1

Emergency Stops

Product Description

Eaton's M22 emergency stops are a durable and reliable solution to a variety of e-stop applications. With standard push-pull, as well as twist-to-release and key-release, illuminated options and red or black operators, the M22 e-stop is a robust solution. As with all operators, they can be ordered as a ready to install complete device or as modular components for the perfect fit.

Features

- Push-pull and twist to release options available as well as illuminated and keyed release
- LED offering only for improved brightness quality and up to 100,000 hours of operation
- More than 100,000 mechanical operations
- Capable of communicating via ASi protocol with ASi adapter modules

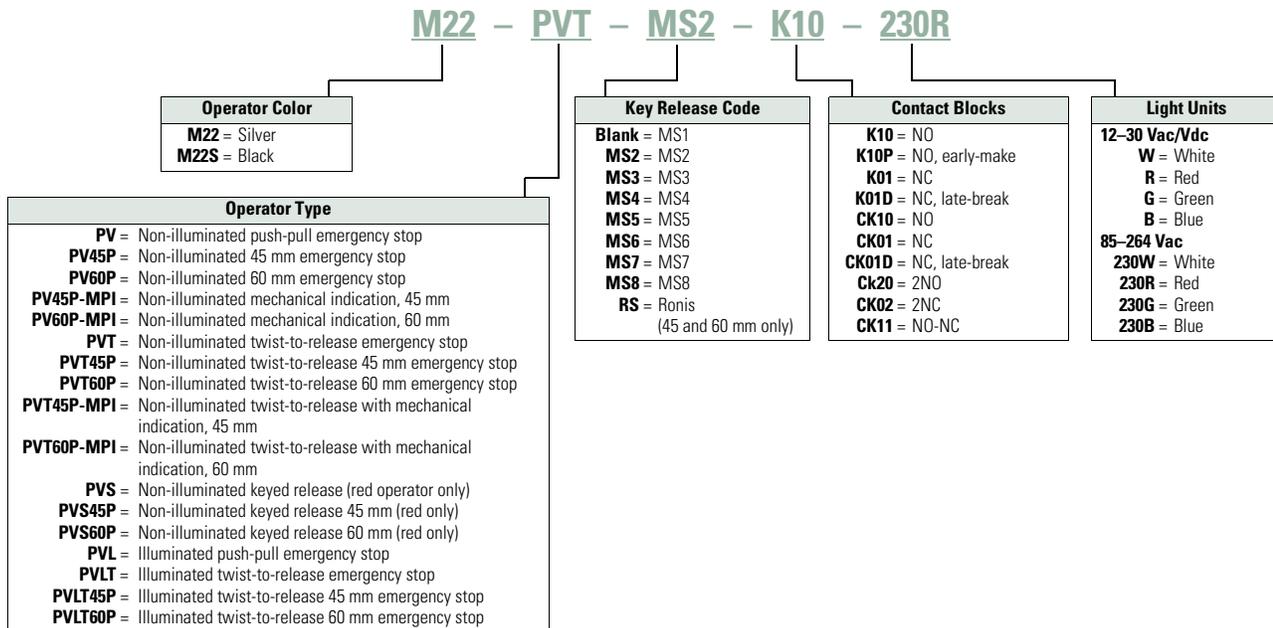- Suitable for use in safety applications up to Category-4 or Sil-3

Protection Type

- IP67, IP69K (IP66 key-release)
- NEMA 4X, 13

Catalog Number Selection

Catalog Number Selection is for illustrative purposes only and not to be used to create new catalog numbers.

Emergency Stops

M22 – PVT – MS2 – K10 – 230R

Operator Color
M22 = Silver
M22S = Black

Operator Type
PV = Non-illuminated push-pull emergency stop
PV45P = Non-illuminated 45 mm emergency stop
PV60P = Non-illuminated 60 mm emergency stop
PV45P-MPI = Non-illuminated mechanical indication, 45 mm
PV60P-MPI = Non-illuminated mechanical indication, 60 mm
PVT = Non-illuminated twist-to-release emergency stop
PVT45P = Non-illuminated twist-to-release 45 mm emergency stop
PVT60P = Non-illuminated twist-to-release 60 mm emergency stop
PVT45P-MPI = Non-illuminated twist-to-release with mechanical indication, 45 mm
PVT60P-MPI = Non-illuminated twist-to-release with mechanical indication, 60 mm
PVS = Non-illuminated keyed release (red operator only)
PVS45P = Non-illuminated keyed release 45 mm (red only)
PVS60P = Non-illuminated keyed release 60 mm (red only)
PVL = Illuminated push-pull emergency stop
PVLT = Illuminated twist-to-release emergency stop
PVLT45P = Illuminated twist-to-release 45 mm emergency stop
PVLT60P = Illuminated twist-to-release 60 mm emergency stop

