



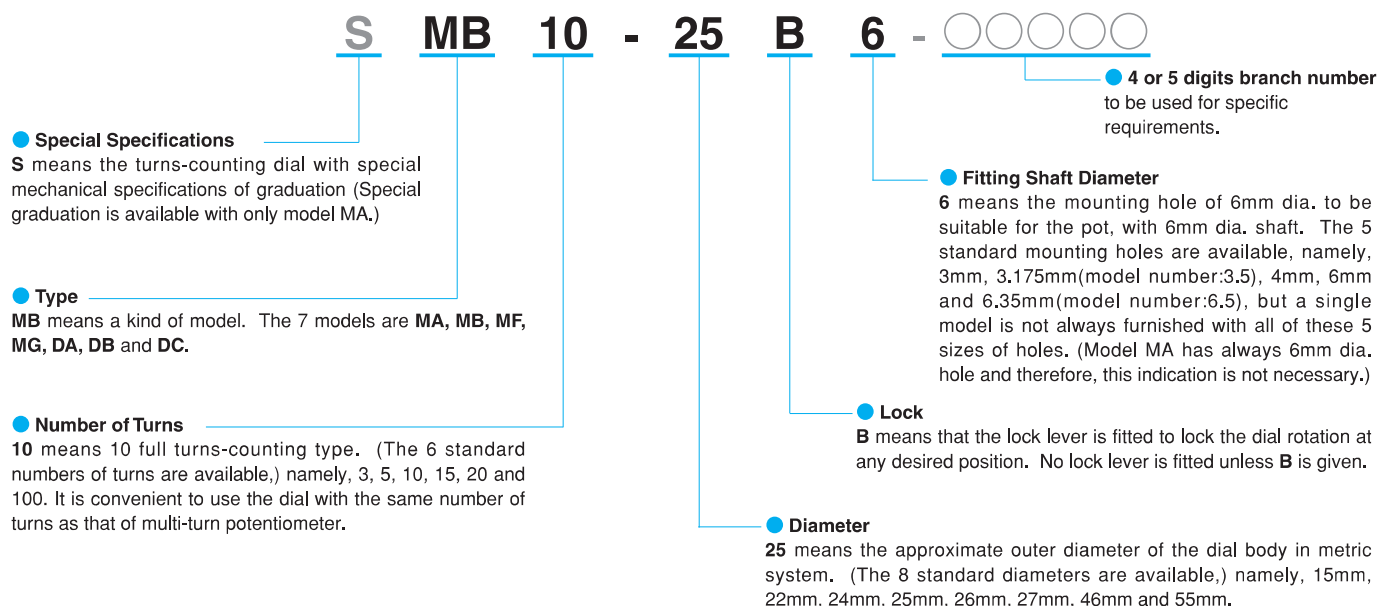
URNS-COUNTING DIAL

(for use with Helicalohm Pots. and Multi-turn Pots.)

SAKAE Turns-counting Dials are designed for use with Helicalohm Potentiometers and multi-turn potentiometers and have an elegant appearance and rigid construction offering an easy reading, smooth rotation and accurate counting. There are a plenty of models: **MA, MB, MF, MG** in analog type and **DA, DB, DC** in digital type. In particular, **MF** and **DB** dials have a unique internal mechanism with a

special flexible coupling incorporated, which we developed (several patents obtained and designs registered) and adopted first of all in the world to solve the traditional troubles such as irregular rotation and uneven torque resulting from inaccurate mounting of the potentiometer on dial.

