPT Thread
Classification	Ex I M2 Ex db / eb I Mb / II 1D Ex tb IIIC Da / II 2G Ex db / eb IIC Gb
Certificate	IEP 19 ATEX 0708X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	PVC Shroud, Lock Nut, Earth Tag, IP Washer Gasket

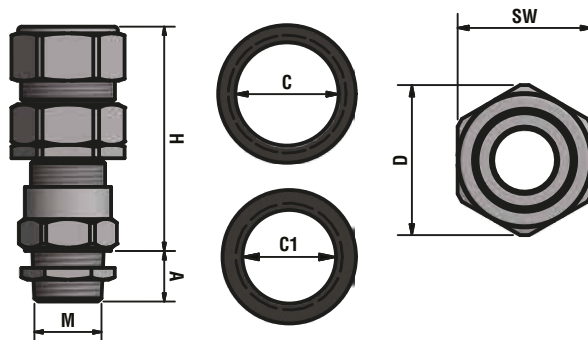


MSM Code	Metric Size	Clamping Range Ø min-max	Thread Length A (mm)	Thread Dia. M (mm)	Height H (mm)	Spanner Width		Outer Dia. D (mm)	Weight (kg)
						SW Cap (mm)	SW Body (mm)		
M-VEN1M	M12x1,5	4 ÷ 8	15,0	12,0	19,0	16,0	15,0	17,5	0,025
M-VEN2M	M16x1,5	5 ÷ 10	15,0	16,0	21,0	20,0	19,0	22,5	0,045
M-VEN3M	M20x1,5	10 ÷ 14	15,0	20,0	22,0	24,0	23,0	26,5	0,055
M-VEN4M	M25x1,5	13 ÷ 18	15,0	25,0	23,0	30,0	28,0	33,5	0,075
M-VEN5M	M32x1,5	18 ÷ 25	15,0	32,0	24,0	40,0	36,0	44,0	0,130
M-VEN6M	M40x1,5	22 ÷ 32	15,0	40,0	27,0	50,0	50,0	55,0	0,245
M-VEN7M	M50x1,5	30 ÷ 38	15,0	50,0	32,0	60,0	55,0	66,0	0,355
M-VEN8M	M63x1,5	34 ÷ 44	15,0	63,0	35,0	65,0	65,0	72,0	0,490
M-VEN9M	M75x1,5	48 ÷ 61	15,0	75,0	40,0	85,0	80,0	93,0	0,790

MSM Code	NPT Size	Clamping Range Ø min-max	Thread Length A (mm)	Thread Dia. M (mm)	Height H (mm)	Spanner Width		Outer Dia. D (mm)	Weight (kg)
						SW Cap (mm)	SW Body (mm)		
M-VEN1N	1/4"	4 ÷ 8	15,0	13,716	19,0	16,0	16,0	17,5	0,030
M-VEN2N	3/8"	5 ÷ 10	15,0	17,145	21,0	20,0	19,0	22,5	0,050
M-VEN3N	1/2"	10 ÷ 14	15,0	21,336	22,0	24,0	24,0	26,5	0,060
M-VEN4N	3/4"	13 ÷ 18	15,0	26,670	23,0	30,0	30,0	33,5	0,085
M-VEN5N	1"	18 ÷ 25	15,0	33,401	24,0	40,0	36,0	44,0	0,135
M-VEN6N	1 1/4"	22 ÷ 32	15,0	42,164	27,0	50,0	50,0	55,0	0,255
M-VEN7N	1 1/2"	30 ÷ 38	15,0	47,800	32,0	60,0	55,0	66,0	0,380
M-VEN8N	2"	34 ÷ 44	15,0	60,325	35,0	65,0	65,0	72,0	0,515
M-VEN9N	2 1/2"	48 ÷ 61	15,0	73,025	40,0	85,0	80,0	93,0	0,910

MSM Code	Size Code	Male Thread	Material	Sealing Gasket	Accessories				Code Example
	2 : M16x1,5 3 : M20x1,5	M: Metric N: NPT	B: Brass BN: Brass Nickel Plated	S: Silicone C: Chloroprene	PVC Shroud	Lock Nut	Earth Tag	IP Washer Gasket	
M-VEN	2	M	BN	C	S	L	E	W	M-VEN2MBNCL

M-MER TYPE EX-PROOF ARMoured CABLE GLANDS



Technical Details

Type	Armoured Cable Glands Metric & NPT Thread
Classification	Ex I M2 Ex db/eb I Mb / II 2G Ex db/eb IIC Gb / II 1D Ex tb IIIC Da
Certificate	IEP 19 ATEX 0719X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	PVC Shroud, Lock Nut, Earth Tag, IP Washer Gasket

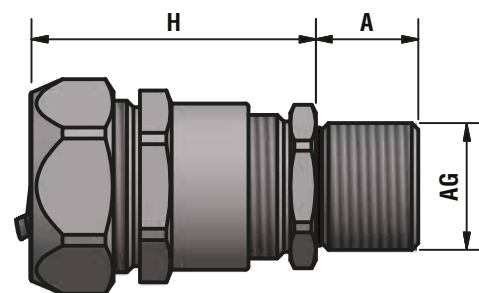
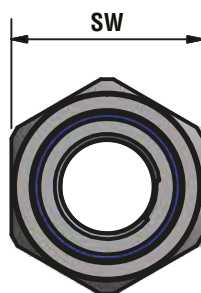


MSM Code	Metric Size	Male Thread Size M (mm)	Clamping Range (Ø min-max)		Thread Height A (mm)	Spanner Width (SW/D)		Height H (mm)	Weight (kg)
			C (mm)	C1 (mm)		SW (mm)	D (mm)		
M-MER1M	M12x1,5	12	3,0 ÷ 6,5	4,0 ÷ 9,0	15	18	20,00	62	0,080
M-MER2M	M16x1,5	16	11,0 ÷ 13,5	4,0 ÷ 9,0	15	22	24,50	67	0,120
M-MER3M	M20x1,5	20	15,0 ÷ 20,0	8,0 ÷ 13,0	15	30	33,50	68	0,192
M-MER4M	M25x1,5	25	20,0 ÷ 27,0	13,0 ÷ 19,0	15	36	40,50	71	0,256
M-MER5M	M32x1,5	32	26,0 ÷ 33,0	18,0 ÷ 26,0	15	45	51,50	79	0,409
M-MER6M	M40x1,5	40	33,0 ÷ 40,0	25,0 ÷ 32,0	15	55	61,50	88	0,692
M-MER7M	M50x1,5	50	43,0 ÷ 54,0	34,0 ÷ 44,0	15	70	77,50	97	1,083
M-MER8M	M63x1,5	63	58,0 ÷ 64,0	47,0 ÷ 54,0	15	80	88,50	126	1,418
M-MER9M	M75x1,5	75	65,0 ÷ 74,0	59,0 ÷ 65,0	15	90	100,00	126	1,800

MSM Code	NPT Size	Male Thread Size M (mm)	Clamping Range (Ø min-max)		Thread Height A (mm)	Spanner Width (SW/D)		Height H (mm)	Weight (kg)
			C (mm)	C1 (mm)		SW (mm)	D (mm)		
M-MER1N	1/4"	13,176	3,0 ÷ 6,5	4,0 ÷ 9,0	15	18	20,00	62	0,081
M-MER2N	3/8"	17,145	11,0 ÷ 13,5	4,0 ÷ 9,0	15	22	24,50	68	0,121
M-MER3N	1/2"	21,336	15,0 ÷ 20,0	8,0 ÷ 13,0	15	30	33,50	71	0,175
M-MER4N	3/4"	26,670	20,0 ÷ 27,0	13,0 ÷ 19,0	18	36	40,50	74	0,255
M-MER5N	1"	33,401	26,0 ÷ 33,0	18,0 ÷ 26,0	18	45	51,50	84	0,395
M-MER6N	1 1/4"	42,164	33,0 ÷ 40,0	25,0 ÷ 32,0	18	55	61,50	93	0,680
M-MER7N	1 1/2"	47,800	36,0 ÷ 45,0	30,0 ÷ 37,0	18	60	65,50	107	0,753
M-MER8N	2"	60,325	49,0 ÷ 59,0	40,0 ÷ 50,0	20	75	84,00	113	1,275
M-MER9N	2 1/2"	73,025	58,0 ÷ 64,0	47,0 ÷ 54,0	22	80	88,50	126	1,493

MSM Code	Size Code	Male Thread	Material	Sealing Gasket	Accessories				Code Example
	2 : M16x1,5 3 : M20x1,5				PVC Shroud	Lock Nut	Earth Tag	IP Washer Gasket	
M-MER	2	M	BN	C	S	L	E	W	M-MER2MBNCL

M-SBR TYPE EX-PROOF FLEXIBLE CONDUIT CONNECTORS



Technical Details

Type	Liquidtight Steel Flexible Conduit Connectors - Metric & NPT Thread
Classification	Ex I M2 Ex db/eb I Mb / II 2G Ex db/eb IIC Gb / II 1D Ex tb IIIC Da
Certificate	IEP 20 ATEX 0820X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	Lock Nut, Earth Tag, IP Washer Gasket

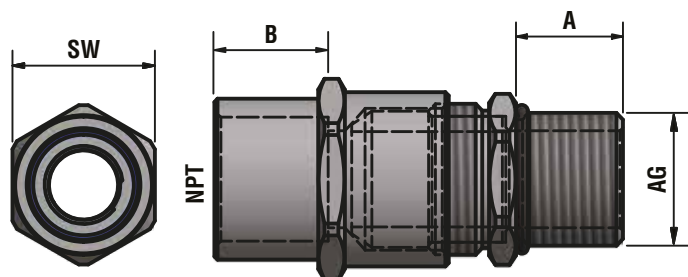


MSM Code	Flexible Type Input Size	Metric Output Size	Cable Clamping Range (mm)	SW (mm)	A (mm)	AG (mm)	H (mm)	Weight (kg)
M-SBR1M	M..-10 - 1/4"	M12x1,5	4,0 ÷ 8,0	22	16	12	32,0	0,049
M-SBR2M	M..-13 - 3/8"	M16x1,5	5,0 ÷ 10,0	26	16	16	35,5	0,075
M-SBR3M	M..-16 - 1/2"	M20x1,5	6,0 ÷ 12,0	30	16	20	36,5	0,098
M-SBR4M	M..-21 - 3/4"	M25x1,5	13,0 ÷ 18,0	36	16	25	41,0	0,160
M-SBR5M	M..-26 - 1"	M32x1,5	18,0 ÷ 25,0	45	20	32	48,5	0,275
M-SBR6M	M..-35 - 1 1/4"	M40x1,5	22,0 ÷ 32,0	55	20	40	54,0	0,420
M-SBR7M	M..-40 - 1 1/2"	M50x1,5	30,0 ÷ 38,0	60	20	50	56,5	0,508
M-SBR8M	M..-52 - 2"	M63x1,5	34,0 ÷ 44,0	80	20	63	63,0	0,957