Key Release Code
Blank = MS1
MS2 = MS2
MS3 = MS3
MS4 = MS4
MS5 = MS5
MS6 = MS6
MS7 = MS7
MS8 = MS8
RS = Ronis (45 and 60 mm only)

Contact Blocks
K10 = NO
K10P = NO, early-make
K01 = NC
K01D = NC, late-break
CK10 = NO
CK01 = NC
CK01D = NC, late-break
Ck20 = 2NO
CK02 = 2NC
CK11 = NO-NC

Light Units
12–30 Vac/Vdc
W = White
R = Red
G = Green
B = Blue
85–264 Vac
230W = White
230R = Red
230G = Green
230B = Blue

Product Selection

Non-Illuminated and Illuminated Emergency Stops

Complete Devices

M22-PV-K01

M22-PVL-K01-R

Type	Button Color	LED Color	Contact Block Configuration [1]	Light Unit Voltage	Catalog Number
Non-Illuminated					
Push-pull	Red	—	NC	—	**M22-PV-K01**
			2NC		**M22-PV-K02**
			1NO-2NC		**M22-PV-K12**
Twist-to-release	Red	—	NC	—	**M22-PVT-K01**
			2NC		**M22-PVT-K02**
			1NO-2NC		**M22-PVT-K12**
Key release	Red	—	NC	—	**M22-PVS-K01**
			2NC		**M22-PVS-K02**
			1NO-2NC		**M22-PVS-K12**
Illuminated					
Push-pull	Red	Red	NC	12–30 Vac/Vdc	**M22-PVL-K01-R**
			2NC		**M22-PVL-K02-R**
			1NO-2NC		**M22-PVL-K12-R**
			NC	85–264 Vac	**M22-PVL-K01-230R**
			2NC		**M22-PVL-K02-230R**
			1NO-2NC		**M22-PVL-K12-230R**
Twist-to-release	Red	Red	NC	12–30 Vac/Vdc	**M22-PVLT-K01-R**
			2NC		**M22-PVLT-K02-R**
			1NO-2NC		**M22-PVLT-K12-R**
			NC	85–264 Vac	**M22-PVLT-K01-230R**
			2NC		**M22-PVLT-K02-230R**
			1NO-2NC		**M22-PVLT-K12-230R**

Note

[1] All NC contact blocks are positively driven contact. ⊖

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Non-Illuminated and Illuminated Emergency Stops

Note: Included with operator.
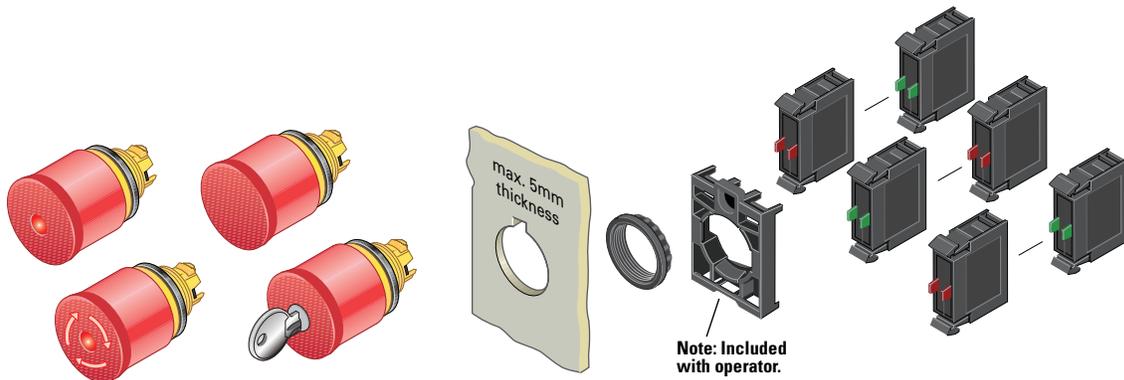
Components

M22-PVL

Push-Pull Emergency Stops

Illumination/Indication	Actuator Size	Catalog Number
None	35 mm	**M22-PV**
	45 mm	**M22-PV45P**
	60 mm	**M22-PV60P**
LED illumination	35 mm	**M22-PVL**
	45 mm	**M22-PVL45P**
	60 mm	**M22-PVL60P**
Mechanical indication	45 mm	**M22-PV45P-MPI**
	60 mm	**M22-PV60P-MPI**