THE NOMENCLATURE OF SAKAE TURNS-COUNTING DIAL



SELECTION GUIDE

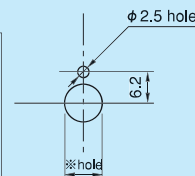
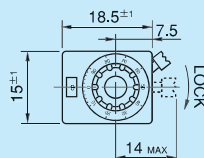
Kind of Reading	Type	Diameter (mm)	Model No.	Features
Analog	MA	φ 55	MA-55	You can read the number of turns-counting precisely in outer graduations which rotate continuously relating to the shaft rotation without any intervals. Special graduations are available in this series.
	MB	φ 26	MB-25	Popular sized dials with rigid construction for general use.
	MF	15×18.5 φ 22, φ 46	MF-15, MF-22, MF-46	Most advanced dials in the world. Even the unskilled can easily mount it with the potentiometer on the panel because this dial has a special flexible coupling inside, of which device is patented. (U.S.A. PAT. No. 4197765)
		15×18.5	MF-15D	Popular low-cost item without flexible coupling.
	MG	φ 22	MG-22	This low-cost popular type dial can be mounted on every kind of pots. and 2 kinds of lock mechanism are available.
Digital	DA	φ 24	DA-24	Smallest digital dial with easiness to operate. 3 digits of figures give you precise indication of number of turns-counting of the pot. mounted.
	DB	26×44	DB-26	Rectangular digital dial with flexible coupling incorporated as in MF dial.
		26×44	DB-26D	Popular low-cost item without flexible coupling.
	DC	φ 27×31.5	DC10-27	Low-cost round-shaped digital dial.
		φ 30.5×31.5	DC10-27F	Same as above, but recessed mounting type.

Standard Dimensions

Model MF10-15XB

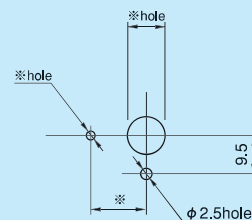
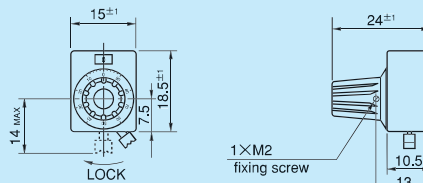
Model MF10-15XBD (without flexible coupling)

Panel Arrangements

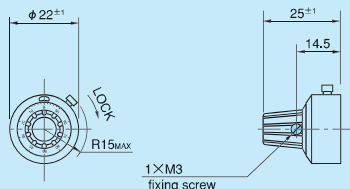


Model MF10-15YB

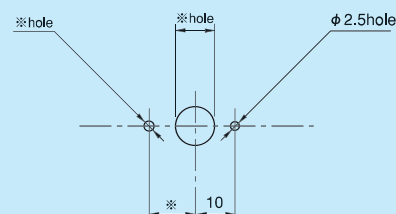
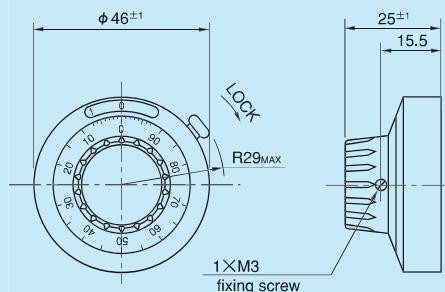
Model MF10-15YBD (without flexible coupling)



Model MF20-22B



Model MF20-46B



Note: The diameter of ※hole is depending on the diameter of potentiometer to be mounted.



Model MF10-15XB



Model MF10-15YB



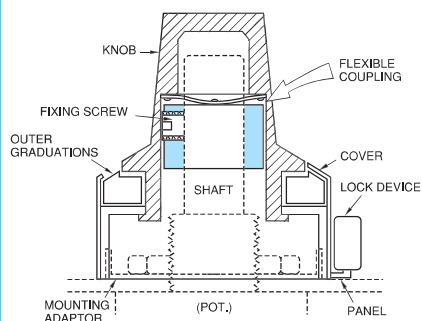
Model MF20-22B



Model MF20-46B

Construction of MF Dial

Flexible coupling incorporated



SAKAE MF dial is provided with a flexible coupling situated between the shaft of the potentiometer to be mounted and inner dial knob. With such unique device, traditional trouble such as irregular rotation and ununiform torque due to inaccurate mounting of the potentiometer on dial can be easily solved. Even the unskilled can mount this MF dial and you can save the labor cost using this MF dial.

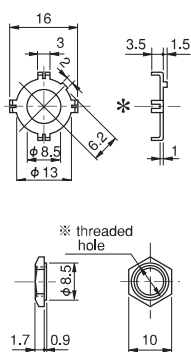
CAUTION: When rotating MF dial mounted with multi-turn potentiometer with over 0.2N · m force, the flexible coupling may be damaged or broken. So, please take care of this point during its operation.