MSM Code	Flexible Type Input Size	NPT Output Size	Cable Clamping Range (mm)	SW (mm)	A (mm)	AG (mm)	H (mm)	Weight (kg)
M-SBR1N	M..-10 - 1/4"	1/4"	4,0 ÷ 8,0	22	16	13,176	32,0	0,052
M-SBR2N	M..-13 - 3/8"	3/8"	5,0 ÷ 10,0	26	16	17,145	35,5	0,077
M-SBR3N	M..-16 - 1/2"	1/2"	6,0 ÷ 12,0	30	16	21,336	36,5	0,102
M-SBR4N	M..-21 - 3/4"	3/4"	13,0 ÷ 18,0	36	16	26,670	41,0	0,164
M-SBR5N	M..-26 - 1"	1"	18,0 ÷ 25,0	45	20	33,401	48,5	0,290
M-SBR6N	M..-35 - 1 1/4"	1 1/4"	22,0 ÷ 32,0	55	20	42,164	54,0	0,440
M-SBR7N	M..-40 - 1 1/2"	1 1/2"	30,0 ÷ 38,0	60	20	47,800	56,5	0,516
M-SBR8N	M..-52 - 2"	2"	34,0 ÷ 44,0	80	20	60,325	63,0	0,970

MSM Code	Size Code	Male Thread	Material	Sealing Gasket	Accessories			Code Example
	2 : M16x1,5 3 : M20x1,5	M: Metric N: NPT	B: Brass BN: Brass Nickel Plated	S: Silicone C: Chloroprene	Lock Nut	Earth Tag	IP Washer Gasket	
M-SBR	2	M	BN	C	L	E	W	M-SBR2MBNCL

M-DBR TYPE EX-PROOF IMC & RSC TYPE RIGID CONDUIT CONNECTORS



Technical Details

Type	IMC & RSC Type Rigid Conduit Connectors - Metric & NPT Thread
Classification	Ex I M2 Ex db/eb I Mb / II 2G Ex db/eb IIC Gb / II 1D Ex tb IIIC Da
Certificate	IEP 20 ATEX 0820X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	Lock Nut, Earth Tag, IP Washer Gasket

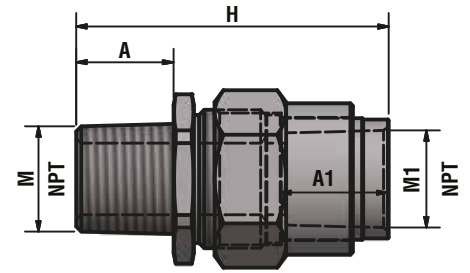
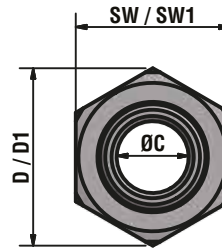


MSM Code	IMC&RSC Cond. Thread Size	Metric Output Size	Cable Clamping Range (mm)	SW (mm)	AG (mm)	A (mm)	B (mm)	Weight (kg)
M-DBR3M	1/2"	M20x1,5	6,0 ÷ 12,0	27	20	16	16	0,098
M-DBR4M	3/4"	M25x1,5	13,0 ÷ 18,0	32	25	16	16	0,160
M-DBR5M	1"	M32x1,5	18,0 ÷ 25,0	42	32	16	16	0,275
M-DBR6M	1 1/4"	M40x1,5	22,0 ÷ 32,0	50	40	18	18	0,420
M-DBR7M	1 1/2"	M50x1,5	30,0 ÷ 38,0	60	50	18	18	0,508
M-DBR8M	2"	M63x1,5	34,0 ÷ 44,0	70	63	20	20	0,957
M-DBR9M	2 1/2"	M75x1,5	48,0 ÷ 57,0	85	---	22	22	---
M-DBR10M	3"	M80x1,5	56,0 ÷ 70,0	100	---	25	25	---
M-DBR11M	4"	M100x1,5	70,0 ÷ 89,0	125	---	25	25	---

MSM Code	IMC&RSC Cond. Thread Size	NPT Output Size	Cable Clamping Range (mm)	SW (mm)	AG (mm)	A (mm)	B (mm)	Weight (kg)
M-DBR3N	1/2"	1/2"	6,0 ÷ 12,0	27	21,336	16	16	0,102
M-DBR4N	3/4"	3/4"	13,0 ÷ 18,0	32	26,670	16	16	0,164
M-DBR5N	1"	1"	18,0 ÷ 25,0	42	33,401	16	16	0,290
M-DBR6N	1 1/4"	1 1/4"	22,0 ÷ 32,0	50	42,164	18	18	0,440
M-DBR7N	1 1/2"	1 1/2"	30,0 ÷ 38,0	60	47,800	18	18	0,516
M-DBR8N	2"	2"	34,0 ÷ 44,0	70	60,325	20	20	0,970
M-DBR9N	2 1/2"	2 1/2"	48,0 ÷ 57,0	85	---	22	22	---
M-DBR10N	3"	3"	56,0 ÷ 70,0	100	---	25	25	---
M-DBR11N	4"	4"	70,0 ÷ 89,0	125	---	25	25	---

MSM Code	Size Code	Male Thread	Material	Sealing Gasket	Accessories			Code Example
	2 : M16x1,5 3 : M20x1,5	M: Metric N: NPT	B: Brass BN: Brass Nickel Plated	S: Silicone C: Chloroprene	Lock Nut	Earth Tag	IP Washer Gasket	
M-DBR	3	M	BN	C	L	E	W	M-DBR2MBNCL

M-BMF.. / M-BFF.. / M-BMM.. TYPE EX-PROOF CONDUIT UNIONS (THREE PIECES)



M-BFF.. (Female-Female) M-BMF.. (Male-Female) M-BMM.. (Male-Male)

Technical Details

Type	Conduit Unions (Three Pieces)
Classification	Ex I M2 Ex db I Mb / I M2 Ex eb I Mb / II 1D Ex ta IIIC Da Ex II 2G Ex db IIC Gb / II 2G Ex eb II Gb
Certificate	IEP 20 ATEX 0762U / Directive 2014/34/EU
Material	Galvanized Steel
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Grup IIA, IIB, IIC / Dust Grup IIIA, IIIB, IIIC
Optional Accessories	Lock Nut, Earth Tag, IP Washer Gasket, Silicone Gasket

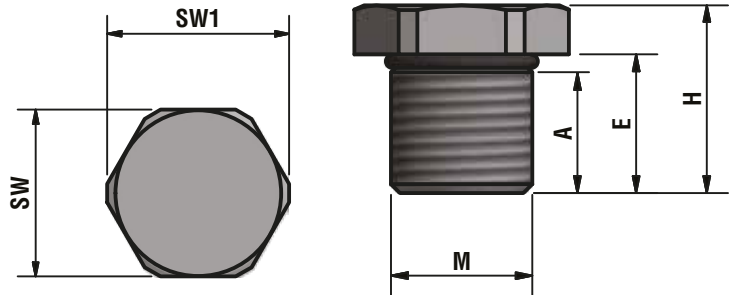


MSM Code	Product Size M (mm)		Product Size M1 (mm)		Cable Dia. Size C (mm)	Thread Length (mm)		Spanner Width SW/D (mm)				Height H (mm)	Weight (kg)
	NPT	Size	NPT	Size		A	A1	SW	D	SW1	D1		
M-BMF1N	1/2"	21,336	1/2"	20,1115	14,00	19,00	16,00	30,00	33,00	30,00	34,50	61,00	0,158
M-BMF2N	3/4"	26,670	3/4"	25,4435	19,00	20,00	20,00	36,00	40,00	36,00	41,50	60,00	0,212
M-BMF3N	1"	33,401	1"	31,9100	25,00	25,00	23,00	41,00	47,00	41,00	47,00	70,00	0,284
M-BMF4N	1 1/4"	42,164	1 1/4"	40,6730	32,00	28,00	25,00	50,00	56,00	55,00	63,00	81,00	0,549
M-BMF5N	1 1/2"	47,800	1 1/2"	46,3090	39,00	28,00	26,00	55,00	62,00	60,00	69,00	85,00	0,567
M-BMF6N	2"	60,325	2"	58,8340	50,00	30,00	29,00	70,00	79,00	75,00	85,00	91,00	0,982
M-BMF7N	2 1/2"	73,025	2 1/2"	70,8817	65,00	33,00	31,00	91,00	100,00	91,00	100,00	91,00	1,386

MSM Code	Product Size M (mm)		Product Size M1 (mm)		Cable Dia. Size C (mm)	Thread Length (mm)		Spanner Width SW/D (mm)				Height H (mm)	Weight (kg)
	NPT	Size	NPT	Size		A	A1	SW	D	SW1	D1		
M-BFF1N	1/2"	20,1115	1/2"	20,1115	14,00	19,00	16,00	30,00	33,00	30,00	34,50	42,00	0,122
M-BFF2N	3/4"	25,4435	3/4"	25,4435	19,00	20,00	20,00	36,00	40,00	36,00	41,50	46,00	0,177
M-BFF3N	1"	31,9100	1"	31,9100	25,00	25,00	23,00	41,00	47,00	41,00	47,00	56,00	0,248
M-BFF4N	1 1/4"	40,6730	1 1/4"	40,6730	32,00	28,00	25,00	50,00	56,00	55,00	63,00	65,00	0,460
M-BFF5N	1 1/2"	46,3090	1 1/2"	46,3090	39,00	28,00	26,00	55,00	62,00	60,00	69,00	68,00	0,475
M-BFF6N	2"	58,8340	2"	58,8340	50,00	30,00	29,00	70,00	79,00	75,00	85,00	74,50	0,889
M-BFF7N	2 1/2"	70,8817	2 1/2"	70,8817	65,00	33,00	31,00	91,00	100,00	91,00	100,00	76,00	1,254