M22-PVT45P-MPI

Twist-to-Release Emergency Stops

Illumination/Indication	Actuator Size	Catalog Number
None	35 mm	**M22-PVT**
	45 mm	**M22-PVT45P**
	60 mm	**M22-PVT60P**
LED illumination	35 mm	**M22-PVLT**
	45 mm	**M22-PVLT45P**
	60 mm	**M22-PVLT60P**
Mechanical indication	45 mm	**M22-PVT45P-MPI**
	60 mm	**M22-PVT60P-MPI**

M22S-PVLT

Machine Stop Operators (Black) [1]

Illumination	Type	Actuator Size	Catalog Number
Non-illuminated	Push-pull	35 mm	**M22S-PV**
	Twist-to-release	35 mm	**M22S-PVT**
LED illumination	Push-pull	35 mm	**M22S-PVL**
	Twist-to-release	35 mm	**M22S-PVLT**

M22-PVS60P-MS1

Key Release Emergency Stops [2]

Actuator Size	Key Code	Catalog Number
35 mm	MS1	**M22-PVS** [3]
	MS2	**M22-PVS-MS2**
	MS3	**M22-PVS-MS3**
	MS4	**M22-PVS-MS4**
	MS5	**M22-PVS-MS5**
	MS6	**M22-PVS-MS6**
	MS7	**M22-PVS-MS7**
	MS8	**M22-PVS-MS8**
45 mm	MS1	**M22-PVS45P**
	MS2	**M22-PVS45P-MS2**
	MS3	**M22-PVS45P-MS3**
	MS4	**M22-PVS45P-MS4**
	MS5	**M22-PVS45P-MS5**
	MS6	**M22-PVS45P-MS6**
	MS7	**M22-PVS45P-MS7**
	MS8	**M22-PVS45P-MS8**
	Ronis	**M22-PVS45P-RS**
60 mm	MS1	**M22-PVS60P**
	MS2	**M22-PVS60P-MS2**
	MS3	**M22-PVS60P-MS3**
	MS4	**M22-PVS60P-MS4**
	MS5	**M22-PVS60P-MS5**
	MS6	**M22-PVS60P-MS6**
	MS7	**M22-PVS60P-MS7**
	MS8	**M22-PVS60P-MS8**
	Ronis	**M22-PVS60P-RS**

Notes
[1] Includes contact block mounting adapter.
[2] Key included. For identical locks and keys, use the same key code. One key is included with actuator; additional keys are available as accessories.
[3] Includes Key Code MS1.

M22-K10

Contact Blocks ①

Terminal Type	Mounting Location ②	Contact Configuration ③	Catalog Number
Screw	Front	NO	**M22-K10**
		NO, early-make	**M22-K10P**
		NC	**M22-K01**
		NC, late-break	**M22-K01D**
		SMCB, NC	**M22-K01SMC10**
		SMCB, 2NC	**M22-K02SMC10**
	Base	SMCB, NC	**M22-KC01SMC10**
		SMCB, 2NC	**M22-KC02SMC10**
Spring-cage	Front	NO	**M22-CK10**
		NC	**M22-CK01**
		NC, late-break	**M22-CK01D**
		2NO	**M22-CK20**
		2NC	**M22-CK02**
		NO-NC	**M22-CK11**

M22-LED-W

Light Units ①

Terminal Type	LED Color	Light Unit Voltage	Catalog Number
Screw	White	12–30 Vac/Vdc	**M22-LED-W**
	Red	12–30 Vac/Vdc	**M22-LED-R**
Screw	White	85–264 Vac	**M22-LED230-W**
	Red	85–264 Vac	**M22-LED230-R**
Screw	White	207–264 Vac	**M22-LED230H-W**
	Red	207–264 Vac	**M22-LED230H-R**

M22-ES-MS1

Extra Keys ④

For Key Code	Catalog Number
MS1	**M22-ES-MS1**
MS2	**M22-ES-MS2**
MS3	**M22-ES-MS3**
MS4	**M22-ES-MS4**
MS5	**M22-ES-MS5**
MS6	**M22-ES-MS6**
MS7	**M22-ES-MS7**
MS8	**M22-ES-MS8**

Accessories

	Description	Voltage	Catalog Number
M22-XGPV	Yellow guard ring	—	**M22-XGPV**
M22G-XGPV	Gray guard ring	—	**M22G-XGPV**
M22-MGTA	Rectangular guard	—	**M22-MGTA**
M22-PL-PV	Sealing shroud	—	**M22-PL-PV**
M22-XPV60-Y-120	Illuminated ring	24 Vac/Vdc	**M22-XPV60-Y-24**
		120 Vac	**M22-XPV60-Y-120**
		230 Vac	**M22-XPV60-Y-230**

Notes

① For complete listing of available contact blocks, see Accessories, **Pages V7-T1-111** to **V7-T1-116**.