General Specifications

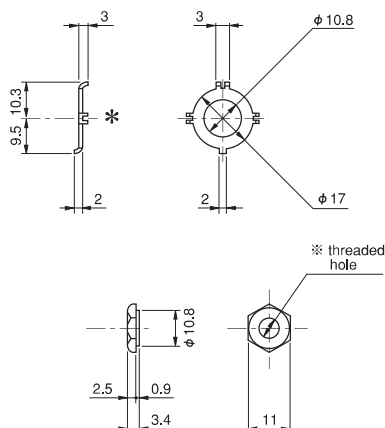
Model No	Number of Turns-Counting	Matching Shaft Dia. (mm)		Combinable Helicalohm Pot. (Matching shaft length of 25mm)			Patented Flexible Coupling	Lock Device	Operating Temperature Range	Mass (Approx. g)
		Standard	Special							
MF10-15B	10	3	3.175, 4	10HP	25HP	12HP	YES	YES	-30°C ~ +60°C	15
MF10-15BD				12HHP	12HPC		NO			
MF20-22B	20	6	3, 3.175, 4, 6.35	10HP 12HP 20HHP 22HHPM	12HHP 12HPC 20HP 22HPM	25HP 46HD	YES	YES	-30°C ~ +60°C	17
MFn-46B	3, 5, 10, 20	6	6.35	20HP 22HPM	25HP 46HD	20HHP 22HHPM	YES	YES	-30°C ~ +60°C	50

Mounting Adaptors for use with MF & DB Series

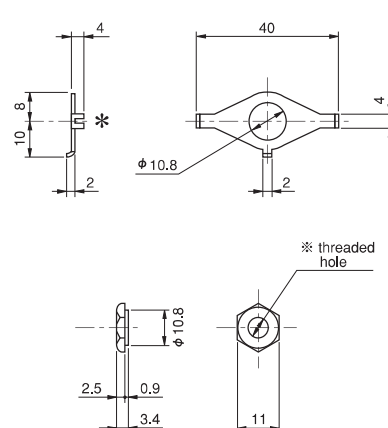
For Model MF10-15B For Model MF10-15BD



For Model MF20-22B For Model DB10-26B



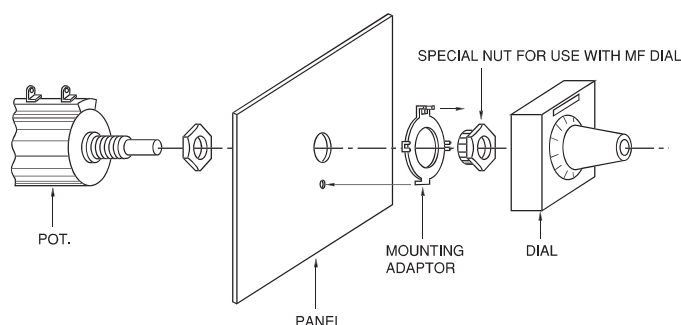
For Model MF20-46B



Note1: The diameter of ※ hole is depending on the diameter of potentiometer to be mounted.

Note2: When mounting the dial on potentiometer, the 2-finger projections (*) of mounting adaptor are inserted in the receiving holes prepared on the base plate of dial firmly, by adjusting the gap between 2-finger projection (*) with a screw-driver. There is possibility where some irregular turns of dial may take place if the adjustment of this gap is insufficient.

How to mount MF Series



The mounting adaptor as well as specially shaped nut only for use with Model MF Series Dials and Helicalohm pot. are fixed on the panel according to the illustration given the above.

The shaft of the Helicalohm pot. is turned anticlockwise to its limit and is put into the mounting hole of the dial which is already set at "0" At the same time, 4

projections of the mounting adaptor are inserted in 4 receiving holes prepared on the base plate of the dial and then all parts should be pressed to the panel firmly to eliminate any space. The shaft of the potentiometer is fixed by the hexagonal nut positioned in the knob of the dial by screwing it with an attached hexagonal wrench. With this, the mounting is completed.