MSM Code	Product Size M (mm)		Product Size M1 (mm)		Cable Dia. Size C (mm)	Thread Length (mm)		Spanner Width SW/D (mm)				Height H (mm)	Weight (kg)
	NPT	Size	NPT	Size		A	A1	SW	D	SW1	D1		
M-BMM1N	1/2"	21,336	1/2"	21,336	14,00	19,00	19,00	30,00	33,00	30,00	34,50	77,50	0,194
M-BMM2N	3/4"	26,670	3/4"	26,670	19,00	20,00	20,00	36,00	40,00	36,00	41,50	76,00	0,267
M-BMM3N	1"	33,401	1"	33,401	25,00	25,00	25,00	41,00	47,00	41,00	47,00	88,00	0,366
M-BMM4N	1 1/4"	42,164	1 1/4"	42,164	32,00	28,00	28,00	50,00	56,00	55,00	63,00	96,00	0,684
M-BMM5N	1 1/2"	47,800	1 1/2"	47,800	39,00	28,00	28,00	55,00	62,00	60,00	69,00	98,00	0,707
M-BMM6N	2"	60,325	2"	60,325	50,00	30,00	30,00	70,00	79,00	75,00	85,00	104,50	1,169
M-BMM7N	2 1/2"	73,025	2 1/2"	73,025	65,00	33,00	33,00	91,00	100,00	91,00	100,00	120,00	1,748

M-PLG TYPE EX-PROOF BLIND PLUGS



Technical Details

Type	Blind Plugs Metric & NPT Thread
Classification	Ex I M2 Ex db I Mb / I M2 Ex eb I Mb / II 1D Ex ta IIIC Da / II 2G Ex db IIC Gb / II 2G Ex eb II Gb
Certificate	IEP 19 ATEX 0694X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	Lock Nut, Earth Tag, IP Washer Gasket

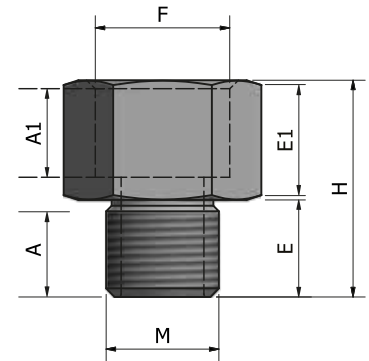
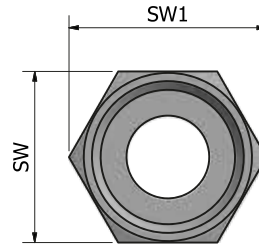


MSM Code	Metric Size	Thread Piece A	Thread Length E (mm)	Height H (mm)	Spanner Width SW (mm)	Outer Dia. SW1 (mm)	Lock Nut Code	Earth Tag Code	IP Washer Code	Weight (kg)
M-PLG1M	M12x1,5	8	15	22	17	19	LN-1M	ERT-1M	IPW-1M	0,028
M-PLG2M	M16x1,5	8	15	22	22	24	LN-2M	ERT-2M	IPW-2M	0,034
M-PLG3M	M20x1,5	8	15	22	24	26	LN-3M	ERT-3M	IPW-3M	0,047
M-PLG4M	M25x1,5	7	15	22	30	33	LN-4M	ERT-4M	IPW-4M	0,074
M-PLG5M	M32x1,5	7	15	22	36	40	LN-5M	ERT-5M	IPW-5M	0,110
M-PLG6M	M40x1,5	7	15	22	45	50	LN-6M	ERT-6M	IPW-6M	0,165
M-PLG7M	M50x1,5	7	15	22	55	61	LN-7M	ERT-7M	IPW-7M	0,230
M-PLG8M	M63x1,5	7	15	22	70	77	LN-8M	ERT-8M	IPW-8M	0,343

MSM Code	NPT Size	Thread Piece A	Thread Length E (mm)	Height H (mm)	Spanner Width SW (mm)	Outer Dia. SW1 (mm)	Lock Nut Code	Earth Tag Code	IP Washer Code	Weight (kg)
M-PLG1N	1/4"	8,0 / 18,0	15	22	16	18	LN-1N	ERT-1N	IPW-1N	0,028
M-PLG2N	3/8"	8,0 / 18,0	15	22	20	22	LN-2N	ERT-2N	IPW-2N	0,034
M-PLG3N	1/2"	7,0 / 18,0	15	22	24	26	LN-3N	ERT-3N	IPW-3N	0,047
M-PLG4N	3/4"	7,0 / 18,0	15	22	27	30	LN-4N	ERT-4N	IPW-4N	0,074
M-PLG5N	1"	6,0 / 18,0	15	22	35	38	LN-5N	ERT-5N	IPW-5N	0,110
M-PLG6N	1 1/4"	6,0 / 18,0	15	22	45	50	LN-6N	ERT-6N	IPW-6N	0,165
M-PLG7N	1 1/2"	6,0 / 18,0	15	22	50	55	LN-7N	ERT-7N	IPW-7N	0,230
M-PLG8N	2"	6,0 / 18,0	15	22	65	72	LN-8N	ERT-8N	IPW-8N	0,343

MSM Code	Size Code	Male Thread	Material	Sealing Gasket	Accessories			Code Example
	2 : M16x1,5 3 : M20x1,5	M: Metric N: NPT	B: Brass BN: Brass Nickel Plated	S: Silicone C: Chloroprene	Lock Nut	Earth Tag	IP Washer Gasket	
M-PLG	2	M	BN	C	L	E	W	M-PLG2MBNCL

M-REB TYPE EX-PROOF REDUCERS



Technical Details

Type	REB Type Reducers - Metric & NPT Thread
Classification	II 2GD Ex d IIC Gb / Ex e IIC Gb / Ex tb IIC Db
Certificate	IEP 19 ATEX 0693X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	Lock Nut, Earth Tag, IP Washer Gasket

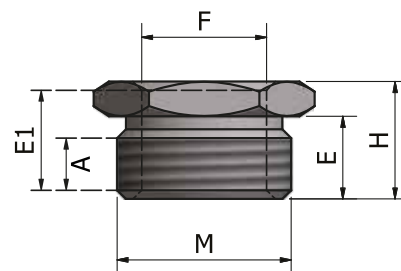
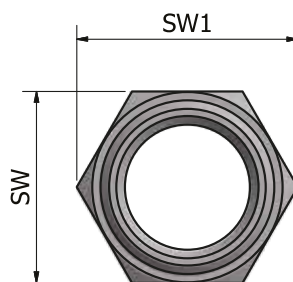


MSM Code	Male Metric Size (M)	Female Metric Size (F)	Thread Piece A	Thread Piece A1	Thread Length E (mm)	Thread Length E1 (mm)	Height H (mm)	Spanner Width SW (mm)	Outer Dia. SW1 (mm)	Weight (kg)
M-REB1M2M	M12x1,5	M16x1,5	8	8	15	15	34	22	24,0	0,00
M-REB2M3M	M16x1,5	M20x1,5	8	8	15	15	34	25	27,5	0,00
M-REB3M4M	M20x1,5	M25x1,5	8	8	15	15	34	30	33,0	0,00
M-REB4M5M	M25x1,5	M32x1,5	8	8	15	15	34	36	40,0	0,00
M-REB5M6M	M32x1,5	M40x1,5	8	10	15	18	37	45	50,0	0,00
M-REB6M7M	M40x1,5	M50x1,5	10	10	15	18	41	55	61,0	0,00
M-REB7M8M	M50x1,5	M63x1,5	10	10	18	18	41	70	77,0	0,00

MSM Code	Male NPT Size (M)	Female NPT Size (F)	Thread Piece A	Thread Piece A1	Thread Length E (mm)	Thread Length E1 (mm)	Height H (mm)	Spanner Width SW (mm)	Outer Dia. SW1 (mm)	Weight (kg)
M-REB1N2N	1/4"	3/8"	8 / 18	8 / 18	15	15	34	20	22,0	0,00
M-REB2N3N	3/8"	1/2"	8 / 18	8 / 18	15	15	34	25	27,5	0,00
M-REB3N4N	1/2"	3/4"	7 / 14	7 / 14	15	15	34	30	33,0	0,00
M-REB4N5N	3/4"	1"	6 / 14	6 / 14	15	15	34	36	40,0	0,00
M-REB5N6N	1"	1 1/4"	7 / 11,5	7 / 11,5	15	18	37	45	50,0	0,00
M-REB6N7N	1 1/4"	1 1/2"	7 / 11,5	7 / 11,5	18	18	41	55	61,0	0,00
M-REB7N8N	1 1/2"	2"	7 / 11,5	7 / 11,5	18	18	41	65	72,0	0,00

MSM Code	Male Size	Thread Type	Female Size	Thread Type	Material	Sealing Gasket	Code Example
	1: 1/4" 2: 3/8"	N: NPT M: Metric	2: 3/8" 3: 1/2"	N: NPT M: Metric	B: Brass BN: Brass Nickel Plated	S: Silicone C: Chloroprene	
M-REB	1	N	2	N	BN	S	M-REB1N2NBNS

M-RE TYPE EX-PROOF ADAPTER



Technical Details

Type	RE Tip Adapter - Metric & NPT Thread
Classification	Ex I M2 Ex db/eb I Mb / II 2G Ex db/eb IIC Gb / II 1D Ex tb IIIC Da
Certificate	IEP 20 ATEX 0693X / Directive 2014/34/EU
Material	MS 58 Brass, Nickel Plated Over Brass
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66 & IP68
Sealing Material	Chloroprene Gasket -40°C to +100°C / Silicone Gasket -60°C to +180°C
Applications	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Group IIA, IIB, IIC / Dust Group IIIA, IIIB, IIIC
Optional Accessories	Lock Nut, Earth Tag, IP Washer Gasket



MSM Code	Male Metric Size (M)	Female Metric Size (F)	Thread Piece A	Thread Length A (mm)	Thread Length A1 (mm)	Height H (mm)	Spanner Width SW (mm)	Outer Dia. SW1 (mm)	Weight (kg)
M-RE2M1M	M16x1,5	M12x1,5	8	15	18	20	22	24	0,022
M-RE3M2M	M20x1,5	M16x1,5	8	15	18	20	25	27,5	0,025
M-RE4M3M	M25x1,5	M20x1,5	8	15	18	20	30	33	0,037
M-RE5M4M	M32x1,5	M25x1,5	8	15	18	20	36	40	0,060
M-RE6M5M	M40x1,5	M32x1,5	8	15	22	24	45	50	0,106
M-RE7M6M	M50x1,5	M40x1,5	9	15	22	24	55	61	0,164
M-RE8M7M	M63x1,5	M50x1,5	9	15	22	24	70	77	0,271

MSM Code	Male NPT Size (M)	Female NPT Size (F)	Thread Piece A	Thread Length A (mm)	Thread Length A1 (mm)	Height H (mm)	Spanner Width SW (mm)	Outer Dia. SW1 (mm)	Weight (kg)
M-RE2N1N	3/8"	1/4"	9 / 18	15	18	20	22	24	0,022
M-RE3N2N	1/2"	3/8"	7 / 14	15	18	20	25	27,5	0,028
M-RE4N3N	3/4"	1/2"	7 / 14	15	18	20	30	33	0,042
M-RE5N4N	1"	3/4"	6 / 11,5	15	18	20	36	40	0,064
M-RE6N5N	1 1/4"	1"	7 / 11,5	18	22	24	45	50	0,118
M-RE7N6N	1 1/2"	1 1/4"	7 / 11,5	18	22	24	55	61	0,129
M-RE8N7N	2"	1 1/2"	7 / 11,5	18	22	24	65	72	0,240