② Self-monitoring contact blocks (SMCB type) cannot be used with illuminated emergency stops.

③ All NC contact blocks are positively driven contact. ⊖

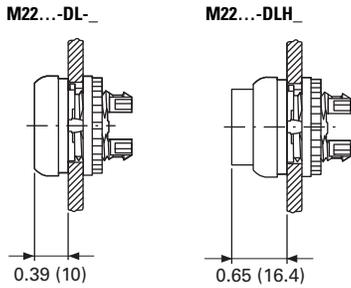④ For use with key release operators only. One key included with operator.

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Approximate Dimensions in Inches (mm)

Illuminated Pushbuttons

M22…-DL-_   M22…-DLH_

0.39 (10)   0.65 (16.4)

Mushroom Head Pushbutton

M22…-DP-_

Ø1.44 (36.5)

0.93 (23.6)
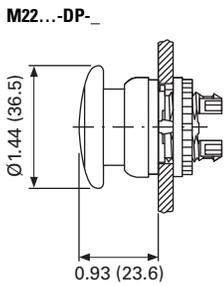
Emergency-Stop Operators

M22-PV_
M22S-PV_
M22-PVL_
M22-PVS_

1.38 (35)

1.5 (38)

1.89 (47.9)

2.96 (75.1)

Potentiometer

M22(S)-R_

1.15 (29.2)   1.3 (32.9)

Contact Block Mounting Adapter

M22-A_   M22S-A…

1.77 (45)   0.85 (21.5)

0.76 (19.3)

1.73 (44)   1.18 (30)
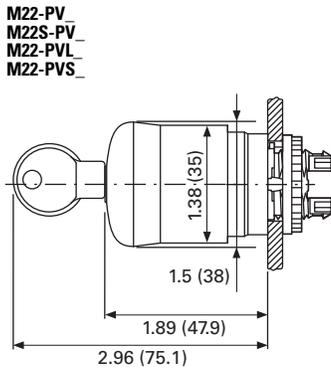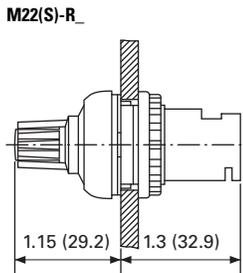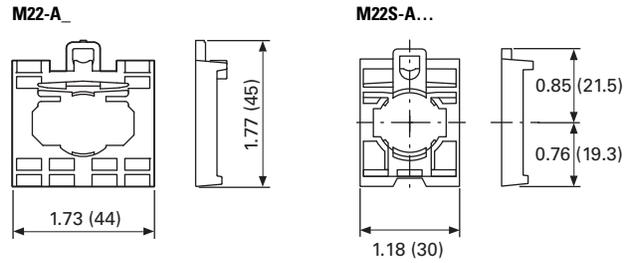
Front Mounted Centering Adapter

M22-ZA

0.84 (21.4)

1.18 (30)   0.7 (17.8)
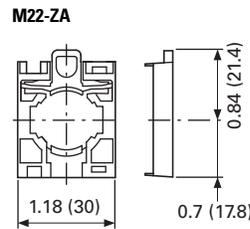
Front Mounted Indicating Light

1.46 (37)

1.18 (30)   1.77 (45)
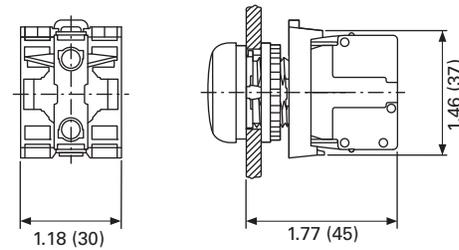
Pushbutton, Complete Devices

0.39 (10) 0.39 (10) 0.39 (10)

A

1.18 (30)   1.77 (45)

2.8 (71)
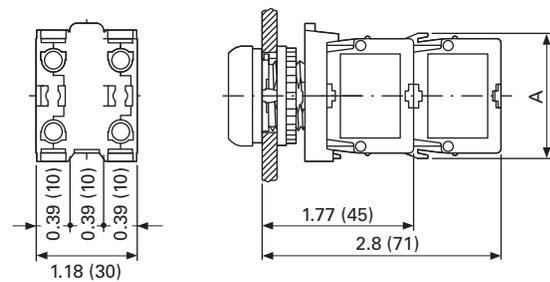
	1 x M22-K_	2 x M22-K_	1 x M22-CK_	2 x M22-CK_
A	1.46 (37.2)	1.46 (37.2)	1.54 (39.0)	1.54 (39.0)