MSM Code	Male Size	Thread Type	Female Size	Thread Type	Material	Sealing Gasket	Code Example
	2: M16x1,5 3: M20x1,5	M: Metric N: NPT	1: M12x1,5 2: M16x1,5	M: Metric N: NPT	B: Brass BN: Brass Nickel Plated	S: Silicone C: Chloroprene	
M-RE	2	M	1	M	BN	S	M-RE2M1MBNS

EX-PROOF SEALING FITTINGS



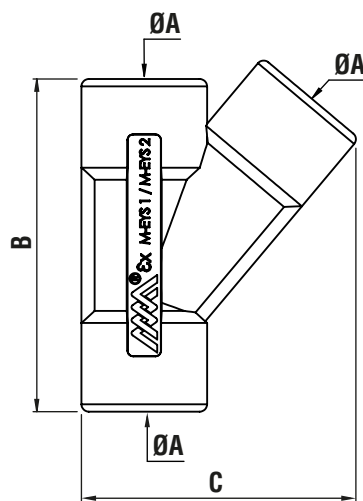
Classification:	Group II	Category 2G 2D
Installation:	Zone 1 / 2 (Gas)	Zone 21 / 22 (Dust)
Marking:	II 2G Ex db IIC Gb	II 2D Ex tb IIIC Db
Standards:	EN 60079-0; EN 60079-1; EN 60079-7; EN 60079-31	

Directive:	2014/34/EU
Certification:	IEP 21 ATEX 0910U
Degree Of Protection:	IP66
Ambient Temperature:	-40°C ÷ +100°C

Mechanical Features

Body: Copper-Free Aluminum
Entry: NPT Thread ANSI B1.20.1
 Optional;
 GAS UNI ISO 228-1
 UNI ISO 7/1 - METRIC ISO 261/965

Sealing Compound	Weight (gr)
MCK 1000+MX	1000



Technical Features

MSM Code NPT	NPT Size ØA	MSM Code Metric	Metric Size ØA	B (mm)	C (mm)	Sealing Compound (gr)	Weight (kg)
M-EYS1N	1/2" NPT	M-EYS1M	M20x1,5	90	74	50	0,150
M-EYS2N	3/4" NPT	M-EYS2M	M25x1,5	90	74	50	0,200

PREPARATION OF THE COMPOUND

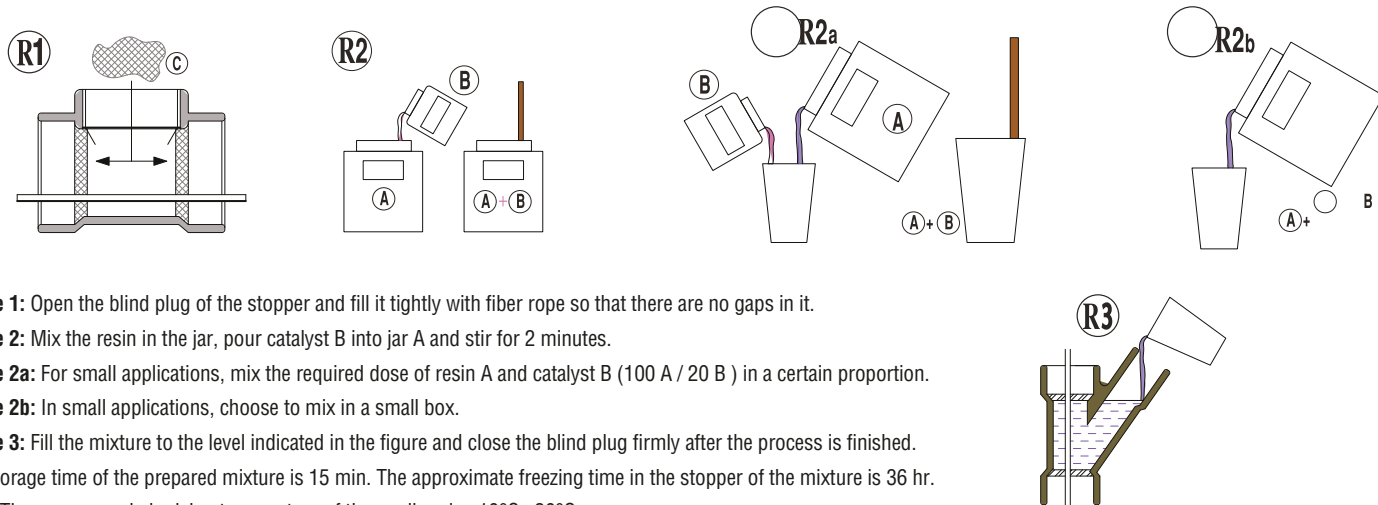


Figure 1: Open the blind plug of the stopper and fill it tightly with fiber rope so that there are no gaps in it.

Figure 2: Mix the resin in the jar, pour catalyst B into jar A and stir for 2 minutes.

Figure 2a: For small applications, mix the required dose of resin A and catalyst B (100 A / 20 B) in a certain proportion.

Figure 2b: In small applications, choose to mix in a small box.

Figure 3: Fill the mixture to the level indicated in the figure and close the blind plug firmly after the process is finished.

The storage time of the prepared mixture is 15 min. The approximate freezing time in the stopper of the mixture is 36 hr.

Note: The recommended mixing temperature of the medium is +10°C +20°C.

Areas of use: Cable pulling is a compound liquid prepared by mixing after testing and checks are completed.

Compound material: 800g resin, 160g Catalyst and 40g Fiber rope consists of three parts.

Note: For detailed information and ATEX documents of all our Exproof products visit our website "www.exproof.info"

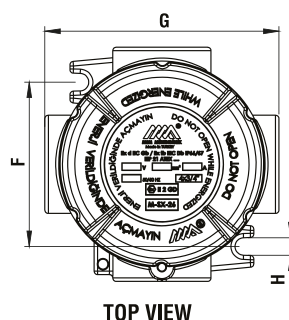
EX-PROOF JUNCTION BOXES



Classification:	Group II	Category 2G 2D	Directive:	2014/34/EU
Installation:	Zone 1 / 2 (Gas)	Zone 21 / 22 (Dust)	Certification:	IEP 21 ATEX 0909X
Marking:	II 2G Ex db IIC T6 Gb	II 2D Ex tb IIIC T85°C Db	Degree Of Protection:	IP66 / IP67
Standards:	EN 60079-0; EN 60079-1; EN 60079-7; EN 60079-31		Ambient Temperature:	-60°C ÷ +130°C

Mechanical Features

Body:	Copper-Free Aluminum
Screw:	Stainless steel
Gasket:	O-ring, Neoprene
Entry:	NPT Thread ANSI B1.20.1
	Optional;
	GAS UNI ISO 228-1
	UNI ISO 7/1
	METRIC ISO 261/965

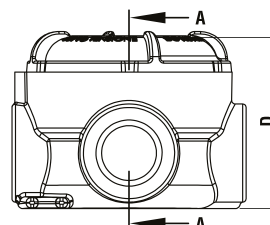


TOP VIEW

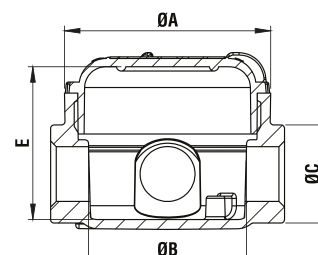


Electrical Features

Rated voltage:	750 V
Rated frequency:	50 / 60 Hz
Rated current:	8 - 175 (A)
Max. current density:	2.5 - 6.6 (A/mm ²)
Terminal cross-sectional area:	1.5; 2.5; 4; 6; 10; 16; 25; 35; 70 (mm ²)



SIDE VIEW



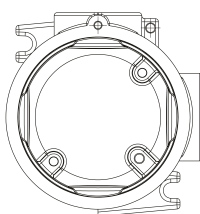
SECTION A-A

Technical Features

TYPE	ØA (mm)	ØB (mm)	ØC (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
M-S.-16	88	73	42	75	65	70	100	7	0,60
M-S.-26	88	73	42	75	65	70	100	7	0,60
M-S.-36	88	73	42	75	65	70	100	7	0,60

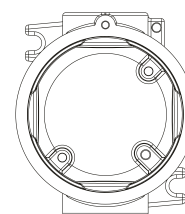
M-SL.. SERIES (2 WAY)

NPT Code	NPT Size	Metric Code	Metric Size
M-SL-16N	1/2"	M-SL-16M	M20x1,5
M-SL-26N	3/4"	M-SL-26M	M25x1,5
M-SL-36N	1"	M-SL-36M	M32x1,5



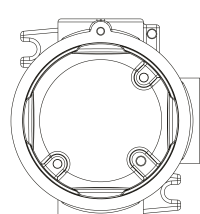
M-SC.. SERIES (2 WAY)

NPT Code	NPT Size	Metric Code	Metric Size
M-SC-16N	1/2"	M-SC-16M	M20x1,5
M-SC-26N	3/4"	M-SC-26M	M25x1,5
M-SC-36N	1"	M-SC-36M	M32x1,5



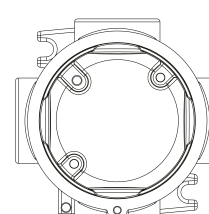
M-ST.. SERIES (3 WAY)

NPT Code	NPT Size	Metric Code	Metric Size
M-ST-16N	1/2"	M-ST-16M	M20x1,5
M-ST-26N	3/4"	M-ST-26M	M25x1,5
M-ST-36N	1"	M-ST-36M	M32x1,5



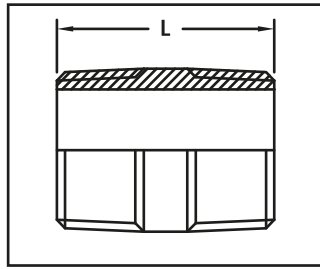
M-SX.. SERIES (4 WAY)

NPT Code	NPT Size	Metric Code	Metric Size
M-SX-16N	1/2"	M-SX-16M	M20x1,5
M-SX-26N	3/4"	M-SX-26M	M25x1,5
M-SX-36N	1"	M-SX-36M	M32x1,5



Notes: According to request, different productions can be made on the same junction box in thread sizes of 1/2", 3/4" and 1".
For detailed information and ATEX documents of all our Exproof products visit our website "www.exproof.info"

M-NP TYPE EX NIPPLES

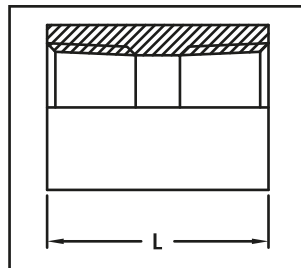


Technical Features

Type	Nipples NPT Thread
Classification	Ex I M2 Ex db I Mb / I M2 Ex eb I Mb / II 1D Ex ta IIIC Da II 2G Ex db IIC Gb / II 2G Ex eb II Gb
Certificate	IEP 21 ATEXX / Directive 2014/34/EU
Material	Galvanized Steel
Thread Type	NPT Thread ANSI B1.20.1
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66
Applications Area	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Grup IIA, IIB, IIC / Dust Grup IIIA, IIIB, IIIC

MSM Code	NPT Size	Lenght L (mm)	Weight Kg
M-NP1N	1/2"	48	0,05
M-NP2N	3/4"	48	0,06
M-NP3N	1"	60	0,10
M-NP4N	1 1/4"	55	0,14
M-NP5N	1 1/2"	55	0,15
M-NP6N	2"	55	0,20
M-NP7N	2 1/2"	68	0,45
M-NP8N	3"	68	0,70
M-NP10N	4"	68	1,00

M-EM TYPE EX COUPLING



Technical Features

Type	Coupling NPT Thread
Classification	Ex I M2 Ex db I Mb / I M2 Ex eb I Mb / II 1D Ex ta IIIC Da II 2G Ex db IIC Gb / II 2G Ex eb II Gb
Certificate	IEP 21 ATEXX / Directive 2014/34/EU
Material	Galvanized Steel
Thread Type	NPT Thread ANSI B1.20.1
Standards	EN 60079-0 / EN 60079-1 / EN 60079-7 / EN 60079-31
IP standard	EN 60529 IP66
Applications Area	Grup II-III / Gas & Dust, Zone 1-2 & 21-22 Gas Grup IIA, IIB, IIC / Dust Grup IIIA, IIIB, IIIC

MSM Code	NPT Size	Lenght L (mm)	Weight Kg
M-EM1N	1/2"	39	0,09
M-EM2N	3/4"	39	0,08
M-EM3N	1"	51	0,15
M-EM4N	1 1/4"	51	0,27
M-EM5N	1 1/2"	51	0,27
M-EM6N	2"	51	0,45
M-EM7N	2 1/2"	65	0,65
M-EM8N	3"	65	0,80
M-EM10N	4"	65	1,00

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- ▶ Ex-Proof Conduits Fittings
- ▶ Ex-Proof Enclosures Boxes & J.Boxes
- ▶ Ex-Proof Switches
- ▶ Ex-Proof Plugs & Sockets
- ▶ Ex-Proof Warning Systems
- ▶ Ex-Proof Other Products

EX-PROOF FLUORESCENT FIXTURES WITH METAL BODY, CEILING TYPE

FLF SERIES, ELECTRONIC BALLAST



BAY51-D SERIES, ELECTRONIC BALLAST



RMS SERIES, STAINLESS STEEL BODY



EVFC SERIES, MECHANICAL BALLAST



EX-PROOF FLUORESCENT FIXTURES WITH POLYESTER BODY, CEILING TYPE

BAY51-Q SERIES, ELECTRONIC BALLAST



eLLK 92 SERIES, ELECTRONIC BALLAST



AVFC SERIES, ELECTRONIC BALLAST



EXEL SERIES, ELECTRONIC BALLAST



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF LED FLUORESCENT FIXTURES

HLL LED SERIES (POLYESTER BODY)



RB_LED SERIES (POLYESTER BODY)



EXLIN LED SERIES (POLYESTER BODY)



FLFL LED SERIES (ALUMINUM BODY)



EX-PROOF LIGHTING FIXTURES

BDD81 SERIES, WITHOUT BALLAST



EVA SERIES, WITHOUT BALLAST



HRD-150 SERIES, WITHOUT BALLAST



BDD91 SERIES, WITH BALLAST



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF EMERGENCY LIGHTING FIXTURES

BAYD SERIES, EXIT



EVF18 SERIES, EXIT



LFED SERIES, EXIT



EXIT SERIES, EXIT



EX-PROOF FLOODLIGHTS

BAT53 SERIES



BAT86 SERIES, LED



SLED SERIES, LED



CZ087 SERIES, LED



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF ZONE-2 LIGHTING FIXTURES

BNY81 SERIES (POLYESTER BODY)



SVN LED SERIES (POLYESTER BODY)



HRNT SERIES FLOODLIGHT



HRND SERIES LIGHTING FIXTURES



EX-PROOF PORTABLE LAMPS AND TORCHES

BSX SERIES, PORTABLE



EVP SERIES, PORTABLE



H-251A SERIES, RECHARGEABLE TORCHES



MINI SERIES, TORCHES



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF CONDUIT & FITTINGS

SPH SERIES, FLEXIBLE CONDUITS



IMC & RSC RIGID CONDUITS



MCK SERIES SEALING COMPOUND



EYS / EZS SERIES SEALING FITTINGS



EX-PROOF JUNCTION BOXES & ELBOWS

S.. SERIES JUNCTION BOXES



ELF / LBH SERIES ELBOWS



GUB.. SERIES JUNCTION BOXES



SFT - EMHC.. SERIES GLASS EQUIPMENT BOXES



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF ENCLOSURE BOXES

EJB.. SERIES ENCLOSURE BOXES (CORTEM)



EJB.. SERIES ENCLOSURE BOXES (COSIME)



PLUG-SOCKET COMBINATION BOX



DMTB SERIES TANK GROUNDING UNIT



EX-PROOF TERMINAL BOXES

AJB.. SERIES ALUMINUM TERMINAL BOXES



SA, SAG.. SERIES ALUMINUM TERMINAL BOXES



TEX.. SERIES STAINLESS STEEL TERMINAL BOXES



GWR.. / DMD.. SERIES GRP TERMINAL BOXES



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF CONTROL UNIT & SWITCHES

BCZ.. SERIES ALUMINUM CONTROL UNIT



BZA.. SERIES GRP CONTROL UNIT



EFD.. SERIES SWITCHES



FCC.. SERIES LIMIT SWITCHES



EX-PROOF PLUGS - SOCKETS

BCZ85 SERIES ALUMINUM PLUG-SOCKETS



PY-SPY SERIES ALUMINUM PLUG-SOCKETS



FSQ-BP SERIES ALUMINUM PLUG-SOCKETS



BCZ8060 SERIES POLYESTER PLUG-SOCKETS



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

EX-PROOF WARNING SYSTEMS

BBJ81 SERIES CAUTION LIGHT WITH SIREN



BJD81 SERIES CAUTION LIGHT



ETH SERIES ELECTRONICAL SIREN



GAS, FLAME, HEAT, SMOKE DETECTORS



EX-PROOF OTHER PRODUCTS

PHONE / CAMERA



CRANE CONTROL BOX



MOTOR



FAN



Note: For detailed information and ATEX documents of all our Exproof products visit our website “www.exproof.info”

(BELONGS TO MSM BRANDED PRODUCTS)

IEP ENERGY PETROLEUM INSTITUTE **IEP ATEX**

(1) **EU-Type Examination Certificate**

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

(3) EU - Type Examination Certificate Number: IEP 19 ATEX 0708X

(4) Product: M-VEN-M and M-VEN-N Series Unarmoured Cable Glands

(5) Firm Name: MSM Mühendislik Elektronik San. Tic. Ltd. Şti.

(6) Firm Address: Barbaros Mah. Evren Cad. No : 38 Ataşehir / İSTANBUL

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Şti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report No : IEP.Rp.Ex.10-1492 date 24.06.2019.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:
EN 60079-0:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

Ex I M2 Ex db/bb I Mb
II 2G Ex db/bb IIC Gb
II 1D Ex db IIC Da

Responsible Person :
Nurettin Terzioğlu
Head of Certification Body

Date of Issue : 25.06.2019

IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hız. Org. Tic. Ltd. Şti.
TMMOB Tek. San. K. Binası - ÜMR - TÜRKİY
Tel: +90 212 431 17 43 - 40 Fax: +90 212 431 17 39 E-mail: iep@iep.com.tr
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IEP ENERGY PETROLEUM INSTITUTE **IEP ATEX**

(1) **EU-Type Examination Certificate**

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

(3) EU - Type Examination Certificate Number: IEP 19 ATEX 0719X

(4) Product: M-MERXM and M-MERXN Series Armoured Cable Glands

(5) Firm Name: MSM Mühendislik Elektronik San. Tic. Ltd. Şti.

(6) Firm Address: Barbaros Mah. Evren Cad. No : 38 Ataşehir / İSTANBUL

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Şti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report No : IEP.Rp.Ex.10-1515 date 16.08.2019.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:
EN 60079-0:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

Ex I M2 Ex db/bb I Mb
II 2G Ex db/bb IIC Gb
II 1D Ex db IIC Da

Responsible Person :
Nurettin Terzioğlu
Head of Certification Body

Date of Issue : 19.08.2019

IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hız. Org. Tic. Ltd. Şti.
TMMOB Tek. San. K. Binası - ÜMR - TÜRKİY
Tel: +90 212 431 17 43 - 40 Fax: +90 212 431 17 39 E-mail: iep@iep.com.tr
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IEP ENERGY PETROLEUM INSTITUTE **IEP ATEX**

(1) **EU-Type Examination Certificate**

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

(3) EU - Type Examination Certificate Number: IEP 20 ATEX 0792U

(4) Product: M-BMFX, M-BFFX and M-BDMX Series Three-piece Connection Fittings

(5) Firm Name: MSM Mühendislik Elektronik San. Tic. Ltd. Şti.

(6) Firm Address: Barbaros Mah. Evren Cad. No : 38 Ataşehir / İSTANBUL

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Şti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report No : IEP.Rp.Ex.10-1605 date 05.02.2020.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:
EN 60079-0:2013, EN 60079-1:2014, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

Ex II 2G Ex db IIC Gb
II 2D Ex db IIC Db
I M2 Ex db I Mb, IP 66/67

Responsible Person :
Nurettin Terzioğlu
Head of Certification Body

Date of Issue : 06.02.2020

IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hız. Org. Tic. Ltd. Şti.
TMMOB Tek. San. K. Binası - ÜMR - TÜRKİY
Tel: +90 212 431 17 43 - 40 Fax: +90 212 431 17 39 E-mail: iep@iep.com.tr
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IEP ENERGY PETROLEUM INSTITUTE **IEP ATEX**

(1) **EU-Type Examination Certificate**

(2) **Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

(3) EU - Type Examination Certificate Number: IEP 20 ATEX 0820X

(4) Product: M-SBRXM, M-SBRXN and M-DBRXN Series Glands

(5) Firm Name: MSM Mühendislik Elektronik San. Tic. Ltd. Şti.

(6) Firm Address: Barbaros Mah. Evren Cad. No : 38 Ataşehir / İSTANBUL

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Şti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report No : IEP.Rp.Ex.10-1709 date 27.05.2020.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:
EN 60079-0:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

Ex I M2 Ex db/bb I Mb
II 2G Ex db/bb IIC Gb
II 1D Ex db IIC Da

Responsible Person :
Nurettin Terzioğlu
Head of Certification Body

Date of Issue : 28.05.2020

IEP Ulaştırma Enerji Petrol Güç, Sertifikasyon ve Teknik Hız. Org. Tic. Ltd. Şti.
TMMOB Tek. San. K. Binası - ÜMR - TÜRKİY
Tel: +90 212 431 17 43 - 40 Fax: +90 212 431 17 39 E-mail: iep@iep.com.tr
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ATEX

EU-Type Examination Certificate

(2) Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres

Directive 2014/34/EU

(3) EU - Type Examination Certificate Number: IEP 19 ATEX 0004X

(4) Product: M-PLGXM and M-PLGXN Series Stopping Flaps

(5) Firm Name: MMSI Mühendislik Elektrikmekanik San. Tic. Ltd. Şti.

(6) Firm Address: BarbarosMah. Evren Cad. No : 38 Ataşehir / İSTANBUL

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Uluslararası Enerji Petrol Gazları, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Şti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report Nr: IEP.Rp.Ex.10-1466 date 10.04.2019.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:

EN 60079-0:2013, EN 60079-1:2014, EN 60079-7:2015, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective systems shall include the following:

I M2 Ex db I Mb / I M2 Ex db IIC Da
II 2G Ex db IIC Gb / II 2G Ex db II Gb

Responsible Person :

Nurgün Ürezoğlu
Head of Certification Body

Date of Issue : 03.05.2019

IEP Uluslararası Enerji Petrol Gazları, Sertifikasyon ve Teknik Hizmetler Org. Tic. Ltd. Şti.
37461 Sok. No:9 K:2/Büyükdere / Şişli / İSTANBUL

Tel: +90 212 431 37 43 - faks : +90 212 431 37 34 E-mail: iletisim@iep-atex.org.tr

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		IECEx Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.org			
Certificate No:	IECEx CNL 17.0004	Issue No: 0	Certificate history: Issue No: 0 (2017-04-05)
Status:	Current	Page 1 of 3	
Date of Issue:	2017-04-05		
Applicant:	Costem Group Via Aquilini, 10100 Milano (2009) Italy		
Equipment:	LED Lighting Fixture		
Optional accessory:			
Type of Protection:	Ex db eb up Ia, Ex II		
Marking:	Ex db eb up Ia IIB+H2 T3/T4-Da Ex to IEC T100°C/T135°C Da IP66		
Approved for issue on behalf of the IECEx Certification Body:		A C Smith	
Position:		Technical Operations Director	
Signature: (for printed version)			
Date:		2017-04-05	
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.			
Certificate issued by:			
Certification Management Limited Unit 1, Newport Business Park New Port Road Ebbw Vale, NP23 5JZ United Kingdom			
			

(BELONGS TO IMPORTED PRODUCTS)

 **INERIS**

2 Appareil ou système de protection destiné à être utilisé en atmosphères explosibles
Equipment and protective systems intended for use in potentially explosive atmospheres

Directive 2014/34/UE
Directive 2014/34/EU

1 **ATTESTATION D'EXAMEN UE DE TYPE**
EU-TYPE EXAMINATION CERTIFICATE

3 Numéro de l'attestation d'examen UE de type / Number of the EU-Type Examination Certificate
INERIS 16ATEX0007X INDEX / ISSUE : 00

4 Appareil ou système de protection / Equipment or protective system:
APPAREILLAGES ET ACCESSOIRES TYPE
RE - RES - REM - REN - LBN - LBY - NP - EM - PLG - ELF - ELM - ELMF
FITTINGS AND ACCESSORIES TYPE
RE - RES - REM - REN - LBN - LBY - NP - EM - PLG - ELF - ELM - ELMF

5 Fabricant / Manufacturer: **FEAM**

6 Adresse / Address: **Via Mario Poggiani, 3
I - 20090 Trezzano S/N Naviglio (MI)**

7 Cet appareil ou système de protection et toute autre variante acceptable de celui-ci sont décrits dans l'annexe de la présente attestation et dans les documents descriptifs cités dans cette annexe.
This equipment or protective system and any acceptable variation thereto is specified in the Annex of this certificate and the descriptive documents therein referred to.

8 L'INERIS, organisme notifié et identifié sous le numéro 0080, conformément aux articles 17 et 21 de la directive 2014/34/UE du Parlement Européen et du Conseil, datée du 26 février 2014, et accrédité par le COFRAC sous le n° 5-0045 dans le cadre de l'activité de certification de produits et services (portée disponible sur www.cofrac.fr) certifie que cet appareil ou système de protection répond aux exigences Essentielles de Sécurité et de Santé en ce qui concerne la conception et la construction des appareils et des systèmes de protection destinés à être utilisés en atmosphères explosibles, décrites en annexe II de la Directive.
INERIS, notified body and identified under number 0080, in accordance with Articles 17 and 21 of Directive 2014/34/UE of the European Parliament and of the Council, dated 26 February 2014, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr), certifies that this equipment or protective system fulfils the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
Les procédures de certification sont disponibles sur www.ineris.fr.
The rules of certification are available on INERIS website on: www.ineris.fr.
Les examens et les essais sont consignés dans le rapport.
The examination and the tests are recorded in the report.
N° 029953.

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KEMA 

1) **EC-TYPE EXAMINATION CERTIFICATE**

2) Components intended for use in potentially explosive atmospheres - Directive 94/EC

3) EC-Type Examination Certificate Number: **KEMA 91ATEX32257 U**

4) Components: **Enclosure Type E, II**

5) Manufacturer: **CO SIME S.R.L.**

6) Address: **Via Asiago, 31, 20126 Milan, Italy**

7) These components and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/EC of 23 March 1994, certifies that these components have been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components intended for use in potentially explosive atmospheres given in Annex II to the Directive.
This examination and test results are recorded in confidential report no. 2015042.

9) Compliance with the Essential Health and Safety Requirements has been assessed by compliance with:
EN 50014 : 1997 EN 50018 : 2000 EN 50281-1-1 : 1998

10) The sign "U" placed after the certificate number indicates that this certificate describes components and must not be mistaken for a certificate intended for an equipment or protective system. This EC-Type Examination Certificate may be used as a basis for certification of an equipment or protective system.

11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified components according to the Directive 94/EC. Further requirements of the directive apply to the manufacturing process and supply of these components. These are not covered by this certificate.

12) The marking of the components shall include the following:
 **II 2 GD EEx II B**

Amhem, 11 March 2015
KEMA Quality B.V.

T. Pijper
Certification Manager

* This Certificate may only be reproduced in its entirety and without any change

KEMA Quality B.V.
Lindendreef 171, 3922 AH Amhem, The Netherlands
P.O. Box 8185, 3920 GB Amhem, The Netherlands
Telephone +31 (0) 38 3 56 13 00, Telefax +31 (0) 38 3 52 59 00

ACCREDITED BY THE
DUTCH COUNCIL FOR
ACCREDITATION

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Translation
EU-Type Examination Certificate
Supplement 13

2 Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/UE

3 EU-Type Examination Certificate Number: **BVS 09 ATEX E 034**

4 Product: **Fluorescent lighting fixture type eLL***

5 Manufacturer: **Cooper Crouse-Hinds GmbH**

6 Address: **Neuer Weg Nord 45, 68412 Eberbach, Germany**

7 This supplementary certificate extends EU-Type Examination Certificate No. BVS 09 ATEX E 034 to apply to products designed and constructed in accordance with the specifications set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents related to them.

8 DEKRA EXAM GmbH, Notified Body number 0155, in accordance with Article 17 of Directive 2014/34/UE of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 06 2044 EU.

9 The Essential Health and Safety Requirements are observed in consideration of:
EN 60079-0:2012 + A1:2013 General requirements
EN 60079-1:2014 Flameproof enclosure "d"
EN 60079-7:2015 Increased Safety "e"
EN 60079-11:2012 Intrinsic Safety "i"
EN 60079-18:2016 Escapulation "m"
EN 60079-26:2015 Optical radiation "op in"
EN 60079-31:2014 Protection by Enclosures "n"

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:
II 2D Ex db eb IIC T4 Gb
II 2D Ex db eb ib mb IIC T4 Gb
II 2D Ex db eb ib mb op in IIC T4 Gb
II 2D Ex db eb mb op in IIC T4 Gb
II 2D Ex ib IIC T89°C Db

DEKRA EXAM GmbH
Bottum, 2018-08-03

Signed: Dr Franz Eickhoff
Certifier

Signed: Dr Michael Witter
Approver

Page 1 of 1 of BVS 09 ATEX E 034 / 1/1
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IEC **IECEx** **IECEx Certificate of Conformity**

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx CMEX 17.0001X** Page 1 of 4 Certificate Status:

Status: **Current** Issue No: 0

Date of Issue: **2017-05-22**

Applicant: **CZ Explosion-proof Electric Appliances Co., Ltd**
No. 1 Qiang Rd, Qing Town, Nanhai District, Jiang, Zhejiang China

Equipment: **LED explosion-proof light fittings model CZ0870d**

Optional accessory:

Type of Protection: **Ex db, eb, op in, ib**

Marking: **Ex db eb op in IIC T5/T4 Gb**
Ex ib IIC T89°C T30°C Db

Approved for issue on behalf of the IECEx Certification Body: **Wu Jianguo**

Position: **Certification Officer**

Signature: 
(for printed version)

Date:

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2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:
CMEX-Global B.V.
Utrechtseweg 320
6822AR, Amhem
Netherlands



QA-QA-4414/20 QA TECHNIC – UYGUNLUK ONAYI QÜ TECHNIC – ATTESTATION OF CONFORMITY	
MSM MÜHENDİSLİK ELEKTROMEKANİK SAN. VE TİC. LTD. ŞTİ. BARBAROS MAH. MİLLET CAD. NO:38/A YENİSAHRA ATAŞEHİR İSTANBUL/TÜRKİYE	
Ürünün Tanımı <i>Description of the Product/Product Part</i>	: ENDÜSTRİYEL / EXPROOF-TİP RAKOR VE AKSESUARLARI INDUSTRIAL / EXPROOF TYPE GLAND AND ACCESSORIES
Markası <i>Product Commercial Brand</i>	: MSM
Ürün Tipi <i>Product Type</i>	: M-HEN TIP EK / ENO. ZİRHESİZ KABLO RAKOR SERİSİ, M-HEN TIP EK / ENO. ZİRHİLİ KABLO RAKOR SERİSİ, M-BMF, M-BFF, M-BMH TIP EK / ENO. GALVANİZLİ BORU RAKOR SERİSİ, M-SBR TIP EK / ENO. SİRALI BORU RAKOR SERİSİ, M-DKR TIP EK / ENO. DÜZ BORU RAKOR SERİSİ, M-PUG TIP EK / ENO. KÖR TAPA SERİSİ, M-RHB TIP EK / ENO. REDUKSYON SERİSİ, M-AE TIP EK / ENO. ADAPTOR SERİSİ, M-H4H TIP EK / ENO. HANSON SERİSİ, M-NP TIP EK / ENO. NİPEL SERİSİ, M-EYS TIP EK / ENO. DÜŞEY DÜRDÜRÜCÜ SERİSİ, M-SX, M-ST, M-SL, M-SC, M-S TP EK / ENO. İRTİBAT KUTUSU SERİSİ
M-HEN TYPE EXPROOF / INDUSTRIAL UNARMoured CABLE GLAND SERIES, M-HEN TYPE EXPROOF / INDUSTRIAL ARMoured CABLE GLAND SERIES, M-BMF, M-BFF, M-BMH TYPE EXPROOF / INDUSTRIAL CONDUIT UNION SERIES, M-SBR TYPE EXPROOF / INDUSTRIAL FLEXIBLE CONDUIT CONNECTOR SERIES, M-DKR TYPE EXPROOF / INDUSTRIAL RIGID CONDUIT CONNECTOR SERIES, M-PUG TYPE EXPROOF / INDUSTRIAL BLIND FLANG SERIES, M-AE TYPE EXPROOF / INDUSTRIAL REDUCER SERIES, M-RE TYPE EXPROOF / INDUSTRIAL ADAPTER SERIES, M-HEN TYPE EXPROOF / INDUSTRIAL COUPLING SERIES, M-NP TYPE EXPROOF / INDUSTRIAL NIPPLE SERIES, M-EYS TYPE EXPROOF / INDUSTRIAL VERTICAL SEALING FITTING SERIES, M-SX, M-ST, M-SL, M-SC, M-S TP TYPE EXPROOF / INDUSTRIAL JUNCTION BOXES SERIES	
Rapor No & Rapor Tarihi <i>Report No & Report Date</i>	: QA-AC-R-4414/20, 08.01.2021
İlgili belge incelemesi yapılan ürün tasarımı için geçerlidir. Ürünün değiştirilmesi halinde bu belge geçersizliği kaybedecektir. Ürünün ilgili direktif / direktiflere uygunluğu ile ilgili nihai sorumluluk üretici firmaya aittir. The Present certificate is valid just for the analysed product design. The certificate shall lose its validity in case of any changes in the product. Ultimate responsibility relating with conformity of product with directive / directives, belongs to manufacturer.	
İlgili yönetmelikler ve yasal mevzuat gereği ürünün Ultimate responsibility regarding the affixing of the CE mark according to relevant regulations and legal legislation,	
Sertifika Yayın Tarihi <i>Certificate Issue Date</i>	: 12.01.2021
Geçerlilik Tarihi <i>Validity Date</i>	: 12.01.2022
ALBERGİ QA ULUSLARARASI TEKNİK KONTROL VE BEĞERLENDİRME A.Ş. BARBAROS MAH. AK FARKASIR KOK. A BLOK KAT: 19 No:2 FATİHİN İSTANBUL, TÜRKİYE Tel : (+39) 852 48 10 11-12 Fax : (+39) 852 48 14 www.qatechinc.com	
L. Murat YILMAZ Yönetim Kurulu Başkanı Chairman Of Executive Board	

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ ЕАЭС RU-C-TRA.007.0.02292/20

Серия **RU**

№ **0224680**

ОРГАН ПО СЕРТИФИКАЦИИ Орган по сертификации Общества с ограниченной ответственностью «Центр Сертификации «ВЛЕС» Место нахождения (адрес юридического лица): 190000, РОССИЯ, город Санкт-Петербург, улица Академика Завальды, дом 12, литер 3, литеры А, литер 2, литера 2б. Адрес места осуществления деятельности: 190000, РОССИЯ, город Санкт-Петербург, проспект Невский, дом 4 литер А, литеры ВВ. Уполномоченный орган записан по информации в реестре аккредитованных лиц № ЕАЭС/104/007. Дата окончания аккредитации: 24.03.2016. Телефон: +7(812)2111800. Адрес электронной почты: info@vles.ru

ЗАЯВИТЕЛЬ ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ «ММ ТЕХНОЛОГИИ»

Место нахождения (адрес юридического лица) и адрес места осуществления деятельности: 119462, Россия, город Москва, улица Афанасия Руднева, дом 4, этаж 6, квартира 10, офис 612. Основной государственный регистрационный номер (ОГРН/ОГРНИП): 117734404006. Телефон: 7(495)4152181. Адрес электронной почты: MmTechnologies@gmail.com

ИЗГОТОВИТЕЛЬ МММ МЕНДЕНКО ЭЛЕКТРОМЕХАНИКА SANAYI VE TICARET LTD. STI

Место нахождения (адрес юридического лица) и адрес места осуществления деятельности по производству продукции: Турция, Bahariye Mah. Midea San. No 28 FS.34746 Adana - Bahceli

ПРОДУКЦИЯ Бытовые плиты, плиты газовые, электрические, электрические плиты: M-MEUX, M-VENCK, M-SIBUX, M-DIBUX,

M-PLUX, M-REUX, M-ELEX, M-EMUX, M-DMUX, M-EMMX, EMEX, NROX. Маркировка продукции: код страны происхождения (страна ММ-0763188 - 0763191). Продукция изготовлена в соответствии с: «Система 2016-24101» и в соответствии с действующими нормативами для работы на электрических сетях. Сертификат выдан:

КОД ТИП ЕВРАЗ 813601300, 813605050

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ

Технического регламента Таможенного союза «О безопасности оборудования для работы на электрических сетях» ТУ ТС 012/2011

СЕРТИФИКАТ СООТВЕТСТВИЯ ВЫДАН НА ОСНОВАНИИ Протокола испытаний № 1878/01/00 от 24.10.2020 года, выданного Техническим центром Общества с ограниченной ответственностью «ПРОМАНДИ ТЕСТ» (государственный журнал регистрации сертификата № А.00.218/09)

Удостоверяет соответствие продукции от 24.10.2020 года, выданного Органом по сертификации Общества с ограниченной ответственностью «Центр Сертификации «ВЛЕС»

Руководство по эксплуатации, конструкторские документация

Система сертификации: 14

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Срок службы 30 лет. Срок хранения 10 лет, условия хранения согласно эксплуатационной документации изготовителя. Стандарты, обеспечивающие соблюдение требований Технического регламента Таможенного союза ТУ ТС 012/2011 «О безопасности оборудования для работы на электрических сетях», согласно протоколу - 01606 806-0763188 - 0763191.

СРОК ДЕЙСТВИЯ С 22.10.2020
ВКЛЮЧИТЕЛЬНО

ПО 22.10.2021

Руководитель (уполномоченная
лица) органа по сертификации

Директор (исполнитель)
(эксперт) (исполнитель-эксперт)

Подпись Галина Александровна
(М.П.)

Подпись Дмитрий Олегович
(М.П.)






CERTIFICATE

MSM MÜHENDİSLİK ELEKTROMEKANİK SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Merkez: Barbaros Mah. Evren Cad. No:38 Ataşehir, İstanbul, TÜRKİYE
Depo: Barbaros Mah. Evren Cad. No:12-A Ataşehir, İstanbul, TÜRKİYE

Kablo Tayin, Kuruma ve Sonlandırma Sistemleri İmalat, Pazarlama ve Satış
 Production/Marketing and Sale of Cable Transport/Protection and Termination Systems

TCS Belgelendirme tarafından denetlenmiş ve uygulamakta olduğu Kalite Yönetim Sistemi
 is audited by TCS Certification and applies Quality Management System under the requirements of

ISO 9001:2015

standardına aşağıdaki kapsamda uyumta olduğu gözlemlenmiştir.
 standard for the following activities

Sertifika No / Certificate No: QM-00 90

180482-TR

Sertifika İlk Verilen Tarihi /
Certificate Issue Date
30.07.2018

Sertifika Sonu Geçerli Tarihi /
Certificate Valid Until Date
10.08.2020

Mutual Belgelendirme Geçerlilik Periyodu /
Mutual Date of Certificate Validity Period
30.07.2018 - 30.07.2021

SEKİZYÜZLÜK GEÇERLİLİK TARİHİ : 30.07.2021





Barbaros Mah. Kablo Cad. Kable Sanayi No:12-A Ataşehir / İZMİR
 T: 0212 575 00 33 F: 0212 575 00 01 info@tcsort.com www.tcsort.com

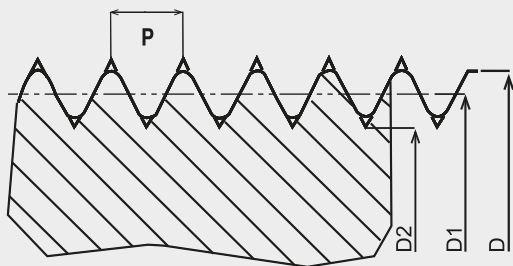


www.tcsort.com

 İSTANBUL TİCARİT ODASI İSTANBUL	TÜRKİYE ODALAR VE BORSALAR BİRLİĞİ KAPASİTE RAPORU			
İSTANBUL TİCARİT ODASI	Geçerlilik Süresi Sonu 10.10.2010	Rapor Tarihi : 19.10.2010 Rapor No : 4543		
Firma Ünvanı Tescilli Markaları Vergi Dairesi/No İşyeri SGK No MERSİS No	/SİM TEKNİK ENDÜSTRİYEL SİSTEMLER İMALAT SANAYİ VE TİCARİT LİMİTED İŞKİETİ : Kozyatağı Y.D. / 62301/2234 :227960797/26582303441-80 :0673-0312-2548-0019	Sanayi Sicil No : 712999 Oda Sicil No : 7131218 Ticaret Sicil No : 713121 Patenli Koda : 21.62.02 (NACE)		
Üretim Yaptığı Yür	Adres : BARBAROS MAH. EYRİN CAD.NO:25A ATAŞEHİR / İSTANBUL İşyeri Tel (Kodlu): 2164720800 e-posta : msn@simtek.com Faks : 2164720888 Web :			
Merkezi	Adres : BARBAROS MAH. EYRİN CAD.NO:25A ATAŞEHİR / İSTANBUL Bina Tel (Kodlu): 2164720800 Faks : 2164720888			
Çalışan Kuvveti	ELEKTROMEKANİK SONLANDIRMA SİSTEMLERİ			
Çalışan Talebata Durumu Kırık Arızalı (m2) Tutarlı Kapasite Tale (m2) Bina İşyeri Tipi	Sonuçları Kayıtları Durumu (TL) Makine ve Teçhizat Değeri Tescilli Sermayesi B.A.R.M.E	Personel Durumu Mühendis : Teknisyeni : Usta : İşçi : İşlet. Pers. : Toplam :		
Çalışan Faaliyetleri Başlama Tarihi : 10.03.2010				
Yabancı Sermaye Çekim Oran (%)	Geçirli Maliyetler Pnömil Know How Lisans Diğer			
Sertifika:				
Yabancı sermaye, yerli işletmeler, işletmeler mevcut makine ve teçhizatın yitirileceği yöntem ve kriterlere göre teknik olarak hesaplanan azami üretim kapasitesi ile işletmeler kapasitelerini karşılayıp ya da karşılamadıkları kapasite raporları 14.10.2009 genel tebliğinden itibaren				
RAPORTÖR YUSUF SANCAR Kapasite Sorumlusu Raporu 	İZLEKPER MUSA KIYAK Makine Mühendisi 	2.EKİPİR		
				
İZLEKPER MUSA KIYAK Makine Mühendisi 13.11.2010				

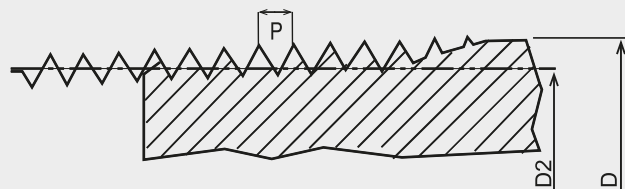
THREAD TYPE FEATURES

GAS THREAD
(UNI ISO 228)



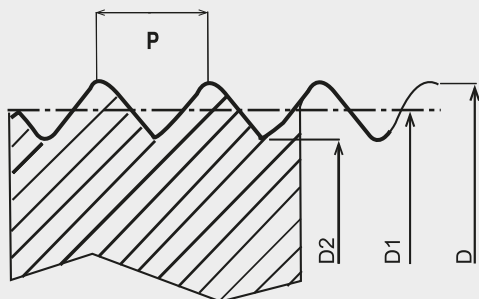
Thread Type	Thread Diameter D	Size D1	Size D2	Size P	Thread Piece Z
G 1/4"	13,157	12,301	11,445	1,337	19
G 3/8"	16,662	15,806	14,950	1,337	19
G 1/2"	20,955	19,793	18,631	1,814	14
G 3/4"	26,441	25,279	24,117	1,814	14
G 1"	33,249	31,770	30,291	2,309	11
G 1 1/4"	41,910	40,431	38,952	2,309	11
G 1 1/2"	47,803	46,324	44,845	2,309	11
G 2"	59,614	58,135	56,656	2,309	11
G 2 1/2"	75,184	73,705	72,226	2,309	11
G 3"	87,884	86,405	84,926	2,309	11
G 4"	113,030	111,551	110,072	2,309	11

NPT THREAD
(ANSI B1.20.1)



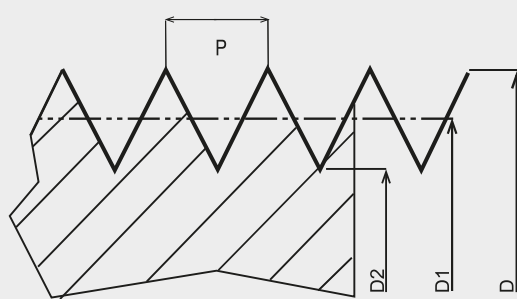
Thread Type	Thread Diameter D	Size D2	Size P	Thread Piece Z
NPT 1/4"	13,716	12,7635	1,411	18
NPT 3/8"	17,145	16,1925	1,411	18
NPT 1/2"	21,336	20,1115	1,814	14
NPT 3/4"	26,670	25,4455	1,814	14
NPT 1"	33,401	31,9100	2,208	11,5
NPT 1 1/4"	42,164	40,6730	2,208	11,5
NPT 1 1/2"	47,800	---	2,208	11,5
NPT 2"	60,325	58,8340	2,208	11,5
NPT 2 1/2"	73,025	70,8817	3,175	8
NPT 3"	88,900	86,7567	3,175	8
NPT 4"	114,300	112,1567	3,175	8

PG THREAD
(DIN 40430)



Thread Type	Thread Diameter D	Size D1	Size D2	Size P	Thread Piece Z
Pg 7	12,50	11,89	11,28	1,27	20
Pg 9	15,20	14,53	13,36	1,41	18
Pg 11	18,60	17,93	17,26	1,41	18
Pg 13,5	20,40	19,73	19,06	1,41	18
Pg 16	22,50	21,83	21,16	1,41	18
Pg 21	28,30	27,54	26,78	1,588	16
Pg 29	37,00	36,24	35,48	1,588	16
Pg 36	47,00	46,24	45,48	1,588	16
Pg 42	54,00	53,24	52,48	1,588	16
Pg 48	59,30	58,54	57,78	1,588	16

METRIC THREAD
(EN 60423)



Thread Type	Thread Diameter D	Size D1	Size D2	Size P
M12	12	11,026	10,376	1,5
M16	16	15,026	14,376	1,5
M20	20	19,026	18,376	1,5
M25	25	24,026	23,376	1,5
M32	32	31,026	30,376	1,5
M40	40	39,026	38,376	1,5
M50	50	49,026	48,376	1,5
M63	63	62,026	61,376	1,5

Note: Dimensions are given in "mm". Technical pictures are scale-free.
The specified dimensions cover the teeth of the panel (male) type.

CYCLE TABLES

WEIGHT

1 ons (oz)	= 437,5 grains	= 28,350 g
1 pound (lb)	= 16 oz	= 0,4536 kg
1 stone	= 14 lb	= 6,35 kg
1 ton	= 2.240 lb	= 0,0161 t
1 gram (g)	= 1,000 mg	= 0,0353 oz
1 kilogram (kg)	= 1.000 g	= 2,2046 lb
1 ton	= 1.000 kg	= 0,9842 ton

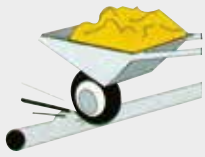
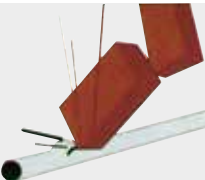
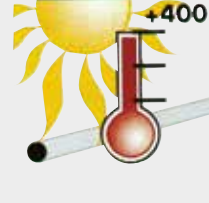
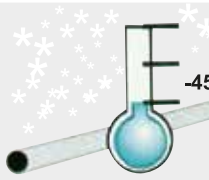
VOLUME

1 cubic yard	= 27 cu ft	= 0,77 m3
1 pint (pt)	= 4 gills	= 0,57 L
1 gallon (gal)	= 8 pt	= 4,55 L
1 cubic decimeter (dm3)	= 1,000 cm3	= 0,04 cu ft
1 cubic meter (m3)	= 1,000 dm3	= 1,31 cu yd
1 liter (L)	= 1 dm3	= 0,22 gal

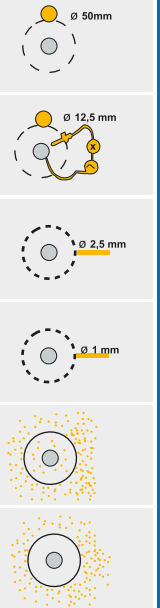
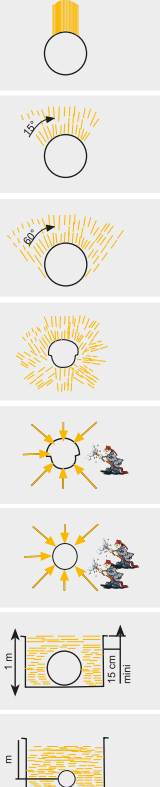
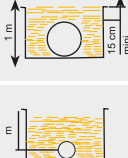
LENGHT

1 inch	= 0,027 yard	= 2.54 cm
1 ft	= 12 inch	= 0.31 m
1 yard	= 3 ft	= 0.91 m
1 mil	= 5.280 ft	= 1.60 km
1 cm	= 0,032 ft	= 0.39 inch
1 m	= 36 inch	= 1.09 yard
1 km	= 1.760 yard	= 0.62 mil

MECHANICAL AND THERMIC CLASSIFICATION

EN 61386 CLASSIFICATION				
1	2	3	4	
1st figure resistance to compression		3rd figure upper temperature range		
	1	very light	125 N	
	2	light	320 N	
	3	medium	750 N	
	4	heavy	1250 N	
	5	very heavy	4000 N	
2nd figure resistance to compression		4th figure lower temperature range		
	1	very light	0,5 J	
	2	light	1 J	
	3	medium	2 J	
	4	heavy	6 J	
	5	very heavy	20 J	
			1	+60 °C
			2	+90 °C
			3	+105 °C
			4	+120 °C
			5	+150 °C
		6	+250 °C	
		7	+400 °C	
			1	+5 °C
			2	-5 °C
			3	-15 °C
			4	-25 °C
			5	-45 °C

IP Ratings (Ingress Protection)

First Digit Protection Against Solids			Second Digit Protection Against Fluids		
	0	No protection		0	No protection
	1	Protected against solid objects over 50mm e.g. hands, large tools.		1	Protected against vertically falling drops of water or condensation.
	2	Protected against solid objects over 12.5mm e.g. hands, large tools.		2	Protected against falling drops of water, if the case is disposed up to 15° from vertical.
	3	Protected against solid objects over 2.5mm e.g. wire, small tools.		3	Protected against sprays of water from any direction, even if the case is disposed up to 60° from vertical.
	4	Protected against solid objects over 1.0mm e.g. wires.		4	Protected against splash water from any direction.
	5	Limited protection against dust ingress. (no harmful deposit)		5	Protected against low pressure water jets from any direction. Limited ingress permitted.
	6	Totally protected against dust ingress.		6	Protected against high pressure water jets from any direction. Limited ingress permitted.
CONSERVATION CONCEPTS OIL-TIGHT DUST-TIGHT WATER-TIGHT DRIP-TIGHT RAIN-TIGHT				7	Protected against short periods of immersion in water.
				8	Protected against long, durable periods of immersion in water.
					ICE RESISTANT SLEET RESISTANT RAIN-PROOF WEATHER-PROOF CORROSION RESISTANT